NSW Health

Clinical Guidance

For the Management of Substance Use in Pregnancy, Birth and the Postnatal Period

July 2024

Acknowledgements

Acknowledgement of Country

This document was authored on the lands of the Cammeraygal people. NSW Health acknowledges the Cammeraygal people as the Traditional Custodians of the land on which this document was authored and pays our deepest respects to Elders past, present and emerging, and their deep connection to land, waterways and skies.

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Disclaimers

This document is a guide to recommended practice and should be used as a resource alongside clinician judgement and patient choice. It is designed to assist decision-making and is based on the best available evidence at the time of writing.

Contents

Message from the NSW Chief Health Officer and Deputy Secretary, Population and Public Health, Dr Kerry Chant AO PSM

I am delighted to release the updated Clinical Guidance for the Management of Substance Use in Pregnancy, Birth and the Postnatal Period on behalf of the NSW Ministry of Health.

This guidance has been developed in partnership with clinical experts and frontline workers from local health districts and the non-government sector, and key sector experts including representatives of:

- general practice;
- the NSW Users and AIDS Association (NUAA);
- the Network of Alcohol and other Drug Agencies (NADA);
- the Department of Communities and Justice;
- the Aboriginal Health and Medical Research Council (AH&MRC); and
- the University of Sydney.

The purpose of these guidelines is to provide all staff working with pregnant women who use alcohol and other substances and their families with the latest evidence and advice to inform clinical care.

The harms related to alcohol, tobacco and other substance use for pregnant women and their infants are well known and are felt disproportionally by vulnerable groups. We know that alcohol and other substance use in pregnancy can lead to poorer birth and developmental outcomes for children, the impacts of which can follow a child across their lifespan. We also know that the first 2000 days of life is a critical time for the development of physical, cognitive, social, and emotional health.

It is essential that women and families that experience problematic alcohol and drug use receive holistic and trauma informed wrap around care to address risks and recognise the drivers of substance use such as early life adverse experiences. This will improve birth outcomes, support the child's development, and promote family health and resilience.

Substance use in pregnancy and parenting services (SUPPS) play a unique and important role in supporting pregnant women and their families to minimise harm and to make connections with all relevant services for ongoing care. SUPPS clinicians provide an essential intervention at a critical time in the life of a family, and it is through their

collaboration and active engagement with the broader health and social-welfare support systems that better outcomes for mothers and their children are achieved.

This guidance will support clinicians in their work and provide a pathway for the practical application of best practices when working with pregnant women who use substances and their families.

I would like to personally thank all those who consulted on this document for sharing their expertise and vision with the NSW Ministry of Health. I would also like to thank Conjoint Professor Ju-Lee Oei, Senior Staff Specialist Neonatologist for her significant contribution to this important area of work.

Dr Kerry Chant, Chief Health Officer and Deputy Secretary Population and Public Health, AO PSM

Introduction

The harms related to alcohol, tobacco and other substance use for pregnant women and their infants are well known and an ongoing public health concern. Women who are – or may become – pregnant are, therefore, a high priority for interventions to reduce substance use. To meet this need, NSW Health published *Clinical Guidelines for the Management of Substance Use During Pregnancy, Birth and the Postnatal Period* in 2014. In 2013, NSW Health published the *Neonatal Abstinence Syndrome Guidelines* to provide guidance on supporting neonates prenatally exposed to opioids.

This 2024 revision combines the 2 documents and considers the changing scope of pregnant women's substance use in NSW, such as the increased use of methamphetamine and prescription medication. It considers the management of neonatal withdrawal and toxicity from a range of substances beyond opioids, including emerging drugs of concern such as gabapentinoids and e-cigarettes. In addition to new considerations for vulnerable populations, such as women experiencing homelessness and domestic and family violence, it incorporates emerging evidence for treatments such as buprenorphine-naloxone and depot buprenorphine for opioid dependency, as well as new treatment models such as Eat, Sleep, Console for neonatal opioid withdrawal. It acknowledges the complex harms that people who use substances have experienced, including child maltreatment of various kinds, and that emotional abuse is more harmful than previously understood. It gives strategies for follow-up intervention beyond the newborn period and incorporates insights from experts from more than 15 disciplines, as well as people with lived experience, Aboriginal communities, and remote and rural families and clinicians.

This revision aligns with other health initiatives in NSW and Australia, such as the Brighter Beginnings program, The First 2000 Days Framework, the Clinical Excellence Commission's Safer Baby Bundle, the National Fetal Alcohol Spectrum Disorder (FASD) Strategic Action Plan 2018–2028 and the Get Healthy in Pregnancy service. It empowers workers to consider the cross-government coordination required to support a thriving parent–child relationship.

This clinical guidance is intended to support a range of health workers caring for pregnant and postnatal women who use substances, and their infants and families. The main focus is on staff working in Substance Use in Pregnancy and Parenting Services (SUPPS).

This revision highlights the importance of establishing a trusted, non-judgemental and therapeutic relationship between families and clinicians that is equitable, trauma-informed and continuous throughout pregnancy and the first 2,000 days of life. This guidance recognises pregnancy as a critical moment in a woman's healthcare journey, when their motivation to address substance use may be heightened. While the guidance focuses on clinical drug and alcohol care for this population, it recognises that SUPPS are pathways to ongoing holistic care throughout the lives of women and their families.

Through the delivery of alcohol and other drug support, SUPPS also play an important role in connecting women to postnatal supports, ongoing case management and other comprehensive assessments. This may involve engaging general practice and primary health care practitioners.
The guidance is organised within the following key sections:

- Screening and antenatal care
- Birth, the immediate postnatal period and breastfeeding
- Supporting infants with prenatal substance exposure
- Ongoing postnatal care
- Protecting the safety, welfare and wellbeing of children and the unborn child
- Acute substance withdrawal in pregnancy
- Special health settings
- Vulnerable populations
- Specific drugs in pregnancy.

The guidance is based on the best available evidence. It has been developed through a rigorous process in which experts reviewed international and Australian academic literature and achieved consensus on guidance for NSW health professionals. The substances considered include:

- legal substances such as alcohol, tobacco and e-cigarettes
- opioids, cannabis, methamphetamine, cocaine and inhalants
- prescription medications, which can be used legally or in a way that causes harm.

With the exception of selective serotonin reuptake inhibitors (SSRIs), the prescription medications included have been identified as a concern for non-medical use. SSRIs were included due to clinician demand for advice about their use, their prevalence and the risk of neonatal toxicity.

Other topics covered include breastfeeding, vertical transmission of blood-borne viruses (BBV), psychosocial issues, the management of infants with prenatal substance exposure (PSE) and early childhood development. This revision specifically includes guidance on how to support vulnerable populations, including women who are incarcerated, women who live in rural and remote communities, and Aboriginal women. Legislation on child protection in NSW is also covered in detail.

As with the 2014 guidelines, this revision continues to emphasise the importance of:

- establishing a sound therapeutic relationship with women, based on respect and non-judgemental attitudes
- engaging the woman in adequate antenatal care through this relationship

- maintaining continuity of care and carers throughout pregnancy and the postnatal period.

About this guidance

The purpose of this guidance is to assist clinicians in supporting women who use substances during pregnancy, focusing on problematic alcohol and other drug (AOD) use, as well as neonates and infants with prenatal substance exposure (PSE). It deals with the antenatal period and the immediate postnatal period when infants may require additional support for withdrawal or toxicity. It also provides advice on women who can become pregnant (prenatal period) and ongoing support for infants as they develop during the crucial first 2,000 days of life.

A diverse group of health workers support women with problematic AOD use. The main audience for this guidance is:

- **maternity and neonatal staff** who screen for substance use during antenatal visits, provide advice on AOD use in pregnancy, offer referrals to specialist AOD support where indicated, provide ongoing maternity care, and play a primary role during birth and in supporting neonates with PSE
- **SUPPS or AOD health workers** who provide specialist AOD support, case management and coordination
- **child and family health staff** who support children as they develop.

Though primarily applicable to hospitals, this document is relevant in various health settings, including AOD residential facilities, non-government services, corrective services facilities, and primary health and community settings such as general practice and Aboriginal Community Controlled Health Services (ACCHSs).

We specify in this document which healthcare workers are responsible for specific activities (e.g. maternity staff to screen for AOD use). However, this approach is intended for clarity only and does not dictate local practice.

Terminology

Aboriginal people

In this document, Aboriginal and Torres Strait Islander people are referred to as ‘Aboriginal people’ in recognition that they are the Traditional Custodians of NSW.

AOD use and problematic AOD use

In the literature on AOD use, experts often use the word 'use' for any AOD consumption and 'problematic use' for circumstances in which AOD is used in a harmful or dependent way. However, in the context of pregnancy, even low-level or infrequent AOD use may affect the infant's health and development.

For the purposes of this document:

- 'problematic AOD use' refers to harmful or dependent maternal use that requires specialist AOD support
- 'AOD use that is potentially harmful to the fetus' refers to use that does not meet the threshold of harmful or dependent use but that would benefit from a brief intervention and targeted advice.

For more information, see Spectrum of AOD use in pregnancy.

Gender and pregnancy

This document refers to 'women' as the key clients accessing pregnancy, birth and postnatal services; however, NSW Health acknowledges that people from a range of gender identities can become pregnant and give birth, including nonbinary people, intersex people and transgender men who have uteruses. For more information, please see Caring for LGBTIQ+ communities.

LGBTIQ+

NSW Health acknowledges that terminology to describe sexuality, gender identity and intersex variations is continually evolving. Therefore, the language used in this guidance may change over time. 'LGBTIQ+' is used throughout this document as a collective term for people of diverse sexualities and gender identities, and people with intersex variations.

Maternity staff

The term 'maternity staff' encompasses all health professionals who work for a maternity service and could be involved in a woman's care, including midwives, obstetricians, nurses and medical doctors.

Non-medical use

The term 'non-medical use' is used to describe the use of illicit substances (e.g. heroin and methamphetamine) and prescription medications that have not been prescribed or are not being used as prescribed. Examples include buying prescription medication on the black market, injecting medication that has been prescribed for oral use, or acquiring prescriptions for the same medication from multiple doctors.
NSW Health acknowledges that people can use unprescribed medications for self-identified medicinal purposes (e.g. to manage pain), but in this document 'medical use' describes the use of medication as prescribed and provided by a health practitioner.

Prenatal substance exposure

Infants with PSE have been exposed to substances in utero due to the mother's:

- non-medical use of substances (e.g. opioids, alcohol, stimulants, cannabis, inhalants and certain prescription medication), or
- medical use of substances (e.g. opioids, benzodiazepines, antidepressants and gabapentinoids).

In the past, clinical guidance focused on neonatal abstinence syndrome (NAS); however, there is a growing call to move away from this potentially stigmatising term. Moreover, NAS is opioid-centric and creates the false impression that non-opioid exposure is innocuous, when, in fact, there is a growing body of evidence indicating that infants with PSE – not just those showing signs of opioid withdrawal – require additional support and follow-up. This is particularly true for prenatal exposure to non-opioid substances such as methamphetamine, which do not cause symptoms typically associated with neonatal withdrawal but still require follow-up. Therefore, this document focuses on PSE and 'neonatal withdrawal' and directs clinicians to provide enhanced support for all infants with PSE.

This accounts for tobacco and prescribed medications, including:

- opioid treatment for dependency and other prescribed opioids
- medicinal cannabis
- SSRIs and other mental health medications.

For this reason, the document refers to 'substances' or 'AODs' depending on the context.

Shared care

'Shared care' or a 'team management approach' refers to the collaboration between services or programs to facilitate collaborative and holistic care for an individual.

Levels of evidence

This clinical guidance has been informed by a review of the available evidence, and of expert clinical experience where such evidence was not available. NSW Health commissioned a rapid review of the evidence to inform the development of the guidance.[1] The review collated and evaluated peer-reviewed evidence on substance use during pregnancy, birth and the postnatal period from 2010 to 2020.

[1] Oei J L, Azim S I, Lee E, Blythe S, Black K et al. Substance use during pregnancy, birth and the postnatal period: an Evidence Check rapid review brokered by the Sax Institute (www.saxinstitute.org.au). NSW Ministry of Health, January 2021.

This included evidence regarding psychosocial and pharmacological interventions in the management of substance use during pregnancy, birth and the postnatal period for each of the following substances:

- alcohol
- tobacco
- cocaine
- amphetamine-type stimulants (ATS)
- benzodiazepines
- gabapentinoids
- opioids
- cannabis
- inhalants.

The substances were selected based on consultation with the NSW Chief Addiction Medicine Specialist. Where evidence was lacking, an Expert Reference Group drew on clinical experience to develop a consensus on good practice.

General principles

Introduction

This chapter outlines the general principles health workers need to consider when caring for pregnant and postnatal women who use substances, and their infants and families. These include:

- the spectrum of AOD use in pregnancy
- the societal context of problematic AOD use in pregnancy
- the impact of stigma and discrimination
- trauma-informed care
- The First 2000 Days Framework
- Connecting, listening and responding: A Blueprint for Action – Maternity Care in NSW.

This section also outlines the key principles of care in the context of substance use in pregnancy.

The spectrum of alcohol and other drug use in pregnancy

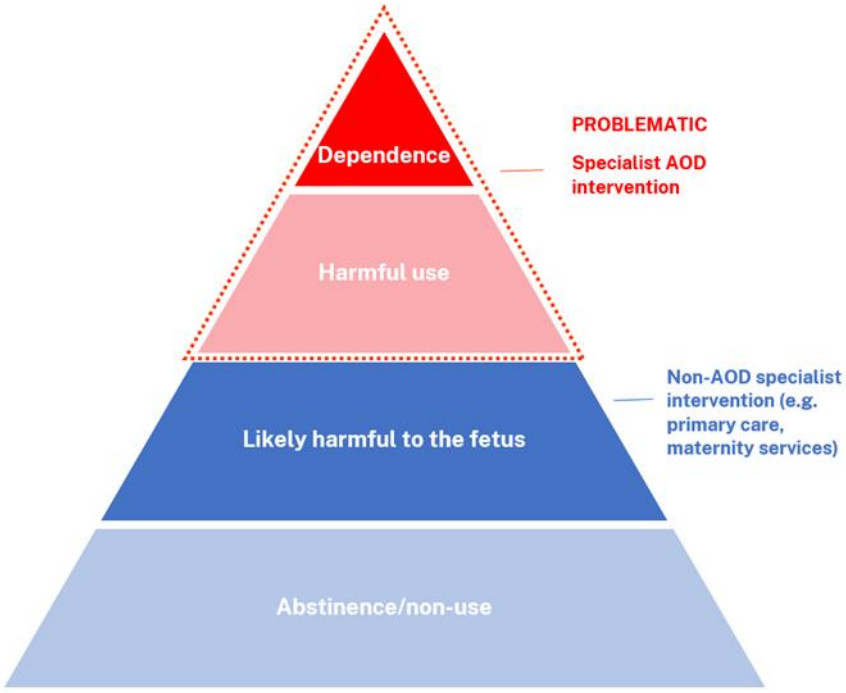
Experts often use the words 'substance use' for any AOD consumption and 'problematic substance use' for circumstances in which AOD are used in a harmful or dependent way. As described in the International Classification of Diseases Revision 11 (ICD-11), 'dependent use' typically entails impaired ability to control substance use, increased priority given to use over other activities, and persistent use despite harm or negative consequences. These experiences are often accompanied by a subjective urge or craving to use. The ICD-11 describes 'a harmful pattern of use' as a pattern of substance use that has caused damage to a person's physical or mental health or has resulted in behaviour leading to harm to the health of others. The pattern of use is evident over at least 12 months if use is episodic, or over at least one month if use is continuous.

The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) also acknowledges the spectrum of substance use, measuring substance use disorder on a continuum from mild to severe.[2]

2. APA (2013). Substance-related and addictive disorders.

Pregnant women with problematic AOD use are the core focus for specialist AOD intervention. However, in the context of pregnancy, even low-level or infrequent substance use that does not meet the threshold of problematic use may have consequences on an infant's health and development. Figure 1 shows the spectrum of AOD use during pregnancy.

Figure 1: The spectrum of AOD use during pregnancy



Consideration of the societal context of problematic alcohol and other drug use in pregnancy

While all substance use is concerning in pregnancy, pregnant women with problematic AOD use are an especially high priority for intervention as they may find it difficult to reduce or cease their use. Therefore, it is useful to gain a better understanding of the societal context of problematic AOD use.

Though prevention programs and approaches have long focused on changing personal behaviour, problematic AOD use is generally the result of a complex mix of factors involving the drug type, individual and environment. Environmental factors are also known as 'social determinants of health', which the World Health Organization describes as 'the circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness. These circumstances are shaped by a wider set of forces: economics, social policies and politics'.[3] The Australian Government

[3] World Health Organization (n.d). *Social determinants of health: Key concepts*.

Department of Health and Aged Care's National Drug Strategy 2017–2026 notes the role of 'discrimination, unemployment, homelessness, poverty and family breakdown' in problematic AOD use.[4]

Trauma, including intergenerational trauma, is also strongly associated with problematic AOD use. As the 2020 report of the Special Commission of Inquiry into crystal methamphetamine and other ATS noted, 'Both lived experience and expert witnesses said that events such as child sexual abuse, witnessing domestic violence, the death of a parent, adoption or a severe and debilitating accident are factors that can lead to drug use'.[5] These findings are supported by research on adverse childhood experiences, which also demonstrates a link between childhood traumatic events and adverse health outcomes – including mental illness and associated problematic AOD use – in both childhood and adulthood.[6]

Aboriginal people have been subject to an array of traumas from the time of colonisation to the present day. The historical legacy of dispossession and forced removal policies, as well as the continued 'interconnected issues of cultural dislocation, personal trauma and the ongoing stresses of disadvantage, racism, alienation and exclusion', can contribute to a higher risk of problematic AOD use.[7]

The impact of stigma and discrimination

People who use AOD are known to encounter negative attitudes in society and healthcare settings, which can impact their care and lead to suboptimal outcomes. As the report on AOD stigma and discrimination in the NSW health context describes, 'stigmatising beliefs and attitudes can lead to people consciously or unconsciously behaving in a discriminatory way'. Experiencing this kind of treatment can fuel feelings of 'shame, anger, rejection and a sense of worthlessness and hopelessness'. Aside from the psychological impact, these feelings can trigger a reluctance to seek treatment, thereby worsening the health outcomes of an already vulnerable and hard-to-reach patient population.

> *If you don't get treated like a junkie, you will go back and get the help that you need from the doctors and nurses.*
>
> *– AOD SUPPS consumer*

According to the AOD stigma and discrimination report, parents and expecting parents who use AOD tend to experience more pronounced stigmatising and discriminatory treatment in NSW Health settings, including maternity services. Some of the drivers of this treatment in maternity services include high workloads, insufficient AOD skills and

[4] P 5, Commonwealth of Australia as represented by the Department of Health 2017. National Drug Strategy 2017–2026.
[5] P 67, State of NSW through the Special Commission of Inquiry into crystal methamphetamine and other amphetamine-type stimulants. P 67, Report Volume 1b January 2020.
[6] Centers for Disease Control and Prevention (2019). *Adverse Childhood Experiences (ACEs) Prevention Resource for Action: A Compilation of the Best Available Evidence*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
[7] Intergovernmental Committee on Drugs (2014). *National Aboriginal and Torres Strait Islander Peoples' Drug Strategy 2014-2019.*

knowledge, and a perception among some that AOD clients are lying and do not want help.

> *I have worked hard to turn things around. I have a life now, I have a home, I love my boy to death. I can't imagine a life without him. I always go to the appointments for him, I care for him. He has helped to get me on track.*
> *– AOD SUPPS consumer*

Though expecting parents may experience heightened stigma in the health system, research shows that pregnancy is a strong motivator for women to stop using substances, and this protective effect can last into the immediate postnatal period.[8] Therefore, health workers can make a significant difference to the health of women and their children by treating pregnancy as a window of opportunity to motivate change.

Trauma-informed care

Trauma-informed care is a hopeful and strengths-based approach that acknowledges 'problematic coping strategies and behaviours develop for a reason' and are often initially protective.[9] It is a holistic approach to person-centred care that considers all factors when developing a care plan, ensuring it is individualised and meaningful.

Trauma-informed care has the following core principles:

- safety
- trust
- choice
- collaboration
- empowerment
- respect for culture, gender, history and identity.

Providing trauma-informed care requires clinicians to adopt a holistic perspective of each person and their individual health needs within the context of their broader life experiences and healthcare journey. For this reason, it is important to consider how social and emotional wellbeing programs can be included to support women and their babies as part of their ongoing health care.

For more information and helpful resources on trauma-informed care, visit What is trauma-informed care? on the NSW Health website. For more information on engaging with empathy, see Empathetic engagement.

[8] Kendler KS et al. (2017). *The Protective Effect of Pregnancy on Risk for Drug Abuse: A Population, Co-Relative, Co-Spouse, and Within-Individual Analysis*. Am J Psychiatry; 174:954–962.
[9] Blue Knot Foundation, National Centre for Excellence for Complex Trauma (2023). *Trauma informed practice. Blue Knot Foundation fact sheet about trauma informed practice for workers in diverse services*.

The First 2000 Days Framework: from conception to age 5

The First 2000 Days Framework incorporates a range of policies, programs, services and care models to ensure everyone has access to the right health services.

This framework explains that the first 2,000 days of life are critical for developing physical, cognitive, social and emotional health. Everyone is impacted by experiences that occurred in their first 2,000 days. The framework explicitly notes that some children and families face higher risks – including problematic AOD use – and require more intensive support or specialist help during the first 2,000 days.

The framework is intended for use throughout the entire NSW health system so that all clinicians understand the importance of the first 2,000 days of life in their daily practice.

For more information, visit The first 2000 days of life on the NSW Health website.

Connecting, listening and responding: A Blueprint for Action – Maternity Care in NSW

'Connecting, listening and responding: A Blueprint for Action – Maternity Care in NSW' outlines NSW Health's commitment to ensuring all women in NSW receive respectful, evidence-based and equitable maternity care that improves their health and wellbeing experiences and outcomes.

The focus of the Blueprint for Action is on women and family-centred care when planning pregnancy, during pregnancy, at birth, and during the postnatal period and the transition to the community.

Goal 7 of 10 goals outlined in the Blueprint for Action is that women with additional needs are referred to appropriate services to ensure access to specialist care when needed. For more information, visit Connecting, listening and responding: A Blueprint for Action – Maternity Care in NSW on the NSW Health website.

Key principles of care

AOD use in pregnancy is a complex health issue that involves many areas of health and social services, including maternity care, midwifery, paediatrics, help with tobacco reduction/cessation, treatment for AOD and child protection. Therefore, it is useful to consider the overarching key principles of care for AOD use in pregnancy:

- multidisciplinary management
- continuity of care

- awareness of AOD issues and co-morbidities
- harm minimisation and empathetic engagement
- postnatal and long-term support
- prevention and contraception.

Multidisciplinary management

If there is a concern about a pregnant woman's AOD use or if it is indicated during antenatal screening, health workers should contact SUPPS. If SUPPS is not locally available, health workers can contact an AOD specialist. To contact the AOD service in your NSW Health local health district (LHD), refer to Local intake lines on the NSW Health website.

Pregnant women engaged with SUPPS should have:

- a consistent case manager (also known as a 'key worker') during pregnancy, birth and the postnatal period
- ongoing case management where clinically appropriate
- priority access to specific AOD treatments (e.g. counselling and pharmacotherapies)
- a coordinated and multidisciplinary team for specialist assessments and therapies, where possible
- access to more intensive treatment if required (e.g. residential rehabilitation), where possible.

A multidisciplinary team may include a midwife, an obstetrician, a neonatologist, a community healthcare worker, a mental health worker, an Aboriginal health worker, an addiction medicine specialist, a psychiatrist, an AOD nurse/allied health worker, a counsellor, a child and family health nurse, a general practitioner and others as required. An example of such an approach is the Safe Start Multidisciplinary Case Discussion teams in each LHD.

Other agencies may be involved in some cases. For example, the NSW Government Department of Communities and Justice (DCJ) may be involved because of child safety, welfare and wellbeing concerns. In these cases, SUPPS or AOD health workers should coordinate with DCJ or other non-government agencies when considering their goals and developing care plans.

In the postnatal period, the multidisciplinary team may include:

- a child and family health nurse, and/or

- a midwife and/or an Aboriginal health worker from an Aboriginal Maternal and Infant Health Service (AMIHS) if the mother or father identifies as an Aboriginal person.

Continuity of care

Continuity of care and a person-centred approach is best practice for all pregnant women. Ways to ensure continuity of care for women with problematic AOD use include:

- having a known midwife/nurse, named obstetrician and GP
- having a known child and family health nurse in the postnatal period
- having a known Aboriginal health worker and/or AMIHS for Aboriginal women
- cultural awareness and effective engagement skills
- clear identification of the case manager (or key worker)
- individualised care planning in consultation with the woman
- timely and accurate communication and documentation
- a seamless referral system.

Health workers should aim to keep the mother and infant as close as possible to their treatment and support networks during pregnancy and birth. For more information on maternal transfers, see the NSW Health Policy Directive *Tiered Networking Arrangements for Perinatal Care in NSW* (PD2023_035).

Awareness of alcohol and other drug issues and common co-morbidities

Alcohol and other drugs

Health workers who engage pregnant women with problematic AOD use should be aware that it is common for women to use multiple substances concurrently, which can complicate care. Where possible, staff should engage an AOD clinician for support with polysubstance use and other AOD issues e.g the on-call AOD specialist for hospital staff.

For advice from an addiction medicine specialist, staff can contact the Drug & Alcohol Specialist Advisory Service (DASAS), a free 24/7 telephone service that provides general advice to health professionals.

For advice on substance exposure during pregnancy and breastfeeding specifically, staff can contact MotherSafe. For general information on drug types, see the NSW Health Drug Compendium or the Alcohol and Drug Foundation Drug Wheel.

Mental health

Mental health issues can co-occur in women with problematic AOD use and are often a significant contributing factor. For pregnant women and new mothers with problematic AOD use, health workers should:

- offer mental health support that is non-judgemental and non-stigmatising
- offer regular mental health screening to ensure early recognition of deteriorating mental health and signs of mental illness (particularly psychosis, bipolar disorder, suicide risk, risk of harm to the fetus or baby, perinatal and postnatal depression and anxiety)
- refer the women to the appropriate specialist services in a timely fashion and help them access these services.

For support with referrals, health staff can call the Mental Health Line at 1800 011 511. This is available to everyone in NSW and operates 24/7.

You can also contact Statewide Outreach Perinatal Service for Mental Health (SwOPS-mh) during business hours Monday to Friday, by calling 02 8890 3617 or emailing SwOPS-mh@health.nsw.gov.au.

Trauma

Child maltreatment is widespread in Australia and includes physical, sexual and emotional abuse. It is a major risk factor for mental health disorders in childhood and adulthood. We are slowly starting to understand the particularly harmful effects of emotional abuse. People who have experienced maltreatment in childhood are more likely to participate in health risk behaviours and are more likely to smoke, binge drink and be cannabis dependent. Almost half (48%) of Australians who experience maltreatment meet the criteria for a mental health disorder, compared to 21.6% of people who do not experience maltreatment. They are also 2.6 times more likely to have a severe alcohol use disorder, with young people being 4.1 times more likely to experience this disorder.[10]

The experience and effects of trauma may be influencing a woman's substance use. This must be supported and addressed collaboratively with mental health services, including primary care, to ensure the most appropriate and effective care.

Blood-borne viruses and sexually transmissible infections

All women with problematic AOD use who can become pregnant should receive information about vertical transmission of BBVs and sexually transmissible infections (STIs) before conception. This includes information on preventing transmission, managing infections, and the pregnancy and health implications of infection for the

[10] Haslam D, Mathews B, Pacella R, Scott JG, Finkelhor D, Higgins DJ, Meinck F, Erskine HE, Thomas HJ, Lawrence D, Malacova E (2023). *The prevalence and impact of child maltreatment in Australia: Findings from the Australian Child Maltreatment Study: Brief Report.* Australian Child Maltreatment Study, Queensland University of Technology.

mother and fetus. For more information, see Caring for pregnant women with blood-borne viruses or sexually transmitted infections and their infants.

Harm minimisation and empathetic engagement

AOD use in pregnancy is a sensitive issue for many women. While the best option is to cease AOD use, women's physical and mental health is paramount for optimum pregnancy outcomes. Therefore, all health workers should strive to keep women – particularly those with problematic AOD use – engaged in the health system during pregnancy and the postnatal period and minimise harm as much as possible.

To best support women, health workers should:

- engage with empathy
- consider the women's social supports and emotional wellbeing
- use a holistic family approach that includes not only the woman's partner but also their wider support network
- provide or refer them to ongoing case management programs where clinically appropriate.

Postnatal and long-term support

The impact of maternal AOD use on an infant is a continuum and does not stop at birth. Children of mothers with problematic AOD use need medical care and broader social support from multiple agencies to achieve the best outcomes as growing children.

The first 2,000 days of life is a critical time for physical, cognitive, social and emotional health. What happens in the first 2,000 days of life has been shown to have an impact throughout life.[11] Therefore, parents, carers and care providers should ensure continuity of health care for the child in the early days of life, including by sharing any changes in the mother's or infant's circumstances with the relevant health workers. This is particularly important if an infant is placed in out-of-home care, which can sometimes cause a breakdown in communication and understanding of prenatal substance exposure. The foster or kinship carer responsible for the infant's day-to-day care should be provided with the necessary education and support.

Where possible, health workers should prioritise long-term follow-up by a multidisciplinary team that has the expertise to address issues that may arise for children with PSE.

Prevention and contraception

Women who can become pregnant are a high priority for interventions to reduce AOD use. For all women who can become pregnant and use AOD, health workers should:

[11] NSW Health (2019). *The First 2000 Days Framework Policy manual*.

- advise with sensitivity that exposure to AOD may have a serious effect on the fetus in the very early stages of pregnancy, particularly before the first missed period
- for those who are interested, advise on contraception to reduce unplanned pregnancies, prioritising long-acting reversible contraception (LARC) as a more reliable and convenient method
- liaise with the woman's health nurse or GP for contraception support, if needed.

Screening and antenatal care

Introduction

Screening all pregnant women for substance use will:

- help identify any use and gauge the level and nature of the use, including if it is problematic
- provide an opportunity for early referral and tailored intervention for AOD use and other potential health issues.

Screening

Maternity staff should ask women about their current or previous use of the following substances:

- legal substances such as alcohol, tobacco and e-cigarettes
- substances such as opioids, cannabis, amphetamine-type stimulants (methamphetamine, ecstasy and MDMA), cocaine, novel substances and inhalants
- prescription medications such as opioid treatments, stimulant treatments, antidepressants, amphetamine-type stimulants (e.g. for ADHD), mood stabilisers, medicinal cannabis, benzodiazepines and gabapentinoids (which can be used legally or in a way that causes harm).

For general information on drug types, see the NSW Health Drug Compendium or the Alcohol and Drug Foundation's Drug Wheel.

All pregnant women should be asked about their current or previous substance and non-medical use of prescription medications at the initial assessment (either at the time of confirmation of pregnancy, at the first booking-in visit or at the first presentation). Advice should also be provided on the risks associated with use in pregnancy.

The substances to consider include:

- opioids, cannabis, amphetamine-type stimulants (methamphetamine, ecstasy and MDMA), cocaine, novel substances and inhalants
- non-medical (i.e. not prescribed) use of prescription medications such as opioid treatments, mood stabilisers, cannabis, benzodiazepines and gabapentinoids.

Maternity staff should repeat screening at follow-up antenatal visits. If the pregnant woman identifies as an Aboriginal person, maternity staff should offer them a referral to an Aboriginal-focused service for AOD screening.

For women who used substances before they knew they were pregnant and subsequently stopped, maternity staff can provide positive reinforcement, encourage the woman to continue abstaining from substances, and reinforce that healthy behaviour in pregnancy is important for their own and their unborn child's health. They can also be advised that help is available if they have difficulty abstaining during pregnancy.

Screening for substance use and the outcome of screening (e.g. referral) should be included in all antenatal histories. Asking about previous use may be important as substance use pre-conception can give insight into substance use at conception and is particularly relevant in the development of FASD.

- For advice on screening for alcohol, see Alcohol.
- For advice on screening for tobacco and e-cigarettes, see Tobacco and e-cigarettes.
- For advice on screening for substances and the non-medical use of prescription medication, see the screening section in each Specific drugs in pregnancy chapter.

Maternity staff should avoid expressions that may be interpreted as judgemental, as these can undermine the trust and openness that are crucial for obtaining an accurate history and retaining women in continuing care. For more advice on non-judgemental language, see the Language matters resource.

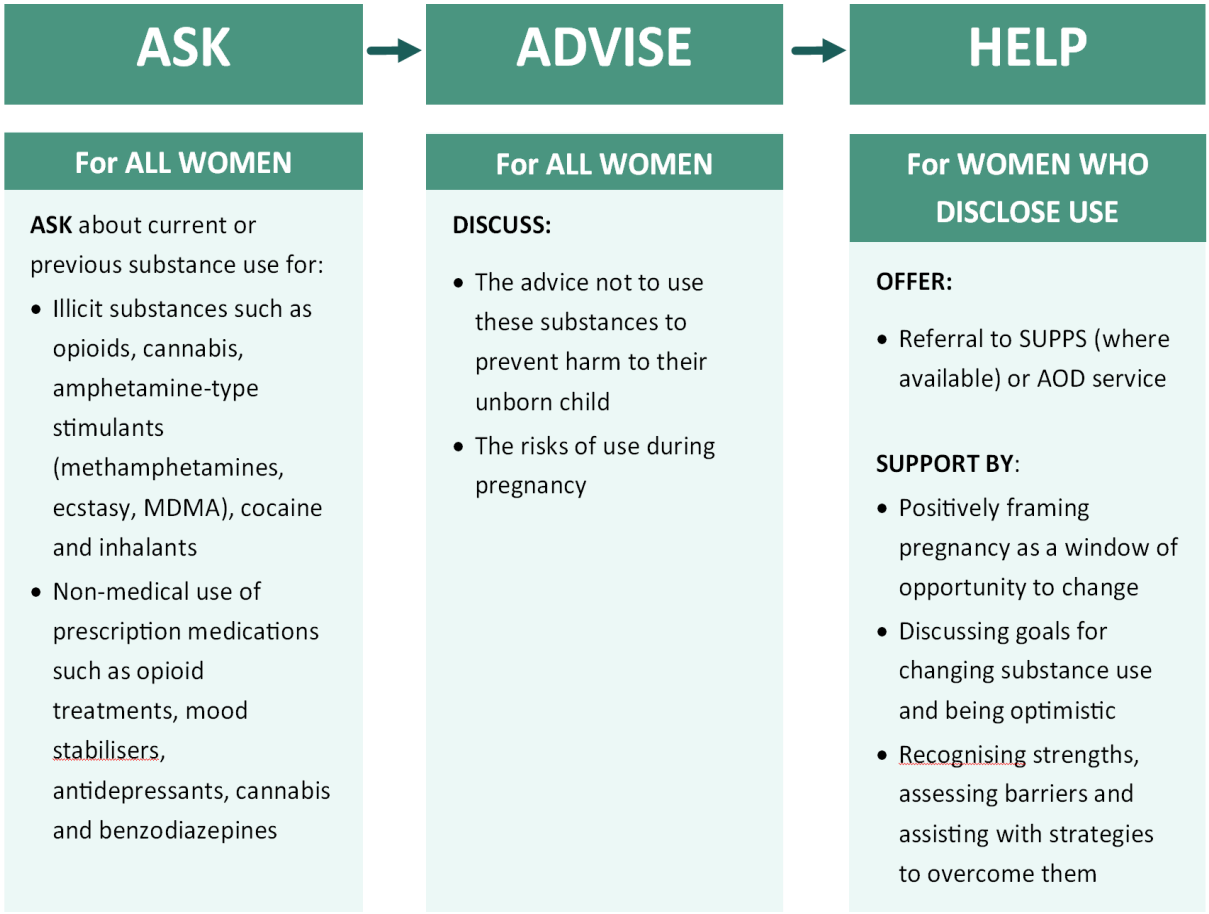
Screening can also be an opportunity to identify potential risks of harm to the unborn child or other children in the woman's care. For more information on child protection issues, including health workers' legal and policy responsibilities, see Protecting the safety, welfare and wellbeing of children and the unborn child.

If the woman is considering terminating the pregnancy, they should be offered counselling by the most suitable person available, ensuring they receive adequate information to make an informed choice. Health workers can also recommend contacting the Pregnancy Choices Helpline for support from expert health professionals who provide free, unbiased and confidential information on pregnancy options. For more information, health workers can refer to the NSW Health Policy Directive *Framework for Termination of Pregnancy in New South Wales* (PD2021_018).

If a pregnant woman discloses substance use or non-medical use of prescription medications, maternity staff should offer the woman a referral to SUPPS, where available, or an AOD service. To contact the AOD service in your NSW Health LHD, refer to Local intake lines on the NSW Health website. In addition to offering a referral, maternity staff should use the opportunity to provide a brief intervention.

See the flowchart in Figure 2 for screening substance and non-medical prescription use.

Figure 2: Substance and non-medical prescription use screening flowchart



As risk levels and patterns of substance use vary between urban, regional and remote communities, maternity staff may find it valuable to be aware of the substance use patterns in their local area.

Urine drug screening

Pregnancy is not a reason to conduct a urine drug screening. Pregnant women should undergo urine drug screening for the same indications as non-pregnant people in similar circumstances (e.g. if the woman is on the opioid treatment program (OTP)). It is important for health workers to be aware of the legal implications associated with doing a urine drug screen. Under Chapter 16A of the *Children and Young Persons (Care and Protection) Act 1998*, health workers and other 'prescribed bodies' can exchange information without consent to promote the safety, welfare or wellbeing of an unborn child. For more information, see Protecting the safety, welfare and wellbeing of children and the unborn child. For information on drug screening and newborns, see Drug testing of newborn.

Antenatal care

SUPPS or AOD health workers should follow the NSW Health Clinical Care Standards for Alcohol and Other Drug Treatment when treating pregnant women who have been referred to them. The standards set out the foundational elements of care that underpin AOD treatment. During the antenatal period, the relevant sections of the Clinical Care Standards include:

- intake
- comprehensive assessment
- care planning
- identifying, responding to, and monitoring risk on an ongoing basis
- monitoring treatment progress and outcomes.

For further AOD guidance, nurses and midwives can refer to the Handbook for Nurses and Midwives: responding effectively to people who use alcohol and other drugs.

Beyond the foundational elements of AOD care, the key elements of antenatal care for pregnant women with problematic AOD use include:

- empathetic engagement
- screening for acute withdrawal risks
- psychosocial assistance and engaging support networks
- mental health support and treatment
- a case manager (or key worker)
- team management
- effective communication
- ongoing comprehensive assessment and treatment planning
- preparation for birth, transfer of care and the postnatal period.

Empathetic engagement

The aim of empathetic engagement is to develop rapport and establish a safe, trusting and collaborative relationship that encourages and empowers a woman with problematic AOD use to continue pregnancy care. Successful engagement may rest on the quality of the relationship between the woman and their SUPPS or AOD health worker. Empathic engagement is a prerequisite to successful care. Failure of engagement may result in the woman withdrawing from the health system, leading to poorer outcomes for the woman and infant. Engagement of vulnerable groups in care requires specific skills and experience. If the woman identifies as an Aboriginal person, it may be appropriate to refer them to an Aboriginal-focused service or engage an Aboriginal liaison officer.

The principle of 'inform and advise about risks' may not be a sufficient intervention for a pregnant woman with problematic AOD use. The quality of the relationship between the woman and the healthcare provider is a significant factor in maintaining the woman in care. While information should still be provided, a partnership model that is individualised and person-centred is considered more appropriate in the relationship between a pregnant woman with problematic AOD use and their healthcare providers.

Key engagement skills include:

- an understanding of one's own values and beliefs
- a non-judgemental attitude to people in care
- an understanding of stigmatising language (see the Language matters resource for guidance on how to avoid using stigmatising language related to AOD use)
- an awareness that AOD use is not isolated from other mental health, psychosocial and cultural factors, and may be a coping mechanism for trauma (see societal context, stigma and discrimination and trauma-informed care for more information)
- a commitment to providing optimal and timely health care to every individual
- an understanding of problematic AOD use as a healthcare issue – not an issue for moral or social judgement
- an ability to create an environment that is safe (including culturally safe) and ensures privacy and confidentiality.

You learn about where the stigma is going to come from when you start getting treatment and you don't want to go there. You don't want to go to the doctors. You don't want to get a blood test done … Your rotten teeth start impacting your heart because you won't get checked. You just end up on [methadone], in and out of emergency hospital instead.

– AOD SUPPS consumer

To put these skills into practice, it is helpful to understand some of the potential barriers to women accepting pregnancy care and strategies for overcoming them:

- acknowledgement that the woman may feel unheard or misunderstood
- acknowledgement that the woman may feel stigmatised or discriminated against, even if the SUPPS or AOD health worker has had the necessary training
- an understanding that disclosing AOD use in pregnancy is difficult
- an understanding of the significance of establishing and sustaining a sound and trusting professional relationship with women experiencing problematic AOD use

- an awareness that judgemental attitudes exist in health care and can derail care and engagement with the health system
- an awareness that women with AOD use issues often have multiple service providers involved in their lives, which can be overwhelming due to varying demands, disrupting the continuity of care
- an awareness that the undue influence of a partner, family member or significant other may be impacting a woman's ability to accept care
- an understanding that there may be a fear that disclosing AOD use could result in their infant being removed from their care, particularly if they themselves have been in out-of-home care, have previously had a child assumed into care or have been impacted by past policies of forced Aboriginal child removals
- an awareness that women with problematic AOD use may have a fear of services due to previous negative experiences, and some may feel internalised guilt and shame about their AOD use. It is essential that service providers take a compassionate, empathetic approach.

All health workers should harness any available opportunities for engagement. These may present during the book-in visit or the first antenatal presentation, and each contact with a health service, including after-hours or emergency department visits.

Being sensitive and non-judgemental are key skills when engaging pregnant women with problematic AOD use, particularly those from vulnerable populations. For more information on engaging women from vulnerable groups, see Vulnerable populations.

Screening for acute withdrawal risks

An AOD clinician should screen pregnant women with problematic AOD use for risks associated with acute withdrawal. For guidance, see Caring for pregnant women who are experiencing, or at risk of, acute substance withdrawal.

Psychosocial assistance and engaging support networks

SUPPS or AOD health workers should conduct a psychosocial assessment for pregnancy when pregnant women with problematic AOD use visit them for the first time. This assessment will also inform transfer of care planning (see Preparing for the postnatal period and transfer of care). For the psychosocial assessment, health workers should consider:

- financial issues, food insecurity and poverty
- lack of Medicare or insurance
- inadequate or inappropriate housing (or homelessness)
- language and cultural barriers
- trauma history and adverse childhood experiences

- domestic and intimate partner violence
- sexual abuse and assault
- relationship issues, including if the woman's partner also has AOD dependency
- legal issues
- previous history of child protection issues.

