SYPHILIS CASE TRIAGE

Public health response timeline
HIGH - commence follow-up within one working day
ROUTINE - commence follow-up within 3 working days

Data entry timeline
HIGH - commence follow-up within 3 working days
ROUTINE - commence follow-up within 5 working days

Case notification

Is the case <12 months old?
- Yes → **HIGH** public health follow-up required **See 'Congenital syphilis' flowchart**
- No ↓

Is the case 1 -≤12 years old?*
- Yes → **HIGH** public health follow-up required