The woman and their family should be supported in addressing psychosocial issues that may affect pregnancy outcomes or result in an avoidable separation of mother and baby due to child protection requirements. Support needs are likely to vary according to the stage of pregnancy or parenting and may include material assistance, practical support, emotional support, support to establish non-AOD use networks, and AOD use interventions. For Aboriginal families, consider the specific ongoing trauma from the stolen generations and provide culturally appropriate support. Counselling and other support should be initiated early in pregnancy.

If the woman provides valid consent, their partner and support network should be involved in all stages of care, including discussions of AOD use and appropriate interventions. Valid consent requires full disclosure of what will be discussed with others. If the client identifies as an Aboriginal person, the SUPPS/AOD health worker should ask if they would like an Aboriginal health worker to be involved.

SUPPS or AOD health workers may also offer interventions to the woman's partner or to other household members with problematic AOD use. A partner's or household members' AOD use increases the woman's risk of continuing or relapsing. For Aboriginal families, also consider support for members of the extended family who may play a key role in caring for the infant.

Sometimes a woman's support network may struggle with the challenges and effects of their problematic AOD use. The woman's support network may benefit from:

- Family Drug Support (FDS)
- Alcohol & Drug Information Service (ADIS).

Mental health support

SUPPS or AOD health workers should be alert to the co-existence of mental health concerns in pregnant women with problematic AOD use, specifically:

- anxiety and depression
- psychosis and relapse of bipolar disorder (including delusions and hallucinations)
- suicidal or self-harming ideation or planning
- unsafe ideation, plans or behaviour towards the fetus, infant or another person
- unmonitored cessation of prescribed antidepressant or antipsychotic medication.

The SUPPS or AOD health worker should do the following if they identify these conditions:

- refer the woman to:
    - a specialist perinatal mental health clinician, such as a perinatal and infant mental health clinician or the SwOPS-mh for families living in rural and remote districts, or
    - if urgent, an alternative local service for assessment and advice (e.g. a liaison psychiatry team) or a specialist psychiatric service if this option is not available
- ensure the woman's safety while awaiting evaluation and assessment, which may include having a staff member remain with them.

Healthcare services should ensure that all clinicians working with pregnant women are familiar with local mental health protocols and procedures. For support with referrals, health staff can call the Mental Health Line at 1800 011 511. This line is available to everyone in NSW and operates 24/7.

For ongoing care of a woman with mental health problems, SUPPS or AOD health workers should consult with their mental health case worker or other appropriate clinician, and plan for the birth and after the birth. It may require including drug information in the woman's medical record (especially for women who are on mood stabilising or antidepressant medications). Symptoms of mental health problems may not be evident without a mental health assessment or questioning. All clinicians who work with pregnant women should be encouraged to become skilled in conducting mental health screening.

Pregnant and postnatal women who are on antidepressants or other psychiatric medications must have regular contact with their general practitioner or mental health professional. SUPPS or AOD health workers should encourage these women not to abruptly cease their antidepressant or other psychiatric medication, because of the risk of illness, relapse or withdrawal. If the mother is concerned about the safety of continuing these medications while pregnant and breastfeeding, refer to the drug chapters in this document or call MotherSafe. See the NEW 2023 National Perinatal Mental Health Guideline for more information on perinatal mental health.

SAFE START

SAFE START is a NSW Health policy that provides health workers with direction on giving coordinated and planned responses when identifying families at risk of adverse outcomes during the perinatal period. This includes universal psychosocial assessment, depression screening, and follow-up care and support during the perinatal period.

The SAFE START policy outlines the rationale for psychosocial assessment, risk prevention and early intervention. It promotes an integrated approach to the care of women, their infants and families in the perinatal period, and provides a platform for

health professionals and related agencies to discuss care options and develop a care plan. For more information on SAFE START, see the SAFE START Strategic Policy (PD2010_016) and the SAFE START Guidelines: Improving Mental Health Outcomes for Parents & Infants (GL2010_004).

Case manager

To ensure continuity of care and adequate risk management, a case manager (or key worker) should be appointed to oversee the woman's care and to liaise with other members of their care team. The case manager is typically a SUPPS clinician.

The case manager helps the woman navigate the health system safely, ensuring they receive the appropriate care for their needs. The case manager should also be familiar with the woman's file, including their psychosocial assessment. Allocated case managers allow easier continuity and consistency of care, which is associated with better outcomes for the mother and child. It should be clear who the case manager is, and the mother should be provided with their and the care team's contact details.

The case manager should be proactive in the woman's care. For example, they should assertively (but respectfully) follow up if they do not attend AOD appointments and remind them of the importance of attending her other health appointments. The case manager participates in regular team meetings and case conferences and provides a formal handover to those caring for the woman and infant during the birth and postnatal period. Ongoing case management should be provided where clinically appropriate. If the woman is on the OTP, the case manager should closely liaise with the woman, the OTP prescriber, the case worker and the dosing clinic or pharmacy.

Team management

Health services should follow a multidisciplinary team management approach when caring for pregnant women with problematic AOD use. This approach supports meetings during which all team members can discuss the woman's needs, seek support and advice, and develop coordinated care plans. Consider telehealth services to provide multidisciplinary care if certain specialties are unavailable locally.

In some circumstances, a collaborative response from multiple agencies may improve support for the mother and family. For women and families identified through the SAFE START assessment process as vulnerable and needing additional support, a team management approach is required by the Maternal & Child Health Primary Health Care Policy (PD2010_017).

Where a team management approach is unavailable, women with problematic AOD use may benefit from a transfer to a centre that can provide such care (e.g. a tertiary health facility) or have care provided in liaison with a specialist under a shared care arrangement.

When other key workers in other health and social services are involved in a women's care, the SUPPS case manager should work with them to ensure clear communication. If the woman does not have other key workers, the SUPPS case manager will need to work directly with service supports, for example the OTP prescriber.

Where available and appropriate, the team may include:

- an AMIHS midwife or case worker
- an addiction medicine specialist or addiction psychiatrist
- a child and family health nurse
- a DCJ caseworker
- a dietitian and other allied health professionals
- a designated SUPPS clinician or AOD clinician
- a general practitioner
- a lactation consultant
- a mental health clinician
- a midwife
- an obstetrician
- a paediatrician
- a Community Corrections Officer
- a psychologist/psychiatrist
- a social worker.

The team management approach for pregnant Aboriginal women

All pregnant women should receive care that is culturally appropriate, safe, respectful and trauma-informed. Clinicians should offer and engage Aboriginal support services at the commencement of care for all pregnant Aboriginal women, and women pregnant with an Aboriginal baby. All pregnant women should be asked, from the outset, if they identify as an Aboriginal person or if their baby is an Aboriginal person, as this can help overcome barriers to accessing culturally appropriate care or support. Refer to the Aboriginal Health Worker or Practitioner nominated for follow-up of Aboriginal women. The function of these roles is to support Aboriginal people in navigating the health system safely, ensuring they receive appropriate care that meets their needs. This may also include risk assessments on mental health and AOD use issues, child safety, clinical care and health education.

Where available, offer referral to Aboriginal Maternal and Infant Health Services, Aboriginal Community Controlled Health Services or a primary health care service that provides culturally appropriate care for pregnant Aboriginal women.

Aboriginal-focused services will ensure the provision of multidisciplinary care during pregnancy and the early childhood years. Consider shared care where women choose their care or require care in a tertiary health facility. For varying reasons, some Aboriginal women may not wish to use their local AMIHS or ACCHS. It is important to discuss these options and gain valid consent before contacting these services.

SUPPS or AOD health workers should be aware that stigma and discrimination are major concerns for Aboriginal people with problematic AOD use. Therefore, carefully consider the language used.

It is also important to be aware that a pregnant Aboriginal woman with problematic AOD use may be particularly fearful that their infant could be removed from their care. See Building trust and providing support in the context of child protection.

The following are AOD resources for health professionals working with pregnant Aboriginal women:

- Strong Born Campaign – a campaign to raise awareness of FASD among Aboriginal people in rural and remote communities (from the National Aboriginal Community Controlled Health Organisation (NACCHO) and the Foundation for Alcohol Research and Education (FARE))
- NSW Health drug and alcohol information – information on the effects of specific drugs during pregnancy, and guides and videos on learning about alcohol and FASD
- Stay strong and healthy Facebook page – engages Aboriginal women with strengths-based pregnancy health information, including the risks of alcohol consumption during pregnancy.

See Caring for pregnant Aboriginal women with problematic AOD use for more information.

Effective communication

To support pregnant women with problematic AOD use, regular case reviews or conferences with the care team, often led by the case manager, should be held. This will facilitate communication and support the development of future interdisciplinary plans of care. The care team should have communication strategies and systems in place to encourage communication between the mother and members of the team. The mother should also be given the case manager's and care team's contact details.

Thorough documentation is important because women may only access antenatal care intermittently or present out of hours. Where pregnant women or new mothers have been transferred to a care facility away from their home and support network, it is important to maintain ongoing, two-way communication between the home healthcare team and the specialist team.

Ongoing comprehensive assessment and care planning

In addition to the initial screening for AOD use (see Screening), women with problematic AOD should undergo periodic comprehensive assessments. Along with screening, these assessments should be readily available to other health workers (such as in the case notes and electronic medical records) as they may be relevant to the infant's future health needs (e.g. in the case of FASD).

The case manager or another team member should develop a written care plan with the woman (and their partner or support person, if relevant) that is readily available to other health workers (such as in the case notes and electronic medical records). The plan should be reviewed regularly with the mother, who should also have a copy.

It is important to note that other issues may arise as the pregnancy progresses. Areas of concern include:

- lack of engagement with care and counselling
- socioeconomic circumstances and psychosocial issues (e.g. poverty and homelessness)
- disclosure of domestic and family violence or other child protection–related concerns
- mental health
- general wellbeing (e.g. sleep hygiene, diet, use of supplements and exercise)
- progress in AOD treatment (including withdrawal symptoms and dose of pharmacotherapy)
- tobacco and AOD use of partner and others in the same house.

Recording of sensitive information in care plans
Always consider the presence of domestic and family violence when offering women a copy of the care plan. Ask women if having the care plan may increase their risk of being harmed by a partner or other person. If so, work together to find an alternative way to access the care plan safely.
Use your professional judgement or seek local specialist advice when determining how to communicate information to other health services about High-Risk Birth Alerts (HRBAs) or other sensitive information about the mother's history if it is relevant to their pregnancy.

Several medical complications related to problematic AOD use should also be considered in ongoing clinical assessments.

- **Liver disease:** Women with clinically evident liver disease – including cirrhosis from alcohol or hepatitis B or hepatitis C virus – should be referred to an appropriate liver specialist or centre.

- **Valvular heart disease:** Women with valvular heart disease may need to be referred to a tertiary maternity facility with cardiology resources for monitoring and treatment.
- **Fetal growth restriction (FGR):** The NSW Health Guideline, Care of women with suspected or confirmed Fetal Growth Restriction (GL2023_004), provides further guidance on screening, prevention and ongoing care, escalation and birth planning if FGR is confirmed.
- **Concerns about fetal movement:** SUPPS or AOD health workers should help women be aware of their baby's movements from 28 weeks gestation onwards. For more information on how to provide support and actions to take, see the Care Pathway for Women Concerned About Fetal Movements (GL2021_019) and the Safer Baby Bundle Handbook.
- **Placental abruption:** Smoking, alcohol consumption, and the use of methamphetamine and cocaine increase the risk of placental abruption. Women with any bleeding in pregnancy after 23–24 weeks gestation – especially when associated with pain – should access maternity care for an urgent assessment.
- **Pain management and venous access:** A pain service assessment may be needed to discuss venous access and optimum modes of analgesia during crisis situations. In discussions with the pain service, SUPPS or AOD workers can advise on how women with AOD dependence may feel judged when seeking pain relief and how women with opioid dependence may need more analgesia. Sometimes, women with a history of intravenous drug use are familiar with which areas are more amenable for venous access. Therefore, health workers should listen to a woman's suggestions and try to accommodate them, including using butterfly needles where possible. Listening to the woman's input can help build a trusting relationship and may influence the extent to which the woman engages with all care providers.
- **Nutrition:** Good nutrition before, during and after pregnancy helps to optimise maternal health, reduce pregnancy complications and improve outcomes for children. As women with problematic AOD use are more likely to have nutritional deficiencies, SUPPS or AOD health workers should:
    - advise them to take a complete pregnancy multivitamin supplement containing iodine, vitamin D and folic acid. The supplement should be taken daily (ideally, up to one month before conception). Where possible, SUPPS or AOD health workers can directly supply these supplements
    - advise them to consume more fat, protein and carbohydrates in the second and third trimesters
    - screen for dietary intake and consider screening for nutritional deficiencies with a full blood count, including iron, folate, calcium, vitamin B12 and vitamin D studies
    - use the available interventions or referral pathways if nausea and vomiting are affecting the woman's nutritional intake. For more information, refer to the

NSW Health Guidelines on Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum (GL2022_009)

- **Oral health issues:** Pregnant women with problematic AOD use should be advised to have oral health checks and treatment, if required. Where available, pregnant women with problematic AOD use should have priority access to public dental services. ACCHSs typically provide dental services to Aboriginal women. Dental treatment can safely be provided during pregnancy. This advice is aligned with the Australian pregnancy care guidelines.

Oral health issues are more common in women with problematic AOD use due to a combination of issues associated with dental hygiene, nutrition (high-carbohydrate foods) and reduced salivary production.[12] There is a statistically significant association between periodontal disease and adverse pregnancy outcomes, including preterm birth, low birth weight, pre-eclampsia and preterm rupture of membranes.[13]

Infrequent and/or unplanned maternity presentations

For women who attend appointments infrequently, the appointment is an opportunity for psychosocial and SUPPS screening and support. A comprehensive maternal and fetal assessment should be undertaken at every visit.

The appointment should also be used as an opportunity to offer and collect any outstanding standard and other clinically indicated pathology, undertake a fetal ultrasound assessment, and offer the various vaccinations recommended in pregnancy and anti-D prophylaxis for Rh-negative women.

These visits are also an opportunity to engage in some ad hoc prenatal education, access anaesthetic review if required, and discuss or plan timing, place and mode of birth.

Preparation for birth, transfer of care and the postnatal period

Planning should begin early in the antenatal period with the woman and their support network, and should include a birth and postnatal plan, and a transfer of care plan. The case manager should review the plan closer to the woman's due date (around 36 weeks) to consider any changes to AOD use and other risks that may have arisen. The plans should be clear and succinct.

Women who present for the first time in the third trimester, or in labour, have a high risk of pregnancy complications because of inadequate antenatal care. In these cases, clinicians should check the High Risk Birth Alert (HRBA) register by contacting the NSW Health Child Wellbeing Unit.

Preparation for birth may also involve communication with others about child protection and wellbeing concerns, including planning with DCJ when a HRBA is in place. This may

[12] Abed H, Hassona Y (2019). *Oral healthcare management in heroin and methadone users*. Br Dent J. Apr;226(8):563–567.
[13] Pockpa ZAD et al. (2021). *Periodontal Diseases and Adverse Pregnancy Outcomes: Review of Two Decades of Clinical Research*. Oral Health Prev Dent. 19(1):77–83.

include prenatal family conferencing, family group conferencing or case planning meetings, and providing advice to DCJ about the extra clinical needs of the baby and mother at or after birth. For more information on child protection–related issues, see Protecting the safety, welfare and wellbeing of children and the unborn child.

Preparing for birth and the immediate postnatal period

To prepare for birth, SUPPS or AOD health workers should discuss the following early in the antenatal period and include them in the birth and postnatal plan.

- **Pain management and venous access** – An anaesthetic and analgesic assessment should be done in the third trimester, including a discussion of venous access and optimum modes of analgesia for labour, birth, the postpartum period and during crisis situations. In discussion with the pain service, SUPPS or AOD workers can advise that:
    - Women with problematic AOD use may feel judged when seeking pain relief.
    - There is a tendency to underestimate the amount of pain relief needed in these cases, and total analgesic requirements may be increased.
    - Pain caused by other pathologies may be masked by AOD use, and other reasons for pain should be considered – such as joint abscess or kidney infections – when a woman's pain is difficult to control.
    - Women with a history of intravenous drug use are sometimes familiar with which areas are more amenable for venous access. Therefore, health workers should listen to the woman's suggestions and try to accommodate them, including using butterfly needles where possible. This can help build a trusting relationship with staff and may influence the extent to which the woman engages with all care providers. The woman may require a central venous line if venous access is still too difficult.
- **Timing and mode of birth** – It is important to take account of risk indicators, such as the presence of BBVs. For more information on birthing considerations for women with a BBV, see Caring for pregnant women with blood-borne viruses and their infants. For more information on decision-making about the timing of birth for women with risk factors for stillbirth, see Element 5 in the Safer Baby Bundle Handbook.
- **Induction of labour or caesarean section** – If elective induction of labour or caesarean section is planned for a woman with problematic AOD use, SUPPS or AOD health workers should ensure the time of admission allows for assessment and stabilisation before the induction or surgery. Induction of labour must be done only for obstetric reasons and in certain social situations (e.g. due to remoteness or lack of access to transport) and not because of AOD use indications. It is preferable to schedule the induction early in the week to allow for multidisciplinary review and treatment planning, as well as neonatal withdrawal management.
- **Early presentation** – Advise women to present to hospital early when they go into spontaneous labour. This will decrease the potential outcome of self-medication

out of the hospital setting and make it easier to monitor AOD use and fetal wellbeing.

- **Location of birth** – The place of birth should be based on obstetric criteria, but complex multidisciplinary needs for women with problematic AOD use may necessitate referral to other specialist centres. Aim to minimise the mother's dislocation from their support services, family, community and primary health care network. For more information on maternal transfers, see the NSW Health Policy Directive Tiered Networking Arrangements for Perinatal Care in NSW (PD2020_014).

To prepare for the immediate postnatal period, SUPPS or AOD health workers should discuss the following early in the antenatal period and include them in the birth and postnatal plan:

- **Postnatal contraception** – SUPPS or AOD health workers should discuss contraception options, including reliable and easy methods, and provide information to enable valid consent. For women who want contraception, a clear plan should be written in their medical records.
- **The minimum hospitalisation period for infants with PSE** – See Supporting infants with prenatal substance exposure for more information.
- **Neonatal withdrawal and treatment options** – This is particularly important for mothers with problematic opioid use or who are on OTP. For more information, see Supporting infants with prenatal substance exposure for more information.
- **Infant feeding options** – Discuss choices for infant feeding, including the benefits and risks of breastfeeding (considering any AOD use), medications and the presence of BBV or other infections. See summary of breastfeeding advice by substance.

Preparing for transfer of care

In preparation for the transfer of care, SUPPS or AOD health workers should have an early discussion with the pregnant woman and their identified support people to develop a written transfer of care plan, also known as a 'discharge' or 'GP summary', during the antenatal period. Planning should start at the first antenatal presentation. The transfer of care plan should consider:

- ongoing monitoring for neonatal withdrawal and treatment options, particularly for mothers with problematic opioid use (see Supporting infants with prenatal substance exposure for more information)
- choices for infant feeding, including the benefits and risks of breastfeeding (considering any AOD use), medications and the presence of BBV or other infections
- a review of the management of AOD use and ongoing treatment (including tobacco treatment, if indicated)

- stability and psychosocial issues, including the presence of supportive adults or services
- mental health
- environmental issues, including safe storage of AOD or medications in the home and exposure to environmental smoke
- material goods and preparation for the baby (e.g. baby capsule for car safety)
- stable housing
- risk factors for sudden infant death and safe sleeping practices
- child protection issues
- parenting and childhood development education
- advice and links to child and family health services for ongoing support and developmental child health checks as per the My Personal Health Record (the Blue Book), which can include home visits
- possible introduction to a child and family health nurse, to build rapport and establish a relationship to support ongoing child health surveillance.

Involving the woman and the family in the transfer of care plan will facilitate progress in the postnatal period. The potential need for postnatal residential rehabilitation care for some mothers and babies should be considered and planned before the birth as places may be limited.

Some pregnant women with problematic AOD use may have immediate issues that make the transfer of care planning challenging. In these situations, the priority must be to identify and respond to child safety, welfare and wellbeing risks, as well as to help women experience stability and accept support services to enable planning for the future.

Out-of-hours emergency presentations

Pregnant women with problematic AOD use may present in crisis to emergency services or birth units after hours, intoxicated, in withdrawal, or due to experiences of homelessness or violence.

If the woman is intoxicated, the progress of the pregnancy and the condition of the fetus should be assessed by the obstetric team. If possible, initial assessment of the fetus should be by auscultation of the fetal heart and cardiotocograph (CTG), with follow-up ultrasound as considered appropriate. The decision to admit will depend on the circumstances, including the gestation, whether there has been any antenatal care or investigations, obstetric complications, potential domestic violence, homelessness, pending child protection action, concurrent health issues and other risk factors.

Healthcare services should have clear protocols to manage these situations so that child safety, welfare and wellbeing issues are addressed and the woman and their family receive follow-up. The protocols should have clear guides on stabilisation and psychosocial management, and include which practitioner is to be notified.

If the service cannot assess and care adequately for the woman, they should be transferred to a centre with the appropriate facilities and resources. If the woman is not admitted, health staff should communicate with their case manager and arrange appropriate support services and referrals, including for pregnancy care follow-up.

Birth, the immediate postnatal period and breastfeeding

Introduction

As during the antenatal period, SUPPS or AOD health workers should be guided by NSW Health's Clinical Care Standards for Alcohol and Other Drug Treatment when caring for women with problematic AOD use during birth and the postnatal period. The relevant sections of the Clinical Care Standards include:

- care planning
- identifying, responding to and monitoring risk on an ongoing basis
- monitoring treatment progress and outcomes.

Beyond the foundational elements of AOD care, the key elements of care during birth and the immediate postnatal period for pregnant women with problematic AOD use include consideration of:

- anaesthetics and analgesics
- postnatal contraception
- minimum hospitalisation period for infants
- neonatal withdrawal and treatment options
- infant feeding options
- preparing for the transfer of care.

The birth and postnatal plan (drafted in the antenatal period) should guide care during this period.

As with antenatal care, empathetic engagement – including awareness of stigma, discrimination and trauma-informed care – is essential during the birth and the immediate postnatal period. Conversations about contraception, neonatal withdrawal, social concerns, child safety and safe breastfeeding can be sensitive subjects. Health workers must embed the principles of empathetic engagement in every interaction to keep families engaged in health care.

Labour and birth

Anaesthetics and analgesics

As in all pregnancies, women who use AOD and/or who are on opioid treatment with buprenorphine or methadone should have access to pain management, particularly during birth and the postnatal period. An anaesthetic and analgesic assessment should have been done in the third trimester (see Preparing for birth and the immediate postnatal period).

If not already discussed with the pain service in the third trimester, SUPPS or AOD workers can advise that:

- Women with problematic AOD use may feel judged when seeking pain relief.
- There is a tendency to underestimate the amount of pain relief needed in these cases, and total analgesic requirements may be increased.
- Pain caused by other pathologies may be masked by AOD use and other reasons for pain – such as joint abscess, kidney infections, trauma or distress – should be considered when a woman's pain is difficult to control.
- Women with a history of intravenous drug use are sometimes familiar with which areas are more amenable for venous access. Therefore, health workers should listen to their suggestions and try to accommodate them, including by using butterfly needles where possible. This can help build a trusting relationship with staff and may influence the extent to which a woman engages with care providers. The woman may require a central venous line if venous access is still too difficult.

All forms of pain relief, including pharmacological and non-pharmacological means, should be offered in labour. Informed choices can be made at this time if all options have been discussed early in pregnancy. Options may include a TENS machine, water, heat packs, paracetamol, regional anaesthesia and epidural, nitrous oxide and oxygen mix, with regard to the usual obstetric contraindications for each. Opiates may be considered; however, they may not be as effective in women who used opiates during pregnancy. Alternative analgesic options may, therefore, be preferred.

Emergency presentations: Some women with problematic AOD use will present for the first time in labour, without previous antenatal care. When women who use opioids present for the first time in labour, they must be urgently assessed for their level of opioid tolerance and dependence, as these will be significant in managing analgesia during labour. Health workers should liaise with the local AOD service or the Drug & Alcohol Specialist Advisory Service (DASAS) for further advice.

The immediate postnatal period

Postnatal contraception

SUPPS or AOD health workers should discuss the options for contraception and develop a plan in the antenatal period (see Preparing for the immediate postnatal period). For women who want contraception, SUPPS or AOD health workers should refer to the woman's medical record for a written plan and provide contraception as a priority before there is a transfer of care. Women should also be reminded that condoms prevent sexually transmissible infections (STIs).

Minimum hospitalisation period for infants

Infants prenatally exposed to substances may require a period of hospitalisation. See Supporting infants with prenatal substance exposure for more information.

Neonatal withdrawal and treatment options

Some infants prenatally exposed to substances may experience withdrawal or a toxicity syndrome. For example, infants of mothers with problematic opioid use or who are on OTP will likely experience neonatal withdrawal. See Supporting infants with prenatal substance exposure for more information.

Infant feeding options

Breastmilk feeds are best but the type of substance use, medications and the presence of BBVs and other infections should be considered (see Specific drugs in pregnancy for summary of breastfeeding advice by substance).

Preparing for the transfer of care

A written transfer of care plan, initiated during the antenatal period, should be reviewed with the woman and care providers before discharge. See Preparing for transfer of care for more information. Copies of the plan should be included in the mother's healthcare record and the infant's notes, and given to the mother. The plan should include appointment dates and contact details of community providers. In some cases, a perinatal coordinator may be available to liaise with maternity services and child and family health nursing services, to ensure appropriate ongoing care and follow-up.

Breastfeeding

Maternal use of nicotine, alcohol, ecstasy, amphetamines, cocaine and related stimulants has been demonstrated to have harmful effects on breastfed infants.

However, breastfeeding carries a host of advantages, including lower risk of gastrointestinal infection, respiratory illness and middle ear infections for the infant, and faster recovery from childbirth and lower risk of depression for the mother.

Therefore, it is important to weigh the benefits of breastfeeding against the risk of substance exposure in breastmilk. The risk may depend on several factors, including the types of substances involved, patterns of use, dose, age and the health of the infant. For example, if the breastfeeding woman is significantly intoxicated and there is a high risk of sedation and smothering of the baby, it may be warranted to advise against breastfeeding. Similarly, different classes of the same substance may carry different risks. For example, heroin may contain adulterants that make its potency unpredictable compared to prescribed opioids. It is also important to consider polysubstance use before providing advice on breastfeeding. Seek advice from an addiction medicine specialist and a lactation consultant if there is uncertainty about the impact of maternal substance use on breastfeeding.

For women who breastfeed while using substances or who are at risk of relapse, SUPPS or AOD or maternity health workers should:

- inform them about the likely or known effects of the substances on their lactation and infant
- assist them in minimising the infant's exposure to these substances and other associated harms, including providing advice on a:
    - supplementary feeding plan
    - safety plan (e.g. breastfeeding in a safe position or having a support person to help)
- offer integrated services from AOD, child and family health, lactation specialists and other health professionals with breastfeeding expertise
- consider that women from certain cultural backgrounds may resist formula feeding even when medically advised.

See Figure 3 for a summary of breastfeeding advice by substance. For specific substance advice relating to breastfeeding, see the breastfeeding section of each drug in Specific drugs in pregnancy. Health professionals or concerned women can also contact MotherSafe. For general information on breastfeeding, see the NSW Health Policy Directive *Breastfeeding in NSW - Promotion Protection and Support* (PD2018_034).

Figure 3: Summary of breastfeeding advice

	Advice			Additional information	Advice to provide breastfeeding women
	Yes	*Maybe*	*No*		
Alcohol		✓		**One standard drink**: wait 2 hours **Two standard drinks**: wait 4 hours	• The **best option is to not drink at all** when breastfeeding • Expressing breastmilk ('pumping and dumping') is useful for maternal comfort but **does not speed up clearing alcohol** from the breastmilk
Tobacco & e-cigarettes	✓			**Emphasis should be on minimising second-hand smoke**, which is most harmful to the infant	• The **best option is to not smoke at all** when breastfeeding, but the benefits of breastfeeding outweigh the risks associated with tobacco or e-cigarette use • The mother and other people in the home should ensure there is **no second-hand smoke** around the infant (e.g. smoke away from baby, wash hands, change shirt)
Opioid treatment (stable on methadone or buprenorphine)	✓				• Though opioids cross the blood-milk barrier, **breastfeeding and any breast milk feeds reduce the severity of Neonatal Opioid Withdrawal Syndrome** (NOWS) and the duration of hospitalisation for infants with NOWS
Non-medical opioids use (including heroin, pharmaceutical opioids, non-medical use of methadone or buprenorphine)		✓		Wait 48 hours	• The **best option is to not use non-medical opioids at all** when breastfeeding • **Express and discard the breast milk after use** for maternal comfort (do not simply stop breastfeeding)
Cannabis (including medical cannabis)	✓			**Cannabis is not like alcohol**: it can last for over 6 days in breast milk; there is no known safe waiting period	• The **best option is to not use cannabis at all** when breastfeeding, but the benefits of breastfeeding outweigh the risks associated with cannabis use • There is **a lack of evidence on the long-term consequences** for the infant
Benzodiazepines (including both legal and illicit use)	✓			If needed for maternal health, **it may be preferrable to use a short-acting benzodiazepines**	• **Do not stop taking it abruptly**, only change use under medical supervision • **For mothers taking high doses, having a safety plan is critical** to ensure the infant's safety if the mother suddenly becomes drowsy while feeding
Methamphetamines and cocaine		✓		Wait 48 hours	• The **best option is to not use methamphetamines or cocaine at all** when breastfeeding • **Express and discard the breast milk after use** for maternal comfort (do not simply stop breastfeeding)
Inhalants		✓		Wait 48 hours	• The **best option is to not use inhalants at all** when breastfeeding • **Express and discard the breast milk after use** for maternal comfort (do not simply stop breastfeeding)

For all substance use, consider having:

- A **supplementary feeding plan**, and
- A **safety plan** (e.g. nursing in a safe position or having a support person to help). A safety plan is particularly important for substances that can cause drowsiness (e.g. benzodiazepines, methamphetamines, etc.).

Health workers should note that it is common for people to use multiple substances concurrently (i.e. polysubstance use). Consider all maternal substance use when providing breastfeeding advice.

Supporting infants with prenatal substance exposure

Introduction

Infants with PSE have been exposed to substances in utero due to the mother's:

- non-medical use of substances (e.g. opioids, alcohol, stimulants, cannabis, inhalants and prescription medication), or
- medical use of medications (e.g. opioid treatment, benzodiazepines, antidepressants and gabapentinoids).

Some babies with PSE show no signs of withdrawal or toxicity. Some babies who experience withdrawal (e.g. from opioids) or toxicity (e.g. from SSRIs) can be managed using a non-pharmacological approach. In some cases, pharmacological treatment or a transfer to a Newborn Intensive Care Unit (NICU) is required.

PSE can have long-term impacts on the child's health and development.[14,15,16,17] It is vital that infants with PSE receive targeted care and support by:

- identifying and updating their health records
- treating their parents and carers with empathy, and educating and empowering them to support the infant
- providing them with long-term follow-up.

Infants are also to be screened and monitored for withdrawal or intoxication symptoms if:

- they were prenatally exposed to opioids, benzodiazepines, methamphetamine, cocaine, alcohol, barbiturates, marijuana, nicotine or SSRIs, or
- it is indicated they had prenatal exposure to other substances and problematic maternal use in the 2–4 weeks before birth, in which case it is likely to result in the infant being hospitalised.

[14] Uebel H et al. (2020). *Characteristics and causes of death in children with neonatal abstinence syndrome*. J Paediatr Child Health. Dec;56(12):1933–1940.
[15] Uebel H et al. (2015). *Reasons for Rehospitalization in Children Who Had Neonatal Abstinence Syndrome*. Pediatrics. Oct;136(4):e811–20.
[16] Yeoh SL et a.l (2019). *Cognitive and Motor Outcomes of Children with Prenatal Opioid Exposure: A Systematic Review and Meta-analysis*. JAMA Netw Open. Jul 3;2(7).
[17] Oei JL et al. (2017). *Neonatal Abstinence Syndrome and High School Performance*. Pediatrics. Feb;139(2).

Shifting focus from Neonatal Abstinence Syndrome to prenatal substance exposure

In the past, clinical guidance focused on Neonatal Abstinence Syndrome (NAS); however, there is a growing call to move away from this term as it can be perceived as stigmatising. Moreover, NAS is opioid-centric and creates the false impression that non-opioid exposure is innocuous, when, in fact, there is a growing body of evidence indicating that infants with PSE – not just those showing signs of opioid withdrawal – require additional support and follow-up. This is particularly true for prenatal exposure to non-opioid substances such as methamphetamine, which do not cause symptoms typically associated with neonatal withdrawal but still require follow-up. This follow-up will ensure families receive appropriate support as early as possible, improving the child's developmental outcomes. Therefore, this document focuses on 'prenatal substance exposure' and 'neonatal withdrawal' and directs clinicians to provide enhanced support for all infants with PSE, not only those experiencing opioid withdrawal.

Engaging parents and carers

Using an empathetic approach

The perinatal period is often a sensitive time for mothers with problematic AOD use as they typically experience psychological distress associated with shame, guilt and fear of child removal, as well as possible family conflict, pre-existing mental illness or perinatal depression. These circumstances can lead to disengagement from, or even defensiveness towards, health staff.

In turn, some health staff report feeling stressed because this patient group can be challenging to engage. Some describe having difficulty setting aside their personal biases and stigma when caring for infants experiencing withdrawal. Health staff can experience feelings of frustration and resentment, as the infants can be extremely distressed and difficult to console. These feelings are compounded by the ethical and legal responsibilities to ensure the newborn child's safety, welfare and wellbeing.[18]

It is vital that SUPPS or AOD workers and maternity health workers partner with women and their support networks, and remember that a non-judgemental, empathetic approach is essential to:

- engage families in the health system
- encourage their participation in non-pharmacological supportive therapies
- ensure long-term follow-up after hospital discharge.

[18] Recto P et al. (2020). *The Role of Stigma in the Nursing Care of Families Impacted by Neonatal Abstinence Syndrome.* Adv Neonatal Care. 20(5): 354–363.

Providing information on care for prenatal substance exposure

Before hospital discharge, SUPPS or AOD workers and maternity health workers should provide the following to parents and carers:

- information on the effects of PSE
- information on how to assess signs of withdrawal and toxicity
- strategies for supportive or 'comfort' care (see Non-pharmacological supportive therapies)
- advice on the importance of long-term follow-up for the infant (see Ensuring long-term follow-up).

This information and advice should also be provided to foster carers and caseworkers if the infant is placed in foster care before hospital discharge.

Identifying and documenting prenatal substance exposure in the infant's health record

SUPPS or AOD workers and maternity health workers should record PSE in the infant's healthcare record to support long-term care and support. Where available, recorded information should include the:

- type and amount of substances
- timing of exposure (i.e. trimester of exposure), including before the woman knew they were pregnant
- frequency of maternal use.

Screening for neonatal withdrawal or toxicity

See Table 1 for a summary of neonatal withdrawal or toxicity characteristics and treatment, and the recommended minimum hospitalisation period by substance type.

Screening methods and tools

Health workers should note that neither of the newborn withdrawal assessment tools described below are validated for the following:

- preterm infants
- non-opioid exposures
- postnatal exposures resulting in withdrawal.

Regardless of the scale used, it is important that staff receive education about how to conduct the assessments. Scoring should be done when the infant is comfortable (e.g. after a feed) and ideally in the presence of the parent and/or carer.

- **Finnegan scale:** The Finnegan Neonatal Abstinence Scoring System (FNASS) and, later, the modified Finnegan Neonatal Abstinence Scoring System (M-FNASS) are the most common tools used for assessing and diagnosing neonatal opioid withdrawal. It has also been used to guide pharmacological treatment since the FNASS's original publication in 1975.[19] The tool assigns a numerical score based on clinical signs of narcotic withdrawal specific to an infant, including central nervous system signs (e.g. high-pitched crying), metabolic/vasomotor/respiratory signs (e.g. respiratory rate) and gastrointestinal disturbances (e.g. excessive sucking and loose stools). The FNASS is centred on differentiating the need for pharmacological treatment in infants with known substance exposure.
- **Eat, Sleep, Console (ESC):** ESC is a method to manage neonatal opioid withdrawal that focuses on critical infant functions – eating, sleeping and the ability to be consoled. Like the FNASS, the first step should be to provide the infant with non-pharmacological comfort care, such as swaddling, skin--to-skin contact, breastfeeding and cuddling. The ESC involves partnering with families and/or carers to provide this care. Rooming with a constant carer or parent and not in a special care nursery is key. Pharmacological therapy is only provided to the infant if non-pharmacological measures have been exhausted. This treatment is given 'as needed', compared to the FNASS, where medications are given on a regular schedule. Note that the ESC is predominantly used in the United States, and evidence stems mostly from quality improvement studies and one large randomised controlled trial, demonstrating decreased hospitalisation and pharmacological treatment for neonatal opioid withdrawal. At the time of publication of this guidance, the ESC has not been validated for preterm infants and non-opioid exposures. There is limited longer-term outcome data for ESC, including for safety beyond 3 months of age.

Screening for neonatal withdrawal or toxicity

Infants should be screened and monitored for withdrawal or toxicity symptoms if:

- they have been prenatally exposed to opioids, benzodiazepines, methamphetamine or SSRIs, or
- it is indicated they had prenatal exposure to other substances and problematic maternal use in the 2–4 weeks, in which case it is likely to result in the infant being hospitalised.

These infants are to receive routine postnatal monitoring, plus assessment with a withdrawal scale after birth and then after each feed.[20] The Finnegan scale or modified Finnegan scale (see Appendix 2) can be used to identify withdrawal.

[19] Ryan K et al. (2021). *Correlating Scores but Contrasting Outcomes for Eat Sleep Console Versus Modified Finnegan*. Hosp Pediatr April;11(4):350–357.
[20] Paulzen M et al. (2017). *Sertraline in pregnancy – Therapeutic drug monitoring in maternal blood, amniotic fluid and cord blood. J Affect Disord.* Apr 1;212:1–6.

Table 1: Summary of neonatal withdrawal characteristics, treatment and recommended minimum hospitalisation period by substance type

Substance	Neonatal withdrawal/toxicity characteristics	Peak effects of withdrawal/toxicity	Pharmacological treatment (if required)	Recommended minimum number of days in hospital*
Opioids (including methadone and buprenorphine)	Excitability, irritability, jitteriness, sleeping problems, gastrointestinal dysfunction, difficulty feeding, hypertonia vomiting, dehydration and poor weight gain. If severe cases are not treated, it can lead to seizures and death.	Heroin: Hours to 2–3 days Methadone: 2–3 days Buprenorphine: 3–4 days	**Morphine +/–	5
Alcohol	–	Birth to approximately 3 days[21]	Phenobarbitone	3
Cannabis	Increased tremors and startles, as well as poorer habituation to visual stimuli.	2–3 days to 4–6 weeks	Phenobarbitone	3
Benzodiazepines	–	1–2 weeks	Phenobarbitone or clonidine	5
Methamphetamine	Very quiet and sleepy, poor quality of movement and difficulty feeding. This may result in the failure to thrive, especially when compounded by suck/swallow discoordination.[22]	Birth to 2–3 weeks	Usually not needed	5
Cocaine	–	–	Phenobarbitone	5
Inhalants	A characteristic odour, excessive and high-pitched crying, sleeplessness, hyperactive Moro reflex, tremor, decreased muscle tone and poor feeding.[23]	–	Phenobarbitone	5

[21]Coles CD et al. (1985). *Neonatal neurobehavioral characteristics as correlates of maternal alcohol use during gestation*. Alcohol Clin Exp Res. Sept-Oct;9(5):454–60.
[22]Oei J et al. (ed. 2010). *Short-term outcomes of mothers and infants exposed to antenatal amphetamines*. Arch Dis Child Fetal Neonatal. Jan;95(1):F36-41.
[23] Bowen SE (2011). *Two serious and challenging medical complications associated with volatile substance misuse: sudden sniffing death and fetal solvent syndrome*. Subst Use Misuse. 46 Suppl 1:68–72.

SSRIs	Jitteriness, muscle tightness, seizures. May be complicated by pulmonary hypertension and prolonged feeding difficulties.[24]	24–48 hours	Phenobarbitone	3
GHB	–	–	Phenobarbitone	5
Gabapentinoids	–	–	Phenobarbitone	3

* The recommended hospitalisation period is not a requirement. Clinicians may deviate from this recommendation if individual circumstances warrant it.
** Phenobarbitone +/– or clonidine may be considered as second-line treatments.

Drug testing of newborn

A well-conducted and non-punitive history is often more informative than urine or meconium drug tests.[25] Though neonatal drug testing may be performed if it is considered of diagnostic importance for appropriate infant pharmacotherapy and treatment, it should not be undertaken as a matter of routine. Drug testing may be useful in circumstances where a mother may not know what they have been exposed to during pregnancy.

Drugs can be detected in many newborn matrixes, including urine, meconium, umbilical cord (Wharton's jelly), amniotic fluid, hair, nails, gastric fluid, etc. For practical purposes, urine and meconium are the most common and easily accessible matrixes tested.

- **Practicality:** The turnaround time for urine and meconium drug test results may be several days to weeks; therefore, clinicians should consider the test's value for the clinical management of the infant. Also, the available laboratory may not be equipped to detect the substance to which the infant was exposed. To ensure adequate detection, laboratories should review with stakeholders the drugs that need to be detected, guided by the prevalence of specific drugs within a given population.
- **Reliability:** Some substances are not detectable soon after birth, depending on their half-life. For example, heroin may not be detectable in urine as soon as a few days after birth (see Table 2 below).

Table 2: Summary of timeframes for drug detection in newborn urine

Substance	Time limits of urine tests
Barbiturates	24 hours (short-acting) to 3 weeks (long-acting)
Benzodiazepines	3–5 days
Methadone	3–5 days
Opioids including heroin	1–2 days

[24]Pakalapati RK et al. (2006). *Neonatal seizures from in utero venlafaxine exposure*. J Paediatr Child Health. Nov;42(11):737–8.
[25] Oei J et al. (2001). *Co-ordinated outpatient care of the narcotic dependent mother and infant*. J Paediatr Child Health. Jun;37(3):266–70.

Amphetamines	1–2 days
Cannabinoids (Tetrahydrocannabinol)	Approximately 5 days (may be several weeks)

Infants may also not pass meconium for several days after birth and transitional stools (when meconium changes to normal newborn stools) are not appropriate for drug testing.

Clinical interpretation of the tests is also important. False positives and false negatives are possible and depend on the type of matrix and assays used, as well as the timing of exposure.[26] Meconium, for example, forms after the first trimester of pregnancy and does not reflect early gestational drug exposure.

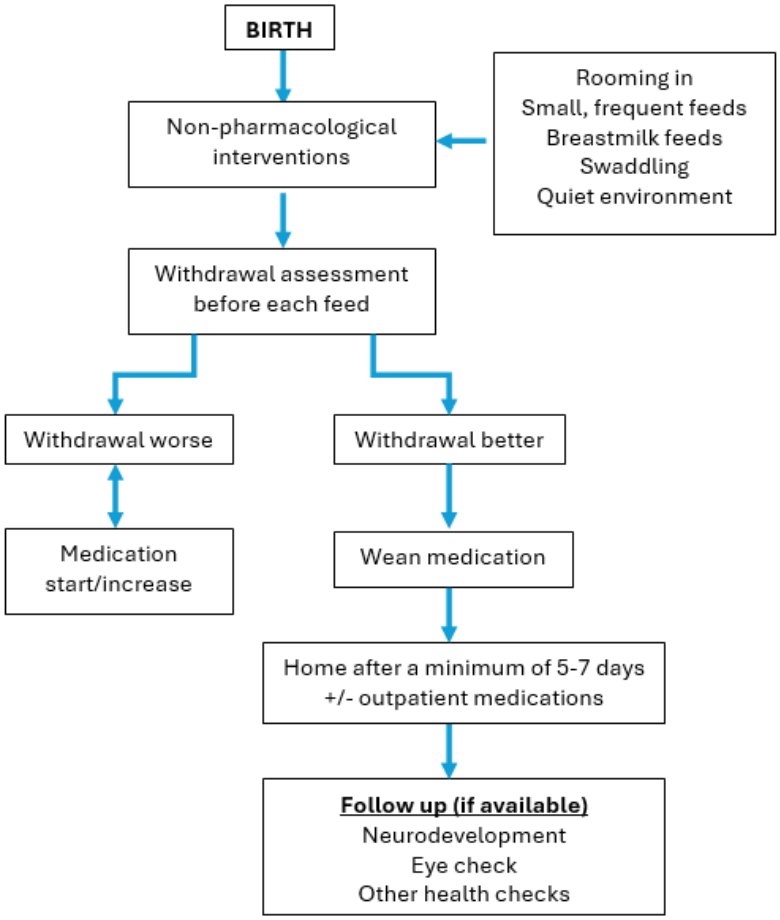
- **Consent:** Informed consent for drug testing the newborn should be obtained from the parent or legal guardian before each test is performed. If it is considered of urgent diagnostic importance for appropriate infant pharmacotherapy, urine and/or meconium drug testing may be performed without parental or legal consent. For more guidance on consent, including advice for cases in which consent is denied, see the NSW Health Consent to Medical and Healthcare Treatment Manual.

[26] Gray TR et al. (2009). *Identification of prenatal amphetamines exposure by maternal interview and meconium toxicology in the Infant Development, Environment and Lifestyle (IDEAL) study*. Ther Drug Monit. Dec;31(6):769–75.

Managing neonatal withdrawal or toxicity

Some babies with PSE will show signs of withdrawal or toxicity, but not all infants experiencing withdrawal or toxicity will require pharmacological treatment. See Figure 4 for the PSE Pathway 1.

Figure 4: Management of PSE Pathway 1



Respiratory depression at birth

Infants with PSE may need assistance at birth. In the event of respiratory depression, where the drug exposure is unknown or is confirmed to be opioids, maternity staff should support cardiorespiratory function,[27] but not use naloxone, as this may precipitate acute withdrawal and even seizures in opioid-exposed infants.

[27] Australian Resuscitation Council (2024). *Neonatal Guidelines, Section 13*.

Non-pharmacological supportive therapies

SUPPS or AOD workers and maternity health workers should use a non-pharmacological approach as a first- line treatment for babies experiencing withdrawal or toxicity.[28] Where possible, parents and carers should play a central role in providing non-pharmacological support alongside frequent review and support from SUPPS or AOD workers or maternity staff. When parents and carers help provide this support, it improves bonding and bolsters their confidence in supporting the infant after discharge from the hospital.

In addition to providing basic infant care (i.e. ensuring the infant feeds well, is consoled and comfortable, and sleeps and settles appropriately), the following non-pharmacological strategies will reduce the severity of withdrawal and the need for pharmacological treatment.

- **Rooming in:** This involves having a parent or carer constantly nursing the infant. Rooming in should not be undertaken if there are extenuating health or social risk circumstances. For guidance on safe sleeping, see the NSW Health Guideline *Recommended Safe Sleep Practices for Babies* (GL2021_013).

- **Breastfeeding or breastmilk feeding:** Refer to the breastfeeding sections of each drug chapter for information on possible risk factors or contraindications. If the infant cannot feed by breast, provide small frequent feeds as tolerated, noting that withdrawing infants may experience periods of hyperphagia (copious feeding), which are self-limiting but may worsen symptoms of withdrawal if feeding is restricted.[29]

- **Nursing in a quiet, low-light environment with minimal stimulation.**

- **Soothing techniques such as swaddling, cuddling and skin-to-skin contact:** This includes speaking to the infant calmly, softly and slowly.

Opioid exposure – pharmacological treatment for withdrawal[30,31]

- **Deciding to initiate pharmacological treatment:** Pharmacological treatment of infants with prenatal opioid exposure may be initiated:
    - when the Finnegan scale or modified Finnegan scale score averages 8 or more on 3 consecutive scores or 12 or more on 2 consecutive scores, or
    - following the ESC method, when the infant is unable to feed, sleep or settle appropriately.

[28] Mangat AK et al. (2019). *Pharmacological and non-pharmacological treatments for the Neonatal Abstinence Syndrome (NAS).* Semin Fetal Neonatal Med. Apr;24(2):133–141.

[29] Martinez A et al. (1999). *Hyperphagia in neonates withdrawing from methadone.* Arch Dis Child Fetal Neonatal Ed. May;80(3): F178–82.
[30] Zankl A et al. (2021). *Sedatives for opioid withdrawal in newborn infants*. Cochrane Database Syst Rev.
[31] Zankl A et al. (2021). *Sedatives for opioid withdrawal in newborn infants*. Cochrane Database Syst Rev.

With the ESC method, clinicians and parents or carers should discuss and determine whether the infant requires pharmacological treatment. This method also involves administering withdrawal medication as needed, rather than on a regular basis.[32]

- **Opioids as the first line of pharmacological treatment:** Paediatricians or neonatologists should use an opioid as the initial treatment for infants experiencing severe opioid withdrawal, as it is significantly more effective than other agents as a first-line therapy, including for treating seizures.[33] It is not clear what type of opioid would be optimal. Long-acting opioids such as buprenorphine may decrease treatment time compared to short-acting opioids like morphine, as they produce a more stable steady-state level. However, neonatal formulations of buprenorphine are not easily available in certain countries, including Australia.[34] Most infants requiring treatment for opioid-related withdrawal will reach the treatment threshold 7 days after birth.

The long-term implications of medicating infants experiencing withdrawal are unclear. However, without appropriate treatment, a high proportion (over 80%) of infants with severe withdrawal will develop serious complications, including seizures and possibly death.

- **Using sedatives in addition to opioids:** Sedatives such as phenobarbitone or clonidine (alpha 1 antagonist) may reduce withdrawal severity in infants treated with an opiate.[35] Clonidine stimulates sympathetic inhibitory neurones, leading to a decrease in norepinephrine release, which is hyperactive in the locus coeruleus during opioid withdrawal. Clonidine may reduce the need and the duration of morphine treatment for opioid withdrawal,[36] but should only be provided for neonatal withdrawal in an inpatient setting.

Table 3: Suggested regimen to treat opioid-related neonatal withdrawal

Administering morphine	• Ensure the infant has been exposed to prenatal opioids. There is a risk of respiratory depression if opioid-naïve patients are treated with opioids. • Start morphine at 0.5 mg per kg per day in 4 divided doses. • Administer morphine orally unless the infant is unable to tolerate oral feeds (IV conversion for oral bioavailability usually not required). • Increase morphine by 0.1–0.2 mg per kg per day, every 1–2 days until symptoms are under control (usually when the Finnegan score is persistently less than 8). Morphine may be increased faster if the infant is not responding. • If more than 0.8 mg per kg per day of morphine is required for symptom control, consider adjunct treatment with a sedative (e.g. phenobarbitone or clonidine).
Supportive additional pharmacological	• Start phenobarbitone at 2.5 mg per kg per dose, twice a day. There is usually no need for a loading dose. Administer medications orally unless otherwise contraindicated.

[32]Grossman MR et al. (2018). *A Novel Approach to Assessing Infants with Neonatal Abstinence Syndrome*. Hosp Pediatr. Jan; 8(1):1–6.
[33] Perlstein MA (1947). *Congenital morphinism; a rare cause of convulsions in the newborn*. J Am Med Assoc. Nov 8;135(10):633.
[34] Kraft WK et al. (2008). *Sublingual buprenorphine for treatment of neonatal abstinence syndrome: a randomized trial*. Pediatrics. Sept;122(3):e601–7.
[35] Brusseau C et al. (2020). *Clonidine versus phenobarbital as adjunctive therapy for neonatal abstinence syndrome.* J Perinatol. Jul;40(7):1050–1055.
[36] Romantsik O et al. (2020). *Clonidine for pain in non-ventilated infants*. Cochrane Database Syst Rev. Apr 9;4(4).

treatment (if required)	• Increase phenobarbitone by 0.5–1.0 mg per kg per dose, every 1–2 days until symptoms are under control. *If using clonidine*:[37] • Start clonidine orally at 1.0 micrograms per kg per day, divided in 4 doses and increase daily by 25–50% over 1–2 days to a maintenance dose of 5–10 (maximum 12) micrograms per kg per day.
Monitoring	• Though not required, consider initial observation of infant parameters (e.g. respiratory effort, oxygen saturation and blood pressure) for clinical assurance that treatment is appropriate. • Encourage the mother or carer to learn how to assess the infant and administer the medication.
Weaning	• Do not wean any medication too quickly as this may precipitate withdrawal. • Weaning strategies should be based on clinical judgement and infant response to treatment (e.g. feeding, sleeping and not excessively irritable). *If treating with morphine alone:* • Morphine may be decreased by about 0.1 mg per kg per day, every 3–4 days. *If treating with multiple agents:* • Aim to wean phenobarbitone first as it may impair infant feeding. Decrease phenobarbitone by about 25% every 5–6 days as it has a long half-life (approximately 67 hours) in infancy.[38] After ceasing other agents, decrease morphine by about 0.1 mg per kg per day, every 3–4 days. • Alternatively, paediatricians or neonatologists can alternate morphine and phenobarbitone reductions. • Reduce clonidine dose by about 25–50% every 2–3 days (the average half-life in newborn infants is approximately 17 hours) before ceasing, and monitor for tachycardia, hypertension, sweating and agitation. If an infant has received clonidine for more than 5 days, rebound hypertension and worsening of withdrawal symptoms may occur.

Non-opioid or unknown exposure – pharmacological treatment for withdrawal

- **Deciding to initiate pharmacological treatment:** There is no validated method for assessing non-opioid infant withdrawal, so pharmacological treatment may be provided if clinically indicated. The Finnegan scale or ESC may support decision-making, but these methods are only validated for opioid exposure.

[37] Takemoto CK et al. (2018). *Pediatric & neonatal dosage handbook with international trade names index: a universal resource for clinicians treating pediatric and neonatal patients*. 24th edn. Hudson (Ohio).
[38] Pacifici GM (2016). *Clinical Pharmacology of Phenobarbital in Neonates: Effects, Metabolism and Pharmacokinetics*. Curr Pediatr Rev.12(1):48–54.

- **Sedatives as the first line of treatment:** Phenobarbitone may be used as a first-line medication to treat non-opioid withdrawal or withdrawal from an unknown substance.[39] It may increase suck/swallow discoordination, so monitor infant feeding. Health workers should note that the role of sedatives in the treatment of non-opioid withdrawal has not been systematically evaluated in newborn infants.
- **Avoid opioid treatment:** Using an opioid to treat non-opioid withdrawal will lead to profound respiratory depression.

Table 4: Suggested regimen to treat non-opioid-related neonatal withdrawal

Administering sedatives	• Start phenobarbitone at 2.5 mg per kg per dose, twice a day. There is usually no need for a loading dose. Administer medications orally unless otherwise contraindicated. • Increase phenobarbitone by 0.5–1.0 mg per kg per dose, every 1–2 days until symptoms are under control. *If using clonidine*:[40] • Start clonidine orally at 1.0 microgram per kg per day divided in 4 doses and increase daily by 25–50% over 1–2 days to a maintenance dose of 5–10 (maximum 12) micrograms per kg per day.
Monitoring	• Encourage the mother or carer to learn how to assess the infant and administer the medication.
Weaning	• Do not wean any medication too quickly as this may precipitate withdrawal. • Weaning strategies should be based on clinical judgement and infant response to treatment (e.g. feeding, sleeping and not excessively irritable). • Decrease phenobarbitone by about 25% every 5–6 days as it has a long half-life (approximately 67 hours) in infancy.[41] • Reduce clonidine dose by about 25–50% every 2–3 days (the average half-life in newborns is approximately 17 hours) before ceasing and monitor for tachycardia, hypertension, sweating and agitation. If an infant has received clonidine for more than 5 days, rebound hypertension and worsening of withdrawal symptoms may occur.

Additional considerations

- **Skin care:** Skin care is important for infants undergoing withdrawal as they can experience excessive friction from irritability, restlessness and loose stools. SUPPS or AOD workers and maternity health workers should ensure the infant's skin is moist and away from friction sources, and should promptly treat skin infections (e.g. with bactericidal/anti-fungal creams).

[39] Nordeng H et al. (2001). *Neonatal withdrawal syndrome after in utero exposure to selective serotonin reuptake inhibitors*. Acta Paediatr. Mar;90(3):288–91.
[40] Takemoto CK et al. (2018). *Pediatric & neonatal dosage handbook with international trade names index: a universal resource for clinicians treating pediatric and neonatal patients*. 24th edn. Hudson (Ohio).
[41] Pacifici GM (2016). *Clinical Pharmacology of Phenobarbital in Neonates: Effects, Metabolism and Pharmacokinetics*. Curr Pediatr Rev.12(1):48–54.

- **Feeding:** As withdrawal symptoms fade, some infants may be hyperphagic (excessive feeding or sucking). They may consume more than 200 ml per kg per day of feeds.[42] This usually settles within a few weeks. Manage excessive sucking with appropriate pharmacological intervention. Consider using a pacifier while awaiting effective pharmacotherapy.
- **Location of treatment:** Pharmacological treatment of withdrawal may be initiated in a nursery and continued in the postnatal ward if the infant is medically stable. Medications may also be initiated in the postnatal ward if the infant is rooming in with the mother or carer.
- **Clonidine:** Clonidine, an a-2 adrenergic receptor agonist, decreases blood pressure and heart rate.[43] Adverse effects include drowsiness, bradycardia, dry mouth, gastrointestinal upset, orthostatic hypotension and rebound hypertension.

Clonidine only needs a short tapering period to prevent rebound hypertension. There is little evidence for the pharmacokinetics and pharmacodynamics of clonidine in newborns. Clonidine is cleared mainly by the kidneys and infant clearance may double in the first post-neonatal month.

Hypertension, hypotension, bradycardia or desaturations have not been noted in infants treated with clonidine for withdrawal. However, in a case series of infants treated with clonidine 1 microgram per kg, every 4 hours, 3 infants died (due to myocarditis, sudden infant death syndrome (SIDS) and homicide) after discharge and before 6 months of age.[44]

Considerations for discharge

Infants prenatally exposed to opioids, benzodiazepines, methamphetamine or antidepressants are likely to require hospitalisation for a certain number of days after birth to ensure adequate screening and treatment of withdrawal or toxicity symptoms (refer to Table 1). Co-occurring benzodiazepine and opioid dependence appears to increase the risk of neonatal withdrawal. Infants prenatally exposed to other substances may also require hospitalisation, as indicated. Following the hospitalisation period, it is encouraged infants are discharged home when stable. Earlier discharge will improve infant–mother bonding and is safe and cost-effective.[45]

The hospitalisation period may be extended if:

- there is a need for inpatient neonatal withdrawal or toxicity support
- the mother lives far away from the hospital of birth or their support services
- there are other health or social risk circumstances, including child protection concerns.

[42] Martinez A et al. (1999). *Hyperphagia in neonates withdrawing from methadone.* Arch Dis Child Fetal Neonatal Ed. May;80(3):F178–82.
[43] Gold MS et al. (1979). *Noradrenergic Hyperactivity in Opiate Withdrawal Supported by Clonidine Reversal of Opiate Withdrawal.* Am J Psychiatry 136:1, January, 100–1020.
[44] Agthe AG et al. (2009). *Clonidine as an adjunct therapy to opioids for neonatal abstinence syndrome: a randomized, controlled trial*. Pediatrics. May;123(5):e849–56.
[45] Rasul R et al. (2019). *Retrospective study found that outpatient care for infants exposed to drugs during pregnancy was sustainable and safe*. Acta Paediatr. 2019 Apr;108(4):654–661.

If an infant being considered for discharge was treated with withdrawal medications, ensure the parent or carer can:

- administer the medication
- access a multidisciplinary follow-up service that can assess the infant and provide medications if required.

All infants should have post-discharge follow-up to identify late onset withdrawal or other drug effects from long-acting substances, including benzodiazepines and long-acting opioids.

For further information on discharge, including transfer of care planning, see Postnatal care.

Ensuring long-term follow-up

SUPPS or AOD workers and maternity health workers should:

- advise parents and carers of the importance of long-term follow-up for the infant until around school age to pre-empt and treat neurocognitive, social and other issues (e.g. BBVs)
- record the long-term follow-up recommendations in the infant's record (see Table 5)
- support infants with PSE through a specialist SUPPS or paediatric clinic, where available.

Child and family health workers should ensure appropriate care planning and referrals are put into place to meet the long-term follow-up recommendations listed in Table 5.

Table 5: Long-term follow-up recommendations

Type of follow-up	Until/by age 1	Until/by age 7
Ongoing support from a dedicated multidisciplinary clinical team, child and family health nursing program includes: - providing care until at least age 1, but preferably up to age 2 - using Ages and Stages Questionnaires or Parents' Evaluation of Developmental Status (PEDS) to assess the child's development, health and wellbeing - referring the child to a paediatrician if there is any arising delay in one or more areas of development.	•	
A paediatric review every 6–12 months to identify, prevent and treat potential mental health, neurodevelopmental and behavioural issues, includes: - an early childhood nurse undertaking care in collaboration with a paediatrician. The paediatrician should have the case reviewed by a developmental paediatrician as needed		•

- the developmental paediatrician liaising with a FASD specialist as needed in cases of alcohol exposure.

An ophthalmology review (or sooner if abnormalities are detected, e.g. strabismus)	•		
A neurodevelopmental screening (e.g. with General Movements Assessment)		•	
If the infant's mother has a BBV or STI, such as syphilis, during pregnancy: a review by a paediatric infectious disease specialist		•	
If indicated: early referral to allied health (e.g. speech pathology and physiotherapy)			•

Notes:

- *If the family lives in a regional or remote area, they should be supported in accessing telehealth for follow-up services.*
- *This information should also be provided to foster carers and case workers if the infant is placed in out-of-home care before hospital discharge.*

Ongoing postnatal care

Introduction

As during the antenatal period, SUPPS or AOD health workers should be guided by NSW Health's Clinical Care Standards for Alcohol and Other Drug Treatment when caring for women with problematic AOD use during birth and the postnatal period. At this stage, the relevant sections of the Clinical Care Standards include:

- care planning
- identifying, responding to and monitoring risk on an ongoing basis
- monitoring treatment progress and outcomes
- transfer of care.

Beyond the foundational elements of AOD care, the key elements of care during the postnatal period for pregnant women with problematic AOD use include consideration of:

- community transfer
- developing mothercraft skills
- preparing for discharge
- home visits
- support for out-of-home care and foster carers
- safe sleeping education
- lactation support and infant feeding support.

Community transfer

At the time of discharge, there should be a formal transfer of responsibilities from the hospital to the community-based services that will be continuing care – such as Child and Family Health (CFH) Services and general practice. All referrals and supports should be in place. A multidisciplinary Safe Start meeting can help ensure there is a plan for follow-up. Where possible, actively involve the family in the handover of care.

NSW Health CFH will make contact with the mother or family after discharge from hospital to initiate CFH engagement, and will organise an appointment if the mother or family chooses to use the service. If the mother or family accepts the CFH service, a CFH nurse will be identified as the mother or family's case manager. They can also be offered a referral to the Family Connect and Support service for a broader range of community supports.

The case manager should arrange priority follow-up and ensure that this has occurred. In accepting the referral, it is important for the service to be aware that families with problematic AOD use may be difficult to engage in care. To support engagement, SUPPS clinicians can attend initial joint visits. Community-based services should actively engage these families and ensure arrangements are followed up. These arrangements can include appropriate assessment, care and support services to ensure the wellbeing of the mother and baby, and to identify ongoing developmental issues. For families with co-occurring mental health and AOD concerns, a referral can be offered to a Keep Them Safe - Whole Family Team (where available).

Where available, playgroups and other childhood support programs run by health services should be offered to the woman. These programs act as safe, accessible points of entry for new mothers who have problematic AOD use. It can encourage them to stay connected with health services during the postnatal period, thereby improving outcomes for the mother and child. A referral to a Family Connect and Support service can also be offered for a broader range of community supports.

> *The education through the playgroup was extremely helpful and supportive. They would organise for your immunisation. They organise a hamper of shopping and presents for your kids at Christmas. They helped me to borrow a breast pump from the hospital ... They still reach out to me from time to time. They've been really good support for us.*
>
> *– AOD SUPPS consumer*

Health workers should assess risks to the wellbeing and safety of the infant and other children at all points of contact. See Protecting the safety, welfare and wellbeing of children and the unborn child for more information on child protection–related issues.

As described in the NSW First 2000 Days Framework, the NSW health system should work with partner agencies to ensure there are well-developed pathways into extra care when families need it. This includes families with a history of problematic AOD use as they often need more support and follow-up. For guidance on identifying the right level of health care for each family's needs, and examples of extra care and intensive services that may be applicable (including sustained home visiting), see the NSW First 2000 Days Framework.

For further details on the transition of care from maternity services to child and family health services, see Maternal & Child Health Primary Health Care Policy (PD2010_017).

Home visits

A home assessment may be required before discharge, but many families may not receive home visits on an ongoing basis. Families should be assessed individually to determine the

appropriateness and likely benefits of home visits. Before a home visit, a risk assessment should be completed to identify any potential risks and safety concerns.

If a family with problematic AOD use requires extra care, additional home visiting may be available through CFH services.

Out-of-home care and foster carers

The priority is to work towards keeping families safely together. However, where this is not possible, an infant is placed in out-of-home care (OOHC). When this occurs and the infant has PSE, efforts should be made to ensure they have sufficient specialist follow-up after their placement into OOHC. To support this, SUPPS, AOD or maternity health workers should record exposure in the infant's medical record (see Supporting infants with prenatal substance exposure).

> *Because I had contact with them before, it made it a bit easier. They were happy to come out and visit me at home. They were not judgemental about the state of the house. They would give regular contact and checked in on me. I felt that I could call out to them. The familiar face and voice was really great.*
>
> *– AOD SUPPS consumer*

Where appropriate, SUPPS, AOD or maternity health workers should support mothers in breastfeeding and maintaining an adequate supply of breastmilk for their infants living in OOHC. Similarly, mothers should be supported in developing healthy attachment relationships with their infants and educated about infant development in the context of PSE.

Foster and kinship carers who become responsible for the infant's day-to-day care should receive support and education as early as possible, whether while the infant is in hospital or by a child and family health clinician when the infant is discharged to the carer's home. Alternatively, support education may be provided in general practice, which is often an opportunity for infant check-ups where there has been an assumption of care.

Sudden unexpected death in infancy and sudden infant death syndrome

Sudden unexpected death in infancy (SUDI) is defined as the sudden and unexpected death of an infant who is younger than 12 months. The term 'unexpected' indicates that the cause of death was not recognised before the event, although it may be diagnosed at autopsy. SUDI usually includes deaths due to sudden infant death syndrome (SIDS) and other ill-defined causes (such as sleeping accidents).

- **Tobacco smoking**: All parents should be advised of the association between prenatal drug exposure, tobacco smoking, second-hand smoke exposure and SIDS. Mothers who smoke tobacco (or cannabis mixed with tobacco), or who live with people who do, should be offered support to cease smoking and be advised to:
    - keep the baby in a smoke-free environment after birth (i.e. do not smoke inside the home or car)
    - smoke tobacco outside, away from open windows and doors
    - change their shirt and wash their hands after having a cigarette
    - not co-sleep with their baby.

An infant's most harmful exposure to tobacco is through second-hand smoke. Smoking outside the home and away from the infant reduces their exposure. Contamination is not limited to indoor air; it includes surfaces in living rooms and bedrooms, and clothes and skin. It is important that parents are aware their infants are at risk of exposure to the toxic components of tobacco smoke through these sources.

- **Co-sleeping:** Co-sleeping or 'bed-sharing' is when an infant sleeps in the same space as an adult – for example, on a bed, a lounge or the floor. This increases the risk of accidental smothering and injury to the infant, particularly if the co-sleeping adults are using sedating medications, drinking alcohol, using cannabis or are extremely tired.[46] Of the SUDI cases in NSW between 2005 and 2019, where an underlying cause of death was identified, more than 20% were caused by accidental suffocation in bed.[47]

All parents should be informed of these risks and about safe sleeping practices before discharge and counselled against co-sleeping. They should be advised that babies can sleep in their own cot in the parents' bedroom at night for the first 6 to 12 months of life. For more information on SUDI and SIDS, including specific guidance for parents and carers, see the NSW Health *Guideline Recommended Safe Sleep Practices for Babies* (GL2021_013).

It is important that all healthcare workers are aware that mothers or other family members sleeping with infants is a common practice in some cultures, including Asian and Aboriginal communities. Aboriginal infants are also over-represented in NSW SUDI cases. To help mitigate SUDI risks, sensitive and culturally appropriate education should be provided to parents and family members on the risks. An example of culturally appropriate education includes the NSW Health Brochure *Safe Sleeping for Your Baby*, which provides an Aboriginal perspective on safe sleeping practices.

[46] Rednose Australia (n.d.). *Cosleeping with your baby*. https://rednose.org.au/article/Co-sleeping_with_your_baby.
[47] NSW Ombudsman (2021). *Biennial report of the deaths of children in New South Wales: 2018 and 2019 Incorporating reviewable deaths of children*. Sydney NSW.

Protecting the safety, welfare and wellbeing of children and the unborn child

General considerations

The prenatal period is a critical time for early engagement to reduce the need for child protection intervention. Every health worker has a legal and policy responsibility to protect the health, safety, welfare and wellbeing of every child, young person and unborn child. This responsibility may include providing additional services and support to pregnant women and their families whose unborn child may be at risk of significant harm when born. Pregnancy Family Conferencing can be used to identify additional services.

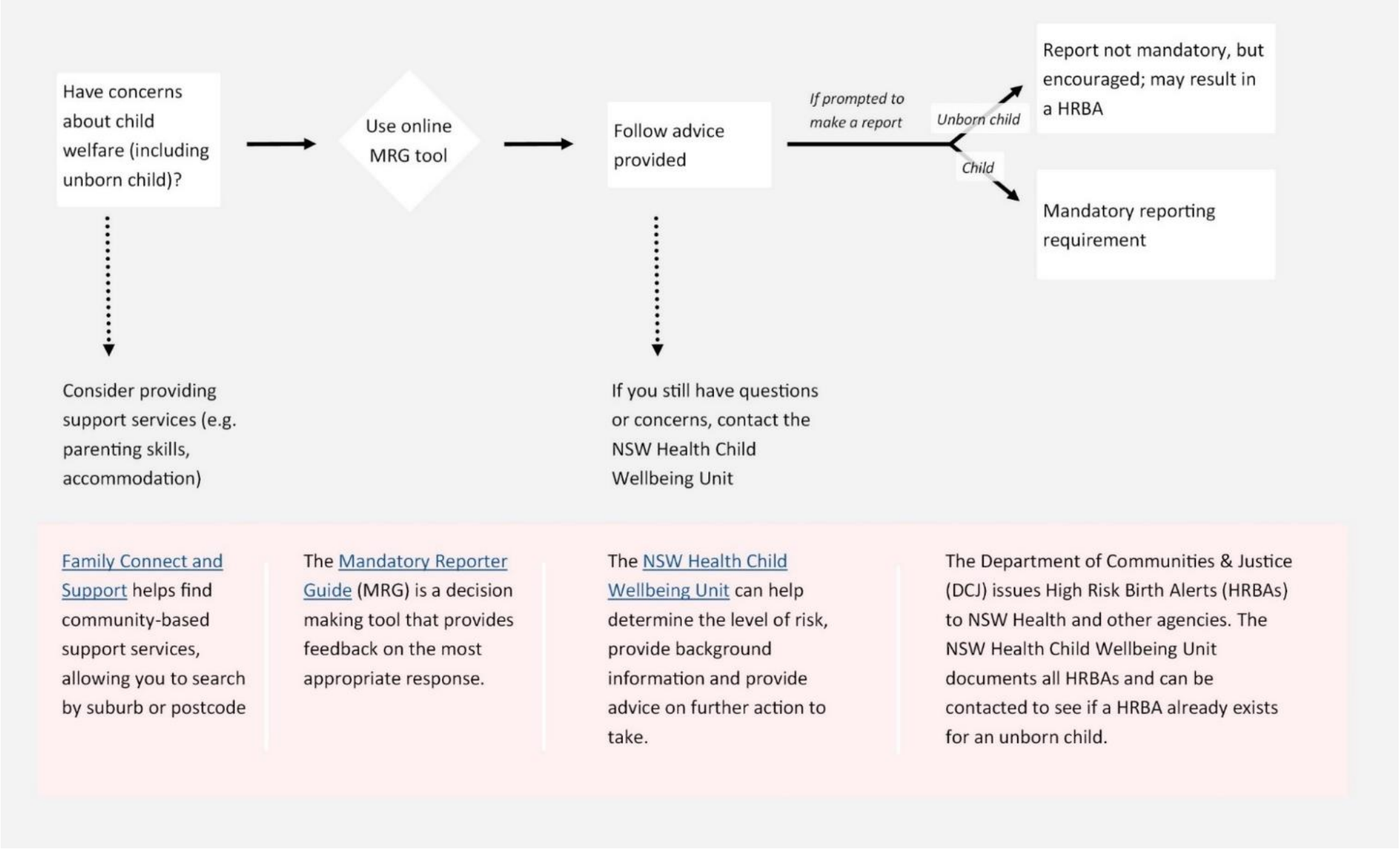
Health workers should use the Mandatory Reporter Guide (MRG) and follow the outcome when they are concerned about the safety, welfare or wellbeing of a child, young person or unborn child. The MRG is an important tool that supports decision-making about the needs of children and families. It provides advice on the most appropriate response and whether to contact the Child Protection Helpline or the NSW Health Child Wellbeing Unit.

If a health worker still has questions or concerns after completing the MRG, they should contact the NSW Health Child Wellbeing Unit. It can help to determine the level of risk and provide relevant background information on how to respond to your concerns. By contacting the Child Wellbeing Unit, health workers are fulfilling their mandatory reporter responsibilities. For more information, visit NSW Health Child Wellbeing Unit.

Once a report has been made, it is important that health workers continue to provide a high level of support and collaborate with DCJ and other services in planning ways to address risks and harm. AOD and maternity services should also work together closely to ensure that supports are in place to secure the best possible outcome for the child or unborn child. Health workers should plan sustained supports to maximise the potential for the unborn child or newborn to remain with their parents and family.

Even if the MRG indicates a report to the Child Protection Helpline is not required, health workers may consider referring the woman to a Family Connect and Support service or other community-based support services to address their needs (e.g. parenting skills and accommodation). See the flowchart in Figure 5 for child protection decision-making.

Figure 5: Flowchart for child protection decision-making



Building trust and providing support

Pregnant women who use AODs are often concerned DCJ will take their child after birth. This fear is compounded if they encounter stigma and discrimination in the health system. It also leads some women to withhold information about their AOD use or avoid engaging with the health system altogether. Women who have had other children assumed into care may have a heightened fear. For Aboriginal women, this fear is often acute as Aboriginal communities have been traumatised by removal over several generations and have a much higher percentage of children in OOHC than non-Aboriginal communities in NSW. Some of these women have also been in OOHC as children; therefore, the possibility of having their child removed may trigger their own childhood trauma.

> *It's hard, it's really hard. You don't want to feel weak that your [opioid treatment] dose is not holding you. You're feeling shame. The fear of losing your child is controlling you. But you end up using because you're not getting a high enough dose. You miss out on getting the support that you really need, but you're still afraid of speaking up and you end up just getting treated like crap.*
>
> *– AOD SUPPS consumer*

Therefore, SUPPS or AOD health workers should approach child protection matters with sensitivity and seek to build trust with pregnant women and new mothers. This can ultimately improve continuity of care and health outcomes. SUPPS or AOD health workers may find it useful to affirm to the woman that they have a strong, healthy attachment to their baby and want what is best for them. Positive aspects of their parenting or pregnancy journey can be recorded in the medical record and shown to the mother, highlighting that health workers are also documenting healthy behaviours or changes. Language is important, so SUPPS or AOD health workers should emphasise that the goal is to keep the family unit safe.

SUPPS or AOD health workers can build trust by clearly and thoroughly informing pregnant women and mothers about their communication with DCJ as early as possible. Women with personal experience as SUPPS consumers report that an open, honest approach is an important factor in building their trust. When informing pregnant women and mothers about communication with DCJ, staff must also explain why a report is needed and what may happen as a result. They may find it helpful to show women the MRG to help explain how child safety decisions are made. Staff should also explain how NSW Health and DCJ will work to support parents to maintain care where possible. Where there is joint planning with DCJ, SUPPS or AOD health workers can develop a detailed Family Action Plan as part of interagency information sharing. The plan is useful for clearly documenting a shared understanding of the family's needs and expectations when working across various services.

When trust has been established, SUPPS or AOD health workers are better positioned to offer support, including through Pregnancy Family Conferencing and parenting programs. To identify supports available in the local area, staff can contact their local Prevention and Response to Violence, Abuse and Neglect (PARVAN) team or refer to NSW Health's Family Connect and Support webpage, and search for services by suburb or postcode.

In exceptional cases, disclosing information to women and families about communication with other agencies can pose a risk (e.g. there may be a risk of the woman seeking to relocate, a risk of aggression toward the clinician, or a risk to safety if the father of an unborn child becomes violent).

Responding to wellbeing and prenatal harm concerns

Health workers can make a prenatal report even if the pregnant woman does not usually reside in NSW. While reports relating to an unborn child are not mandatory, health workers with mandatory reporting responsibilities should consider the benefits to the parents and unborn child.

High-risk birth alerts

A prenatal report may result in a HRBA. DCJ issues HRBAs to NSW Health and other agencies where it is determined there may be a risk of significant harm to a child after their birth. To enable early intervention, Chapter 16A Information Exchange Central Contact Points distribute HRBAs to all relevant services and departments. The NSW Health Child Wellbeing Unit documents all HRBAs in NSW, so health workers can check whether one is already in place when a vulnerable pregnant woman presents at a health service.

'Prenatal harm' refers to a parent's circumstances or behaviours during pregnancy that may reasonably be expected to have a substantial and demonstrably adverse impact on the child's safety, welfare or wellbeing after birth. Substance use alone is not an indicator for a child protection report or notification, but it is considered a risk factor for abuse and neglect.

Along with following any instructions in the HRBA, health workers should update the relevant Community Services Centre (CSC) about any changes in the pregnant woman's circumstances or whereabouts. Even when DCJ is not actively working with the pregnant woman, the CSC can still receive updates and document them in an open or closed DCJ case file to assist with future planning. Where DCJ subsequently cancels an HRBA, the Central Contact Point will provide advice to health services.

Legal context for prenatal reports and information sharing

Health workers may make a prenatal report about an unborn child under section 25 of the *Children and Young Persons (Care and Protection) Act 1998* to help facilitate assistance and support for the pregnant woman and reduce the likelihood of their child being placed in OOHC after birth.

Information sharing for case coordination under Chapter 16A of the Children and Young Persons (Care and Protection) Act only applies to unborn children when the Child Wellbeing Unit or Child Protection Helpline has been contacted about a prenatal concern. Information can be shared in response to a report even when the report does not result in an HRBA. Before providing information about an unborn child, health workers can call the NSW Health Child Wellbeing Unit, a local DCJ CSC or the Child Protection Helpline to establish whether a prenatal report has been made.

Importance of prenatal reporting

Prenatal reporting can be valuable in providing early assistance to mothers and their babies. By alerting DCJ to potential safety concerns, agencies and services can work together to ensure all available preventative and early intervention strategies are in place to reduce the risk of harm to a child when born. Perinatal Family Conferencing can be coordinated only when a prenatal report has been made to DCJ. It supports early engagement with pregnant women and promotes families' participation and empowerment in making decisions for their children. In some areas, DCJ has perinatal caseworkers for early support. This approach is supported by evidence, which shows that vulnerable young and expectant families with multiple and complex needs require multipronged interventions. These collaborative approaches result in positive outcomes.[48] Prenatal reporting may be particularly warranted in situations where a pregnant woman is experiencing domestic and family violence, where a member of the household has unmanaged and ongoing mental health concerns, or where there is problematic AOD use.

Child safety concerns outside NSW or involving non-NSW residents

If a health worker is concerned that a child or young person who does not ordinarily live in NSW or is not currently living in NSW is at risk of significant harm, they should notify the child protection authorities in the relevant state or territory. This can occur under Chapter 16A of the NSW Children and Young Person's (Care and Protection) Act, which enables health workers to share child safety, welfare and wellbeing information with interstate child protection agencies across Australia.

[48] Parkinson S et al. (2017). *Improving service responses to vulnerable families during pregnancy and infancy: A report to the Australian Government Department of Social Services.*

Acute substance withdrawal in pregnancy

Assessment

AOD clinicians should screen pregnant women with identified problematic AOD use for risks associated with acute withdrawal (including any history of acute withdrawal). To support assessment, clinicians can refer to Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance.

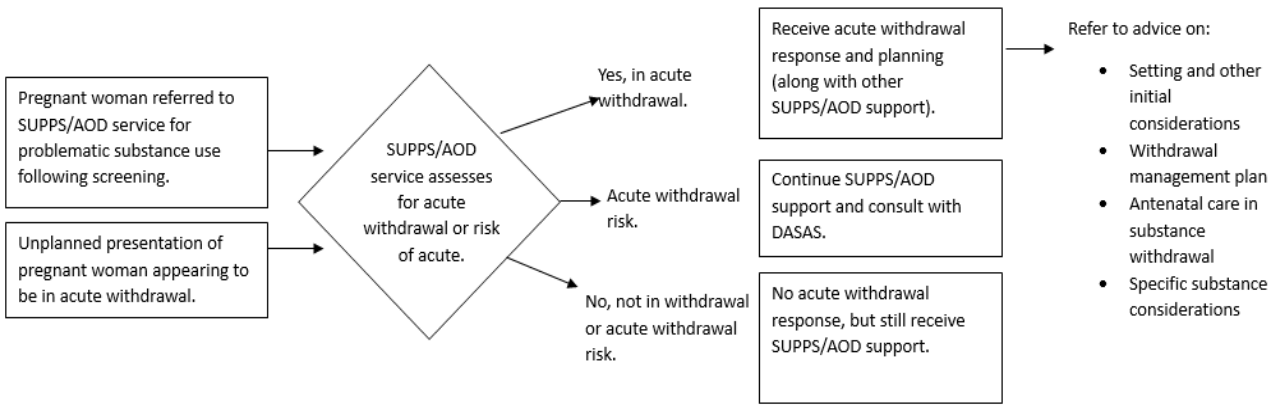
If a health worker suspects a pregnant woman is experiencing acute substance withdrawal, they should consult the local SUPPS or other AOD clinicians to make an assessment. Health workers can also seek advice from the Drug & Alcohol Specialist Advisory Service, which provides health professionals with advice on the clinical diagnosis and management of people with AOD-related concerns.

See the flowchart in Figure 6 for acute withdrawal decision-making.

In some cases, women may be unaware they are pregnant, as emotional or nutritional stress, and/or substance use such as opioids, may cause irregular menses. For this reason, it may be valuable to assess whether a woman who presents to a health service and appears to be experiencing acute substance withdrawal, may be pregnant.

When pregnant women with problematic AOD use abruptly cease their use (such as during a period of incarceration, hospital admission or when their access to the drug ceases), they should be closely monitored for withdrawal and treated early and assertively in consultation with an addiction medicine specialist, to reduce the risk of adverse pregnancy outcomes.

Figure 6: Acute withdrawal decision-making



Setting and other initial considerations

If a SUPPS or AOD health worker determines a pregnant woman is experiencing, or is at risk of, acute substance withdrawal, they should:

- discuss the risks and concerns with them
- liaise with their antenatal care provider to assess maternal health and safety, observe and monitor them for pregnancy risks, and include withdrawal considerations in woman's pregnancy care plan (obstetricians and AOD staff specialists should be involved where necessary)
- determine the most suitable location for their withdrawal management in consultation with their maternity care provider (e.g outpatient/ambulatory, AOD withdrawal unit or maternity ward.

Please note that the preferred inpatient admission location will be dependent on the substance being used, pregnancy gestation, likelihood of birth and access to maternity care if required. If a pregnant woman requires admission for withdrawal, the tiered perinatal network pathways should be used for advice and consultation, and if required, referral for higher-level care. For more information, refer to the NSW Health Guideline Maternity and Neonatal Service Capability (GL2022_002) and the NSW Health Policy Directive Tiered Networking Arrangements for Perinatal Care in NSW (PD2020_014).

SUPPS or AOD health workers should consider the following when discussing acute substance withdrawal with the woman:

- Ceasing substance use in pregnancy should be encouraged as soon as possible noting the clinical risk in all stages of pregnancy. It should be noted that active withdrawal from alcohol, GHB, high-dose benzodiazepines and opioids in the first trimester may precipitate miscarriage and in the third trimester, may result in fetal distress requiring emergent birth.
- Indications for inpatient admission include:
    - The woman's preference to be admitted during acute withdrawal
    - Clinical risks that indicate need for admission include:
        - Withdrawing from alcohol and/or GHB
    - Clinical risks that may indicate admission, include but are not limited to:
        - high-dose benzodiazepines or opioid use
        - women who are 20 or more weeks pregnant
        - women with pregnancy complications

        - women who have had limited or no antenatal care or complex psychosocial risks.
- Type of substance withdrawal:
    - In partnership with the woman, a slow medication reduction (e.g. weaning off benzodiazepines) may be conducted as an outpatient, provided they are agreeable and able to attend regular prescriber review
    - Alcohol withdrawal, especially from significant amounts (i.e. more than six standard drinks per day) or where there is a history of complications, may need to occur in a supervised setting
    - Women may under report their use of particular substances or polydrug use due to feelings of shame or experiences of stigma. This can be challenging for withdrawal management. However, building trust with women and using a non-judgemental approach supports disclosure and effective withdrawal management.
- Consideration of the woman's mental health and previous experiences of withdrawal symptoms, and how they were managed.
- Motivation and support networks:
    - Pregnancy is often a time when women have a strong desire to seek out and engage in harm reduction or abstinence-oriented treatment. Harness this opportunity to support women create positive changes for themselves and better outcomes for their baby
    - A strong support network (particularly within the home) and a safe living environment can support successful withdrawal. Ask women about their living arrangements and their support networks. Engage other services who may be working with her and her family and discuss opportunities for collaboration.
- Child protection concerns:
    - See Protecting the safety, welfare and wellbeing of children and the unborn child.

Withdrawal management plan

SUPPS or AOD health workers should, in collaboration with the woman, create a comprehensive withdrawal management plan when a woman is experiencing, or is at risk of, acute substance withdrawal. Elements of the plan may include:

- giving them information on withdrawal and what to expect
- providing a multidisciplinary, multi-service team approach to care that supports AOD and maternity best practice. This includes consultation with maternity and AOD staff specialists
- monitoring them regularly for maternal withdrawal symptoms. Consult with a mental health clinician if there are mental health concerns

- treating the woman's withdrawal symptoms with suitable medication as required. Dosages should be titrated according to clinical presentation. A reducing medication regimen should be used when there is a risk of acute physical withdrawal symptoms or if significant emotional or psychological problems develop
- treating any concurrent tobacco dependence; see Nicotine replacement therapy (NRT)
- referring to a midwifery continuity of care model, where available.
- noting dietary and vitamin supplementation and screening for refeeding syndrome
- preparing the woman and their support network before any planned admission to hospital on what to expect. This may include information about the aim of the admission, the expected length of stay, patient rights and responsibilities, leave from ward, the visitor policy, the no smoking/vaping policy (and offer of NRT), if urine drug screens are required, and commencement of transfer of care planning on the transition to the community.
- If admission is outside of a specialist withdrawal facility, consider contacting a specialist service for support and developing a contract between the woman and the service to prepare them for admission (as mentioned)
- if incarcerated, housing the woman in a section of the correctional centre where they can be regularly assessed by nursing staff experienced in AOD treatment. If this cannot be provided, consider hospital admission; see Caring for pregnant women with problematic AOD use in custodial settings.
- providing a post-withdrawal plan to ensure continuing support and ongoing treatment is available throughout the pregnancy and after birth (see Post-withdrawal management).

Antenatal care during substance withdrawal

When SUPPS or AOD health workers are concerned about pregnancy complications for a woman receiving withdrawal care, they should contact the local maternity team, who will determine if referral or transfer to higher-level care is required.

Symptoms that indicate a need for consultation and referral include:

- fetal movement changes or concerns
- vaginal bleeding
- headache and/or blurred vision
- fainting
- persistent vomiting and diarrhoea
- abdominal or back pain
- signs of labour
- if the woman's 'water' breaks (i.e. membranes rupture)

- if the woman has any concerns about her pregnancy
- any physical change as observed by staff.

In addition to general withdrawal considerations (see Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance), it is important pregnant women receiving withdrawal care:

- have access to antenatal care and education
- are booked in to a maternity service with appropriate maternity and neonatal service capability for the woman's clinical needs
- effective communication between agencies involved in their care
- liaison with an addiction medicine specialist during withdrawal.

Post-withdrawal management

After withdrawal management, consider:

- referral to a specialist team for relapse prevention treatment and ongoing management (including methadone or buprenorphine for opioid dependence)
- a short-term residential or day care rehabilitation program, or other AOD support group
- assertive follow-up for antenatal care and substance treatment
- ongoing assessment of potential child safety concerns
- preparation for the baby's birth and home environment, social and parenting supports
- education on possible neonatal effects, SIDS and safe sleep practices. See the NSW Health Guideline *Recommended Safe Sleep Practices for Babies* (GL2021_013) for more information
- actively engaging the woman's support network. If the pregnant woman's partner or other members of the household are also using substances, they should be prioritised for treatment to decrease the woman's risk of ongoing substance use.

Withdrawal and polysubstance use

See Specific drugs in pregnancy for substance withdrawal considerations.

Assessment

It is common for a woman to use more than one substance and to withdraw from several substances concurrently. In such cases, validated withdrawal tools are valuable but should not be relied on fully. An assessment by a skilled clinician is essential. It is advised to retake substance use history over several days, especially if withdrawal symptoms appear to be more

severe than what would be expected from their reported substance use. In some cases, urine drug screens may be needed to identify the types of substances used.

Management

Substances have different modes of action and half-lives and pose different risks to mothers and infants. Though withdrawal treatment should be specific to the substance (see previous sections), the general principle is to encourage maintenance with longer-acting substitutes – for example, buprenorphine or methadone for opioids. Health workers should avoid active withdrawal during the first and third trimesters as it may precipitate fetal distress and lead to labour or fetal loss. It is also valuable to provide other supportive treatments (e.g. for mental and physical health) to ensure the safety and wellbeing of the mother and infant.

For information on infant withdrawal, see Supporting infants with prenatal substance exposure. For general information on polysubstance use and withdrawal, see Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance.

Special health settings

Caring for pregnant women with problematic alcohol and other drug use in custodial settings

Background

Women entering custody in NSW have a very high incidence of AOD use, with many engaging in polysubstance use. The most commonly used AOD by pregnant women entering custody is methamphetamine (over 60%), followed by cannabis (over 40%), opioids (28%) and alcohol (18%). About 80% smoked cigarettes before incarceration.

Most women in custody are either serving short sentences of less than 3 months or are on remand. This makes program delivery especially challenging. However, pregnancy is often a strong motivation to change AOD use.[49,50] Prison health care provides a unique opportunity to improve health.

Once incarcerated, pregnant women with problematic AOD use are at a high risk of acute substance use withdrawal. They may initially under-report their level of AOD use as they may fear their baby will be removed from their care. Engagement and assessment are ongoing processes. Pregnant women entering custody with problematic AOD use commonly have co-morbid mental illness and/or intellectual disabilities. It is important to consider these needs when managing their withdrawal and antenatal care.

Women in custody require access to safe, high-quality and compassionate maternity services. Despite having high-risk pregnancies, they often don't engage with health services in the community and have received minimal, if any, antenatal care before entering custody. It is common for women to be unaware of their pregnancy and continue to risk in-utero substance exposure. This lack of antenatal care can have adverse health outcomes for the mother and baby. Prison healthcare professionals often have to organise urgent medical attention for women upon entry, such as booking blood tests and ultrasounds.

To support incarcerated pregnant women with current AOD dependency, the Justice Health and Forensic Mental Health Network (JHFMHN) has Perinatal and Infant Mental Health staff, SUPPS staff and midwives. The service ensures in-custody care, release planning, interagency coordination and community engagement.

[49] Yonkers KA et al. (2020). *Abstinence outcomes among women in reproductive health centers administered clinician or electronic brief interventions*. J Subst Abuse Treat. Jun;113:107995.
[50] Justice Health & Forensic Mental Health Network (N.S.W) (2017). *Network patient health survey 2015.*

Assessment

All women who can become pregnant should be tested for pregnancy when entering custody, and again after one month, as they may present with amenorrhea (absence of menses) or uncertain menstrual history due to problematic AOD use and psychosocial factors. They may not be aware of the pregnancy.
If a woman reports they are pregnant, they should be asked to sign a release of information form to allow the collection of collateral information from the health services they engaged (if any) before incarceration. If the pregnant woman also has problematic AOD use, the AOD doctor on call should be consulted promptly to commence a treatment plan to decrease the risk of adverse pregnancy outcomes for the woman and fetus.

Management

The JHFMHN Substance Use in Pregnancy Coordinator, in conjunction with midwives and a Perinatal and Infant Mental Health Clinical Nurse Consultant, should provide multidisciplinary care to pregnant women with problematic AOD use.

Pregnancy choices

Pregnant women in custody have the same right of choice as they would have in the community. It is essential to recognise that the women are likely in an emotional crisis at the time of incarceration and have much to consider with limited support. Where possible, they should be given the opportunity to liaise with their partner, family or other support people. If a woman requests a termination, it should be facilitated in a supportive, non-judgemental, confidential and professional manner.

Acute withdrawal management

Pregnant women who experience acute drug (particularly alcohol and opioid) withdrawal are at risk of miscarriage, premature labour, and fetal hypoxia and distress. To stabilise women experiencing acute withdrawal, health workers should refer to the guidance in Acute substance withdrawal. JHFMHN staff should closely monitor women (particularly those with mental or intellectual impairment) at frequent intervals and titrate their medications appropriately.

Treatment options

Incarcerated pregnant women with problematic AOD use should be offered drug and alcohol counselling and psychosocial support. Corrective Services NSW (CSNSW) offer psychological treatment and education programs after stabilisation, including SMART Recovery and EQUIPS Addiction. The Drug Court Diversion Program is available to some pregnant women who meet the appropriate legal criteria. JHFMHN SUPPS coordinators provide group programs as well as individual support, including comprehensive release planning with practical support.

JHFMHN staff should assess and offer methadone and buprenorphine treatment to pregnant women with opioid dependence as a priority group. It should be noted that depot buprenorphine is the most common treatment in custodial settings. JHFMHN staff should refer to Opioids when stabilising women who are opioid dependent.

Treatment setting

All pregnant women placed into custody should be moved to a custodial setting in Sydney in their second trimester, as no rural settings can cater for pregnant women. As most of these pregnancies are high risk, women need to be close to specialised services in Sydney. This move may make women from rural and remote areas feel isolated, as their family and support network may not be able to visit them. Further, the general lack of access to services in rural or remote communities – particularly antenatal and postnatal care – is problematic for pregnant women who live remotely. Most pregnant women are in custody only for relatively brief periods and give birth in the community when the time comes. A comprehensive handover to community-based services is essential to ensure continuity of care.

Labour and birth

All pregnant women in custody should be transferred to an appropriate public hospital. Hospital staff provide care during labour and birth. Depending on the security classification, correctional centre staff may be present for the duration of the woman's stay.

Postnatal care

The JHFMHN midwife completes a child protection report for all pregnant women in custody. The hospital social worker assists women in planning their babies' care and liaises with CSNSW on the risk of significant harm and whether a report is required when a woman in custody gives birth.

At the time of writing, the CSNSW Mothers' and Children's Program was under review. A new pathway called the Women's Diversionary Pathway Program is available to women who meet the criteria. This pathway opens the opportunity for early release from custody following the delivery of the infant and ensures a high level of psychosocial support for women after their release. Women who are ineligible are encouraged to elect a family member to care for the baby, if possible.

Many women fear their children will be assumed into care by DCJ due to their AOD use or incarceration. The JHFMHN is obligated to refer all pregnant women to DCJ so that they can conduct a thorough assessment of the child's safety and wellbeing. Additional support should be offered to a mother if their child has been removed from their custody.

Release planning and reintegration

Continuity of care should be the key goal when managing pregnant women with problematic AOD use in a custodial setting. Those serving short sentences are often neglected. In NSW, 75% of pregnant women are in custody for less than 3 months. Therefore, successful partnerships between the criminal justice system and community health services are critical for improving this population's health status.

While continuity of care is critical, connecting women with health and welfare services upon release can be challenging. For example, the woman may:

- be released from custody unexpectedly
- deal with stigma from community services
- not know where they will live after release, making it difficult for staff to pre-book appointments
- not attend pre-booked appointments after release.

For these reasons, the SUPPS coordinator should begin release planning as soon as a woman enters custody to engage and link in with community services. The SUPPS coordinator should:

- consider how ongoing case management, if clinically appropriate, will be delivered
- discuss long-term contraception options with the woman (the JHFMHN offers this to all women)
- book the woman into a hospital near their home if they will be released before giving birth
- find a community OTP prescriber before a woman's release as they will require close medication monitoring if they are on this treatment. If the mother and baby are leaving prison together, ensure the prescribed dose is sufficient to protect against a return to problematic opioid use.

The JHFMHN Connections Program – which can provide additional support after release to help women link in with community health and welfare services – prioritises pregnant women with problematic AOD use. Some post-release services include:

- Beyond Barbed Wire Program
- Australian Nurse-Family Partnership Program
- Dragonfly Calvary
- Women's Wellness Program
- Women's Justice Network
- The Dandelion Foundation.

Caring for pregnant women in involuntary drug and alcohol treatment

Background

The *Drug and Alcohol Treatment Act 2007* provides the legislative basis for assessing, stabilising and treating patients in an involuntary capacity and outlines the criteria for admission. A dependency certificate can only be issued by an Accredited Medical Practitioner if a bed is available and the individual is found to fulfil the following criteria:

- The person has a severe AOD dependence (has tolerance, shows withdrawal symptoms when they stop using, has unsuccessfully attempted to cut down or control use, continues use despite life-threatening harm and their life is dominated by use and recovery attempts).
- Care, treatment and control are necessary to protect the person (or dependants) from serious harm.
- The person has previously refused treatment but is likely to benefit from treatment.
- There are no other appropriate and less restrictive treatment options reasonably available.

Applications are assessed on a case-by-case basis. The involuntary drug and alcohol treatment (IDAT) team will prioritise the admission of women in the perinatal period, where possible (noting that demand may be high).

To refer a pregnant woman to the IDAT Program, contact the LHD Alcohol and Other Drug Service (AODS) through the Local intake lines to find an Involuntary Treatment Liaison Officer (ITLO) to support you through the referral process. ITLOs are trained in screening patients for IDAT and work with referring medical practitioners to complete the required referral forms and provide evidence to satisfy the referral criteria. Referrals should be planned in partnership with the local AODS, including agreement on the continuation of treatment following the IDAT Unit admission. A referral to IDAT without a sound aftercare plan is less likely to be accepted.

The Involuntary Drug and Alcohol Treatment Program information sheet provides more information on IDAT referral forms and the Model of Care.

Following initial referral, an accredited medical practitioner, as defined by the Drug and Alcohol Treatment Act, will assess the person. If found to meet the required criteria, a dependency certificate is issued for a period of involuntary drug and alcohol treatment of up to 28 days from the date of issue.

A magistrate's review (usually via video or internet link) is held as soon as practicable (usually within a few days). Patients can attend and are provided with a lawyer to represent them. The Accredited Medical Provider also attends to present the evidence. The magistrate reviews the certificate and evidence, and confirms or rejects the initial IDAT duration. If confirmed, treatment continues.

If the person is found to have a drug or alcohol-related brain injury and more time is required for treatment and transfer of care planning, the IDAT team may seek an extension of the treatment order for up to a further 3 months from the initial dependency certificate date of issue.

Involuntary drug and alcohol treatment approach to treating pregnant women

An allocated IDAT care coordinator and daily allocated nurses initially engage with the pregnant woman and explain the aims, structure and benefits of the program.

IDAT health professionals protect the mother and child's health by:

- providing safe, managed withdrawal from AODs
- referring and collaborating with the local SUPPS team while the woman is in IDAT. Contact with the SUPPS team continues throughout the admission
- referring and liaising with perinatal infant mental health services, where required
- providing continuity of care throughout the admission, including antenatal appointments, diagnostic tests, scans and other relevant pregnancy care
- assessing and managing physical and mental health co-morbidities with safe medication where it is indicated
- discussing pregnancy options – for example, terminating the pregnancy
- providing education on and facilitating contraception as per the woman's choice
- providing sexual health and BBV screening, domestic violence screening (mandatory for AOD clients), and appropriate support where relevant
- referring and collaborating with relevant community organisations (as required) and as part of the transfer of care planning process.

IDAT supports women to make informed choices about their medical, financial, social and legal situation with the help of a care coordinator and IDAT multidisciplinary team. If the woman has a DCJ caseworker, the caseworker should facilitate continuing care and support by speaking with the woman's IDAT care coordinator. The IDAT process provides a healthcare interpreter where required, including for the dependency certificate interview, magistrate's hearings, explanation of medical investigations, and neuropsychological assessments (if conducted).

After the transfer of care, IDAT teams should facilitate a voluntary community care component for up to 6 months, which acts as an adjunct to AOD services in the patient's local area.

Vulnerable populations

Caring for pregnant women with problematic alcohol and drug use in rural and remote settings

Context

Research on AOD use during pregnancy has largely focused on urban populations, but 31% of the Australian population live in rural and remote regions and 25% of Australian births are in these regions.[51]

There are many barriers to seeking and obtaining care in the perinatal period in rural or remote areas.[52] While some of these issues may not be unique to managing problematic AOD use in pregnancy or to managing pregnancy in a geographically isolated location, the interaction of these issues appears to result in increased risk. Women in rural and remote areas are less likely to have antenatal care before 20 weeks gestation, are more likely to have their first gestational visit after 30 weeks,[53] and continue to have significantly higher rates of stillbirths, preterm births and low birth weight babies,[54] especially among Aboriginal mothers.[55]

Women are often advised to access larger regional centres to give birth, particularly if their pregnancy is deemed high risk. However, travelling long distances for the birth of a child can cause the woman and their family financial hardship and social disruption. Consequently, women may not present for antenatal care as they fear being referred to out-of-town services. This may result in them presenting at health centres in advanced labour or at non-birthing facilities, which puts them at greater risk of birth complications.

AOD use during pregnancy attracts intense stigma, which may be increased in rural communities where self-referral for AOD use in pregnancy is much lower than in metropolitan settings. Women may be reluctant to seek appropriate treatment or antenatal care because they fear a lack of confidentiality due to the size of the community, judgement from others, and that their baby and/or other children will be removed from their care.

[51] Royal Australian and New Zealand College of Obstetricians and Gynaecologists (2017). *Maternity care in Australia*. 1st edn. A framework for a healthy new generation of Australians.
[52] Williamson RL et al. (2021). *Obstetric and perinatal outcomes for women with pre-existing diabetes in rural compared to metropolitan settings in Victoria, Australia.* Aust N Z J Obstet Gynaecol.
[53] Roberts CL & Algert CS (2000). *The urban and rural divide for women giving birth in NSW, 1990-1997*. Aust N Z J Public Health. 24(3):291–7.
[54] Abdel-Latif ME et al. (2006). *Does rural or urban residence make a difference to neonatal outcome in premature birth? A regional study in Australia.* Arch Dis Child Fetal Neonatal Ed. Jul;91(4):F251–6.
[55]Brown SJ et al. (2019). *Health care experiences and birth outcomes: Results of an Aboriginal birth cohort. Women Birth*. Oct;32(5):404–411.

Barriers to services[56]

Availability and accessibility

Women living in rural and remote areas have significantly less access to maternity services. This is partly due to the absence of specialty treatment services, including crisis care – which typically occurs outside business hours – in these communities. The identification and treatment of co-occurring mental health problems is more difficult due to limited health services and/or difficulties in recruiting specialist staff to these services. People in rural and remote areas have longer distances to travel, which is costly, time-consuming, disruptive and difficult given the lack of public transport. These services also tend to have long waiting lists.

Affordability

Treatment services for problematic AOD use or mental illness are often less affordable, as incomes are generally lower in rural and remote areas. As with women in metropolitan areas, there is an increased likelihood of co-occurring mental health problems, including depression and anxiety.

Gaps in knowledge, training, time and support

Non-specialists are usually the primary care providers for early pregnancy and childhood management in rural or remote areas. However, gaps in knowledge, training, time, and support, and lack of confidence in conducting an assessment may impede optimal care.

Advice on clinical management

Interventions should be targeted towards increasing the availability of and access to treatment. These include:

- increasing support for workers in rural areas through professional networking
- providing professional development via interactive mediums or through distance learning. Online learning modules should be made available and updated with new clinical recommendations and medication advice, when necessary
- establishing ongoing partnerships with experienced colleagues or metropolitan facilities that are readily available to provide advice, training and clinical assistance
- providing training on screening and assessment to increase clinicians' professional confidence and ability to identify and manage women and children affected by AOD use in pregnancy
- optimising service delivery to reduce stress on experienced but stretched staff. A case-managed, multidisciplinary team approach, along with the appropriate use of interactive mediums, is the best model

[56] Oni HT et al. (2020). *Barriers and facilitators in antenatal settings to screening and referral of pregnant women who use alcohol or other drugs: A qualitative study of midwives' experience*. Midwifery. Feb;81:102595.

- encouraging the use of telehealth, including a mixed-model approach of both telehealth and face-to-face care, to maximise access to treatment and support
- investing in supportive IT or phone access to enable telehealth and other long-distance partnerships.

Clinical tips

To best support women, health professionals can consider:

- assisting them and their families with transport as required. Local non-government organisations and other services may have transportation assistance available if the health service cannot assist
- conducting risk assessments to alert service providers to issues that may require special attention during pregnancy
- researching the common AOD use problems in their local community
- providing an option for workers from other communities to get involved where stigma about accessing services exists. This will ensure the woman's privacy is maintained within their community. Alternatively, where this is not possible, AOD workers could arrange to meet women at a neutral location (e.g. a local GP's office) for consultations, to protect their privacy.

Caring for pregnant Aboriginal women with problematic alcohol and other drug use

Effective partnerships between mainstream services and ACCHS will improve communication, integrate service delivery and provide continuity of care for pregnant Aboriginal women.

Effective engagement can help Australia achieve the outcomes under the National Agreement on Closing the Gap, including that Aboriginal and Torres Strait Islander children are:

- born healthy and strong
- not over-represented in the child protection system.

It is recommended that clinical interventions involving pregnant Aboriginal women and new parents with problematic AOD use be guided by the 4 common principles identified in the National Aboriginal and Torres Strait Islander Peoples Drug Strategy 2014–2019. These are:

- Aboriginal and Torres Strait Islander ownership of solutions
- holistic approaches that are culturally safe, competent and respectful
- whole-of-government effort and partnerships
- resourcing on the basis of need.

Context

Aboriginal people experience a significantly higher burden of poor health compared to other Australians. Nonetheless, Aboriginal maternal and infant mortality and morbidity have improved in recent years. Between 1998 and 2018, there was a significant decrease (50%) in perinatal mortality rates for Aboriginal people (from 18.0 to 9.0 per 1,000 births).[57] In NSW, the number of Aboriginal women accessing antenatal care early (before 14 weeks) has also risen significantly, from 55.6% in 2015 to 75.3% in 2019.[58]

Alcohol, tobacco and cannabis are the most commonly used substances among both Aboriginal and non-Aboriginal people. Although Aboriginal people are less likely to drink as often as non-Aboriginal people, they are more likely to engage in risky drinking, which is defined as consuming 11 or more drinks at least once a month. The context of AOD use also varies, with social use being more common in Aboriginal communities. With a higher risk of problematic alcohol use, there is a higher risk of FASD. See Alcohol for more information.

The National Perinatal Data Collection showed that Aboriginal mothers smoking at any time during pregnancy decreased from 50% in 2009 to 44% in 2019, but Aboriginal mothers were still more than 3 and a half times more likely to smoke at some time during pregnancy than non-Aboriginal mothers.[59] As with non-Aboriginal women, polysubstance use is also a concern. In one cross-sectional survey of 257 pregnant Aboriginal women in NSW and the Northern Territory, about half (53%) of women reported current alcohol, tobacco or cannabis use. Of those who reported current use, nearly half (44%) used more than one of the 3 substances.[60]

In the context of maternity care, several factors contribute to suboptimal outcomes for Aboriginal women and babies. These include difficulties in getting transport to health facilities, beliefs regarding the necessity of antenatal care, existing family commitments, language barriers, racism and reduced cultural safety.

There is a strong relationship between regular antenatal care and positive child health outcomes. In NSW, LHDs, ACCHS and Primary Health Networks are the services predominantly providing culturally appropriate maternity and child and family health care. The Aboriginal Maternal and Infant Health Service (AMIHS) is a maternity service that is specifically designed for Aboriginal families. Midwives and Aboriginal health workers work together to provide a continuity of care maternity service that meets the needs of these families. Many ACCHS participate in the AMIHS program, which has 40 sites in over 80 locations in NSW.

The Building Strong Foundations (BSG) for Aboriginal children, families and communities follows a similar model to AMIHS, with a child and family health nurse working alongside an Aboriginal health worker. BSF services provide culturally appropriate child and family health care from birth up until school age. NSW Health also produces the Strong Women Strong Babies Pregnancy Diary, which is a culturally appropriate resource for Aboriginal families that promotes healthy pregnancies and breastfeeding. It has a strong focus on prevention and early

[57] AIFS (2013). *Aboriginal and Torres Strait Islander Health Performance Framework: summary report*. Tier 1 Health Status and Outcomes 1.21 Perinatal mortality Canberra: AIHW. Australian Institute of Health and Welfare.
[58] Centre for Epidemiology and Evidence (2021). *New South Wales Mothers and Babies 2019*. Sydney: NSW Ministry of Health, P76.
[59] AIHW (2020). *Alcohol, tobacco and other drugs in Australia*. Web report. 15 Dec 2020.
[60] Passey ME et al. (2014). *Tobacco, alcohol and cannabis use during pregnancy: clustering of risks*. Drug Alcohol Depend. Jan 1;134:44–50.

intervention, including for alcohol and other drug use. The resource is available in hard copy to services providing maternity care to Aboriginal communities in NSW.

The following are AOD resources for health professionals working with pregnant Aboriginal women:

- Respecting the Difference: Aboriginal Cultural Training (available through NSW Health)
- Strong Born Campaign, a campaign to raise awareness of Fetal Alcohol Spectrum Disorder among Aboriginal people in rural and remote communities, from the National Aboriginal Community Controlled Health Organisation (NACCHO) and the Foundation for Alcohol Research and Education (FARE).
- NSW Health drug and alcohol information – includes information on the effects of specific drugs during pregnancy, and guides and videos on learning about alcohol and FASD
- 'Stay strong and healthy' Facebook page – engages Aboriginal women with strengths-based pregnancy health information, including the risks of alcohol consumption during pregnancy.

Engaging Aboriginal women

To engage Aboriginal women, SUPPS or AOD workers and maternity health workers should:

- ensure the focus is on achieving the woman's goals in the context of their pregnancy needs, family and kin relationships, and community and culture. This may include birthing on Country and cultural birthing and parenting practices
- dedicate time to establish rapport and build their and their support networks' trust
- be aware that stigma and discrimination is a major concern for Aboriginal people with problematic AOD use. Therefore, they should carefully consider the language they use
- acknowledge that the location of engagement is vital (e.g. it may not necessarily have to be in a hospital)
- take note of non-verbal expressions of illness or discomfort
- be aware that body language often differs across cultures (e.g. in some rural Aboriginal communities, people may not look directly at you, so sitting or standing beside a client and looking down is culturally appropriate and respectful)
- discuss the woman's social, emotional, spiritual and cultural beliefs
- explicitly negotiate the limits to confidentiality with the woman
- discuss traditional treatments, their effectiveness and partnership with mainstream treatments.

Clinical tips

SUPPS or AOD and maternity health workers should consider the following clinical tips.

- Where possible, and with consent, refer pregnant Aboriginal women to the local AMIHS. For varying reasons, some Aboriginal women may not wish to use their local AIMHS or ACCHS, so it is very important to discuss these options and gain valid consent before contacting these services.
- Seek the help of an Aboriginal health professional in your health service. Health professionals often feel they lack the skills and resources to support and provide advice to pregnant Aboriginal women with problematic AOD use. With the right support, staff can build strong rapport with Aboriginal women facing these challenges. If the woman consents, find a service that has the expertise and confidence, and a successful track record. Contacting an AMIHS or an ACCHS may be a good starting point.
- Make services flexible to maximise access for Aboriginal women, as mainstream health clinics are often alienating and unwelcoming for Aboriginal women. This may include enabling home visits, booking into the maternity unit from home, blood collection at home and transport support. Where possible, refer pregnant Aboriginal women to the local AMIHS.
- Prioritise continuity of care. Women should be seen by the same health professionals during each visit, particularly the same Aboriginal health worker and clinical specialist. With the woman's permission, other service providers can be introduced into the trusted team in a timely manner.
- Deliver antenatal and postnatal care in the woman's home or within their community. If it is necessary to travel to a health clinic, the clinical setting should be culturally safe.

For additional information, see the cultural competency section in the Handbook for Nurses and Midwives: responding effectively to people who use alcohol and other drugs.

Caring for pregnant women from culturally and linguistically diverse backgrounds with problematic alcohol and other drug use

The prevalence of and types of substances used are different among communities from culturally and linguistically diverse (CALD) backgrounds.[61] Individuals also often present with coexisting mental health issues.[62]

There is some evidence of decreased levels of contact with AOD treatment services. This may be due to various factors, including a lack of awareness and understanding of the available health services in Australia and because members of CALD communities may not be accustomed to Australian approaches to AOD treatment. Other key service obstacles may include language barriers, trust and confidentiality concerns, and stigma due to cultural and religious norms.

[61] Donato-Hunt C et al (2012). *Alcohol, tobacco and illicit drug use among six culturally diverse communities in Sydney.* Drug Alcohol Rev. Nov;31(7):881–9.
[62] Horyniak D et al. (2016). *Epidemiology of Substance Use among Forced Migrants: A Global Systematic Review*.

Context

CALD populations may be more vulnerable to the harms associated with AOD use due to past experiences of trauma resulting from war, migration and settlement. Consequently, it is more common for people from refugee backgrounds to experience anxiety and depression.[63]

Vulnerability to the harms associated with AOD use can be further impacted by experiences of social exclusion and isolation due to cultural and linguistic differences, racism, discrimination, financial barriers and shame. People from CALD backgrounds may be more likely to delay seeking help, and also more hesitant to disclose information about their AOD use to health staff.

Clinical tips

Following are strategies for inclusive practice.

- Take time to listen to clients and do not make assumptions about what they need or understand.
- Ask the woman and their family which language they prefer to speak and contact your NSW Health Care Interpreting Services if a healthcare interpreter is needed.
- Use tools such as the teach-back method to establish the effectiveness of communication.
- Foster a safe environment that makes people feel they have choices and autonomy over their health care.
- Recognise that offence or distrust may arise because of misunderstandings – avoid making judgements before you know the context.
- Engage culturally appropriate support services for the woman's family and significant others – for example, local multicultural health services, the Drug and Alcohol Multicultural Education Centre (DAMEC), the NSW Refugee Health Service, and the Survivors of Torture and Trauma Assistance and Rehabilitation Service (STTARS).
- Be mindful that discussing certain topics with a member of the opposite sex or a younger person may be inappropriate. Offer the woman other options.
- Be mindful that CALD clients who are new to Australia may have come here alone and be isolated or have little local support available to them.
- Demonstrate empathy, tolerance and respect when engaging with people from CALD backgrounds.
- Acknowledge people's life experiences, family context, cultural background and spiritual beliefs, not just their presenting issues.

[63] Kirmayer, LJ et al. (2011). *Common Mental Health Problems in Immigrants and Refugees: General Approach in Primary Care*. Canadian Medical Association Journal. July 25.

- Use appropriate verbal and non-verbal communication. For example, provide essential information through audio or visual means, and written translations.
- Tailor mainstream approaches to a woman's experience and understanding of health care.
- Partner with CALD communities to provide the woman with information on local health services and to engage them in service planning and evaluation.
- Use clear and concise language, and an interpreter where needed, to explain:
  - the treatment options and the rationale underpinning the treatment
  - that you can potentially split the discussion over more than one consultation
  - the screening and assessment processes, what information will be recorded and obligations related to duty of care.
- Tailor the screening and assessment process to the woman's needs and concerns. Assure them that their personal information will be kept confidential.

Caring for LGBTIQ+ pregnancies with problematic alcohol and other drug use

Context

When responding to LGBTIQ+ people's needs, recognise the diversity that exists within the LGBTIQ+ community and respect each individual's unique health needs and experiences. Recognise intersectionality with culture and that people may belong to multiple LGBTIQ+ communities (e.g. a person may be transgender and gay).

Following are some common experiences for LGBTIQ+ people who use AODs.

- LGBTIQ+ people have a significantly higher risk of mental and emotional distress, including depression and anxiety, self-harm, suicidal ideation and attempted suicide.[64]
- LGBTIQ+ people may have experienced discrimination and stigma when accessing health services in the past.
- LGBTIQ+ people sometimes use AODs to cope with trauma, marginalisation and discrimination.[65]
- Some LGBTIQ+ communities' social and cultural life is centred around events, activities and venues where alcohol is served. Other drugs may also be accessible.[66]

It is important to consider the nature of AOD use among LGBTIQ+ people who can get pregnant. The 2020 Private Lives 3 survey indicates that 16.4% of cisgender women, 18.2% of

[64] National LGBTI Health Alliance (2020*). Snapshot of mental health and suicide prevention statistics for LGBTI people.* Sydney, Australia.
[65] Hill A et al. (2021). *Writing Themselves In 4: The health and wellbeing of LGBTQA+ young people in Australia*. New South Wales summary report. https://www.latrobe.edu.au/__data/assets/pdf_file/0008/1198961/Writing-Themselves-In-4-NSW-report.pdf
[66] Hill A et al. (2021). *Writing Themselves In 4: The health and wellbeing of LGBTQA+ young people in Australia*. New South Wales summary report.

trans men and 19.9% of non-binary people reported struggling to manage their alcohol use at some time in the past 12 months.[67]

In addition, in the past 6 months, 38.8% of cisgender women, 40.2% of trans men and 46.4% of non-binary people reported using drugs other than alcohol.[68] Though this is not reflective of AOD use in pregnancy, it provides a useful context in considering the needs of LGBTIQ+ people accessing SUPPS or AOD services.

It is also important to consider the specific needs of transgender men experiencing gestational pregnancy. A recent study of Australian transgender men who had experienced a gestational pregnancy found that, for those who were using testosterone as part of their gender affirmation, the experience of coming off this medication during the pregnancy impacted their wellbeing, compounded experiences of isolation, and increased distress and feelings of dysphoria.[69] Pregnancy itself also induced feelings of distress and dysphoria, because of its association with femininity.[70] Therefore, SUPPS or AOD health workers should consider whether specialist mental health support may be valuable.

Clinical tips

Strategies for inclusive practice include the following.[71]

- Recognise that LGBTIQ+ people may have had experiences of stigma and discrimination when accessing health services in the past.
- Demonstrate empathy, tolerance and respect when engaging with LGBTIQ+ people.
- Ensure health staff receive education and training on LGBTIQ+ cultural competency, including the impact of stigma and discrimination.
- Health staff may share their own pronouns when introducing themselves. Ask LGBTIQ+ people what pronouns they use, and use these in all interactions. This supports trust and a sense of safety, and demonstrates to them that they are heard.
- Refer clients to LGBTIQ+ specialised health services or mental health services if they request those services, where possible.
- Allow people to describe their family or support network, recognising that this will be unique for each person. Do not judge its composition.
- Acknowledge people's life experiences, family context, cultural background and spiritual beliefs, not just their presenting issues.
- Ask questions about sexual health, without making assumptions about sexuality, gender or intersex variations.

[67]Hill AO et al. (2020). *Private Lives 3: The health and wellbeing of LGBTIQ people in Australia. ARCSHS Monograph Series* No. 122. Melbourne, Australia: Australian Research Centre in Sex, Health and Society, La Trobe University.
[68] Hill AO et al. (2020). *Private Lives 3: The health and wellbeing of LGBTIQ people in Australia. ARCSHS Monograph Series* No. 122. Melbourne, Australia: Australian Research Centre in Sex, Health and Society, La Trobe University.
[69] Charter R et al. (2018). The transgender parent: Experiences and constructions of pregnancy and parenthood for transgender men in Australia, *International Journal of Transgenderism,* 19:1,64–77.
[70] Charter R et al. (2018). The transgender parent: Experiences and constructions of pregnancy and parenthood for transgender men in Australia, *International Journal of Transgenderism,* 19:1,64–77.
[71] ACON & NADA (n.d.). *AOD LGBTIQ inclusive guidelines for treatment providers*.

- Ensure proper privacy and disclosure processes are in place for gender, sexuality, HIV status and AOD use, in line with the Privacy Manual for Health Information.
- Research, endorse and implement approaches to consistently collect data on sexuality, gender and intersex variations, and engage LGBTIQ+ people and frontline health staff in the development of processes, guidance and training.
- Seek expert advice and guidance if unsure about how to approach aspects of LGBTIQ+ health care.

For more information on how to ensure a service provides an inclusive and affirming client journey, refer to ACON's LGBTQ+ Inclusive & Affirming Practice Guidelines.

Caring for young pregnant women with problematic alcohol and other drug use

Context

Adolescence and young adulthood are the peak ages of initiation into AOD use. People with early initiation are at a higher risk of developing a substance use disorder in adulthood. AOD use among adolescents increases the risk of unsafe sexual behaviour, unplanned pregnancy and late-detection pregnancy, thereby increasing the risk of fetal alcohol or drug exposure.[72] Unplanned pregnancies are associated with higher rates of maternal infections, obstetric complications, low birth weights, childhood growth stunting, poor child development, and subsequent child abuse and neglect.

Adolescent and young pregnant women are likely to seek antenatal care later in pregnancy and have a higher risk of poor birth outcomes, such as low birth weight. This is likely related to these young women's socioeconomic and education status.[73] Challenges with school performance and disruption to education are strongly associated with adolescent pregnancies, successive pregnancies and quick, recurrent pregnancies.

Adolescent and young women are more likely to use AODs during pregnancy. According to the Australian Institute of Health and Welfare, in 2017, 32% of young mothers aged between 14 and 20 reported smoking during the first 20 weeks of their pregnancy.[74] An international review also found that adolescent drug use rates increase after giving birth, which increases the risk of substance exposure through breastfeeding and less optimal postnatal care for mother and baby.[75]

A systematic review of studies on pregnant adolescents who use substances conducted in 2021 revealed the contextual complexity faced by this population. The interconnectedness of

[72] Connery HS et al. (2014). *Adolescent substance use and unplanned pregnancy: strategies for risk reduction*. Obstetrics and Gynecology Clinics. 2014 Jun 1;41(2):191–203.
[73] Connery HS et al. (2014). *Adolescent substance use and unplanned pregnancy: strategies for risk reduction*. Obstetrics and Gynecology Clinics. 2014 Jun 1;41(2):191–203.
[74] AIHW (2020). *Smoking and Drinking in Pregnancy*.
[75] Nichele C, Ferreira A. (2021). Drugs use among adolescent mothers: a review. *Brazilian Journal of Research in Health Sciences*, 91–105.

drug use, complications in sexual behaviour, lack of social support, physical and sexual violence, premature pregnancy, and leaving school early intensify pregnant adolescents' and young adults' vulnerability.[76]

Key principles of practice

Comprehensive assessment through a developmental lens

The assessment of an adolescent and young pregnant woman should consider their developmental and cognitive needs. Service delivery and interventions should underpin the principles of trauma-informed care and practice.

An adolescent or young adult's assessment to inform treatment planning should include:

- early life history (including prenatal alcohol exposure)
- family history
- developmental and educational history*
- medical and immunisation history
- drug and alcohol history
- mental health or psychiatric history
- risk assessment**
- psychosocial home, education/employment, eating, activities, drugs, sexuality, suicidal ideation and safety (HEEADSSS) assessment
- medical examination and mental state examination
- appropriate laboratory investigations.

* Includes an assessment for prenatal alcohol exposure, neurodevelopmental disorders, mental health co-morbidities and complex psychosocial factors that may affect engagement in treatment. Collateral history from parents or carers, child protection services such as DCJ and Youth Justice, primary healthcare providers and mental health clinicians is often required for complete assessment.

** Specific issues to identify for adolescents and young pregnant women with problematic AOD use include risk of homelessness, risk of exploitation, violence, abuse, neglect, disengagement from home or school, and risk of harm to self or others.

Youth-friendly and developmentally appropriate approaches to engagement and intervention

To improve perinatal outcomes for adolescent and young pregnant women and their babies, the World Health Organization identified that 'youth-friendly services need to be equitable,

[76] Nichele C, Ferreira A. (2021). Drugs use among adolescent mothers: a review. *Brazilian Journal of Research in Health Sciences*, 91–105.

accessible, acceptable, appropriate, comprehensive, effective and efficient'.[77] A multidisciplinary approach to care is required with high-risk pregnancies. Ensure therapeutic engagement with clinical staff who are respectful, supportive, motivating, competent and responsive to the needs of adolescents and young pregnant women. Services should be flexible, person-centred, integrated, accessible and timely, aiming for shorter waiting times.

Tailor treatment to the unique needs of adolescent and young pregnant women

Service delivery and interventions should focus on the whole person and consider their unique stage of biological, cognitive and psychological development; social and family support; and engagement in education and employment. Effective approaches to prevention and intervention for adolescent and young pregnant women should be holistic and strengths-based, aiming to increase protective factors, reduce risks, and build resilience and a support network. Evidence-based interventions include motivational enhancement therapy, cognitive behavioural therapy, interventions that focus on emotion regulation and impulse control (ERIC) and family-based interventions. Multimodal therapy is often used to respond to the individual's needs.

Interagency collaboration

Multiple agencies are often involved in the care of adolescents and young adults with problematic AOD use. These may include child protection services such as DCJ, legal services such as Youth Justice, mental health services, education liaison officers and primary care providers. Complex case management, clear communication and shared goals between the young person and treatment services are important for effective collaboration and improved outcomes.

Involve family and community

Family therapy has proven efficacy for adolescents with problematic AOD use as it focuses on close relationships and validates all family members' experiences. Involving parents or carers in treatment indirectly assists the adolescent in addressing parental concerns, building capacity, and breaking unhealthy patterns of communication and interaction.

Clinical tips

- Explore pregnancy intentions and contraceptive beliefs in a sensitive and developmentally appropriate way. Provide non-judgemental support and counselling about the available pregnancy outcome options.
- Screen for sexual abuse and exploitation and be aware of the possibility of coercive relationships. Domestic Violence Routine Screening (DVRS) is mandatory for all women and girls accessing maternity and child and family services. See Caring for pregnant women experiencing domestic and family violence and problematic AOD use for more information.

[77] Department of Health (2020). Clinical Practice Guidelines: *Pregnancy Care.* Canberra: Australian Government Department of Health.

- Assess for risks related to safety and wellbeing by completing the MRG and, if indicated, make a report to the Child Protection Helpline.
- Be mindful of the adolescent and young pregnant woman's (and partner's) literacy level and tailor information to their needs and understanding.
- Many adolescents and young pregnant women engage in polysubstance use and may experience withdrawal symptoms from multiple substances concurrently. Withdrawal from AODs may precipitate or exacerbate behavioural disturbances, the risk of self-harm and/or the risk of suicidal ideation. It is important to determine the most suitable option for withdrawal management to ensure safety and reduce obstetric risks. Inpatient admission may be required if there are risks to safety, withdrawal seizures or psychiatric co-occurrences. These will require a joint medical, obstetric and/or psychiatric approach.
- Manage conventional cigarette and e-cigarette (vapes) use and provide support for smoking or vaping cessation. This includes counselling, NRT and/or pharmacotherapy.
- Link the adolescent or young pregnant woman to intensive case management and ongoing culturally appropriate services, including GPs, youth AOD services, educational and/or vocational engagement, community mental health, family intervention or preservation service, Tresillian, and parenting support services for interventions such as Parent-Child Interaction Therapy.
- Strengthen autonomy and resourcefulness and empower adolescent and young pregnant women to improve their self-care. Social supports will increase the likelihood of meeting their newborn's needs, improving their connection, safety and wellbeing.
- The emerging trend of mental illness in the adolescent and young adult population may have a two-way relationship with substance use. Provide ongoing assessment and management for mood disorders or other psychiatric concerns throughout pregnancy and postpartum.
- As part of postpartum care, initiate a conversation about contraceptive methods, including LARC methods. Ideally, discuss this before delivery.

Caring for older pregnant women with problematic alcohol and other drug use

An older pregnant woman is defined as a woman who becomes pregnant for the first time at or after the age of 35. These mothers are at increased risk of chromosomal abnormalities, stillbirth, gestational diabetes mellitus, hypertension, hospitalisation during pregnancy, and caesarean delivery.[78]

Australia, like many countries around the world, is experiencing a long-term trend towards increasing maternal age. The percentage of women giving birth for the first time at age 30 or

[78] Huang L et al. (2008). *Maternal age and risk of stillbirth: a systematic review*. CMAJ. Jan 15;178(2):165–72.

older increased from 23% in 1991 to 43% in 2011 and 48% in 2016.[79] In 2021, the average age of women giving birth in Australia was 31.1.[80]

Clinical tips

- Encourage antenatal care.
- Provide information on and opportunities for prenatal testing for genetic abnormalities.
- Treat and monitor the woman for pre-existing and pregnancy-related issues such as diabetes, hypertension and depression.
- Encourage healthy eating and vitamin supplementation (iron and folic acid).
- Encourage the cessation, moderation or treatment of AOD use.

Caring for pregnant women experiencing domestic and family violence and problematic alcohol and other drug use

Context

Pregnancy is a time of high risk for domestic and family violence (DFV) to begin or increase in severity. The experience of DFV during pregnancy can be very dangerous for both mother and baby. As pregnancy is typically a time when women regularly engage with health services, this period can be a valuable window of opportunity for early DFV identification and response.[81]

The intersections of DFV and AOD use are complex and require trauma-informed responses that focus on safety. AOD use may be a way to manage overwhelming feelings from experiencing violence. DFV perpetrators may also hinder attempts to cease or reduce AOD use, or exert control over the use of AOD to enable violence and maintain power in the relationship.

When families encounter child protection and social services in the context of AOD use, the mother's mental health or AOD use may become the focus of attention, obscuring the perpetrator's violent behaviour.[82] It is important to keep the focus on the use of violence and to work with the pregnant woman in understanding their risk assessment and how best to support their safety.

Domestic violence routine screening

As domestic violence often remains hidden, active efforts are required to help women identify and talk about their experiences and connect with support services. A health service may be

[79] AIFS (2023). *Births in Australia*.
[80] AIHW (2023). *Australia's mothers and babies, maternal age*. Australian Institute of Health and Welfare.
[81] AIFS (2015). *Domestic and family violence in pregnancy and early parenthood*. Victoria.
[82] Healey L et al. (2018). *A Collaborative Practice Framework for Child Protection and Specialist Domestic and Family Violence Services: Bridging the Research and Practice Divide*, Australian Social Work, 71:2, 228–237.

the only service a woman experiencing domestic violence can access without the perpetrator being present. Domestic violence routine screening (DVRS) may provide an important opportunity to disclose domestic violence in a safe environment.

The DVRS program is an early identification and intervention strategy to:

- promote awareness of the health impacts of domestic violence
- ask questions about people's – and their children's – safety in relationships
- provide information on the relevant health services available to victims.

DVRS is mandatory for all women who are aged 16 and over and who access NSW Health AOD and mental health services, as well as all women and girls who access maternity and child and family services.

DVRS is conducted through 5 phases:

- Deliver the DVRS preamble.
- Ask screening questions.
- Take appropriate action in response to the woman's answers.
- Explain and offer the domestic violence Z card.
- Document the screening and its outcomes in clinical records.

DVRS must only be conducted in face-to-face settings and when the woman's privacy is ensured.

Practice considerations

Within NSW Health, services responding primarily to sexual assault, DFV, child protection and children with problematic and harmful sexualised behaviours are known as 'violence, abuse and neglect (VAN) services'. Below are some of the key legal and policy directives that are relevant to maternity staff and AOD workers responding to clients with experiences of VAN:

- *Domestic Violence Routine Screening* (PD2023_009)
- *Responding to Sexual Assault (adult and child) Policy and Procedures* (PD2020_006)
- *Domestic Violence – Identifying and Responding* (PD2006_084)
- *Child Wellbeing and Child Protection Policies and Procedures for NSW Health* (PD2013_007).

In addition to clinical service delivery, NSW Health VAN services provide professional consultation, informal training and support, including information and advice to health professionals and other service providers. AOD workers are encouraged to contact their local VAN services to seek information and collaborate when working with people affected by VAN.

Identifying and responding to domestic and family violence

In addition to conducting DVRS in mandated settings, NSW Health policy requires NSW Health workers who suspect a person (regardless of gender) is experiencing DFV to ask direct questions about the violence and respond to disclosures. NSW Health worker responses to DFV should be guided by Domestic Violence -Identifying and Responding (PD2006_084). Updated guidance on responding to DFV is also available from the NSW Health Policy Directive *Domestic Violence Routine Screening* (PD2023_009).

NSW Health workers should:

- ask about DFV only when the client is alone (or with an accredited interpreter present). Workers should never ask questions about suspected violence and abuse when the perpetrator, their families or others are present
- provide enough time for the person to disclose and listen carefully to their concerns
- respect the person's choice not to disclose, and not pressure them to talk
- ensure a safe, calm and private environment.

When DFV is identified or disclosed, health workers should:

- acknowledge the disclosure and affirm with the client that they are not to blame for the other person's violent and abusive behaviour
- assess the victim-survivor's immediate and longer-term needs, including prioritising initial risk assessment and safety planning
- ask about, assess and respond to the safety and wellbeing of any children or young people (see Protecting the safety, welfare and wellbeing of children and the unborn child)
- provide referrals for continued risk assessment, safety planning and other support that promote client safety and recovery.

Risk assessment, safety planning and response

Where domestic and family violence is disclosed or identified, health workers should assess and respond to risk and seek to reduce the threat to victim-survivors' safety. As mandatory reporters under the *Children and Young Persons (Care and Protection) Act 1998* (NSW), workers are also required to address safety, health and wellbeing concerns for children and young people (see Protecting the safety, welfare and wellbeing of children and the unborn child). Where it is safe to do so, the health worker should ask the woman about their current risk levels.

Undertake risk assessment and safety planning when DFV has been identified. Health workers with the appropriate training (e.g. social workers or specialist VAN workers) should use a structured professional judgement approach to risk assessment. A structured professional judgement approach combines the use of a structured risk assessment tool, professional judgement and the victim's own assessment of risk.

Sometimes, a structured professional judgement approach is not possible (e.g. if the victim does not consent to speak with health workers). In these circumstances, health workers should use the available information to apply a professional judgement approach to assessing risk. This includes information gathered from the victim and the victim's own assessment of risk. Where a victim is identified as being at serious threat, health workers should advise them (where it is safe to do so) that they have serious concerns for their safety, and work with them to reduce the threat. Health workers should familiarise themselves with evidence around high-risk or lethality indicators for DFV to inform their assessment (see Figure 7).

Figure 7: High-risk factors for domestic and family violence

Some actions may include:

- urgent referral(s) to NSW Health VAN services and/or other specialist DFV services for ongoing risk assessment, safety planning and support. Where a referral is not immediately available, actively support the victim in accessing crisis services, such as NSW Domestic Violence Line (1800 656 463 – women only) or 1800RESPECT (1800 737 732). Support further safety planning and action to reduce the threat before the appointment ending
- refer to Safer Pathway Safety Action Meeting (SAM). All victims assessed as being at 'serious threat' should be offered a referral to a SAM. SAMs are fortnightly meetings

attended by government agencies and local service providers to coordinate service responses for victims assessed at serious threat

- report to NSW Police. The decision to report to or share information with NSW Police must be considered on a case-by-case basis. Health workers should consider:
  - the DFV risk assessment (assessed threat level)
  - the victim's views
  - the seriousness of the injury/injuries and the offence
  - the context of the therapeutic relationship and the risk to damaging this relationship
  - whether an offence has been committed on NSW Health premises or a health worker has been threatened in their role.

Information sharing and reporting to police

A victim's consent should always be sought before sharing information. However, Part 13A of the *Crimes (Domestic and Personal Violence) Act 2007* (NSW) enables information to be shared without consent in some circumstances. It indicates that if the woman does not provide consent, or it is unreasonable or impractical to obtain consent, health services are permitted to share information under Part 13A of the Act with Safer Pathway local coordination points or other domestic violence support services, including NSW Police.

Further guidance on information sharing under Part 13A of the Act is set out in Preventing or reporting crime. In particular, the information sharing protocol indicates that information sharing can occur when:

- a valid threat assessment indicates the victim is at serious threat. Note that a valid threat assessment could include professional judgement, a completed Domestic Violence Safety Assessment Tool or other risk assessment tools, and the victim's own assessment of risk (where available)
- the service provider believes on reasonable grounds that the use or disclosure of personal and health information is necessary to prevent or reduce the threat to the victim or other people's life, health and safety
- the serious threat is related to the commission or possible commission of a domestic violence offence.

Where children are victims of or are affected by DFV, NSW Health services can also share information under Chapter 16A of the Children and Young Persons (Care and Protection) Act. For further guidance, see Protecting the safety, welfare and wellbeing of children and the unborn child.

When health workers are assessing whether to share information without consent, they should seek additional guidance from their supervisor, local NSW Health VAN services or the NSW Health Child Wellbeing Unit about whether information can and should be shared under Part 13A of the Crimes (Domestic and Personal Violence) Act or under Chapter 16A of the Children and Young Persons (Care and Protection) Act.

Where a decision has been made to share information without the woman's consent, workers should inform the woman of any decisions to override their refusal of consent to share information, except where this may further increase the serious threat.

Workers should document decisions to share or not share information in the woman's file to reduce serious threat. Preventing or reporting crime provides further guidance on sharing information to reduce domestic violence threats.

People may request a court report from an AOD worker or access to file notes from the AOD service to assist with legal matters arising from DFV. These requests should be clarified as early as possible in treatment and managed with care. The AOD worker should clarify their role in this process and ensure that the report clearly identifies disclosures and impacts of violence while remaining focused on AOD use and service provision related to this use. AOD workers may consult with their local VAN service for advice on how to prepare documentation for possible use in legal matters.

Caring for pregnant women experiencing homelessness and problematic alcohol and other drug use

Introduction and context

Homelessness and unstable housing during pregnancy pose significant health risks to mothers and infants. Homelessness during pregnancy is associated with low birth weight and preterm delivery,[83] as well as poor outcomes for the mother's health.[84]

Women experiencing homelessness are more likely to become pregnant than women in stable housing. Over half of pregnancies during homelessness are thought to be unintended, including many resulting from sexual assault.[85]

Rates of problematic AOD use are also significantly higher among women experiencing homelessness. In 2019–20, 9% of women accessing Specialist Homelessness Services (SHS) in NSW had problematic AOD use.[86]

Pregnancy offers an opportunity to engage with women who experience problematic AOD use, homelessness, trauma and mental illness to improve outcomes for them and their infants.[87] Whether planned or subsequently welcomed, a number of studies on women experiencing homelessness during pregnancy have found that the experience of pregnancy can give rise to a

[83] Clark R et al. (2019). Homelessness contributes to pregnancy complications, *Journal of Health Affairs*, Vol. 38, No. 1, 139–146.
[84] Krahn J et al. (2018). Housing interventions for homeless, pregnant/parenting women with addictions: a systematic review, *Journal of Social Distress and the Homeless*, Vol. 27, No. 1, 75–88, Taylor and Francis.
[85] Krahn J et al. (2018). Housing interventions for homeless, pregnant/parenting women with addictions: a systematic review, *Journal of Social Distress and the Homeless*, Vol. 27, No. 1, 75–88, Taylor and Francis.
[86] AIHW (2020). *Specialist Homelessness Services Annual Report 2019-20,* Data cube: SHSC demographics.
[87] Lynch T (2020). *LC LSIC Inquiry into Homelessness in Victoria, Submission 342*, The Royal Women's Hospital, Melbourne Vic.

hopeful sense of attachment and connection to their unborn baby, in contrast to feelings of abandonment and isolation the women may have experienced in their lives.[88]

As is the case with most people experiencing homelessness, women who are pregnant or breastfeeding while also negotiating the complexities of homelessness and problematic AOD use are likely to have experienced significant trauma and adversity in their lives. They need to be respected and their unique experiences should be acknowledged.

Practice considerations

Safeguard dignity

Following the NSW Practice Framework, practitioners are advised to draw on the principles of Dignity Driven Practice. For many people, engaging with and accepting assistance from the government or other 'official' services can come as an affront to their sense of safety and personal autonomy. Dignity-driven practice emphasises that practitioners play a role in maintaining their patients' or clients' sense of dignity, by exercising their curiosity and understanding the person's perspectives – and any unhelpful behaviours – within the context of their wider experience.

Women experiencing homelessness during pregnancy are likely to experience a high level of stress and trepidation about seeking assistance due to feelings of fear, shame and stigma, and a risk of contact with the child protection system. While some women actively engage with health and other services, others may be reluctant.

Subsequently, women can be labelled as avoidant, neglectful or lacking insight into the impacts of AOD use on their babies. It is important to try to understand what motivates a mother's actions — or perceived inaction — and work with them to overcome their fears.

Understand how housing stability affects engagement with services

If appropriate, practitioners should ask women about their housing arrangements, and be prepared to help, consistent with their role. It may not be immediately obvious that a person is experiencing homelessness. In addition to sleeping rough, homelessness includes living in a dwelling that is inadequate, overcrowded, impermanent or where residents are unable to have control of or access to a suitable space for social relations.[89]

DFV is the main reason women and children leave their homes in NSW. In 2019–20, 49% of women accessing homelessness services had experienced DFV.[90] Practitioners should be aware that women experiencing homelessness may be subject to an ongoing safety threat from a current or former partner, and should be prepared to follow any relevant NSW Health policies and procedures.

Health practitioners need to be attuned to other challenges women experiencing homelessness may be facing, including:

[88] Murray S et al. (2019). *Not Pregnant Enough? Pregnancy and Homelessness*, RMIT University, Melbourne.
[89] ABS (2018). 2049.0 – Census of Population and Housing: Estimating homelessness, 2016, March 2018. Appendix 1: Definition of homelessness.
[90] AIHW (2020). *Specialist Homelessness Services Annual Report 2019-20,* Data cube: SHSC demographics.

- mental illness and complex trauma
- lack of parenting skills
- difficulties with literacy or using English
- difficulties dealing with administrative matters, such as registering births and applying for new forms of financial support they may be eligible for
- the psychological pressure of preparing for their future as a mother or deciding whether to terminate the pregnancy.

Facilitate wraparound case management incorporating housing assistance

Research into effective intervention programs for pregnant women experiencing homelessness and AOD use has found that outcomes for parents and children can improve when they receive sustained case management before and after the birth. This management is delivered by skilled and supportive case workers and aims to sustain housing and meet other individual needs.[91]

The key elements of existing models of support for women experiencing homelessness during pregnancy include the provision of accommodation (ideally with a pathway to stable long-term housing); wraparound case coordination of health and housing responses, with a focus on continuity and integration of care; and the use of trauma-informed care.[92] The provision of housing is considered fundamental to the success of health interventions.[93]

The following are key recommendations for working with women experiencing homelessness during pregnancy.[94,95]

- Promote an approach based on early intervention and wraparound services.
- Enable services to provide good practice elements of continuity of care, including maintaining a consistent point of contact throughout the pregnancy and beyond. This contact should act as a central coordinating point to ensure all relevant services are communicating with each other and acting in the woman's and child's best interests.
- Ensure health, homelessness and other services work together to provide long-term and coordinated support to women during pregnancy and early parenting.
- Ensure information about support services and reproductive health is made readily available to women experiencing homelessness through community health services, GP clinics and other specialist health and housing services.
- Raise awareness with service providers of the housing and health needs of women seeking a termination, rather than continuing with a pregnancy.

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[91] Krahn J et al. (2018). Housing interventions for homeless, pregnant/parenting women with addictions: a systematic review, *Journal of Social Distress and the Homeless*, Vol. 27, No. 1, 75–88, Taylor and Francis.
[92] Murray S et al. (2018). *Pregnancy and Homelessness: Service Responses*. Launch Housing, Victoria.
[93] Krahn J et al. (2018). Housing interventions for homeless, pregnant/parenting women with addictions: a systematic review, *Journal of Social Distress and the Homeless*, Vol. 27, No. 1, 75–88, Taylor and Francis.
[94] Murray S et al. (2018). *Pregnancy and Homelessness: Service Responses*, Launch Housing, Victoria.
[95] Rayment-Jones et al. (2015). Cited in Murray S, Theobold J, Haylett F, Watson J (2019) *Not Pregnant Enough? Pregnancy and Homelessness*, RMIT University, Melbourne.

- Underpin service provision by trauma-informed care, acknowledging the influence of trauma on a woman's life and how it affects their current decision-making.

Working with homelessness and housing services

Homelessness services

Homelessness services are likely to be the first point of contact for many women who are experiencing homelessness and problematic AOD use, and may be a source of referrals to health services. Equally, they can be a vital resource for health services working with women with complex needs.

A network of Specialist Homelessness Services (SHS) delivers homelessness services in NSW. These are non-government agencies funded by DCJ to provide services aimed at preventing people from becoming homeless, minimising the adverse impacts of homelessness on individuals, and helping people break the cycle of homelessness.

SHS deliver support both directly and indirectly. In line with the NSW Specialist Homelessness Services - Program Specifications, direct support is often delivered through a case management approach where providers work in partnership with the person. Direct support may also be provided through an assertive outreach approach, brief intervention or soft-entry engagement. This can include providing referrals to specialist services such as AOD services, family and relationship services, personal and emotional support, and child protection.

Accommodation services for new or expecting mothers in NSW include:

- Women's refuges – SHS funding supports the operation of 86 women's refuges across NSW, providing accommodation and support to women and children experiencing homelessness due to DFV.
- Core and Cluster – This innovative model for women's refuges includes self-contained units (the cluster) surrounding a centre that has communal spaces and an office area (the core). The Core and Cluster model offers women and their children greater privacy and independence, while still having access to vital supports.
- Women's community shelters (WCS) – This 'social franchise' model partners with the NSW Government, the private sector and local communities to raise funds to establish new women's refuges. Under the WCS model, each new refuge is established through local support and community engagement.

Health practitioners can act as important advocates for women as they navigate opportunities to obtain stable housing and other necessary supports through the homelessness service system and can help to identify organisations that can assist with their needs for housing, safety, and independent living support.

- Link2home is the statewide NSW homelessness information and referral telephone service. It is available 24/7 and can be reached on 1800 152 152.

- Ask Izzy is a search tool to help service providers and people who are experiencing, or are at risk of experiencing, homelessness to find accommodation, food, health and other critical support services.

Domestic and family violence support

Several NSW Government programs are available to respond to the needs of people experiencing or escaping DFV. These programs work in partnership with SHS, government agencies and other locally based sources of support.

- Safer Pathway is a statewide program that assists victim-survivors of DFV in accessing the services and supports they need by linking them to a specialist DFV support worker.
- Start Safely provides short- to medium-term financial support to people escaping DFV. The subsidy helps people secure private rental accommodation, so they do not have to return to a violent situation.
- Staying Home Leaving Violence (SHLV) supports women and children leaving DFV to remain safely in their home, or in a home of their choice, while having the perpetrator removed. SHLV provides a range of support, including safety planning, improving home security, help in managing finances, support through the legal process, and support for children.

Housing services

Women experiencing homelessness during pregnancy are eligible for priority social housing assistance. Service providers can support women in applying for social housing through the DCJ Housing Contact Centre online or on 1800 422 322.

Caring for pregnant women with blood-borne viruses or sexually transmissible infections and their infants

It is important for all women who can become pregnant to receive information about BBVs or STIs and their implications during pregnancy. In addition to strategies such as needle and syringe programs (NSPs), the National Drug Strategy 2017–2026 notes the following harm reduction strategies are vital to preventing BBVs:

- hepatitis B vaccinations
- BBV and STI testing, prevention, counselling and treatment
- peer education.

When managing people with a BBV or STI:

- refer them to a specialised infectious diseases team
- maintain patient confidentiality

- take normal body fluid precautions to ensure staff's occupational health and safety.

Screening for blood-borne viruses and sexually transmissible infections

As recommended by the Australian Government Clinical Practice Guidelines for Pregnancy Care, health workers should routinely screen all pregnant women for BBVs and STIs, including HIV, hepatitis B and C, gonorrhoea, chlamydia and syphilis. Interventions reduce the risk of vertical transmission to the newborn and health complications for the mother and infant.

Health workers should routinely offer chlamydia testing to pregnant women under 30 at the first antenatal visit.[96] This guidance is based on the high prevalence of chlamydia in Australians and an increase in notifications among women aged 25 to 29.[97]

As with all routine antenatal screening, BBV and STI testing must be conducted with the valid consent of the woman, and test results should be noted in their medical record. Health workers should have a follow-up system in place, including re-testing and access to counselling and treatment as appropriate. For more information, see NSW Health STI resources.

Syphilis

Syphilis can be transmitted during pregnancy and at birth. A meta-analysis found that over half of untreated pregnancies affected by syphilis result in adverse outcomes, including stillbirth and second or third trimester fetal loss (21%), neonatal death (9%), premature and low birth-weight infants (6%), and infants with clinical syphilis infection (16%).[98]

Syphilis screening

NSW Health recommends that all pregnant women should be screened for syphilis at least twice during pregnancy: at their first antenatal appointment and again at 26–28 weeks gestation. This recommendation follows an increase in congenital syphilis cases in NSW. Pregnant women with any substance use within the previous 12 months are recommended to have additional syphilis serology at 34–36 weeks gestation and again at birth. Refer to the NSW Health Policy Directive *Syphilis in Pregnancy and Newborns* (PD2023_029) for more information on screening for, treating and managing syphilis in pregnancy.

All babies need placental syphilis PCR at birth, follow-up, and serology. All babies born to mothers who have syphilis, even those who have been treated during pregnancy, should be screened at birth.

All pregnant women who have received minimal or no antenatal care, or who are at risk of missing an appointment, should be opportunistically screened when they present at a service, regardless of gestation. This includes in AOD settings.

[96] Department of Health (2020). *Clinical Practice Guidelines: Pregnancy Care*. Canberra: Australian Government Department of Health.
[97] Roberts SW et al. (2011). *Urine screening for Chlamydia trachomatis during pregnancy*. Obstet Gynecol 117(4): 883–5.
[98] Gomez GB et al. (2013). *Untreated maternal syphilis and adverse outcomes of pregnancy: a systematic review and meta-analysis*. Bull World Health Organ 91:217–226.

Syphilis treatment

Contact tracing is important to prevent reinfection. Advice and support can be obtained from NSW Sexual Health Clinics and the NSW Sexual Health Infolink.

All cases of syphilis in pregnancy should be discussed with a clinician with expertise in managing and treating syphilis. Timely initiation of treatment is essential. NSW Health endorses the Australasian Society for Infectious Diseases (ASID) guidelines *Management of Perinatal Infections* for treating and managing syphilis in pregnancy. Clinicians should refer to Algorithm 2 for the treatment and management of maternal syphilis.

For information on the assessment and management of children at risk of congenital syphilis at birth, refer to the NSW Health Policy Directive *Syphilis in Pregnancy and Newborns* (PD2023_029) and Syphilis control guideline.

Post-treatment serology

Women who have been treated for syphilis during pregnancy should have post-treatment serology taken at 26–28 weeks, 34–36 weeks and birth.

Human immunodeficiency virus

In NSW, all pregnant women are offered an HIV test. Testing for HIV in pregnancy enables measures to be taken to reduce the risk of mother-to-child transmission and for the woman to be offered treatment and psychosocial support. For general information on caring for women with HIV, refer to the Recommendations for the Use of Antiretroviral Drugs During Pregnancy and Interventions to Reduce Perinatal HIV Transmission in the United States.

Antiretroviral therapy

All women with HIV should receive antiretroviral therapy (ART) before and throughout pregnancy. Women with HIV should maintain an HIV viral load that is below the limit of detection during pregnancy, postpartum and throughout their lives. Intravenous ART is only used during birth if the mother has an unknown or HIV viral load > 1,000 copies/ml near delivery (less than 4 weeks). ART also reduces the risk of vertical transmission of HCV in women with HIV/hepatitis C virus (HCV) co-infection.

Birthing considerations

A scheduled caesarean section at 38 weeks is recommended only for women with an unknown or HIV viral load > =1,000 copies/ml near delivery time, regardless of ART use before childbirth. Minimise the infant's exposure to maternal secretions during birth by avoiding invasive fetal monitoring, and cleaning and bathing them promptly after birth.

Considerations for the care of the infant

Seek advice from a paediatric HIV specialist to best support an infant whose mother has HIV. Prophylaxis for pneumocystis jirovecii pneumonia is required for infants born to mothers with

HIV, at 4 to 6 weeks postpartum. Modification of immunisation schedules may be required. Within 6 hours of delivery, infants born to mothers with HIV should receive either ART prophylaxis, presumptive ART or ART, depending on maternal and infant factors. Undertake serial HIV RNA/DNA tests to exclude vertical transmission during the first 6 months of life, followed by HIV antibody testing at 18 months of age to document loss of maternal HIV antibody.

Breastfeeding

Health workers should advise mothers with HIV against breastfeeding because it presents an ongoing risk of HIV exposure. Although suppressive maternal ART significantly reduces the risk of transmitting HIV through breastfeeding, it does not eliminate the risk.[99] Health workers should refer to an infectious diseases team for treatment and continued care once a mother has been diagnosed with HIV.

Hepatitis C virus

For general information on managing HCV in pregnancy, refer to the Royal Australian and New Zealand College of Obstetricians and Gynaecologists - Management of Hepatitis C in Pregnancy.[100] Currently approved direct-acting antivirals (DAAs) are not recommended for use in pregnant or breastfeeding women. HCV antibody-positive/RNA-negative women have cleared HCV and cannot transmit it. They do not need treatment. Perinatal transmission risk is approximately 5% among women with HCV vireamia (RNA+) and/or HIV coinfection.[101] The sections below apply to RNA+ women.

Birthing considerations

Caesarean section has not been shown to reduce HCV transmission. Health workers should avoid invasive fetal monitoring (e.g. scalp electrodes).

Considerations for the care of the infant

PCR testing of the infant is advised at 2 months. If negative, antibody and PCR testing can be repeated at 18 months. The woman's and infant's primary health carer, usually their GP, is responsible for follow-up. The infant should be referred to a paediatric hepatologist and/or infectious diseases specialist. Breastfeeding is not contraindicated unless the woman has cracked or bleeding nipples. The infant should be immunised againstepatitis B.

Breastfeeding

There is no evidence that breastfeeding increases the risk of transmission of hepatitis C from mother to infant.[102,103]

Women with RNA+ hepatitis C should be advised that:

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[99] Horvath T et al. (2009). *Interventions for preventing late postnatal mother-to-child transmission of HIV*. Cochrane Database Syst Rev. Jan 21;2009(1):CD006734.
[100] The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (2020). *Management of Hepatitis C in Pregnancy*. March 2020.
[101] Ibid.
[102] Mast EE (2004). *Mother-to-infant hepatitis C virus transmission and breastfeeding.* Adv Exp Med Biol. 554:211–6.
[103] Lin HH et al. (1995). *Absence of infection in breast-fed infants born to hepatitis C virus-infected mothers*. J Pediatr. Apr;126(4):589–91.

- The hepatitis C virus appears in breastmilk.
- In the absence of HIV co-infection, which can increase HCV viral load, the risk of transmission is small during breastfeeding.
- Transmission is blood-borne and not via the gastrointestinal tract.
- Direct-acting antiviral (DAA) treatment is not recommended while breastfeeding because there is no available safety data.[104]
- If breastmilk may be contaminated with blood (such as by cracked, abraded or bleeding nipples), there is a theoretical risk of transmission and they should discard the breast milk.

Health workers should refer HCV RNA+ mothers and babies to an infectious diseases team for treatment and continued surveillance due to the 4% to 6% risk of vertical transmission.[105]

Hepatitis B virus

For general information on managing HBV in pregnancy, refer to the NSW Health Hepatitis B Strategy and the Royal Australian and New Zealand College of Obstetricians and Gynaecologists - Management of Hepatitis B in pregnancy.[106] Women with a high viral load in the third trimester should be offered antiviral therapy during late pregnancy to reduce viral load before delivery and to decrease the risk of mother-to-child transmission of Hepatitis B.

Birthing considerations

Caesarean sections have not been shown to reduce hepatitis B virus transmission. Health workers should avoid invasive fetal monitoring (e.g. scalp electrodes). Women who are hepatitis B surface antibody (HBsAb) negative should be offered HBV vaccination after their baby's birth.

Considerations for the care of the infant

It is a public health policy in Australia that all newborns receive HBV immunisation as per the national immunisation schedule.[107] In addition to HBV immunisation, infants of hepatitis B surface antigen (HBsAg) positive mothers should be given hepatitis B immunoglobulin within 48 hours of birth, and preferably within 12 hours of birth. There are no contraindications for breastfeeding. Three months after the completion of the hepatitis B vaccination course (and not before 9 months of age), the detection of HBsAg indicates mother-to-child HBV transmission, while the detection of anti-HBs (and absence of HBsAg) indicates successful immunity after vaccination.

[104] Hepatitis C Virus Infection Consensus Statement Working Group (2020). *Australian recommendations for the management of hepatitis C virus infection: a consensus statement*. Gastroenterological Society of Australia, Melbourne.
[105] Benova LMY et al (2014). *Vertical transmission of hepatitis C virus: systematic review and meta-analysis*. Clin Infect Dis Sept;59:765–73.
[106] RANCOG (2019). *Management of Hepatitis B in pregnancy*. Clinical statement. November 2019.
[107] ATAGI (2022). *Australian Immunisation Handbook*, Australian Government Department of Health and Aged Care, Canberra.

Breastfeeding

There is no evidence that breastfeeding increases the risk of mother-to-infant transmission of hepatitis B. To protect against transmission, all infants of HBsAg (hepatitis B surface antigen) positive mothers must receive active and passive immunisation within 12 hours after birth.

A review of 10 studies, involving 751 breastfed and 873 non-breastfed infants, found no difference in the risk of developing hepatitis B surface antibodies with proper immunoprophylaxis.[108] Although HBV DNA and HBsAg have been detected in breastmilk, no additional risk with breastfeeding has been demonstrated.

[108] Shi Z et al. (2011). Bre*astfeeding of newborns by mothers carrying hepatitis B virus: a meta-analysis and systematic review*. Arch Pediatr Adolesc Med. Sept;165(9):837–46.

Specific drugs in pregnancy

Introduction

While the previous sections of this resource provided general guidance on how to care for women using substances during pregnancy, birth and the postnatal period, this section provides substance-specific guidance on the screening, clinical management, breastfeeding and care of neonates and infants. For general information on different drug types, see the NSW Health Drug Compendium or the Alcohol and Drug Foundation's Drug Wheel.

Alcohol

Ask

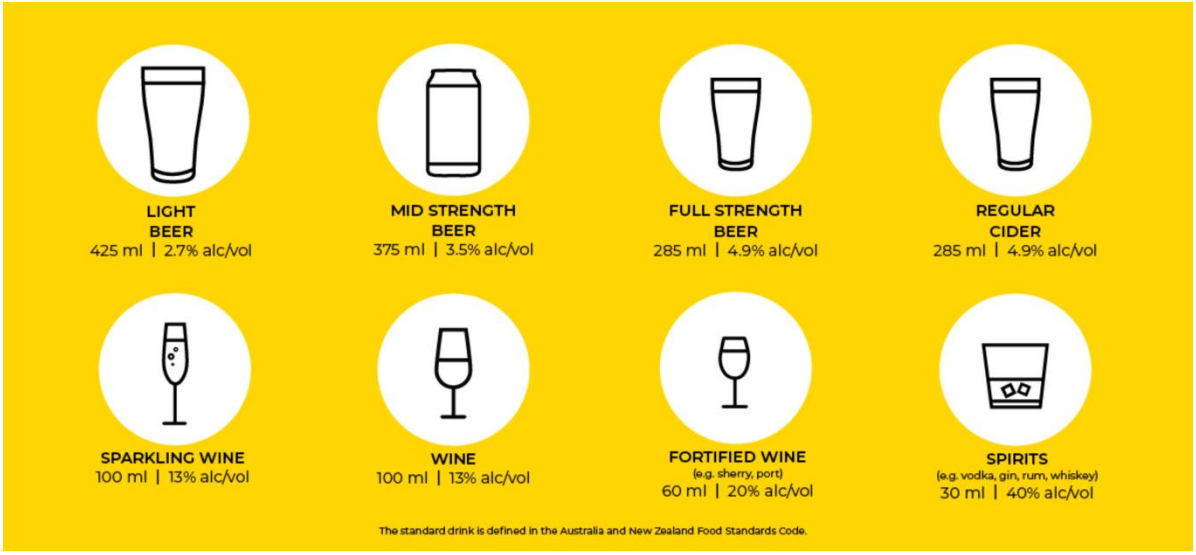
Maternity staff should use the Alcohol Use Disorders Identification Test-Concise (AUDIT-C) screening tool to ask all pregnant women about their level of alcohol consumption at their first antenatal assessment. Staff should repeat the screening at follow-up antenatal visits, such as at 27–29 weeks and 35–37 weeks. See Appendix 1 for the AUDIT-C screening tool or access the eMaternity online system for people working in most NSW Health LHDs. Include these screenings in all antenatal histories.

Incorporating a validated alcohol screening tool into antenatal care is likely to substantially increase the detection rate of women using alcohol. AUDIT-C can identify risky drinking behaviours in pregnant women.[109] Though the original AUDIT-C tool was not designed for pregnancy, the risk categories and corresponding advice have been adapted for pregnancy.

To assess alcohol consumption, screening tools use a 'standard drink' – which the National Health and Medical Research Council (NHMRC) defines as 10 grams of pure alcohol – to easily compare different types of alcoholic beverages with significantly different alcohol contents. For more information about standard drinks, see Figure 8 or visit the NHMRC's website.

[109] Burns E et al. (2010). *Brief screening questionnaires to identify problem drinking during pregnancy: a systematic review*. Addiction. 105(4):601–14.

Figure 8: What is a standard drink?

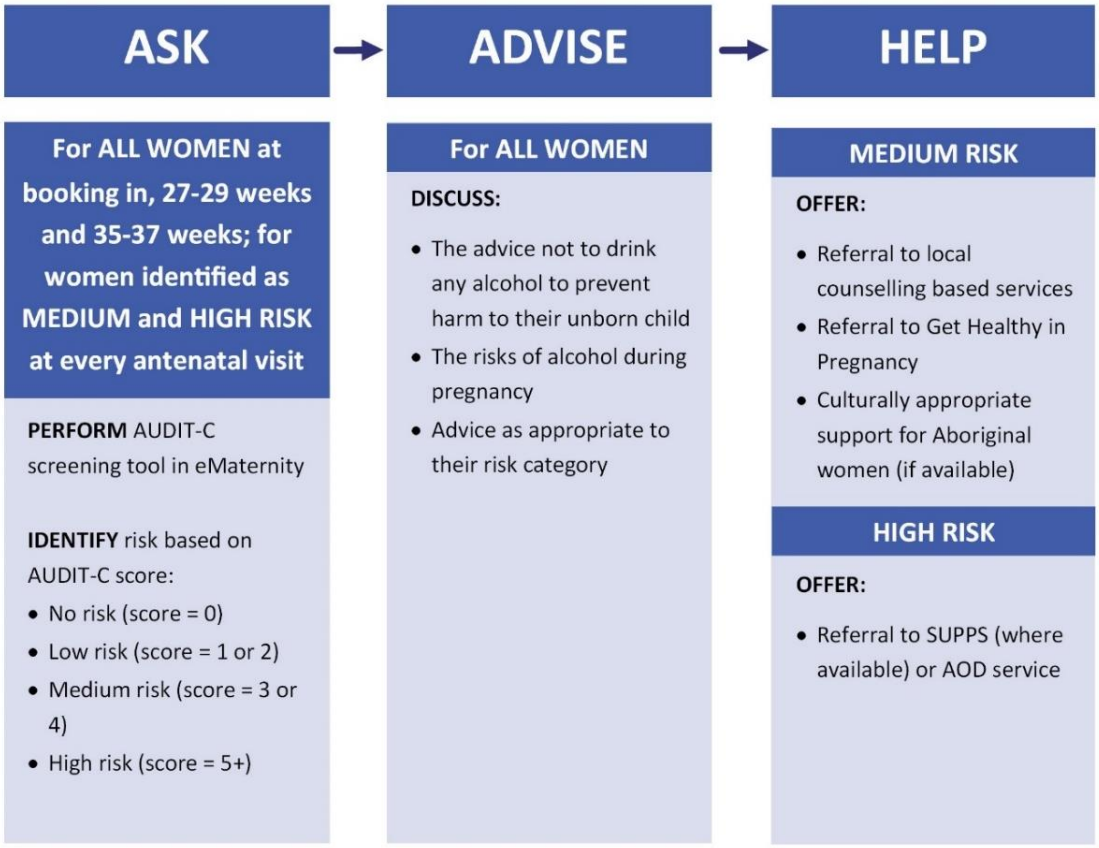


Source: National Health and Medical Research Council

It is important to establish a trusting relationship with the pregnant woman, as it may influence their willingness to disclose alcohol use. Maternity staff should use a sensitive and empathetic approach when discussing alcohol intake with pregnant women. See Empathetic engagement for more information.

Maternity staff should ask women who have been identified as at medium or high risk for alcohol use in pregnancy about their alcohol consumption at every antenatal and postnatal appointment, using the AUDIT-C tool. Revisiting the woman's alcohol consumption at subsequent appointments will allow maternity staff to follow up on the progress of previously accepted referrals or re-offer appropriate levels of support based on current consumption. See Figure 9 for an alcohol screening flowchart.

Figure 9: Alcohol care pathway



Advise

All women

Regardless of the AUDIT-C score, maternity staff should advise pregnant or breastfeeding women, as well as women planning a pregnancy, to avoid drinking any alcohol to prevent harm to their child. This reflects recommendations from the NHMRC's guidelines to reduce health risks from drinking alcohol.[110] Maternity staff should also advise all women of the risks associated with alcohol consumption while pregnant and breastfeeding. For more information on alcohol risks in pregnancy, see the Foundation for Alcohol Research and Education's Every Moment Matters campaign and its Information you might not know about pregnancy, breastfeeding and alcohol brochure.[111]

Women at no or low risk

Maternity staff should provide positive reinforcement for women who did not drink any alcohol during pregnancy (i.e. no risk, using AUDIT-C) or who drank alcohol before they knew they were pregnant but subsequently stopped. Encourage them to continue abstaining from alcohol and reinforce the importance of healthy behaviour in pregnancy for their and their unborn child'.

[111] NHMRC, Commonwealth of Australia Canberra (2020). *Australian guidelines to reduce health risks from drinking alcohol. Guideline 3*.

Pregnancy can be a very stressful time for women. They are often anxious about their baby's health and how their own health behaviours could affect their child. If a woman consumed a minimal amount of alcohol during pregnancy and is anxious and concerned, reassure them that the impact will likely be minimal. However, health workers should reinforce to not drink alcohol in pregnancy. Women can also contact MotherSafe if they are concerned.

Maternity staff should advise women who are drinking at low levels (i.e. low risk, using AUDIT-C) that the risk is likely low, but that the recommendation is to not drink any alcohol during pregnancy. They should also advise the woman that the risk of harm to the embryo and fetus grows as the amount and frequency of alcohol use increases.

Help

Brief intervention

Maternity staff should use the opportunity to provide a brief intervention for women consuming alcohol during pregnancy (particularly those identified as medium or high risk). This may include:

- positively framing pregnancy as a window of opportunity to change
- discussing goals for changing alcohol consumption and being optimistic about these goals
- recognising strengths, assessing barriers and assisting with strategies to overcome obstacles.

Referrals for medium risk

Maternity staff should offer a referral for alcohol support – such as local counselling-based services or Get Healthy in Pregnancy – to women who have been identified as at medium risk (AUDIT-C score of 3 or 4). They should also offer culturally appropriate support for Aboriginal women, where available. In some cases, maternity staff may deem it more appropriate to refer the woman to SUPPS, where available, or an AOD service.

Referrals for high risk

Maternity staff should refer women who have been identified as high risk (AUDIT-C score of 5 or higher) to SUPPS, where available, or an AOD service. Refer to the Local intake lines to contact the AOD service in your LHD. Women identified as high risk are at an increased risk of alcohol dependence and withdrawal if alcohol is stopped. (See Acute substance withdrawal in pregnancy for more information on withdrawal.) Maternity staff may also consider engaging SAFE START for a multidisciplinary case discussion and should use the Mandatory Reporter Guide to determine whether to contact the Child Protection Helpline.

Pregnant women who consume alcohol – particularly those who have been identified as high risk – should have priority access to alcohol treatment services, including comprehensive assessment and withdrawal treatment, as well as therapeutic options such as brief intervention, cognitive behavioural therapy and group sessions.

Maternity staff must keep in mind that some women will struggle to stop consuming alcohol or cut down their intake during pregnancy. To optimise health outcomes, the best approach is to continue providing non-judgemental, opportunistic interventions and therapeutic options at each engagement and maintaining a positive outlook.
For more advice on alcohol consumption in pregnancy, refer to the Guidelines for the Treatment of Alcohol Problems or Every Moment Matters.

Comprehensive assessment

Women who have been referred to SUPPS or an AOD service for their alcohol consumption should undergo periodic comprehensive assessments. SUPPS or AOD staff can use the ASSIST tool (see Appendix 4) or the 10-question AUDIT tool for a more detailed assessment.

Along with screening, these assessments should be readily available to other health workers (e.g. in the case notes and electronic medical records) as they may be important for diagnosing FASD.

For general information on managing substance use in pregnancy, see Screening and antenatal care and Birth, postnatal care and breastfeeding. For more information on managing acute alcohol withdrawal in pregnancy, see Acute withdrawal below.

Acute withdrawal

Assessment

A woman is at significant risk of alcohol withdrawal if they report drinking 6 standard drinks or more on most days or has symptoms of neuroadaptation as indicated by tolerance or dependence.

Alcohol withdrawal in adults usually commences 6 to 24 hours after the last drink and usually lasts 2 to 3 days without treatment. Occasionally, withdrawal may continue for up to 10 days and in rare cases, 14 days, when there are sub-acute symptoms or severe withdrawal complications. Withdrawal symptoms related to the central nervous system may include anxiety, insomnia and vivid dreams, seizures, delusions, hallucinations and delirium. Other withdrawal symptoms may include sweating, fever, hypertension, tremors, tachycardia, anorexia, nausea, vomiting and dyspepsia.

Management

A pregnant woman at risk of moderate to severe alcohol withdrawal may be admitted to hospital at any gestation due to the additional risks to their and their unborn child's health. SUPPS or AOD health workers should do the following to ensure optimum withdrawal management.

- Ensure an inpatient stay of at least 5 days after the onset of withdrawal.
- Consider a loading regimen with diazepam. Depending on the woman's history and presenting severity of withdrawal, provide nutritional intervention with:

- parenteral thiamine
- folate replacement (a minimum of 400 mcg daily and to continue to term)
- iron (after assessment of levels)
- other dietary needs.

Obtain advice on treatment from an addiction medicine specialist if a woman is withdrawing from other drugs in addition to alcohol. For information on infant withdrawal, see Infants with prenatal substance exposure. For more information on general alcohol withdrawal management, see Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance.

Breastfeeding

As recommended by the NHMRC's Australian guidelines to reduce health risks from drinking alcohol, all women should be advised that the safest option is to not drink alcohol while breastfeeding.

Women who are breastfeeding should be advised that:

- alcohol crosses readily into breastmilk and concentrations accumulate. At moderate to high levels of drinking, breastmilk alcohol levels can be higher than maternal blood alcohol levels
- it takes about 2 hours from the start of drinking to clear one standard drink from milk. Expressing milk ('pumping and dumping') does not increase the clearance speed.[112]

It is also important to assess the woman for polysubstance use before providing advice on breastfeeding. For more information, see When breastfeeding on the Every Moment Matters website.

Neonates and infants

Infants with prenatal exposure to alcohol may be observed in hospital for signs of withdrawal, as indicated. Problematic maternal use in the 2 to 4 weeks prior to birth will likely result in the neonate needing hospitalisation. Monitoring and support may be provided in consultation with a specialist unit.

Table 6: Key facts about neonatal alcohol withdrawal	
Peak effects of withdrawal	Birth to approximately 3 days
Pharmacological treatment (if required)	Phenobarbitone

[112] Drugs and Lactation Database (LactMed) [Internet]. Bethesda (MD): National Library of Medicine (US); 2006–. Alcohol. 2020 May 11.

Likelihood of infant needing hospitalisation	Problematic maternal use in the 2–4 weeks prior to birth will likely require a period of hospitalisation for the infant
Recommended minimum number of days in hospital*	3

* The recommended hospitalisation period is not a requirement. Clinicians may deviate from this recommendation if individual circumstances warrant.

SUPPS or AOD and maternity health workers should aim to keep the mother and infant together after birth and encourage mother–infant bonding if there are no extenuating health or social risks. This means 'rooming in' in a postnatal ward setting.

In addition to providing basic infant care – that is, ensuring the infant feeds well, is consoled and comfortable, and sleeps and settles appropriately – SUPPS or AOD and maternity health workers should use a non-pharmacological approach as a first-line treatment for babies experiencing alcohol withdrawal. Where possible, parents and carers should play a central role in providing non-pharmacological support. See Non-pharmacological supportive therapies for more information. The Finnegan scale or modified Finnegan scale (see Appendix 2) may be used to identify withdrawal associated with alcohol, noting it is not validated for non-opioid exposure.

See Infants with prenatal substance exposure for general guidance on acute management and how to ensure multidisciplinary long-term follow-up for neurodevelopmental and other issues.

Fetal alcohol spectrum disorder

Screening

Neonates whose mothers have engaged in high-risk drinking during pregnancy – or who have previously given birth to a baby with FASD – should be carefully assessed for FASD by a paediatrician or FASD specialist at birth and at 6 months of age.[113] The follow-up assessment at 6 months is important because few affected babies have clear physical signs of FASD at birth, making diagnosis difficult at this early stage. Health professionals can use The Australian Guide to the Diagnosis of FASD to support diagnosis.

Given the association between prenatal alcohol exposure and behavioural problems later in childhood,[114] clinical documentation of periodic alcohol screenings and re-assessments throughout pregnancy (see Comprehensive assessment) helps paediatricians assess children who present for certain behavioural and neurological problems such as attention deficit hyperactivity disorder (ADHD).

[113] Haber PS, Riordan BC (2021). *Guidelines for the Treatment of Alcohol Problems* (4th edn). Sydney: Specialty of Addiction Medicine, Faculty of Medicine and Health, The University of Sydney.
[114] Ruisch IH et al. (2018). *Maternal substance use during pregnancy and offspring conduct problems: A meta-analysis*. Neurosci Biobehav Rev.Jan;84: 325–336.

Supporting infants with fetal alcohol spectrum disorder

An appropriately trained health professional should follow up on infants and young children who have been diagnosed with FASD up to at least 7 years of age. FASD care coordination should be family focused. As the National FASD Strategic Action Plan 2018–2028 explains:

> 'A diagnosis of FASD can place a substantial burden on parents, carers and families. Evidence supports the benefits of parent/carer-centred training programs, which increase the understanding of behaviour in terms of the underlying brain dysfunction, target interventions that promote child, individual and family function, and provide support to manage problem behaviours.'

Where possible, health professionals should also collaborate with education services to ensure appropriate support is provided in school. For more information on supporting infants with FASD – including targeted resources for parents, carers, educators and health professionals – see Managing FASD in the Commonwealth-supported FASD HUB.

Early screening and diagnosis of FASD lead to improved long-term outcomes, including in education and cognitive function,[115] and cost savings.[116] However, there is a lack of information about the impact of intervention on other outcomes, including mental health issues.

Prevalence of fetal alcohol spectrum disorder in Aboriginal communities

Although Aboriginal people are less likely to drink as often as non-Aboriginal people, they are more likely to engage in risky drinking, which is defined as consuming 11 or more drinks at least once a month. The context of AOD use also varies, with social use being more common in Aboriginal communities. With a higher risk of problematic alcohol use, Aboriginal children are at higher risk of FASD. As such, there is a need for dedicated supports for Aboriginal mothers and their children. See Supporting pregnant Aboriginal women for more information.

Tobacco and e-cigarettes

To provide smoking cessation support to women before, during and after pregnancy, NSW Health services and clinical staff should refer to the NSW Health Policy Directive *Reducing the effects of smoking and vaping on pregnancy and newborn outcomes* (PD2022_050).

Ask, advise, help

As detailed in the NSW Health Policy Directive *Reducing the effects of smoking and vaping on pregnancy and newborn outcomes* (PD2022_050), maternity staff should:

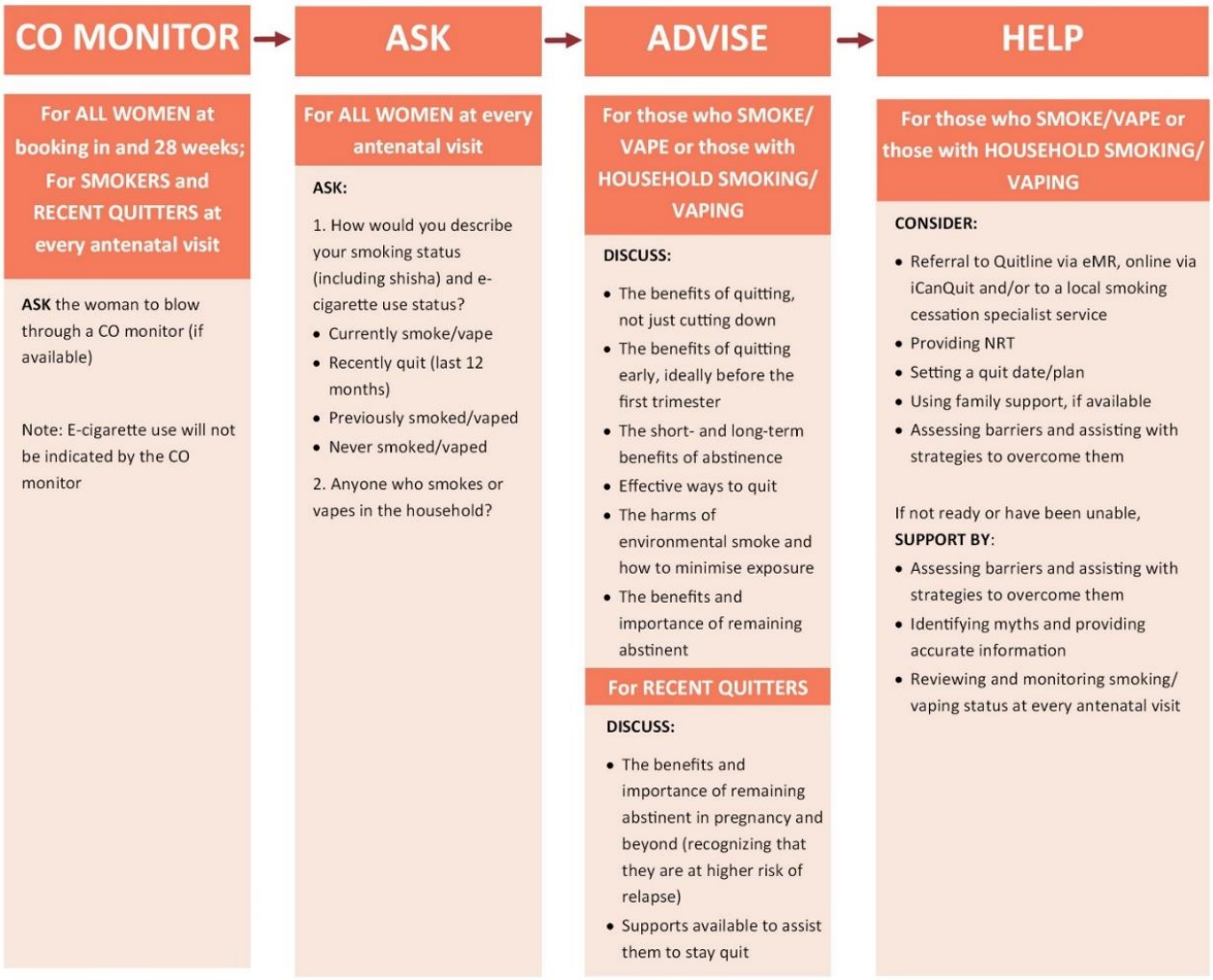
[115] Coles CD et al. (2009). *Math performance and behavior problems in children affected by prenatal alcohol exposure: intervention and follow-up*. J Dev Behav Pediatr. Feb;30(1):7–15.
[116] Berrigan P et al. (2019). *The cost-effectiveness of screening tools used in the diagnosis of fetal alcohol spectrum disorder: a modelled analysis.* BMC Public Health. Dec 27;19(1):1746.

- ask the woman to take a carbon monoxide (CO) monitor measurement. For more information, see the NSW Health resource on Using an expired carbon monoxide monitor and the COVID-19 Infection Prevention and Control Manual
- ask the woman about smoking and e-cigarette use
- advise the woman on the benefits of quitting and abstinence (to both mother and neonate), effective ways to quit, the harms of environmental smoke and e-cigarette vapour, and how to minimise exposure
- help with referrals, NRT, setting a quit date, assessing barriers and assisting with strategies to overcome them (see Figure 10).

Where available, maternity staff can make online therapeutic referrals through eMaternity.

For more information, including on the risks posed by smoking in pregnancy, refer to the My Health Learning Smoking & Vaping in Pregnancy learning pathway and the Clinical Excellence Commission's Safer Baby Bundle Handbook.

Figure 10: Tobacco and e-cigarette care pathway flowchart



Assessing dependence

Health workers can assess the dependence of women who smoke by using the Heaviness of Smoking Index (HSI), which is available in Appendix 3 or in the electronic medical record (eMR); for example, eMaternity or PowerChart for Maternity, for those working in NSW Health LHDs.

Pregnancy often motivates women to make positive behaviour changes and smoking is no exception. About three-quarters of tobacco-dependent pregnant smokers make at least one attempt to quit, but less than one-quarter succeed.[117] This gap demonstrates the difficulty of quitting and the importance of providing effective smoking cessation strategies to support pregnant women.

Smoking and vaping during pregnancy also carry a social stigma, so it is important to frame discussions in a supportive and non-judgemental manner. Maternity staff's effective engagement and sensitive questioning skills are believed to facilitate accurate disclosure. For more information, see Empathetic engagement. Staff should preferably ask open-ended or multiple-choice questions about smoking and vaping status, as there is strong evidence that avoiding questions with 'yes/no' answers is more likely to result in accurate disclosure.[118]

Risks of vaping exposure to children

The e-liquids found in vapes are dangerous to infants and young children if inhaled, swallowed or spilled on the skin.

The liquid in vapes can be a high risk for poisoning due to the high nicotine concentration and poor-quality packaging. A young child can die from very small amounts of nicotine. Like any other potential poison, it is important to keep e-cigarettes and e-liquids out of reach of children.

The common symptoms of vaping exposure are:

- coughing
- vomiting
- drowsiness
- difficulty breathing.

If a child has been exposed to the contents of a vape, or has inhaled, swallowed or spilled the liquid on their skin, call the Poisons Information Centre on **13 11 26**.

If they have collapsed or are not breathing, immediately call **000** for an ambulance.

The E-cigarette Child Safety pamphlet on the NSW Health website provides parents and carers with information about the importance of child safety around e-cigarettes.

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[117] Choi SKY et al. (2021). *The Comparative Effectiveness of Varenicline and Nicotine Patches for Smoking Abstinence During Pregnancy: Evidence from a Population-based Cohort Study*. Nicotine Tob Res. Aug 29;23(10):1664–1672.
[118] Wright TE (2016). *The role of screening, brief intervention, and referral to treatment in the perinatal period.* Am J Obstet Gynecol. Nov;215(5):539–547.

Further information to support advice

Maternity staff are well placed to dispel common myths on how to reduce the harms associated with smoking and vaping in pregnancy. They should stress that:

- there are benefits to quitting at any time in pregnancy; however, the earlier the better
- e-cigarettes have not been proven to be safe during pregnancy. All e-cigarette users are exposed to chemicals that have the potential to cause harm. Many e-cigarettes labelled as 'nicotine free' can contain high levels of nicotine and other harmful substances
- quitting smoking does not put stress on their baby. It is one of the best things they can do for their and their baby's health during pregnancy and postpartum
- smoking will not make labour easier. It does not affect head size and therefore does not facilitate easier labour
- 'cutting down' or using lower-strength cigarettes does not reduce harm to the fetus
- for infants prenatally exposed to opioids, tobacco exposure may increase the risk of neonatal opioid withdrawal and may be linked to longer-term learning challenges.

Though it may seem counterintuitive, there is no evidence that cutting down leads to a reduction in serum nicotine levels. Evidence suggests that smokers titrate their nicotine intake by varying their inhalation habits – a process known as 'compensatory smoking'. Examples of compensatory smoking include taking more inhalations per cigarette, holding the smoke in the lungs longer and smoking cigarettes closer to the butt before extinguishing them.

Therefore, the level of nicotine and carbon monoxide in the blood may be the same, even when smoking fewer cigarettes. If a woman reports a change in smoking, either through a reduction in the number or in the strength of cigarettes, ask how they inhale the smoke to better understand indications of compensatory smoking. Checking the woman's CO levels (if a monitor is available) may also provide useful information on compensatory smoking.

Management

Nicotine replacement therapy

Health workers may consider providing a pregnant woman with NRT to support smoking cessation, following a discussion with them on the risks and benefits and in consultation with other relevant health workers. When discussing the risks and benefits, health workers should note that NRT still contains nicotine – which could be harmful to the fetus – but it is safer than continued smoking. NRT generally delivers lower levels of nicotine and does not contain any of the dangerous toxins and chemicals in tobacco smoke.

The healthcare provider should regularly review NRT use to monitor for adequate dosing, side effects and changes in smoking behaviour and to provide brief intervention support.

NRT can be introduced early in pregnancy. The woman should complete at least a 12-week course. Higher doses may be required to control withdrawal symptoms or cravings as nicotine metabolism is higher during pregnancy.

First-line option – intermittent nicotine replacement therapy

Intermittent, short-acting NRT formulations (gum, lozenges and inhalators) are the preferred first-line option for pregnant women because they provide smaller daily doses of nicotine than continuous-use formulations (patches).

Second-line option – nicotine replacement therapy transdermal patch or combination nicotine replacement therapy

Health workers may consider an NRT transdermal patch where intermittent, short-acting formulations are unsuitable or unsuccessful. Patches should be removed at night to give the fetus a break from continuous nicotine exposure. Clients who are unable to abstain or continue to experience urges to smoke and/or experience withdrawal symptoms using a single type of NRT may require combination NRT (oral NRT plus patches).

This advice is in line with the Clinical Excellence Commission's Safer Baby Bundle. For more information on NRT and Quitline, see its Safer Baby Bundle Handbook.

Nicotine replacement therapy for vaping cessation

There are currently no NRT prescribing guidelines for vaping cessation. Exposure to nicotine via e-cigarettes is difficult to quantify. Nicotine exposure may be significantly higher or lower than traditional cigarettes. Take caution when estimating the NRT dose.

Varenicline

Though current Australian guidelines do not recommend its use in pregnancy, accumulating evidence suggests that varenicline could be a promising option for smoking cessation.[119,120,121] However, there is a lack of robust evidence regarding the risk of rare outcomes like congenital anomalies. Varenicline is one of the most effective smoking cessation strategies available to pregnant women.[122]

Bupropion

Though current Australian guidelines do not recommend its use in pregnancy, bupropion is an antidepressant that has been found to assist smoking cessation. Pregnant women may enquire about its use if they want to quit smoking. The use of bupropion during pregnancy or lactation is listed as a precaution[123] and more research is necessary to recommend its use during

[119] Choi S et al. (2021). *The comparative effectiveness of varenicline and nicotine patches for smoking abstinence during pregnancy: evidence from a population-based cohort study*. Nicotine and Tobacco Research.
[120] Tran DT et al. (2020). *Use of smoking cessation pharmacotherapies during pregnancy is not associated with increased risk of adverse pregnancy outcomes: a population-based cohort study*. BMC Medicine; 18(1):15.
[121] Pedersen L et al. (2020). *Risk of adverse birth outcomes after maternal varenicline use: A population-based observational study in Denmark and Sweden.* Pharmacoepidemiology and Drug Safety; 29(1):94–102.
[122] Cahill K et al. (2013). *Pharmacological interventions for smoking cessation: an overview and network meta-analysis*. Cochrane Database of Systematic Reviews; Issue 5.
[123] Zyban SR (2021). *Zyban SR*. NPS MedicineWise NPS MedicineWise.

pregnancy. Though there are reports of fetal heart defects, the link to bupropion is unclear. It is available only on prescription (Schedule (S4)).

Other management considerations

Smoking cessation and other medications

If a pregnant woman wishes to quit smoking or vaping and has been prescribed antipsychotic medications, cessation should be undertaken in consultation with the prescribing doctor, as the dose of the antipsychotics may need to be adjusted. The CYP2D enzyme is mutated or activated by inducers (such as nicotine), which may be important in metabolising medications used to treat neurodegenerative or psychiatric diseases.[124] Therefore, quitting smoking or vaping may contribute to a change in mental health. Refer to Tool 7: Quick guide to drug interactions with smoking cessation and/or Tool 8: Clozapine, olanzapine and smoking cessation for further information.

The importance of relapse prevention in the postnatal period

Most mothers who quit smoking during pregnancy will relapse within 6 months and about 70% will relapse by 12 months.[125] In the postnatal period, maternal smoking increases the risk of poor health outcomes in infants and children, including SIDS, respiratory infections, asthma and middle ear disease. Therefore, sustained abstinence in the postnatal period is important. To assist with relapse prevention, health professionals should identify pregnant women who have recently quit smoking or vaping (in the past 12 months) and offer ongoing support and advice to help them remain smoke-/vape-free during their pregnancy and beyond.

Smoking or vaping alongside alcohol and other drug use

It is common for people with problematic AOD use to smoke or vape, so SUPPS and AOD services are well placed to intervene and support smoking cessation. Though there may be concern that smoking cessation may compromise AOD treatment, research suggests smoking cessation efforts may, in fact, support long-term AOD treatment outcomes.[126,127,128,129]

There is no current evidence on the long-term impact or safety of breastfeeding in e-cigarette users. But, because nicotine may be in liquids used for aerosolisation in e-cigarettes, the same breastfeeding advice for tobacco smoking applies to e-cigarettes.

[124] Haduch AA, Bromek E, Daniel WA (2013). *Role of brain cytochrome P450 (CYP2D) in the metabolism of monoaminergic neurotransmitters*. Pharmacol Rep. 65(6):1519–28.
[125] Gould GS, Oncken C, Mendelsohn CP (2014). *Management of smoking in pregnant women*. AFP. 43;1–2.
[126] Apollonio D et al. (2016). *Interventions for tobacco use cessation in people in treatment for or recovery from substance use disorders*. Cochrane Database Syst Rev. 11:CD010274.
[127] Prochaska JJ et al. (2004). *A meta-analysis of smoking cessation interventions with individuals in substance abuse treatment or recovery*. J Consult Clin Psychol. 72:1144–56.
[128] Friend KB, Pagano ME (2005). *Smoking cessation and alcohol consumption in individuals in treatment for alcohol use disorders*. J Addict Dis. 24:61–75.
[129] Banham L, Gilbody S (2010). *Smoking cessation in severe mental illness: What works?* Addiction. 105:1176–89.

Breastfeeding

Though smoking poses risks to maternal and child health, it is not contraindicated in breastfeeding. It is important to assess the woman for polysubstance use before providing advice on breastfeeding.

In addition to informing the woman that the safest option is to quit smoking or vaping and supporting them to quit (see Ask, advise, help), encourage them to breastfeed.[130]

To minimise the baby's exposure to smoke or e-cigarette vapour, SUPPS or AOD and maternity health workers should advise women who smoke or vape while breastfeeding, and other smokers or vapers in the infant's household, to:

- feed and settle the baby before having a cigarette or vape
- smoke and vape outside, away from the baby
- change their shirt and wash their hands after smoking or vaping
- smoke fewer cigarettes or take fewer puffs of a vape daily
- try not to smoke or vape for at least one hour prior to feeding the baby, either by breast or bottle.

To minimise nicotine exposure through breastmilk, women who use NRT while breastfeeding should be advised to:

- use an intermittent delivery method of NRT (inhalator, gum, lozenge or mouth spray) as a first-line treatment. An NRT transdermal patch can be considered as a second-line treatment, if necessary
- breastfeed first, then use NRT as soon as possible after feeding, if using an intermittent delivery method. This maximises the time between use of NRT and the next feed and reduces the baby's exposure to nicotine.

[130] Gould GS et al. (2020). *Exposure to Tobacco, Environmental Tobacco Smoke and Nicotine in Pregnancy: A Pragmatic Overview of Reviews of Maternal and Child Outcomes, Effectiveness of Interventions and Barriers and Facilitators to Quitting*. Int J Environ Res Public Health. Mar 19;17(6):2034.

Cannabis

The 2 major chemicals in cannabis are tetrahydrocannabinol (THC) and cannabidiol (CBD). THC is the principal psychoactive chemical. Lower THC/higher CBD cannabis is less harmful than higher THC/lower CBD cannabis. Cannabis products vary in their strength, ratios and routes of intake, hence can have very different pharmacological profiles. For example, Nabiximols, a cannabis product approved by the TGA for use in specific conditions, contains 2.7 mg of THC and 2.5 mg of CBD in each 100 microlitre spray, whereas illicit cannabis can be sold at a variety of concentrations but is typically around 5–15 mg of THC per 100 mg.

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Screening for pregnant women

As with other substances and prescription medications, maternity staff should ask about cannabis use at booking in (or the first antenatal visit), noting cannabis can be used illicitly or as prescribed. Maternity staff should repeat screening at follow-up antenatal visits. If the pregnant woman identifies as an Aboriginal person, maternity staff may offer them a referral to an Aboriginal-focused service for AOD screening.

Health workers should refer a pregnant woman who discloses cannabis use to SUPPS, where available, or an AOD service. To contact the AOD service in your LHD, refer to the Local intake lines webpage.

Maternity staff should be supportive and non-judgemental when asking questions about cannabis use. Evidence suggests that the self-disclosure of AOD use is reliable in a trusting, professional relationship. It is important to be aware that pregnant women may be very concerned DCJ will take their child (as well as any children currently in their care) if they disclose their AOD use. For information on building trust and providing support to women and their children in these circumstances, see Protecting the safety, welfare and wellbeing of children and the unborn child.

Maternity staff should also consider the increasing normalisation and legalisation of cannabis use around the world – most notably in some US states and Canada. In Australia, medical professionals are increasingly prescribing cannabis to treat conditions such as anxiety. These trends affect perceptions of cannabis use and may lead to some underestimating its risks in pregnancy and discounting the potential for dependency. In these cases, maternity staff may acknowledge the emerging evidence, but should stress that cannabis use, in general, is not advised during pregnancy. A risk-benefit analysis should be done for women who have been

[131] NSW Health (2022). *Management of Withdrawal from Alcohol and Other Drugs Handbook*, P68–-69.

prescribed cannabis, including a review of the original indication(s). If necessary, seek specialist advice (e.g. from an addiction medicine specialist or obstetrician).

Advice for women

Quitting is the best option

Health workers should advise women that the best option is to not use cannabis, even when prescribed. Quitting during the first trimester is ideal. Health workers should also advise them that the research on the impact of cannabidiol (CBD) in pregnancy is limited; therefore, the best advice is to avoid it in pregnancy.

Keep the environment smoke free

If the mother or other household members smoke cannabis in the postnatal period, health workers should advise them to keep the infant's environment smoke free and exercise safe sleeping practices, as it is a risk factor for SIDS.[132,133] This applies specifically to mothers and other household members who smoke cannabis mixed with tobacco. For more information, including advice on co-sleeping and how to minimise harm, see Sudden unexpected deaths in infancy (SUDI) and Sudden Infant Death Syndrome (SIDS).

Management

SUPPS or AOD health workers may use the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) to assess cannabis dependence (Appendix 4).

Hyperemesis

There are increasing reports of hyperemesis (vomiting) in pregnant women who regularly use cannabis over the long term.[134,135] Abstinence and possibly heat packs may relieve symptoms.[136] In all cases of hyperemesis in pregnancy, the woman's obstetric team should review and consider cannabis use as a possible cause.[137] For more information, refer to the NSW Health Guideline *Nausea and Vomiting in Pregnancy and Hyperemesis Gravidarum* (GL2022_009).

Mental health

Women who report an alteration of mood or perceptual disturbances – either from continued use or since stopping cannabis – should be referred to their GP or a mental health service for assessment of mental health and need for medication support.

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[132] Scragg RK et al. (2001). *Maternal cannabis use in the sudden death syndrome*. Acta Paediatr. Jan;90(1):57–60.
[133] Makarious L et al. (2021). *Association of Sudden Infant Death Syndrome following Prenatal Drug Exposure: A Meta-Analysis*. Proceeds of the Pediatric Academic Societies Meeting (virtual).
[134] Alaniz VI et al. (2015). *Cannabinoid hyperemesis syndrome: a cause of refractory nausea and vomiting in pregnancy.* Obstet Gynecol. Jun;125(6): 1484–1486.
[135] Flament J et al. (2020). *Cannabinoid hyperemesis syndrome in the pregnant patient: clinical case and literature review*. Int J Emerg Med. Oct 28;13(1):52.
[136] Alaniz VI et al. (2015). *Cannabinoid hyperemesis syndrome: a cause of refractory nausea and vomiting in pregnancy*. Obstet Gynecol. Jun;125(6): 1484–1486.
[137] Flament J et al. (2020). *Cannabinoid hyperemesis syndrome in the pregnant patient: clinical case and literature review*. Int J Emerg Med. Oct 28;13(1):52.

Inpatient admission

SUPPS or AOD health workers may consider an inpatient admission for women with severe cannabis dependence. For more information on managing acute cannabis withdrawal in pregnancy, see acute withdrawal.

For general information on managing substance use in pregnancy, see Screening and antenatal care and Birth, postnatal care and breastfeeding.

Acute withdrawal

Assessment

Symptoms typically emerge one to 2 days after last use and peak at days 2 to 5. While the withdrawal symptoms can be more protracted in some cases, they typically resolve by day 7. Appetite and sleep disturbance predominate, with symptoms of restlessness, anxiety, irritability and several less common moderate physical complaints.[138,139] Cannabis withdrawal in pregnancy is not usually associated with fetal distress or pregnancy complications.

SUPPS or AOD health workers may find it valuable to use the Cannabis Withdrawal Assessment Scale to appropriately measure cannabis withdrawal and tailor clinical intervention. However, workers should note that the validity and reliability of the scale have not been tested on a pregnant population.

Management

As there is no specific research on maternal cannabis withdrawal in pregnancy, there is no evidence-based pharmacological approach for treating it. As with the general population, supportive care interventions can help women cope with cannabis withdrawal symptoms.

Withdrawal symptoms can be acute and very distressing for those with severe cannabis dependence and have been linked to difficulty achieving abstinence. Though it is not required from a medical perspective, an inpatient setting may be considered to provide extra psychosocial and medication support. This setting may provide the woman with relief from acute withdrawal symptoms and time away from home and the behavioural cues associated with cannabis use. Inpatient admission may also be advisable for women who are also dependent on other substances (such as alcohol or benzodiazepines) or women with significant mental or physical co-occurrences.

See Infants with prenatal substance exposure for information on infant withdrawal. For more information on cannabis withdrawal, see Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance.

[138] Bonnet U, Preuss UW (2017). *The cannabis withdrawal syndrome: current insights*. Subst Abuse Rehabil. Apr 27;8:9–37.
[139] Kesner AJ, Lovinger DM (2021). *Cannabis use, abuse, and withdrawal: cannabinergic mechanisms, clinical, and preclinical findings*. J Neurochem. Apr 23.

Breastfeeding

Though it is not advised to use cannabis during lactation, the benefits of breastfeeding likely outweigh the risks of cannabis exposure via breastmilk. Assess the woman for polysubstance use before providing advice on breastfeeding.

In addition to supporting mothers who use cannabis to stop or reduce their use, encourage them to breastfeed. Women who use cannabis while breastfeeding should be informed:

- that the safest option is to stop using cannabis
- of the lack of evidence on the long-term effects on the infant
- that cannabis is a long-acting, highly fat-soluble drug that may be contaminated with pesticides or other toxic substances
- that cannabis crosses into breastmilk and that it is not protective to refrain from using it until after a feed (as with alcohol) as it stays in breastmilk for days to weeks
- of the importance of having a safety plan (e.g. nursing in a safe position or having a support person to help) because cannabis can cause drowsiness.

Neonates and infants

Neonates with prenatal exposure to cannabis may be observed in hospital for signs of withdrawal, as indicated. Problematic maternal use in the 2 to 4 weeks prior to birth is likely to result in the neonate being hospitalised. Neonates should be provided supportive care and medications if needed.

Table 7: Key facts about neonatal cannabis withdrawal

Neonatal withdrawal characteristics	Increased tremors and startles, as well as poorer habituation to visual stimuli
Peak effects of withdrawal	2–3 days to 4–6 weeks
Pharmacological treatment (if required)	Phenobarbitone
Likelihood of infant needing hospitalisation	Problematic maternal use in the 2–4 weeks prior to birth will likely require a period of hospitalisation for the infant
Recommended minimum number of days in hospital*	3

* The recommended hospitalisation period is not a requirement. Clinicians may deviate from this recommendation if individual circumstances warrant it.

SUPPS or AOD and maternity health workers should aim to keep the mother and infant together after birth and encourage mother–infant bonding if there are no extenuating health or social risks. This means ‘rooming in’ in a postnatal ward setting. In addition to providing basic

infant care – that is, ensuring the infant feeds well, is consoled and comfortable, and sleeps and settles appropriately – SUPPS or AOD and maternity health workers should use a non-pharmacological approach as a first-line treatment for babies experiencing cannabis withdrawal. Where possible, parents and carers should play a central role in providing non-pharmacological support. See Non-pharmacological supportive therapies for more information.

Though there are no cannabis-specific withdrawal scales for newborns, the Finnegan scale or modified Finnegan scale (see Appendix 3) may be used to assess infant withdrawal.

Due to the long half-life of cannabis, symptoms of neonatal withdrawal may not be evident until after the infant has been discharged from hospital. SUPPS or AOD and maternity health workers should therefore:

- inform parents and carers of this potential issue
- follow up with education on sleep and settling techniques after hospital discharge.[140]

See Infants with prenatal substance exposure for general guidance on acute management and how to ensure multidisciplinary long-term follow-up for neurodevelopmental and other issues.

Opioids

Screening for pregnant women

As with other substances and the non-medical use of prescription medication, maternity staff should ask about heroin and non-medical use of prescription opioids at booking in (or the first antenatal visit). Staff should repeat screening at follow-up antenatal visits. If the pregnant woman identifies as an Aboriginal person, maternity staff may offer them a referral to an Aboriginal-focused service for AOD screening.

Health workers should refer women who disclose use to SUPPS, where available, or an AOD service. To contact the AOD service in your LHD, refer to the Local intake lines webpage.

Maternity staff should be sensitive and non-judgemental when asking questions about non-medical opioid use. Evidence suggests that self-disclosure of AOD use is reliable in a trusting, professional relationship. It is important to be aware that pregnant women may be very concerned that DCJ will take their child (as well as any children currently in their care) if they disclose their AOD use. For information on building trust and providing support to women and their children in these circumstances, see Protecting the safety, welfare and wellbeing of children and the unborn child.

[140] Fried PA (1995). *Prenatal exposure to marihuana and tobacco during infancy, early and middle childhood: effects and an attempt at synthesis*. Arch Toxicol Suppl. 17:233–60.

Advice for women

Polydrug use can be especially risky with opioids

Health workers should advise women using opioids that they can cause an overdose, especially when consumed with alcohol or other sedatives like GHB or benzodiazepines.

Consider keeping naloxone on hand

Health workers should offer naloxone and provide advice on its safe use in pregnancy (see other opioid-related medications).

The newborn may need extra support in the first few weeks

Health workers should advise women that their infant may require longer hospitalisation and extra support for the first few weeks after birth (or longer). This advice also applies to women receiving opioid treatment. See Neonates and infants for more information.

All women – including those who use alcohol and other drugs or receive opioid treatment – should receive pain relief during birth

Many pregnant women who use AODs or who are on the OTP report feeling scared they will be denied pain relief during birth. Health workers should reassure them that they will receive the same maternity care as other pregnant women, with consideration of their unique circumstances and needs.

Management

Injecting opioid use

If the woman consents, inspect injection sites for inflammation and infection as this poses a risk to maternal health and increases the risk of adverse pregnancy complications. Health workers should also discuss safe injecting practices, where to get sterile equipment, signs of pregnancy complications and when to seek medical attention.

All pregnant women should be screened for BBVs, but those who inject opioids are at a higher risk. SUPPS or AOD or maternity health workers should re-screen women with ongoing injecting opioid use in the third trimester for BBVs. For more information, see Caring for pregnant women with blood-borne viruses and their infants.

Women with a history of intravenous drug use are sometimes familiar with which areas are more amenable for venous access. Therefore, health workers should listen to women's suggestions and try to accommodate them, including by using butterfly needles where possible. Listening to the woman's input can help build a trusting relationship with staff and may influence the extent to which they engage with all care providers.

Opioid dependence treatment

Opioid dependence treatment (ODT) is the preferred treatment for opioid dependence in pregnancy. A pregnant woman with opioid dependence should be offered ODT along with other relevant care, such as counselling and psychosocial support.

Antenatal care

- **Safety and efficacy:** Both ODT medications – methadone and buprenorphine – are safe and effective for both mother and neonate during pregnancy[141] and are associated with improved fetal development and infant birth weight, and a reduction in neonatal mortality.[142] This effect may be reduced by continued heroin or other substance use (including tobacco, benzodiazepines or ATS) or very late stabilisation on ODT during pregnancy.

Nonetheless, the Therapeutic Goods Administration categorises both methadone and buprenorphine (including depot buprenorphine) as Category C[143] in pregnancy.

- **Choice of pharmacotherapy and induction:**[144,145,146,147] Buprenorphine should be used over methadone as the first-line treatment for women not already receiving ODT. Women already receiving ODT should be maintained on their existing ODT formulation and medication. For further advice, including what to do if treatment is not optimal and when to consider switching ODT formulations or medications, see Figure 11. See Table 8 for further considerations regarding ODT formulations and medications in pregnancy.

In addition to this advice, OAT prescribers should consider the pregnant woman's potential history of stabilisation and their preference. Decisions should be based on the individual clinical assessment and the pregnant woman should be involved in the decision-making process.

Pregnant women with opioid dependence should have priority access to ODT. This may include admission to an inpatient obstetric unit for stabilisation and rapid dose titration, with respite from the external environment. If the woman's partner is also opioid dependent, they should also be offered priority access to ODT, as a partner's opioid dependence may increase the woman's risk of relapse.

If a pregnant woman is already receiving methadone treatment, transferring to buprenorphine may cause precipitated withdrawal. Buprenorphine is a partial opioid-receptor agonist with a

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[141] Jones HE et al. (2012). *Maternal Opioid Treatment: Human Experimental Research (MOTHER)--approach, issues and lessons learned*. Addiction. Nov;107 Suppl 1(0 1):28–35.
[142] Jones HE et al. (2012). *Maternal Opioid Treatment: Human Experimental Research (MOTHER)--approach, issues and lessons learned.* Addiction. Nov;107 Suppl 1(0 1):28–35.
[143] Department of Health's Therapeutic Goods Administration. Australian categorisation system for prescribing medicines in pregnancy.
[144] Kinsella M et al. (2022). Bupr*enorphine compared with methadone in pregnancy: a systematic review and meta-analysis.* Substance Use & Misuse. Jul 29;57(9):1400–16.
[145] Zedler BK et al. (2016). *Buprenorphine compared with methadone to treat pregnant women with opioid use disorder: a systematic review and meta-analysis of safety in the mother, fetus and child*. Addiction. Dec;111(12):2115–28.
[146] Welle-Strand GK et al (2013). *Neonatal outcomes following in utero exposure to methadone or buprenorphine: a National Cohort Study of opioid-agonist treatment of Pregnant Women in Norway from 1996 to 2009.* Drug and alcohol dependence. Jan 1;127(1-3):200–6.
[147] Klaman SL et al (2017). Treating women who are pregnant and parenting for opioid use disorder and the concurrent care of their infants and children: literature review to support national guidance. *Journal of addiction medicine*. May.

higher affinity for opioid receptors than methadone. However, a pregnant woman may transfer more easily from buprenorphine to methadone if buprenorphine is proving not to be a suitable treatment option.

Figure 11: ODT decision-making tool in pregnancy

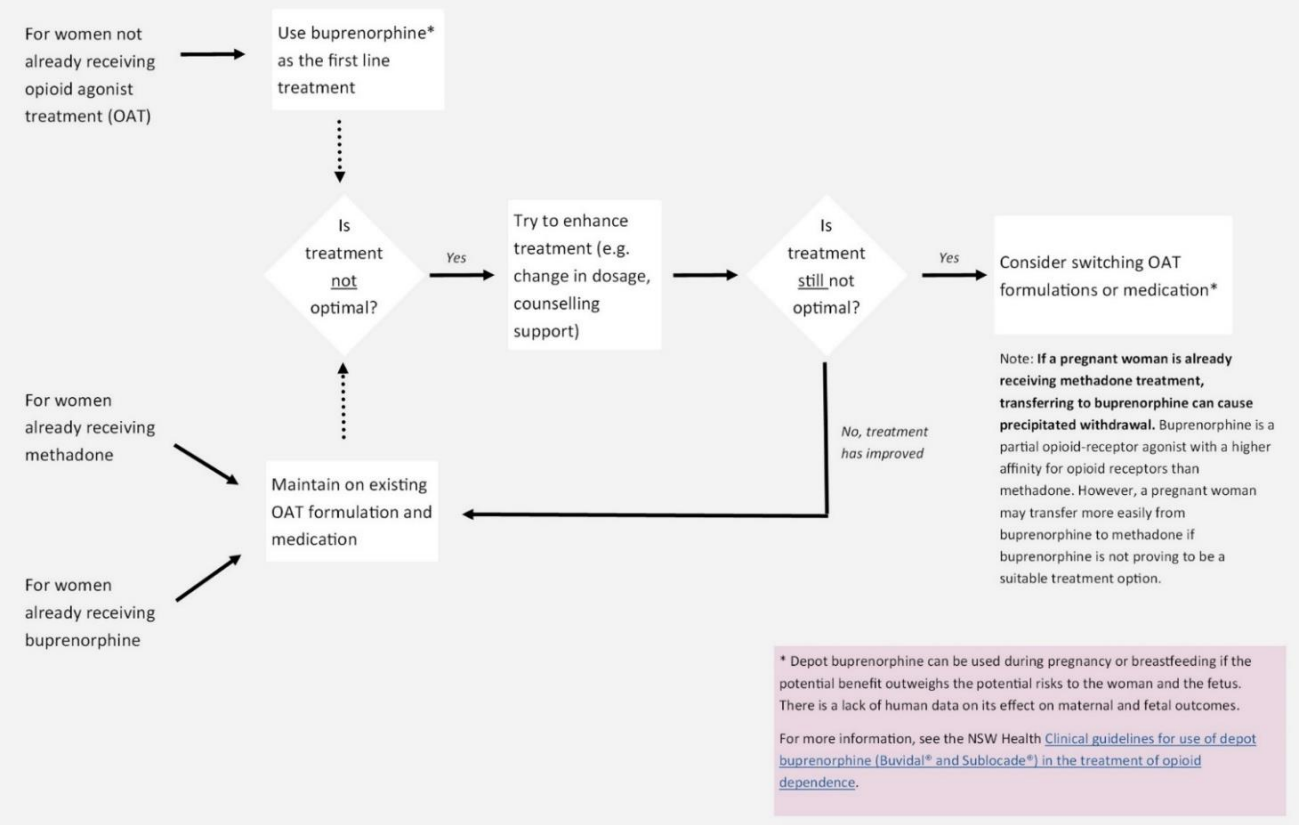

Table 8: Considerations for methadone, sublingual buprenorphine and depot buprenorphine in the clinical management of pregnant women with opioid dependence

Medication	Considerations in pregnancy
Methadone	Safety and efficacy: • reduced risk of precipitating withdrawal • vomiting may lead to withdrawal in both mother and fetus • higher risk of overdose (e.g. if used with sedatives) • risk of overdose if other children in the household access takeaway doses. Woman's convenience: • less convenient option as takeaways are less commonly provided (often requires daily supervised dosing).
Sublingual buprenorphine **(*Subutex or Suboxone*)**	Safety and efficacy: • less severe withdrawal in neonates (shorter duration and less severity) • reduced risk of overdose compared to methadone as it is a partial agonist with a ceiling effect • reduced risk of overdose compared to methadone if other children in the household access takeaway doses

	• no concerns for vomiting doses or need for split doses (as with methadone). Woman's convenience: • convenient option as takeaways may be provided (may require daily or near daily supervised dosing).
Depot buprenorphine	Safety and efficacy: • can be used during pregnancy or breastfeeding if the potential benefit outweighs the potential risks to the woman and the fetus. There is a lack of human data on its effect on maternal and fetal outcomes • no risk of overdose for other children in the household as no takeaway doses are required • no concerns for vomiting doses or need for split doses (as with methadone). Woman's convenience: • most convenient option (can receive weekly or monthly dosing). For more information, see the NSW Health Clinical guidelines for use of depot buprenorphine (Buvidal® and Sublocade®) in the treatment of opioid dependence.

Public clinics across NSW provide free ODT to people with opioid dependence. These clinics are best placed to provide integrated care for pregnant women who are on ODT. SUPPS or AOD health workers should offer women a transfer to one of these public clinics. Public clinics should prioritise pregnant women for ODT management and dosing. If the pregnant woman is unable or unwilling to transfer to a public clinic for ODT, SUPPS or AOD health workers should contact the woman's ODT prescriber to discuss pregnancy considerations and offer shared care arrangements.

- **Dosing considerations in pregnancy:** A pregnant woman's ODT dose should be titrated to a level clinically associated with a marked reduction in, or cessation of, illicit opioid use. During pregnancy, SUPPS or AOD health workers should regularly review the woman's dose as increases may be required in the third trimester due to increased metabolism and volume of distribution. There is little relationship between the severity of the infant's withdrawal and the maternal opioid dose. Therefore, neonatal withdrawal should not be a factor in deciding the optimal dose of either methadone or buprenorphine.

There is insufficient evidence to prove split dosing with methadone is routinely preferable to single daily dosing during pregnancy. It may help stabilise conditions within the uterus for the developing infant by reducing the difference between peak and trough concentrations of methadone in the blood.[148,149] Split dosing may be considered for pregnant women who experience withdrawal symptoms as pregnancy advances.

[148] Westermeyer J et al. (2016). *Pharmacotherapy in methadone maintenance: clinical utility of peak-trough blood levels*. Addict Disord Their Treatment; 15:157–164.
[149] Whittmann BK, Segal S (1991). A *comparison of the effects of single and split dose methadone administration on the fetus: an ultrasound evaluation*. Int J Addict; 26:213–218.

To avoid the woman attending the clinic twice daily, SUPPS or AOD health workers should consider providing the second part of the split dose as a takeaway if the usual safety criteria can be met. The factors to be taken into account when issuing a takeaway dose include, but are not limited to, the risk of diversion, the woman's other AOD use, the clinic's opening hours, the woman's safety when attending a clinic, the distance and cost of transport, the presence of other children in the household, the presence or absence of a reliable partner to share the care of the other children, and the woman's involvement in paid work.

Women on buprenorphine may be less likely to require split dosing due to the long length of action of buprenorphine, which is related to its high affinity to opioid receptors and long binding time.

- **Management of vomiting:** Vomiting is a serious concern in pregnant women receiving methadone treatment as it may lead to withdrawal in both mother and fetus. Withdrawal symptoms cause fetal distress and should be avoided. Vomiting is generally less of a concern with regard to the absorption of buprenorphine as it is administered sublingually.

If a methadone dose is vomited by a pregnant woman:

- more than 10 minutes after dosing:
  - reassure the woman that most of the dose would have been adequately absorbed
  - the woman may return for clinical review after 3 to 6 hours if there are concerns

- less than 10 minutes after dosing:
  - administer a supplementary dose of up to half the woman's usual dose, subject to a valid available prescription, if a woman has been in treatment for 2 or more weeks and dispensing or clinical staff observes vomiting. This will require communication with the prescriber prior to the administration of any supplementary dose
  - review the woman 3 to 6 hours after dosing if they are in the first 2 weeks of treatment or if there is some uncertainty about the event. If the woman is experiencing withdrawal at this time, a supplementary dose of up to half the woman's usual dose may be administered, subject to a valid available prescription.

Where there is doubt, an experienced clinician should reassess the woman 4 to 6 hours after vomiting – when the effects of methadone should peak – to determine whether an additional small dose is required.

Consider the following when managing ongoing problems with vomiting during pregnancy.

- Women should be discouraged from ingesting methadone on an empty stomach.
- Women should be encouraged to sip their dose slowly.
- If the dose of methadone appears to consistently cause vomiting, consider splitting the dose or giving an anti-emetic (e.g. rectal prochlorperazine) 30 to 60 minutes before dosing.

- If a woman vomits constantly and not necessarily in relation to their dose of methadone, they should be assessed and treated according to obstetric protocols for hyperemesis gravidarum.
- Assess the degree of dehydration and ketosis (consider admission if urine ketones are more than 2+).
- Look for other causes of vomiting (e.g. urinary tract infection).
- Consider the need for intravenous rehydration.
- Consider the need for pharmacotherapy (e.g. oral or parenteral metoclopramide, oral or parenteral rectal prochlorperazine, or oral or parenteral ondansetron).
- Consider the need for improving nutritional status (e.g. through improved diet, or vitamin or iron supplements).

Birth – pain management

For women receiving methadone or buprenorphine treatment, their usual dose will not relieve the pain of labour. They should receive their usual dose on time, but labour pain should be assessed as a separate issue.

- **Methadone:** The dose of analgesic drugs is to be titrated to response, bearing in mind the tolerance the woman developed to opioids during methadone treatment. Morphine may be ineffective in women who are opioid dependent due to changes in the opiate receptors. Therefore, if non-pharmacological means of analgesia or Entonox gas are ineffective, regional anaesthesia may be more appropriate and may be discussed with the anaesthetic team on call in the labour ward.
- **Buprenorphine:** Women receiving buprenorphine treatment should be given other analgesia (including simple analgesics such as paracetamol and opioids, if indicated) to manage pain. Full opioid agonists (e.g. morphine) may be less effective due to the pharmacology of buprenorphine (μ opioid agonist with high receptor affinity). Regional anaesthesia may be considered for managing pain in labour.

Women receiving ODT should be encouraged to present early in labour, particularly if there are concerns about maternal stability during treatment. Early presentation will reduce the risk of unprescribed opioid use to manage labour pain.

Women whose pain is continuous and difficult to control at any stage during pregnancy, birth or the postnatal period should have alternative pathological causes of pain excluded through well-directed investigations.

Birth – continuity of dosing

The birth unit (or other relevant staff) should ensure the continuity of dosing when a woman on OTP presents to give birth.

To ensure this, the birth unit (or other relevant staff) should:

- contact the SUPPS or AOD service (if it is not already involved)
- confirm the woman's identity (birth date, address, photo, etc.)
- observe for signs of withdrawal or overdose
- confirm type, time, quantity of last dose (including last supervised dose), time of next dose and if they have takeaway doses.

If the woman will not be able to attend their next dose, health staff should:

- inform the usual dosing point (e.g. clinic or pharmacy) that the woman is an inpatient and will not be attending for dosing
- have the woman provide any takeaway doses to hospital staff to reduce the risk of double dosing
- obtain a copy of their current prescription for the hospital prescriber
- confirm the dosing history, including last dose details, to confirm the frequency of their recent dosing and assess their tolerance
- arrange to have the woman receive their dose as scheduled. In NSW, prescribers can provide opioid treatment to people with opioid dependence admitted to a public or private hospital for up to 14 days *without* approval from the NSW Ministry of Health. For more information, see the NSW Health Policy Directive *Opioid Dependent Persons Admitted to Hospitals in NSW - Management* (PD2006_049)
- explore recent AOD use by taking an AOD use history before administering the first opioid treatment dose in hospital.

If dose details cannot be obtained, contact an AOD staff specialist in your LHD or the Drug & Alcohol Specialist Advisory Service (DASAS).

At discharge from hospital, health staff should contact the woman's authorised prescriber and the opioid treatment dosing point to:

- inform them in advance of the discharge
- provide information about the quantity and date of the last dose in hospital
- advise whether the woman needs to continue opioid analgesia after hospital discharge.

This will ensure the appropriate arrangements are in place for the woman to continue their opioid treatment.

Postnatal care

Dose review after birth: Dose reduction after giving birth is a common practice, but the extent and timing of reductions have not been investigated in research studies. The woman's prescriber should review their dose in the early days following birth and regularly as indicated thereafter. SUPPS or AOD health workers should liaise with the woman's prescriber and consider dose reduction when developing the postnatal plan with the woman. For more

information on developing the postnatal plan, see Preparation for birth, transfer of care and the postnatal period.

The focus in reviewing the dose should be on supporting and enhancing the woman's stability, considering:

- signs of withdrawal or intoxication
- risk of problematic drug use
- sedation, which may impact the woman's ability to care for the newborn.

Effective coordination between the midwife, obstetric services, neonatal services, child and family health services, child protection services, Aboriginal medical services, and AOD treatment services is crucial in the postnatal period. The case manager should facilitate communication (regardless of where they are located).

Managed withdrawal

ODT is the preferred treatment for opioid dependence in pregnancy because it is effective, has a lower risk of relapse than withdrawal alone and is the most acceptable choice for most clients. Nevertheless, managed withdrawal from opioids may be considered, particularly if the woman:

- is prescribed opioids for chronic, non-malignant pain issues
- can trial withdrawal off prescribed opioids (supported by their GP and/or treating pain team).

Some women may benefit from further psychosocial support, such as residential rehabilitation, after withdrawal.

The second trimester is the least risky time for the fetus to do managed withdrawal.

Though controlled withdrawal can be considered, acute opioid withdrawal carries significant risks to the pregnancy and the fetus. See Acute substance withdrawal in pregnancy for more information on acute opioid withdrawal in pregnancy.

Prescribed opioids

SUPPS or AOD or maternity health workers should do the following if a pregnant woman is taking prescription opioids for medical use only.

- Ensure there is joint decision-making between the woman, the SUPPS or AOD team, the maternity team and the doctor prescribing opioids.
- If not already involved, include the woman's GP and a pain specialist in the decision-making.
- Assess the woman for dependence, risk of withdrawal and possible need for opioid treatment.

- Advise the woman of the risks to the fetus and the possibility of opioid withdrawal in their newborn (see Neonates and infants).

In cases of continued medical opioid use in pregnancy, maternity staff should refer the woman to SUPPS, where available, or an AOD service.

Other opioid-related medications

Naltrexone

Naltrexone should not be offered in pregnancy as its safety and efficacy in pregnancy have not been established. Human studies of the effects of naltrexone in pregnancy are limited.

If a woman on naltrexone becomes pregnant and is progressing well in treatment, they should be advised that naltrexone's safety has not been established. If they wish to continue naltrexone and can provide valid consent, it is acceptable to continue naltrexone during pregnancy. It is recommended that a record of the woman's valid consent is kept. SUPPS or AOD health workers should ensure follow-up of babies exposed to naltrexone in utero.

Take Home Naloxone

The Take Home Naloxone program makes naloxone available free to people who may experience, or have witnessed, an opioid overdose. Special consideration is needed when using naloxone on pregnant women to weigh the risk of maternal overdose, which could lead to the death of both mother and fetus, against the risk of naloxone-precipitated acute withdrawal, which, if severe, could cause early miscarriage or preterm labour.

The general principles for health workers treating a pregnant woman with naloxone for opioid overdose are as follows.[150]

- Provide standard resuscitation procedures, including airway and hemodynamic support.
- Place the woman in a left lateral position with the right hip supported by a blanket/pillow to reduce pressure on the inferior vena cava from the gravid uterus, especially at more than 20 weeks gestation.
- Use the lowest dose (400 mcg) of naloxone[151] required to effectively reverse opioid effects. Repeat this dose every 4 minutes until the woman is responsive and spontaneously ventilating. (Administering naloxone with an intramuscular injection is preferable to intranasal spray because the latter has a longer duration of action. Please note that a nasal naloxone preparation should be used if injectable naloxone is not available.)
- Call for an ambulance and transfer the mother to a hospital that has the facilities to assess and treat both them and their fetus.

[150] Blandthorn J et al. (2018). *Managing opioid overdose in pregnancy with take-home naloxone*. Aust N Z J Obstet Gynaecol. Aug;58(4):460–462.
[151] WHO (2014). *Management of Substance Abuse. Community Management of Opioid Overdose*. Geneva.

Acute withdrawal

Acute opioid withdrawal in pregnancy may increase the risk of miscarriage, premature labour, stillbirth and fetal distress. A comprehensive substance history should be taken if a pregnant woman presents in acute opioid withdrawal from heroin or other opioid drugs. The history also informs decisions about ODT, if indicated.

If it is confirmed the pregnant woman is opioid dependent but not on the OTP, they should be:

- given information about the risks of acute opioid withdrawal and the evidence about outcomes from opioid withdrawal treatment
- given information on ODT in pregnancy
- offered induction to methadone or buprenorphine treatment.

It is important to get valid consent from the woman by discussing the risks and benefits, as later successful withdrawal from ODT can be a challenging and long process. If the woman consents to being inducted, SUPPS or AOD health workers should consider consulting an addiction medicine specialist. For more rapid induction, an inpatient setting should be considered.

See Opioids for advice on managed withdrawal from opioids in pregnancy. For information on infant opioid withdrawal, see Infants with prenatal substance exposure. For more information on general opioid withdrawal management, see Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance.

Breastfeeding

Women who are stable on the OTP with methadone and buprenorphine should be encouraged to breastfeed.[152] Mothers who are unstable, that is, continuing to regularly use short-acting opioids such as heroin, or opioids alongside other drugs (especially psychostimulants), should be discouraged from breastfeeding. Health workers should advise mothers who use opioids only episodically to express their breastmilk ('pump and dump') and wait at least 48 hours before breastfeeding.

Expressing breastmilk allows lactation to continue and improves the mother's personal comfort if they are not feeding. Importantly, it allows drug levels in milk to decrease to levels that are likely safe enough for the infant to ingest.

Though opioids cross the blood–milk barrier, breastfeeding and any breastmilk feeds reduce the severity of neonatal opioid withdrawal and the duration of hospitalisation for infants with withdrawal.[153]

Domperidone may be considered when no safer category alternative is available and the risks and benefits have been discussed with the woman. Although not contraindicated in women with opioid dependence, domperidone (e.g. Motilium) and other galactagogues may increase

[152] Jansson LM et al. (2016). *Maternal Buprenorphine Maintenance and Lactation*. J Hum Lact. Nov;32(4):675–681.
[153] Abdel-Latif ME et al. (2006). *Effects of breast milk on the severity and outcome of neonatal abstinence syndrome among infants of drug-dependent mothers*. Pediatrics. Jun;117(6):e1163–9.

the risk of long QT syndrome, especially in genetically susceptible people.[154,155,156] If concerned, health workers should arrange an ECG to be performed prior to providing domperidone, especially if the woman is receiving methadone treatment.

It is also important to assess the woman for polysubstance use before providing advice on breastfeeding.

Neonates and infants

Neonates with prenatal exposure to opioids – including opioid treatments, methadone and buprenorphine – are likely to require hospitalisation for at least 5 days to monitor for withdrawal symptoms and provide supportive care and medications if needed. Neonates prenatally exposed to depot buprenorphine may require more than 5 days hospitalisation.

Table 9: Key facts about neonatal opioid withdrawal

Neonatal withdrawal characteristics	Excitability, irritability, jitteriness, sleeping problems, gastrointestinal dysfunction, difficulty feeding, hypertonia, vomiting, dehydration and poor weight gain. If severe cases are not treated, it can lead to seizures and death
Peak effects of withdrawal	Heroin: Hours to 2–3 days Methadone: 2–3 days Buprenorphine: 3–4 days
Pharmacological treatment (if required)	Morphine +/– phenobarbitone +/– clonidine
Likelihood of infant needing hospitalisation	Hospitalisation recommended if prenatally exposed
Recommended minimum number of days in hospital*	5 (may be longer for depot buprenorphine)

* The recommended hospitalisation period is not a requirement. Clinicians may deviate from this recommendation if individual circumstances warrant it.

SUPPS or AOD and maternity health workers should aim to keep the mother and infant together after birth and encourage mother–infant bonding if there are no extenuating health or social risks. This means 'rooming in' in a postnatal ward setting and encouraging 'kangaroo care', such as swaddling, cuddling and skin-to-skin contact. This significantly decreases the risk and severity of neonatal opioid withdrawal and the need for withdrawal medication in infants with a history of prenatal opioid exposure.[157]

In addition to providing basic infant care – that is, ensuring the infant feeds well, is consoled and comfortable, and sleeps and settles appropriately – SUPPS or AOD and maternity health

[154] Field J et al. (2019). *Effect of Chronic Domperidone Use on QT Interval: A Large Single Center Study*. J Clin Gastroenterol. Oct;53(9):648–652.
[155] Gongadze N et al. (2007). *Prolong QT interval and "torsades de pointes" associated with different group of drugs.* Georgian Med News. Dec;(153):45–9.
[156] Zerdazi EH et al. (2019). *QT length during methadone maintenance treatment: gene × dose interaction*. Fundam Clin Pharmacol. Feb;33(1):96_106.
[157] Avram CM et al. (2020). *A Cost-Effectiveness Analysis of Rooming-in and Breastfeeding in Neonatal Opioid Withdrawal.* Am J Perinatol. Jan;37(1):1–7.

workers should use a non-pharmacological approach as a first-line treatment for babies experiencing opioid withdrawal. Where possible, parents and carers should play a central role in providing non-pharmacological support. See Non-pharmacological supportive therapies for more information.

SUPPS or AOD and maternity health workers should also encourage breastmilk feeds and breastfeeding if there are no other contraindications (see Breastfeeding). Any ingestion of breastmilk has been shown to reduce the risk and severity of opioid withdrawal, the need for withdrawal medication and the duration of hospitalisation.[158]

SUPPS or AOD and maternity health workers should aim to complete neonatal withdrawal pharmacotherapy as an outpatient within a hospital setting. This has been shown to be safe and to significantly reduce inpatient hospitalisation and costs associated with neonatal opioid withdrawal.[159,160,161]

There is little relationship between the severity of the infant's withdrawal and the maternal opioid dose or antenatal care. The severity and nature of withdrawal may be affected by the following.

- **Gestational maturity:** Prematurity decreases physical signs of withdrawal, likely as a result of a decreased period of exposure to maternal opioids and an increased chance of being sedated in a neonatal intensive care unit or being placed on regular feeds (and therefore hunger not expressed).[162]
- **Type of opioid exposure:** Withdrawal from long-acting drugs (e.g. methadone) may take several days to manifest, while the effects of withdrawal from short-acting drugs (e.g. heroin) may start a few hours after birth.
- **Genetics:** Certain genetic polymorphisms such as Dopamine D2 Receptor[163] and OPRM1[164] variations may affect the infant's susceptibility to opioid withdrawal.
- **Type of feed:** Infants fed breastmilk (either expressed or from the breast) have decreased withdrawal severity and need for withdrawal medications, and have shorter periods of hospitalisation.[165]

If the mother has a BBV, also refer to Caring for pregnant women with blood-borne viruses and their infants.

[158] Abdel-Latif ME et al. (2006). *Effects of breast milk on the severity and outcome of neonatal abstinence syndrome among infants of drug-dependent mothers*. Pediatrics. Jun;117(6):e1163–9.
[159] Rasul R et al. (2019). *Retrospective study found that outpatient care for infants exposed to drugs during pregnancy was sustainable and safe*. Acta Paediatr. Apr;108(4):654–661.
[160] Smirk CL et al. (2014). *Home-based detoxification for neonatal abstinence syndrome reduces length of hospital admission without prolonging treatment*. Acta Paediatr. Jun;103(6):601–4.
[161] Lee J et al. (2015). *Neonatal Abstinence Syndrome: Influence of a Combined Inpatient/Outpatient Methadone Treatment Regimen on the Average Length of Stay of a Medicaid NICU Population*. Popul Health Manag. Oct;18(5):392–7.
[162] Ruwanpathirana R et al. (2015). *Prematurity reduces the severity and need for treatment of neonatal abstinence syndrome.* Acta Paediatr. May;104(5):e188–94.
[163] Oei J et al. (2012). *Dopamine D2 receptor gene polymorphisms in newborn infants of drug-using women*. Dis Child Fetal Neonatal Ed. Arch Dis Child Fetal Neonatal Ed. May;97(3):F193–8.
[164] Wachman EM, Farrer LA (2019). *The genetics and epigenetics of Neonatal Abstinence Syndrome*. Semin Fetal Neonatal Med. Apr;24(2):105–110.
[165] Abdel-Latif ME et al. (2006). *Effects of breast milk on the severity and outcome of neonatal abstinence syndrome among infants of drug-dependent mothers*. Pediatrics. Jun;117(6):e1163–9.

See Infants with prenatal substance exposure for general guidance on acute management (including pharmacotherapy) and how to ensure multidisciplinary follow-up for any arising neurodevelopmental and other issues.

Benzodiazepines

Screening for pregnant women

As with the non-medical use of other prescription medications, maternity staff should ask about benzodiazepine use at booking in (or the first antenatal visit). Staff should repeat screening at follow-up antenatal visits. If the pregnant woman identifies as an Aboriginal person, maternity staff may offer them a referral to an Aboriginal-focused service for AOD screening.

If a pregnant woman discloses non-medical benzodiazepine use, health workers should refer the woman to SUPPS, where available, or an AOD service. To contact the AOD service in your LHD, refer to the Local intake lines webpage.

Maternity staff should be supportive and non-judgemental when asking questions about benzodiazepine use. Evidence suggests that AOD disclosure is reliable in a trusting, professional relationship. It is important to be aware that pregnant women may be very concerned DCJ will take away their child (as well as any children currently in their care) if they disclose their AOD use. For information on building trust and providing support to women and their children in these circumstances, see Protecting the safety, welfare and wellbeing of children and the unborn child.

Advice for women

If you regularly use benzodiazepines, do not stop taking them abruptly

Health workers should advise pregnant and postnatal women who regularly use benzodiazepines in high doses against abrupt cessation, as it can cause death and serious withdrawal symptoms, such as seizures and delirium. Health workers should provide support for women who wish to stop using benzodiazepines by gradually reducing their use.

The newborn may need extra support in the first few weeks

Health workers should advise women that their infant may require longer hospitalisation and extra support for the first few weeks after birth. This advice should also be provided to women who are prescribed benzodiazepines. See Neonates and infants for more information.

Management

Medical use of benzodiazepines

For pregnant women who require benzodiazepines for medical use, the best approach is to provide the medication in low doses and only for a short period of time, and to consult with mental health professionals, given the risk of tolerance, dependence and withdrawal.

Long-acting benzodiazepines should be avoided when treating pregnant women with anxiety disorders, but they are sometimes important for maternal health. There is no strong evidence that they affect infant feeding and short-term outcomes.[166] For severely anxious pregnant women, consider using short-acting benzodiazepines while awaiting the onset of action of a safer drug. To help with decision-making, health professionals should consult guidelines for the use of benzodiazepines in the general population.

For more information, see the following:

- MotherSafe provides a comprehensive counselling service for women and their healthcare providers about exposure during pregnancy and breastfeeding.
- Post and Antenatal Depression Association (PANDA) offers information, support and referrals to women and their families suffering from antenatal or postnatal anxiety or depression.
- Beyond Blue offers information on depression, anxiety and related disorders and referrals.

Non-medical use of benzodiazepines

SUPPS or AOD health workers should use ASSIST to assess benzodiazepine dependence (see Appendix 4).

When a woman with problematic benzodiazepine use is dependent, health professionals are advised to transfer them to a long-acting benzodiazepine (e.g. diazepam) under close supervision and gradually reduce the dose, with a view to being drug-free before or at birth. Ideally, the pregnant woman will be benzodiazepine-free during the second trimester. For more guidance, refer to the Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance.

While this approach is the ideal goal of treatment, clinicians should work with each woman to set goals that are achievable for them. Clinicians should bear in mind that complex polydrug use is common as both an expression of, and a contributor to, complex psychosocial problems. Concurrent alcohol use may present as anxiety or a mood or sleep disturbance.

[166] Gilad O et al. (2011). *Outcome of infants exposed to olanzapine during breastfeeding*. Breastfeed Med. Apr;6(2):55–8.

Acute withdrawal

Assessment

Symptoms typically emerge between 2 to 5 days after last use and peak on days 7 to 10. Symptoms usually abate by the end of the second or third week. Withdrawal may occur earlier or later depending on the half-life of the benzodiazepine involved. Withdrawal symptoms typically include anxiety, insomnia, restlessness, agitation, irritability, poor concentration, poor memory, depression, and muscle tension and twitching.

SUPPS or AOD health workers may find it valuable to use The Clinical Institute Withdrawal Assessment Scale-Benzodiazepines to appropriately measure benzodiazepine withdrawal and tailor clinical intervention.[167] The scale is a 22-item instrument designed to assess and monitor the type and severity of symptoms of benzodiazepine withdrawal. This scale is not a valid tool to medicate by and is not validated in pregnancy.

Management

SUPPS or AOD health workers should advise women who are benzodiazepine dependent and are at risk of acute withdrawal that the ideal approach is to transition to a single long-acting benzodiazepine (e.g. diazepam) and gradually reduce the dose, with a view to being drug-free at birth. This can be done in an outpatient setting with staged supply and regular monitoring if the woman consents and is considered low risk – that is, if there is no history of benzodiazepine withdrawal seizures or delirium and if the woman uses a low daily dose. Alternatively, withdrawal may commence in an inpatient setting for stabilisation, particularly if there is polydrug use or high-dose benzodiazepine use (40–60 mg diazepam equivalent or more a day), followed by outpatient withdrawal over a longer period, with staged supply of reducing doses. While this is the ideal goal of treatment, clinicians should work with each woman to set goals that are achievable for them, respect their choices and protect their fetus.

SUPPS or AOD health workers should also advise pregnant women who regularly use benzodiazepines against abrupt cessation, as it can cause serious withdrawal symptoms such as seizures and delirium, placing themselves and the baby at risk.

For information on infant withdrawal, see Infants with prenatal substance exposure. For general information on benzodiazepine withdrawal, see the Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance.

Breastfeeding

Women who use benzodiazepines should be encouraged to breastfeed and advised to:

- not stop taking benzodiazepines abruptly if they regularly consume high doses, and to undergo supervised, gradual withdrawal

[167] Busto UE et al. (1989). *A clinical scale to assess benzodiazepine withdrawal*. J Clin Psychopharmacol. Dec;9(6):412–6.

- have a safety plan in place to ensure the infant is safe if they suddenly feel drowsy while feeding (e.g. nursing in a safe position or having a support person to help).

If needed for maternal health, it may be preferable to use a short-acting benzodiazepine (e.g. oxazepam) while breastfeeding. Due to their long half-life, long-acting formulations like diazepam can accumulate in the infant and cause sleepiness or affect weight gain, especially in neonates and premature infants.

Assess the woman for polysubstance use before providing advice on breastfeeding. Benzodiazepines may be used in complex polydrug combinations, so health workers may want to screen for other substances before advising the woman on breastfeeding.

Neonates and infants

Neonates with prenatal benzodiazepine exposure are likely to be hospitalised for at least 5 days to monitor for withdrawal symptoms and provide supportive care and medications if needed. Where possible, health workers should ensure the infant has weekly paediatric outpatient reviews during the first month of life.

Table 10: Key facts about neonatal benzodiazepine withdrawal

Peak effects of withdrawal	1–2 weeks
Pharmacological treatment (if required)	Phenobarbitone or clonidine
Likelihood of infant needing hospitalisation	Hospitalisation recommended if prenatally exposed
Recommended minimum number of days in hospital*	5

* The recommended hospitalisation period is not a requirement. Clinicians may deviate from this recommendation if individual circumstances warrant it.

SUPPS or AOD and maternity health workers should aim to keep the mother and infant together after birth and encourage mother–infant bonding if there are no extenuating health or social safety risks. This means 'rooming in' in a postnatal ward setting.

In addition to providing basic infant care – that is, ensuring the infant feeds well, is consoled and comfortable, and sleeps and settles appropriately – SUPPS or AOD and maternity health workers should use a non-pharmacological approach as a first-line treatment for babies experiencing benzodiazepine withdrawal. Where possible, parents and carers should play a central role in providing non-pharmacological support. See non-pharmacological supportive therapies for more information. The Finnegan scale or modified Finnegan scale (see Appendix 3) may be used to identify withdrawal associated with benzodiazepines, noting it is not validated for non-opioid exposure.

Neonatal withdrawal from prenatal benzodiazepine exposure is not well described as exposure is often mixed with other substances. Nonetheless, regular benzodiazepine use in pregnancy is associated with withdrawal, and onset may be delayed and sometimes prolonged.

SUPPS or AOD and maternity health workers should use supportive measures without pharmacotherapy as a first approach to treating an infant suffering from benzodiazepine-related withdrawal. If supportive measures are insufficient, a paediatrician or neonatologist may use phenobarbitone to control the infant's symptoms.[168] Refer to Infants with prenatal substance exposure for more information.

Before transfer of care, SUPPS or AOD and maternity health workers should educate parents on recognising signs of withdrawal as these may occur more than a week after birth. Advise them to present for care early if indicated by the infant's behaviour.

See Infants with prenatal substance exposure for general guidance on acute management and how to ensure multidisciplinary long-term follow-up for any arising neurodevelopmental and other issues.

Methamphetamine

Though there are many ATS, methamphetamine and cocaine use in pregnancy are the chief concerns. There is also less clinical experience to inform guidance on other ATS use in pregnancy. Therefore, other types of ATS are not addressed in these guidelines. Please consult a psychiatrist for advice on medications like dexamphetamine for ADHD in pregnancy.

Screening for pregnant women

As with other substances and the non-medical use of prescription medication, maternity staff should ask about methamphetamine use at booking in (or the first antenatal visit). Staff should repeat screening at follow-up antenatal visits.

Health workers should refer a pregnant woman who discloses methamphetamine use to SUPPS, where available, or an AOD service. To contact the AOD service in your LHD, refer to the Local intake lines webpage.

Maternity staff should be supportive and non-judgemental when asking questions about methamphetamine use. Evidence suggests AOD disclosure is reliable in a trusting, professional relationship. It is important to be aware that pregnant women may be very concerned that DCJ will take their child (as well as any children currently in their care) if they disclose their AOD use. For information on building trust and providing support to women and their children in

[168] Rasul R et al. (2019). *Retrospective study found that outpatient care for infants to drugs during pregnancy was sustainable and safe*. Acta Paediatr. Apr;108(4):654–661.

these circumstances, see Protecting the safety, welfare and wellbeing of children and the unborn child.

Advice for women

The newborn may need extra support in the first few weeks

Health workers should advise women that their infant may require longer hospitalisation and extra support for the first few weeks after birth. See Neonates and infants for more information.

Management

Mothers who use methamphetamine commonly have psychiatric co-morbidities and should be prioritised for mental health support services if required.

Injecting methamphetamine use

If the woman consents, inspect injection sites for inflammation and infection as this poses a risk to maternal health and for pregnancy complications. Health workers should also discuss safe injecting practices, where to get sterile equipment, signs of pregnancy complications, and when to seek medical attention.

All pregnant women should be screened for BBVs, but those who inject methamphetamine are at a higher risk. Health workers should re-screen women with ongoing injecting methamphetamine use in the third trimester for BBVs. For more information, see Caring for pregnant women with blood-borne viruses and their infants.

Women with a history of intravenous drug use are often familiar with the veins that are more amenable for venous access. Therefore, health workers should listen to their suggestions and try to accommodate them, including by using butterfly needles where possible. Listening to the woman's input can help build a trusting relationship with the staff and may influence the extent to which the woman engages with all care providers.

For general information on managing substance use in pregnancy, see Screening and antenatal care and Birth, postnatal care and breastfeeding.

Acute withdrawal

Assessment

Withdrawal symptoms emerge among some, but not all people, who use psychostimulants regularly. Methamphetamine and cocaine withdrawal are clinically similar but cocaine has a shorter withdrawal duration.

Withdrawal from psychostimulants may be characterised by 3 phases: crash, withdrawal and extinction. The crash is more common in people who use higher doses. Crash symptoms usually

commence about one to 2 days after last use and, in new mothers, may occur after birth. A common presentation is a mother and infant who are difficult to wake.

Management

Benzodiazepines and atypical antipsychotic medications may be used if the woman experiences serious withdrawal symptoms, including agitation or psychosis. When managing methamphetamine withdrawal in a pregnant woman, always prescribe medication in consultation with an addiction medicine specialist.

There is very little research on the outcomes of pregnancies and infants who have undergone methamphetamine withdrawal during gestation. Mothers should be advised to reduce and cease methamphetamine use during pregnancy.

See Infants with prenatal substance exposure for more information on infant withdrawal. For general information on methamphetamine withdrawal, see Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance.

Breastfeeding

Methamphetamine cross into breastmilk. There are reports of infant death when mothers continue to use methamphetamine while breastfeeding. It is also important to assess the woman for polysubstance use before providing advice on breastfeeding.

Health workers should advise mothers who use methamphetamine to:

- not breastfeed for at least 48 hours after use
- express and discard the breastmilk after use (not simply stop breastfeeding)
- have a supplementary feeding plan, including formula
- have a safety plan if breastfeeding (e.g. breastfeeding in a safe position or having a support person to help).

Neonates and infants

Neonates with prenatal methamphetamine exposure are likely to require hospitalisation for at least 5 days to monitor for withdrawal symptoms and provide supportive care and medications if needed.

Table 11: Key facts about neonatal methamphetamine withdrawal

Neonatal withdrawal characteristics	Very quiet and sleepy, poor quality of movement and difficulty feeding. This may result in the failure to thrive, especially when compounded by suck/swallow discoordination
Peak effects of withdrawal	Birth to 2–3 weeks
Pharmacological treatment (if required)	Usually not needed

Likelihood of infant needing hospitalisation	Hospitalisation recommended if prenatally exposed
Recommended minimum number of days in hospital*	5

* The recommended hospitalisation period is not a requirement. Clinicians may deviate from this recommendation if individual circumstances warrant it.

SUPPS or AOD and maternity health workers should aim to keep the mother and infant together after birth and encourage mother–infant bonding if there are no extenuating health or social risks. This means 'rooming in' in a postnatal ward setting.

In addition to providing basic infant care – that is, ensuring the infant feeds well, is consoled and comfortable, and sleeps and settles appropriately – SUPPS or AOD and maternity health workers should use a non-pharmacological approach as a first-line treatment for babies experiencing methamphetamine withdrawal. Where possible, parents and carers should play a central role in providing non-pharmacological support. See Non-pharmacological supportive therapies for more information.

The Finnegan scale or modified Finnegan scale (see Appendix 3) may be used to identify withdrawal associated with methamphetamine, noting it is not validated for non-opioid exposure. However, SUPPS or AOD and maternity health workers should note that methamphetamine-exposed infants may score 'low' on these scales, leading to a misconception that the infant is not affected.

Methamphetamine do not typically cause withdrawal in newborns and pharmacotherapy is seldom required. Nonetheless, methamphetamine exposure is usually characterised by poor neurological adaptation (abnormal drowsiness, feeding difficulties and poor quality of movement) that may last for weeks.[169,170] Refer to Infants with prenatal substance exposure for more information.

See Infants with prenatal substance exposure for general guidance on acute management and how to ensure multidisciplinary long-term follow-up for any arising neurodevelopmental and other issues.

Cocaine

Screening for pregnant women

As with other substances and the non-medical use of prescription medication, maternity staff should ask about cocaine use at booking in (or the first antenatal visit). Staff should repeat screening at follow-up antenatal visits. If the pregnant woman identifies as an Aboriginal

[169] Smith LM et al. (2011). *Motor and cognitive outcomes through three years of age in children exposed to prenatal methamphetamine.* Neurotoxicol Teratol. 33(1):176–84.
[170] Ramos AM et al (2020). *Maternal Consistency in Recalling Prenatal Experiences at 6 Months and 8 Years Postnatal*. J Dev Behav Pediatr. 41(9): 698–705.

person, maternity staff may offer them a referral to an Aboriginal-focused service for AOD screening.

Health workers should refer a pregnant woman who discloses cocaine use to SUPPS, where available, or an AOD service. If the woman discloses that they recently injected cocaine, it should be considered a high-risk pregnancy. To contact the AOD service in your LHD, refer to the Local intake lines webpage.

Maternity staff should be supportive and non-judgemental when asking questions about cocaine use. Evidence suggests that self-disclosure of AOD use is reliable in a trusting, professional relationship. It is important to be aware that pregnant women may be very concerned that DCJ will take their child (as well as any children currently in their care) if they disclose their AOD use. For information on building trust and providing support to women and their children in these circumstances, see Protecting the safety, welfare and wellbeing of children and the unborn child.

Management

For general information on managing AOD use in pregnancy, see Screening and antenatal care and Birth, postnatal care and breastfeeding.

Acute withdrawal

Assessment

Withdrawal symptoms emerge among some, but not all, people who use psychostimulants regularly. Methamphetamine and cocaine withdrawal are clinically similar, except cocaine withdrawal has a shorter duration.

Withdrawal from psychostimulants may be characterised by 3 phases: crash, withdrawal and extinction. The crash is more common in people who use higher doses. Crash symptoms usually commence about one to 2 days after last use and, in new mothers, may occur after birth. A common presentation is a mother and child who are difficult to wake.

Management

Benzodiazepines and atypical antipsychotic medications may be used if the woman experiences serious withdrawal symptoms, including agitation or psychosis. Always prescribe medication in consultation with an addiction medicine specialist when managing cocaine withdrawal in a pregnant woman.

There is very little research on the outcomes of pregnancies and infants who have undergone cocaine withdrawal during gestation. Mothers should be advised to reduce and cease cocaine use during pregnancy.

For information on infant withdrawal, see Infants with prenatal substance exposure. For general information on methamphetamine withdrawal, see Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance.

Breastfeeding

Health workers should advise mothers who use cocaine to:

- not breastfeed for at least 48 hours after use
- express and discard the breastmilk after use (not simply stop breastfeeding)
- have a supplementary feeding plan, including formula
- have a safety plan if breastfeeding (e.g. nursing in a safe position or having a support person to help).

It is also important to assess the woman for polysubstance use before providing advice on breastfeeding.

Neonates and infants

Neonates with prenatal exposure to cocaine may be observed in hospital for signs of withdrawal, as indicated. Problematic maternal use in the 2 to 4 weeks prior to birth is likely to result in the neonate being hospitalised.

Table 12: Key facts about neonatal cocaine withdrawal	
Pharmacological treatment (if required)	Phenobarbitone
Likelihood of infant needing hospitalisation	Problematic maternal use in the 2–4 weeks prior to birth will likely require a period of hospitalisation for the infant
Recommended minimum number of days in hospital*	5
* The recommended hospitalisation period is not a requirement. Clinicians may deviate from this recommendation if individual circumstances warrant it.	

SUPPS or AOD and maternity health workers should aim to keep the mother and infant together after birth and encourage mother–infant bonding if there are no extenuating health or social risks. This means 'rooming in' in a postnatal ward setting. In addition to providing basic infant care – that is, ensuring the infant feeds well, is consoled and comfortable, and sleeps and settles appropriately – SUPPS or AOD and maternity health workers should use a non-pharmacological approach as a first-line treatment for babies experiencing cocaine withdrawal. Where possible, parents and carers should play a central role in providing non-pharmacological support. See Non-pharmacological supportive therapies for more information.

The Finnegan scale (see Appendix 3) may be used to identify withdrawal associated with cocaine, noting it is not validated for non-opioid exposure.

Neonatal withdrawal from cocaine may be mild and may not require medication.[171] If the infant is unable to feed or is experiencing neurological irritability, including seizures, phenobarbitone

[171] Mayes LC, Carroll KM (1996). *Neonatal withdrawal syndrome in infants exposed to cocaine and methadone.* Subst Use Misuse. Jan;31(2):241–53.

may be considered as a treatment option. Refer to Infants with prenatal substance exposure for more information.

See Infants with prenatal substance exposure for general guidance on acute management and how to ensure multidisciplinary long-term follow-up for arising neurodevelopmental and other issues.

Inhalants

Screening for pregnant women

As with other substances and the non-medical use of prescription medication, maternity staff should ask about inhalant use (e.g. spray paints, glues, gasoline or petrol, 'nangs' or nitrous oxide, and cleaning fluids) at booking in (or the first antenatal visit). Staff should repeat screening at follow-up antenatal visits. If the pregnant woman identifies as an Aboriginal person, maternity staff may offer them a referral to an Aboriginal-focused service for AOD screening.

If a pregnant woman discloses inhalant use, health workers should seek immediate staff specialist consultation and refer the woman to SUPPS, where available, or an AOD service. To contact the AOD service in your LHD, refer to the Local intake lines webpage.

Maternity staff should be supportive and non-judgemental when asking questions about inhalant use. Evidence suggests that self-disclosure of AOD use is reliable in a trusting, professional relationship. It is important to be aware that pregnant women may be very concerned that DCJ will take their child (as well as any children currently in their care) if they disclose their AOD use. For information on building trust and providing support to women and their children in these circumstances, see Protecting the safety, welfare and wellbeing of children and the unborn child.

Management

A pregnant woman who reports heavy inhalant use or presents with signs of inhalant intoxication around parturition should be referred for a high-risk pregnancy assessment and receive newborn monitoring. The use of inhalants during pregnancy increases risks to their and their unborn child's health. Therefore, it is important for health professionals to strongly encourage women using inhalants to remain engaged with their care providers during the pregnancy and beyond. It may also be necessary to recommend residential rehabilitation for inhalant users, particularly if health professionals anticipate the woman will continue using inhalants during the pregnancy.

For general information on managing substance use in pregnancy, see Screening and antenatal care and Birth, postnatal care and breastfeeding.

Breastfeeding

There is limited research into the effects of inhalants on lactation and the impact of breastfeeding is unknown. The advice for mothers who use inhalants and who wish to breastfeed mirrors the guidance provided for methamphetamine users. It is also important to assess the woman for polysubstance use before providing advice on breastfeeding.

Health workers should advise mothers who use inhalants to:

- not breastfeed for at least 48 hours after use
- express and discard the breastmilk after use (not simply stop breastfeeding)
- have a supplementary feeding plan, including formula
- have a safety plan if breastfeeding (e.g. breastfeeding in a safe position or having a support person to help).

Neonates and infants

There are case reports of infants with prenatal inhalant exposure showing signs of withdrawal. Infants with prenatal inhalant exposure may be observed in hospital for signs of withdrawal, as indicated. Problematic maternal use in the 2 to 4 weeks prior to birth is likely to result in the neonate being hospitalised.

Table 13: Key facts about neonatal inhalant withdrawal

Neonatal withdrawal characteristics	A characteristic odour, excessive and high-pitched crying, sleeplessness, hyperactive Moro reflex, tremors, decreased muscle tone and poor feeding; sometimes referred to as 'fetal solvent syndrome'
Pharmacological treatment (if required)	Phenobarbitone
Likelihood of infant needing hospitalisation	Problematic maternal use in the 2–4 weeks prior to birth will likely require a period of hospitalisation for the infant
Recommended minimum number of days in hospital*	5

* The recommended hospitalisation period is not a requirement. Clinicians may deviate from this recommendation if individual circumstances warrant it.

SUPPS or AOD and maternity health workers should aim to keep the mother and infant together after birth and encourage mother–infant bonding if there are no extenuating health or social risks. This means 'rooming in' in a postnatal ward setting.

In addition to providing basic infant care – that is, ensuring the infant feeds well, is consoled and comfortable, and sleeps and settles appropriately – SUPPS or AOD and maternity health workers should use a non-pharmacological approach as a first-line treatment for babies experiencing inhalant withdrawal. Where possible, parents and carers should play a central

role in providing non-pharmacological support. See Non-pharmacological supportive therapies for more information.

The Finnegan scale or modified Finnegan scale (see Appendix 3) may be used to identify withdrawal associated with inhalants, noting it is not validated for non-opioid exposure. Refer to Infants with prenatal substance exposure for more information.

See Infants with prenatal substance exposure for general guidance on acute management and how to ensure multidisciplinary long-term follow-up for arising neurodevelopmental and other issues.

Selective serotonin reuptake inhibitors

SSRIs are the most commonly used antidepressants in pregnancy. Other types of antidepressants – including serotonin–norepinephrine reuptake inhibitors (SNRIs), tricyclic antidepressants and monoamine oxidase inhibitors – are not addressed in these guidelines .

Screening for pregnant women

Maternity staff should specifically ask pregnant women if they are on antidepressants or other psychotropic medication.

Advice for women

Both mothers and infants have better outcomes if depression and anxiety are appropriately treated in pregnancy

In discussing the risks around SSRIs in pregnancy, women should be made aware that the impact of untreated depression or anxiety can also be harmful. As a result, treating maternal depression or anxiety during pregnancy intends to benefit both the mother and the infant.

The newborn may need extra support in the first few weeks

Health workers should advise women that, while safe, SSRI exposure in pregnancy does carry some risks as these substances cross the placenta. As a result, their infant may require extra support for the first few weeks after birth. See Neonates and infants for more information.

For more support, pregnant women may benefit from the following services:

- MotherSafe provides a comprehensive counselling service for women and their healthcare providers about exposures during pregnancy and breastfeeding.

- PANDA offers information, support and referrals to women and their families suffering from antenatal or postnatal depression.
- Gidget Foundation Australia provides support services for families suffering emotional distress during pregnancy and early parenting.
- Beyond Blue offers information on depression, anxiety and related disorders and referrals.

Management

In the case of SSRI antidepressants, prescribers should consider using sertraline (which carries the lowest risk of passage to the placenta and breastmilk) and avoid paroxetine (which carries the highest risk of infant withdrawal symptoms), where possible.

Third trimester and perinatal planning

When weighing up the risks and benefits, prescribers should consider the risk of relapse and then a 3-week delay in onset of efficacy after recommencing an antidepressant immediately postpartum.

Where possible, maternity staff should plan the perinatal period with an obstetrician, a neonatologist (on call) and a psychiatrist. This should include a plan to monitor the mother for risk of mood disorders (see Neonates and infants for more information on monitoring).

SSRI medication alongside other substance use

Many women with problematic substance use have psychiatric co-morbidities,[172] which, if left untreated, are independent risk factors for maternal and infant morbidity. Therefore, it is paramount to not cease antidepressant medication abruptly and to provide care for the woman's psychiatric co-occurrences in consultation with a specialist mental health team.

Breastfeeding

Breastfeeding is encouraged for most SSRIs and may decrease neonatal intoxication symptoms. However, it is important to assess the woman for polysubstance use before providing advice on breastfeeding.

Neonates and infants

General information

Infants with prenatal exposure to antidepressants or other psychotropic agents may be affected by an intoxication syndrome, especially if they were exposed in the third trimester. This is sometimes referred to as 'poor adaptation syndrome'. SSRI and other antidepressant intoxication symptoms typically begin within 24 hours of life and abate by one to 2 weeks.[173]

[172] Oei JL et al. (2009). *NSW and ACT NAS Epidemiology Group. Short-term outcomes of mothers and newborn infants with comorbid psychiatric disorders and drug dependency*. Aust N Z J Psychiatry. Apr;43(4):323–31.
[173] Ulbrich KA et al. (2021). *Acute Delivery Room Resuscitation of Neonates Exposed to Selective Serotonin Reuptake Inhibitors*. J Pediatr. May;232: 103–108.e2.

Table 14: Key facts about neonatal SSRI toxicity	
Neonatal toxicity characteristics	Jitteriness, muscle tightness and seizures.[174] May be complicated by pulmonary hypertension[175] and prolonged feeding difficulties.[176] May need respiratory support at birth,[177] have lower Apgar scores[178] and require admission to a neonatal unit[179]
Peak effects of toxicity	24–48 hours
Pharmacological treatment (if required)	Phenobarbitone
Likelihood of infant needing hospitalisation	Hospitalisation recommended if prenatally exposed
Recommended minimum number of days in hospital*	3
* The recommended hospitalisation period is not a requirement. Clinicians may deviate from this recommendation if individual circumstances warrant it.	

Management in delivery and during hospitalisation

Maternity staff should provide resuscitation support during delivery, if needed. Infants with prenatal exposure to SSRIs are likely to be hospitalised for at least 3 days to monitor for intoxication symptoms and provide supportive care and medications if needed.

Maternity staff should aim to keep the mother and infant together after birth and encourage mother–infant bonding if there are no extenuating health or social safety risks. This means 'rooming in' and providing 'kangaroo care', such as swaddling, cuddling and skin-to-skin contact in a postnatal ward setting.

In addition to providing basic infant care – that is, ensuring the infant feeds well, is consoled and comfortable, and sleeps and settles appropriately – SUPPS or AOD and maternity health workers should use a non-pharmacological approach as a first-line treatment for babies with an intoxication syndrome. Where possible, parents and carers should play a central role in providing non-pharmacological support. See Non-pharmacological supportive therapies for more information.

The Finnegan scale (see Appendix 3) may be used to identify withdrawal associated with antidepressants,[180] noting it is not validated for non-opioid exposure. Finnegan scores are usually low (less than 7) in exposed infants and are usually neurologically driven.

[174] Pakalapati RK et al. (2006). *Neonatal seizures from in utero venlafaxine exposure*. J Paediatr Child Health. Nov;42(11):737–8.
[175] Ng QX et al (2019). *Selective Serotonin Reuptake Inhibitors and Persistent Pulmonary Hypertension of the Newborn: An Update Meta-Analysis*. J Womens Health (Larchmt). Mar;28(3):331–338.
[176] Holland J, Brown R (2017). *Neonatal venlafaxine discontinuation syndrome: A mini-review*. Eur J Paediatr Neurol. Mar;21(2):264–268.
[177] Moses-Kolko EL et al. (2005). *Neonatal signs after late in utero exposure to serotonin reuptake inhibitors: literature review and implications for clinical applications*. JAMA. May 18;293(19):2372–83.
[178] Ibid.
[179] Ibid.
[180] Finnegan LP et al. (1975). *Neonatal abstinence syndrome: assessment and management*. Addict Dis. 2(1-2):141–58.

Maternity staff should monitor for and treat the following.

- **Seizures:** The risk of seizures peaks 48 hours after birth and may not correlate to the infant's Finnegan scores. The infant may require short-term treatment with phenobarbitone.[181] A recent systematic review demonstrates a 5-fold increase in the risk of neonatal seizures after prenatal SSRI exposure.[182]
- **Respiratory distress:** As with all newborn infants,[183] health workers should escalate respiratory support as required.
- **Pulmonary hypertension:** Infants with SSRI exposure should receive spot oximetry screening, which may detect pulmonary hypertension in otherwise asymptomatic infants. Some infants may need treatment for persistent pulmonary hypertension of the newborn (PPHN)[184] in a neonatal intensive care unit. Seek appropriate advice from the relevant perinatal services.
- **Feeding**: The infant may have suck and swallow problems and may require feeding support with lactation and speech pathology services. Some infants may experience feeding discoordination, necessitating protracted support, including allied health involvement for future speech development as required.[185]
- **Hypoglycaemia:** Health workers should provide point-of-care glucose monitoring.

Refer to Infants with prenatal substance exposure for more information.

Post-hospitalisation management and long-term follow-up

Maternity staff should advise mothers and carers on how to support infants exposed to SSRIs, including being vigilant about hunger cues. Maternity staff should also arrange for follow-up in the first few months of life to ensure adequate weight gain and development, even if no pharmacotherapy is required for intoxication or withdrawal.

The need for long-term developmental follow-up is uncertain. Nonetheless, maternity staff may arrange for long-term follow-up in a multidisciplinary setting to pre-empt and intervene with neurodevelopmental and other issues.

Gamma hydroxybutyrate

Note: This section also applies to Gamma butyrolactone (GBL) and the GHB analogues that may be found in GHB.

[181] Pakalapati RK et al. (2006). *Neonatal seizures from in utero venlafaxine exposure.* J Paediatr Child Health. Nov;42(11):737–8.
[182] Uguz F (2019). *The Use of Antidepressant Medications During Pregnancy and the Risk of Neonatal Seizures: A Systematic Review*. J Clin Psychopharmacol. Sept/Oct;39(5):479–484.
[183] Martin GR et al. (2020). *Updated Strategies for Pulse Oximetry Screening for Critical Congenital Heart Disease*. Pediatrics. Jul;146(1):e20191650.
[184] Ng QX et al. (2019). *Selective Serotonin Reuptake Inhibitors and Persistent Pulmonary Hypertension of the Newborn: An Update Meta-Analysis*. J Womens Health (Larchmt). Mar;28(3):331–338.
[185] Brown AS et al. (2016). *Association of Selective Serotonin Reuptake Inhibitor Exposure During Pregnancy with Speech, Scholastic, and Motor Disorders in Offspring*. JAMA Psychiatry. Nov 1;73(11):1163–1170.

Screening for pregnant women

As with other substances and the non-medical use of prescription medication, maternity staff should ask about GHB use at booking in (or the first antenatal visit). Staff should repeat screening at follow-up antenatal visits. If the pregnant woman identifies as an Aboriginal person, maternity staff may offer them a referral to an Aboriginal-focused service for AOD screening.

If a pregnant woman discloses GHB use, health workers should seek immediate staff specialist consultation and refer the woman to SUPPS, where available, or an AOD service. To contact the AOD service in your LHD, refer to the Local intake lines webpage.

Maternity staff should be supportive and non-judgemental when asking questions about GHB use. Evidence suggests that self-disclosure of AOD use is reliable in a trusting, professional relationship. It is important to be aware that pregnant women may be very concerned that DCJ will take their child (as well as any children currently in their care) if they disclose their AOD use. For information on building trust and providing support to women and their children in these circumstances, see Protecting the safety, welfare and wellbeing of children and the unborn child.

Advice for women

GHB is a very high-risk substance, particularly when taken alongside other substances

Health workers should advise women using GHB that even small amounts can cause an overdose, especially when consumed with alcohol or other sedatives like benzodiazepines.

If you regularly use GHB, do not stop taking it abruptly

Health workers should advise pregnant and postnatal women who regularly use GHB and are highly tolerant against abrupt cessation, as it can cause serious complications. Women who wish to stop using GHB should seek medical advice on how to stop safely.

Management

There is no GHB-specific management in pregnancy guidance. For general information on managing substance use in pregnancy, see Screening and antenatal care and Birth, postnatal care and breastfeeding.

Acute withdrawal

Assessment

The onset of withdrawal can be rapid. Symptoms may begin one to 2 hours after the last dose and typically after one to 4 hours of the last dose. Severe withdrawal can lead to treatment-resistant delirium, seizures, muscle rigidity, rhabdomyolysis, cardiac arrest, renal failure and, in

rare cases, can be fatal if left untreated. Intensive care referral is necessary for women with features of severe withdrawal.

Management

The treatment of GHB withdrawal is primarily supportive, including the administration of medication to control agitation, delirium and seizures, with careful monitoring for respiratory depression and potential complications. Always prescribe medication in consultation with an addiction medicine specialist when managing GHB withdrawal in a pregnant woman. For more information on medications to treat GHB withdrawal, refer to Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance.

To date, there have been few reports of the effects of GHB use, including withdrawal and intoxication, on pregnancy outcomes.[186] For information on infant withdrawal, see Infants with prenatal substance exposure. For general information on GHB withdrawal, see Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance.

Breastfeeding

There is limited research into the effects of GHB on lactation and the impact of breastfeeding is unknown. Women who regularly use GHB should be advised not to breastfeed. It is also important to assess the woman for polysubstance use before providing advice on breastfeeding.

Neonates and infants

Infants with prenatal GHB exposure may be observed in hospital for signs of withdrawal, as indicated. Problematic maternal use in the 2 to 4 weeks prior to birth is likely to result in the neonate being hospitalised.

Table 15: Key facts about neonatal GHB withdrawal

Pharmacological treatment (if required)	Phenobarbitone
Likelihood of infant needing hospitalisation	Problematic maternal use in the 2–4 weeks prior to birth will likely require a period of hospitalisation for the infant
Recommended minimum number of days in hospital*	5
* The recommended hospitalisation period is not a requirement. Clinicians may deviate from this recommendation if individual circumstances warrant it.	

SUPPS or AOD and maternity health workers should aim to keep the mother and infant together after birth and encourage mother–infant bonding if there are no extenuating health or social safety risks. This means ‘rooming in’ in a postnatal ward setting.

[186] Scott K, Lust K (2010). *Illicit substance use in pregnancy - a review*. Obstet Med. Sept;3(3):94–100.

In addition to providing basic infant care – that is, ensuring the infant feeds well, is consoled and comfortable, and sleeps and settles appropriately – SUPPS or AOD and maternity health workers should use a non-pharmacological approach as a first-line treatment for babies experiencing GHB withdrawal. Where possible, parents and carers should play a central role in providing non-pharmacological support. See Non-pharmacological supportive therapies for more information.

The Finnegan scale or modified Finnegan scale (see Appendix 3) may be used to identify withdrawal associated with GHB, noting it is not validated for non-opioid exposure.

SUPPS or AOD and maternity health workers should use a supportive approach when treating withdrawal in infants. If the infant's withdrawal impairs adequate feeding, sleeping and the ability to be consoled, phenobarbitone may be used. Refer to Infants with prenatal substance exposure for more information.

See Infants with prenatal substance exposure for general guidance on acute management and how to ensure multidisciplinary long-term follow-up for any arising neurodevelopmental and other issues.

Gabapentinoids

Screening for pregnant women

As with other substances and the non-medical use of prescription medication, maternity staff should ask about gabapentinoid (e.g. pregabalin (Lyrica)) use at booking in (or the first antenatal visit). Staff should repeat screening at follow-up antenatal visits. If the pregnant woman identifies as an Aboriginal person, maternity staff may offer them a referral to an Aboriginal-focused service for AOD screening.

If a pregnant woman discloses non-medical gabapentinoid use, health workers should seek immediate staff specialist consultation and refer the woman to SUPPS, where available, or an AOD service. To contact the AOD service in your LHD, refer to the Local intake lines webpage.

Maternity staff should be supportive and non-judgemental when asking questions about gabapentinoid use. Evidence suggests that self-disclosure of AOD use is reliable in a trusting, professional relationship. It is important to be aware that pregnant women may be very concerned that DCJ will take their child (as well as any children currently in their care) if they disclose their AOD use. For information on building trust and providing support to women and their children in these circumstances, see Protecting the safety, welfare and wellbeing of children and the unborn child.

Advice for women

If you use gabapentinoids regularly, do not stop taking them abruptly

Health workers should advise pregnant and postnatal women who regularly use gabapentinoids against abrupt cessation, as it may lead to seizures, respiratory failure and an altered mental status. If a woman wishes to stop using gabapentinoids, they should seek medical advice on how to stop safely.

Do not take it with other depressants

Health workers should advise women that there is a risk of respiratory depression and death when consuming gabapentinoids with other central nervous system depressants such as alcohol, benzodiazepines and narcotics.

Management

Medical use of gabapentinoids

For women who are prescribed gabapentinoids, health professionals should consider the comparative risk of prenatal gabapentinoid exposure and the impact of untreated mental or physical illness on both the mother and infant. Decisions regarding treatment during pregnancy should be made in consultation with the appropriate specialists (e.g. neurologists and pain specialists). For general information on the safety of medical gabapentinoids in pregnancy, consult the woman's prescriber or a neurologist or pain specialist.

Non-medical use of gabapentinoids

Health professionals should advise women who use gabapentinoids for non-medical reasons to reduce or cease use under the supervision of an addiction medicine specialist and an obstetrician.

For general information on managing substance use in pregnancy, see Screening and antenatal care and Birth, postnatal care and breastfeeding.

Acute withdrawal

Assessment

People can be on gabapentinoids for as little as 4 weeks before developing tolerance and withdrawal symptoms when use is ceased. The onset of withdrawal typically begins one to 2 days after last use. The duration of the withdrawal syndrome without treatment is up to 3 to 5 days for severe symptoms, but residual mild symptoms can persist for a few weeks. Withdrawal symptoms can include headaches, anxiety, cravings, diarrhoea, nausea, chills and fatigue. The signs of gabapentinoid withdrawal include agitation, diaphoresis, tachycardia, hypertension and tremors.

Management

There is limited data on gabapentinoid withdrawal in both pregnant and non-pregnant people. The treatment should focus on supporting the person and tapering of the gabapentinoid if required. Always prescribe medication in consultation with an addiction medicine specialist when managing gabapentinoid withdrawal in a pregnant woman.

See Neonates and infants for more information. For general information on gabapentinoids withdrawal, see Management of Withdrawal from Alcohol and Other Drugs – Clinical Guidance.

Breastfeeding

Women who use gabapentinoids should be encouraged to breastfeed, as no adverse effects have been reported. However, infants with impaired renal function should be breastfed with caution, as these drugs are almost entirely excreted by the kidneys. If the infant is unwell, health professionals may advise the mother to withhold breastmilk until a cause has been identified.

The levels of infant pregabalin in maternal doses prescribed for convulsions and nerve pain are low. Mothers who use non-prescribed pregabalin should not breastfeed.

It is also important to assess the woman for polysubstance use before providing advice on breastfeeding.

Neonates and infants

Infants with prenatal gabapentinoid exposure may be observed in hospital for signs of withdrawal, as indicated. Problematic maternal use in the 2 to 4 weeks prior to birth will likely result in the neonate being hospitalised.

Table 16: Key facts about neonatal gabapentinoid withdrawal

Pharmacological treatment (if required)	Phenobarbitone
Likelihood of infant needing hospitalisation	Problematic maternal use in the 2–4 weeks prior to birth will likely require a period of hospitalisation for the infant
Recommended minimum number of days in hospital*	3
* The recommended hospitalisation period is not a requirement. Clinicians may deviate from this recommendation if individual circumstances warrant it.	

SUPPS or AOD and maternity health workers should aim to keep the mother and infant together after birth and encourage mother–infant bonding if there are no extenuating health or social risks. This means ‘rooming in’ in a postnatal ward setting.

In addition to providing basic infant care – that is, ensuring the infant feeds well, is consoled and comfortable, and sleeps and settles appropriately – SUPPS or AOD and maternity health workers should use a non-pharmacological approach as a first-line treatment for babies experiencing gabapentinoid withdrawal. Where possible, parents and carers should play a central role in providing non-pharmacological support. See Non-pharmacological supportive therapies for more information.

The Finnegan scale or modified Finnegan scale (see Appendix 3) may be used to identify withdrawal associated with gabapentinoids, noting it is not validated for non-opioid exposure.

There are no reports of neonatal withdrawal from maternal pregabalin use. If the infant shows signs of withdrawal, SUPPS or AOD and maternity health workers should use a supportive approach. If the infant is not responding to supportive measures, phenobarbitone may be used. Refer to Infants with prenatal substance exposure for more information.

See Infants with prenatal substance exposure for general guidance on acute management and how to ensure multidisciplinary long-term follow-up for any arising neurodevelopmental and other issues.

Appendices

Appendix 1: AUDIT-C screening tool

Questions	Scoring system				
	0	1	2	3	4
How often do you have a drink containing alcohol?	Never	Monthly or less	2–4 times per month	2–3 times per week	4+ times per week
How many standard drinks of alcohol do you consume on a typical day when you are drinking?	1–2	3–4	5–6	7–9	10+
How often do you have 5 or more drinks on one occasion?	Never	Less than monthly	Monthly	Weekly	Daily or almost daily

Add the scores for each of the 3 questions to get the total score. The risk levels associated with the total AUDIT-C for pregnancy scores are as follows.

SCORE	Recommended advice
0 = no risk of harm	• Provide positive reinforcement and encourage the individual to continue not drinking any alcohol during pregnancy. • A score of zero indicates no current risk of alcohol-related harm to the developing baby. • Advise to not drink alcohol during pregnancy. • Advise that the risk of harm to the embryo and fetus grows as the amount and frequency of alcohol consumption increase. Any score above zero indicates potential risk to the embryo and fetus.
1–2 = low risk of harm	• Advise that the risk to the embryo and fetus is likely low, but it is recommended to not drink any alcohol during pregnancy. • Reinforce the benefits of avoiding alcohol at any stage during pregnancy to minimise risks to the individual and baby. • Advise that the risk of harm to the embryo and fetus grows as the amount and frequency of alcohol consumption increase. Any score above zero indicates potential risk to the embryo and fetus. • Encourage the person to stop drinking alcohol during pregnancy and arrange follow-up sessions as required.

3–4 = medium risk of harm	• Advise to not drink alcohol during pregnancy.
	• Discuss the fact that the AUDIT-C for pregnancy score indicates that their drinking is at a level of increasing risk to their and their baby's health.
	• Advise that the risk of harm to the embryo and fetus grows as the amount and frequency of alcohol consumption increase.
	• Discuss the effects of current alcohol consumption levels and outline health concerns for both the individual and their baby.
	• Reinforce the benefits of stopping drinking at any stage during pregnancy to minimise further risks to the individual and baby.
	• Ask the individual how they feel about stopping drinking and establish:
	  ○ the positives and negatives of taking action
	  ○ how confident they are in being able to stop drinking alcohol
	  ○ tips, strategies and plans for taking action
	  ○ whether they would like assistance, including from support networks and partners
	  ○ whether they want referrals if additional support is required.
	• If you suspect the person may be struggling with their alcohol intake or other issues, consider referring them to local support services.

≥5 = high risk of harm	• Discuss the fact that the AUDIT-C for pregnancy score indicates that their drinking is at a level of high risk to their and their baby's health. • Discuss the positives and negatives of taking action and determine what support they require to stop drinking alcohol. • Refer them to a specialist alcohol service as they may be at risk of alcohol dependence. Organise specialist support before advising cessation of alcohol consumption, as without support, alcohol withdrawal can be dangerous to both the individual and the baby.

Appendix 2: Modified Finnegan scale

Infants of mothers known or suspected to be substance users and who are showing signs of withdrawal should be scored every 4 hours. The scoring should be applied in a consistent manner by personnel who are experienced in dealing with such infants. NOTE: Caution must be exercised before symptoms listed here are accepted as part of drug withdrawal. For example, symptoms such as fever, tachypnoea or seizures could be due to sepsis, which should be excluded first with appropriate tests.

System	Signs & symptoms	Score
CNS	High-pitched cry	2
	Continuous high-pitched cry	3
	Sleeps <1 hour after feeding	3
	Sleeps <2 hours after feeding	2
	Sleeps <3 hours after feeding	1
	Mild tremors disturbed	1
	Mod-severe tremors disturbed	2
	Mild tremors undisturbed	3
	Mod-severe tremors undisturbed	4
	Increased muscle tone	2
	Excoriation (specify area)	1
	Myoclonic jerks	3
	Generalised convulsions	5
Metabolic/ Vasomotor/ Respiratory	Fever (37.3-38.3 deg C)	1
	Fever (>38.3 deg C)	2
	Frequent yawning (>3-4 times)	1
	Nasal snuffiness	1
	Sneezing (>3-4 times)	1
	Nasal flaring	2
	Respiratory rate > 60/min	1
	Respiratory rate > 60/min + retractions	2
Gastrointestinal disturbances	Excessive sucking	1
	Poor feeding	2
	Regurgitation	2
	Projectile vomiting	3
	Loose stools	2
	Watery stools	3

Infants scoring 3 consecutive abstinence scores averaging more than 8 (e.g. 9-7-9) or ≥ 12 for 2 scores require treatment. The scoring interval should be 4-hourly until the infant has been stabilised. Infants withdrawing from non-opiates frequently display similar behaviours to those withdrawing from opiates.

Source: Department of Neonatal Medicine Protocol Book, Royal Prince Alfred Hospital, Sydney, NS

Appendix 3: Heaviness of Smoking Index

Nicotine dependence in women who smoke cigarettes can be assessed using the HSI below.

Question	Answer	Score
How many cigarettes do you smoke each day?	10 or fewer	0
	11 to 20	1
	21 to 30	2
	31 or more	3
How soon after waking do you smoke your first cigarette?	After 60 minutes	0
	31 to 60 minutes	1
	6 to 30 minutes	2
	Within 5 minutes	3
	Total Score	

Treatment recommendations shown below are based on HSI, taking into consideration previous quit attempts.

HSI Score (level of dependence)	0 to 2 (Low nicotine dependence)	3 to 4 (Moderate nicotine dependence)	5 to 6 (High nicotine dependence)
Treatment recommendation	Multi-session behavioural intervention (Quitline) alone	Multi-session behavioural intervention (Quitline) ± faster-acting NRT Use the highest strength faster-acting NRT initially	Multi-session behavioural intervention (Quitline) + NRT patch ± faster-acting NRT
	If cravings or withdrawal symptoms are not controlled, consult a medical practitioner and consider:		
	The addition of faster-acting NRT	The addition of a NRT patch	Maximising the dose of NRT patch and faster-acting NRT

Appendix 4: Alcohol, Smoking and Substance Involvement Screening Test (ASSIST)

Clinician ID	Clinic
Patient ID	Date

Introduction (please read to patient. Can be adapted for local circumstances.

(Many drugs and medications can affect your health. It is important for your health care provider to have accurate information about your use of various substances to provide the best possible care.)

The following questions ask about your experiences of using alcohol, tobacco products and other drugs across your lifetime and in the past 3 months. These substances can be smoked, swallowed, snorted, inhaled, injected or taken in the form of pills (show drug card).

Some of the substances listed may be prescribed by a doctor (including amphetamines, sedatives and pain medications). For this interview, we will not record medications that are used as prescribed by your doctor. However, if you have taken such medications for reasons other than prescription, or have taken them more frequently or at higher doses than prescribed, please let me know. While we are also interested in knowing about your use of various illicit drugs, please be assured that information on such use will be treated as strictly confidential.

Note: Before asking questions, give ASSIST response card to patient.

Question 1

In your life, which of the following substances have you ever used? (NON MEDICAL USE ONLY)	No	Yes
a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	0	3
b. Alcohol beverages (beer, wine, spirits, etc.)	0	3
c. Cannabis (marijuana, pot, grass, hash, etc.)	0	3
d. Cocaine (coke, crack, etc,)	0	3
e. Amphetamine-type stimulants (speed, diet pills, ecstacy, etc.)	0	3
f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	3
g. Sedatives or sleeping pills (Valium, Serapax, Rohypnol, etc.)	0	3
h. Hallucinogens (LSD< acid, mushrooms, PCP, Special K, etc.)	0	3
i. Opioids (heroin, morphine, methadone, codeine, etc.)	0	3
j. Other (specify)	0	3
Probe if all answers are negative: 'Not even when you were in school?'	If 'No' to all items, stop interview. If 'Yes' to any item, ask Question 2 for each substance ever used.	

Question 2

In the past 3 months, how often have you used the substances you mentioned [FIRST DRUG, SECOND DRUG, ETC.]?	Never	Once or twice	Monthly	Weekly	Daily or almost
a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	0	2	3	4	6
b. Alcohol beverages (beer, wine, spirits, etc.)	0	2	3	4	6
c. Cannabis (marijuana, pot, grass, hash, etc.)	0	2	3	4	6
d. Cocaine (coke, crack, etc.)	0	2	3	4	6
e. Amphetamine-type stimulants (speed, diet pills, ecstacy, etc.)	0	2	3	4	6
f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	2	3	4	6
g. Sedatives or Sleeping Pills (Valium, Serapax, Rohypnol, etc.)	0	2	3	4	6
h. Hallucinogens (LSD< acid, mushrooms, PCP, Special K, etc.)	0	2	3	4	6
i. Opioids (heroin, morphine, methadone, codeine, etc.)	0	2	3	4	6
j. Other (specify)	0	2	3	4	6

If 'Never' to all items in Question 2, skip to Question 6.

If any substances in Question 2 were used in the previous 3 months, continue with questions 3, 4 and 6 for each substance used.

Question 3

In the past 3 months, how often have you had a strong desire or urge to use [FIRST DRUG, SECOND DRUG, ETC.]?	Never	Once or twice	Monthly	Weekly	Daily or almost daily
a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	0	3	4	5	6
b. Alcohol beverages (beer, wine, spirits, etc.)	0	3	4	5	6
c. Cannabis (marijuana, pot, grass, hash etc.)	0	3	4	5	6
d. Cocaine (coke, crack etc.)	0	3	4	5	6
e. Amphetamine-type stimulants (speed, diet pills, ecstacy, etc.)	0	3	4	5	6
f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	3	4	5	6
g. Sedatives or sleeping pills (Valium, Serapax, Rohypnol, etc.)	0	3	4	5	6
h. Hallucinogens (LSD< acid, mushrooms, PCP, Special K, etc.)	0	3	4	5	6
i. Opioids (heroin, morphine, methadone, codeine, etc.)	0	3	4	5	6
j. Other (specify)	0	3	4	5	6

If 'Never' to all items in Question 2, skip to Question 6.

If any substances in Question 2 were used in the previous 3 months, continue with questions 3, 4 and 6 for each substance used.

Question 4

In the past 3 months, how often has your use of [FIRST DRUG, SECOND DRUG, ETC.] led to health, social, legal or financial problems?	Never	Once or twice	Monthly	Weekly	Daily or almost daily
a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	0	4	5	6	7
b. Alcohol beverages (beer, wine, spirits, etc.)	0	4	5	6	7
c. Cannabis (marijuana, pot, grass, hash, etc.)	0	4	5	6	7
d. Cocaine (coke, crack, etc.)	0	4	5	6	7
e. Amphetamine-type stimulants (speed, diet pills, ecstacy, etc.)	0	4	5	6	7
f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	4	5	6	7
g. Sedatives or sleeping pills (Valium, Serapax, Rohypnol, etc.)	0	4	5	6	7
h. Hallucinogens (LSD< acid, mushrooms, PCP, Special K, etc.)	0	4	5	6	7
i. Opioids (heroin, morphine, methadone, codeine, etc.)	0	4	5	6	7
j. Other (specify)	0	4	5	6	7

Question 5

In the past 3 months, how often have you failed to do what was normally expected of you because of your use of [FIRST DRUG, SECOND DRUG, ETC.]?	Never	Once or twice	Monthly	Weekly	Daily or almost daily
a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	0	5	6	7	8
b. Alcohol beverages (beer, wine, spirits, etc.)	0	5	6	7	8
c. Cannabis (marijuana, pot, grass, hash, etc.)	0	5	6	7	8
d. Cocaine (coke, crack, etc.)	0	5	6	7	8
e. Amphetamine-type stimulants (speed, diet pills, ecstacy, etc.)	0	5	6	7	8
f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	5	6	7	8
g. Sedatives or sleeping pills (Valium, Serapax, Rohypnol, etc.)	0	5	6	7	8
h. Hallucinogens (LSD< acid, mushrooms, PCP, Special K, etc.)	0	5	6	7	8
i. Opioids (heroin, morphine, methadone, codeine, etc.)	0	5	6	7	8
j. Other (specify)	0	5	6	7	8

Question 6

Has a friend, relative or anyone else ever expressed concern about your use of [FIRST DRUG, SECOND DRUG, ETC.]?	No, never	Yes, in the past 3 months	Yes, but not in the past 3 months
a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	0	6	3
b. Alcohol beverages (beer, wine, spirits, etc.)	0	6	3
c. Cannabis (marijuana, pot, grass, hash, etc.)	0	6	3
d. Cocaine (coke, crack, etc.)	0	6	3
e. Amphetamine-type stimulants (speed, diet pills, ecstacy, etc.)	0	6	3
f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	6	3
g. Sedatives or sleeping pills (Valium, Serapax, Rohypnol, etc.)	0	6	3
h. Hallucinogens (LSD< acid, mushrooms, PCP, Special K, etc.)	0	6	3
i. Opioids (heroin, morphine, methadone, codeine, etc.)	0	6	3
j. Other (specify)	0	6	3

Question 7

Have you ever tried and failed to control, cut down or stop using [FIRST DRUG, SECOND DRUG, ETC.]?	No, never	Yes, in the past 3 months	Yes, but not in the past 3 months
a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)	0	6	3
b. Alcohol beverages (beer, wine, spirits, etc.)	0	6	3
c. Cannabis (marijuana, pot, grass, hash, etc.)	0	6	3
d. Cocaine (coke, crack, etc.)	0	6	3
e. Amphetamine type stimulants (speed, diet pills, ecstacy, etc.)	0	6	3
f. Inhalants (nitrous, glue, petrol, paint thinner, etc.)	0	6	3
g. Sedatives or sleeping pills (Valium, Serapax, Rohypnol, etc.)	0	6	3
h. Hallucinogens (LSD< acid, mushrooms, PCP, Special K, etc.)	0	6	3
i. Opioids (heroin, morphine, methadone, codeine, etc.)	0	6	3
j. Other (specify)	0	6	3

Question 8

	No, never	Yes, in the past 3 months	Yes, but not in the past 3 months
Have you **ever** used any drug by injection? (NON-MEDICAL USE ONLY)	0	2	1

IMPORTANT NOTE:

Patients who have injected drugs in the past 3 months should be asked about their pattern of injecting during this period, to determine their risk levels and the best course of intervention.

Pattern of injecting	Pattern of injecting
Once weekly or less or Fewer than 3 days in a row →	Brief intervention, including 'risks associated with injecting' card.
More than once per week or 3 or more days in a row →	Further assessment and more intensive treatment.

How to calculate a specific substance involvement score
For each substance (labelled a. to j.), add up the scores received for questions 2 through 7 inclusive. Do not include the results from Q1 or Q8 in this score. For example, a score for cannabis would be calculated as: Q@c + Q3c + Q4c + Q5 + Q6c + Q7c
Note that Q5 for tobacco is not coded, and is calculated as: Q2a + Q3a + Q4a + Q6a + Q7a
The type of intervention is determined by the patient's specific substance involvement score.

	Record specific substance score	No intervention	Receive brief intervention	More intensive treatment
a. Tobacco		0–3	4–26	27+
b. Alcohol		0–10	11–26	27+
c. Cannabis		0–3	4–26	27+
d. Cocaine		0–3	4–26	27+
e. Amphetamine		0–3	4–26	27+
f. Inhalants		0–3	4–26	27+
g. Sedatives		0–3	4–26	27+
h. Hallucinogens		0–3	4–26	27+
i. Opioids		0–3	4–26	27+
j. Other drugs		0–3	4–26	27+
NOTE: Further assessment and more intensive treatment may be provided by the health professional(s) in your primary care setting, or by a specialist drug and alcohol treatment service when available.				

Response card substances

a. Tobacco products (cigarettes, chewing tobacco, cigars, etc.)
b. Alcoholic beverages (beer, wine, spirits, etc.)
c. Cannabis (marijuana, pot, grass, hash, etc.)
d. Cocaine (coke, crack, etc.)
e. Amphetamine-type stimulants (speed, diet pills, ecstasy, etc.)
f. Inhalants
g. Sedatives or sleeping pills (Valium, Serapax, Rohypnol, etc.)
h. Hallucinogens (LSD< acid, mushrooms, PCP, Special K, etc.)
i. Opioids (heroin, morphine, methadone, codeine, etc.)
j. Other (specify)

Response card (ASSIST Questions 2–5)
Never: not used in the past 3 months Once or twice: 1–2 times in the past 3 months Monthly: 1–3 times in one month Weekly: 1– 4 times per week Daily or almost daily: 5–7 days per week

Response card (ASSIST Questions 6–8)
No, never Yes, but not in the past 3 months Yes, in the past 3 months

Name:	Test date:	
Substance	**Score**	**Risk level**
a. Tobacco products		0–3 Low 4–26 Moderate 27+ High
b. Alcoholic beverages		0–10 Low 11–26 Moderate 27+ High
c. Cannabis		0–3 Low 4–26 Moderate 27+ High
d. Cocaine		0–3 Low 4–26 Moderate 27+ High
e. Amphetamine-type stimulants		0–3 Low 4–26 Moderate 27+ High
f. Inhalants		0–3 Low 4–26 Moderate 27+ High
g. Sedatives or sleeping pills		0–3 Low 4–26 Moderate 27+ High
h. Hallucinogens		0–3 Low 4–26 Moderate 27+ High
i. Opioids		0–3 Low 4–26 Moderate 27+ High
j. Other (specify)		0–3 Low 4–26 Moderate 27+ High

What do your scores mean?

Low: You are at low risk of health and other problems from your current pattern of use.

Moderate: You are at risk of health and other problems from your current pattern of substance use.

High: You are at a high risk of experiencing severe (health, social, financial, legal and relationship) problems as a result of your current pattern of use and are likely to be dependent.

Are you concerned about your substance use?

Drug	Condition
a. Tobacco	Your risk of experiencing these harms is **Low** O **Moderate** O **High** O **(tick one)** Regular tobacco smoking is associated with: Premature ageing, wrinkling of the skin Respiratory infections and asthma High blood pressure, diabetes Respiratory infections, allergies and asthma in children of smokers Miscarriage, premature labour and low birth weight babies for pregnant women Kidney disease Chronic obstructive airways disease Heart disease, stroke, vascular disease Cancers
b. Alcohol	Your risk of experiencing these harms is **Low** O **Moderate** O **High** O **(tick one)** Regular excessive alcohol use is associated with: Hangovers, aggressive and violent behaviour, accidents and injury Reduced sexual performance, premature ageing Digestive problems, ulcers, inflammation of the pancreas, high blood pressure Anxiety and depression, relationship difficulties, financial and work problems Difficulty remembering things and solving problems Deformities and brain damage in babies of pregnant women Stroke, permanent brain injury, muscle and nerve damage Liver disease, pancreas disease Cancers, suicide
c. Cannabis	Your risk of experiencing these harms is **Low** O **Moderate** O **High** O **(tick one)** Regular use of cannabis is associated with: Problems with attention and motivation, anxiety paranoia, panic, depression, Decreased memory and problem-solving ability High blood pressure Asthma, bronchitis Psychosis in those with a personal or family history of schizophrenia Heart disease and chronic obstructive airways disease Cancers

d. Cocaine	Your risk of experiencing these harms is **Low** O **Moderate** O **High** O **(tick one)** Regular use of cocaine is associated with: Difficulty sleeping, heart racing, headaches, weight loss Numbness, tingling, clammy skin, skin scratching or picking Accidents and injury, financial problems Irrational thoughts Mood swings, anxiety, depression, mania Aggression and paranoia Intense craving, stress from the lifestyle Psychosis after repeated use of high doses Sudden death from heart problems

Drug	Condition
e. Amphetamine-type stimulants	Your risk of experiencing these harms is **Low** O **Moderate** O **High** O **(tick one)** Regular use of amphetamine-type stimulants is associated with: Difficulty sleeping, loss of appetite and weight loss Jaw clenching, headaches, muscle pain Mood swings, anxiety, depression, agitation, mania, panic, paranoia Tremors, irregular heartbeat, shortness of breath Aggressive and violent behaviour Psychosis after repeated use of high doses Permanent damage to brain cells Liver damage, brain haemorrhage, sudden death (from ecstasy) in rare situations
f. Inhalants	Your risk of experiencing these harms is **Low** O **Moderate** O **High** O **(tick one)** Regular use of inhalants is associated with: Dizziness and hallucinations, drowsiness, disorientation, blurred vision Flu-like symptoms, sinusitis, nosebleeds Indigestion, stomach ulcers Accidents and injury Memory loss, confusion, depression, aggression Coordination difficulties, slowed reactions, hypoxia Delirium, seizures, coma, organ damage (heart, lungs, liver, kidneys) Death from heart failure

g. Sedatives	Your risk of experiencing these harms is **Low** O **Moderate** O **High** O **(tick one)** Regular use of sedatives is associated with: Drowsiness, dizziness and confusion Difficulty concentrating and remembering things Nausea, headaches, unsteady gait Sleeping problems Anxiety and depression Tolerance and dependence after a short period of use Severe withdrawal symptoms Overdose and death if used with alcohol, opioids, or other depressant drugs
h. Hallucinogens	Your risk of experiencing these harms is **Low** O **Moderate** O **High** O **(tick one)** Regular use of hallucinogens is associated with: Hallucinations (pleasant or unpleasant) – visual, auditory, tactile, olfactory Difficulty sleeping Nausea and vomiting Increased heart rate and blood pressure Mood swings Anxiety, panic, paranoia Flashbacks Increase the effects of mental illness such as schizophrenia
i. Opioids	Your risk of experiencing these harms is **Low** O **Moderate** O **High** O **(tick one)** Regular use of sedatives is associated with: Itchiness, nausea and vomiting Drowsiness Constipation, tooth decay Difficulty concentrating and remembering things Reduced sexual desire and sexual performance Relationship difficulties Financial and work problems, violations of law tolerance and dependence, withdrawal symptoms Overdose and death from respiratory failure

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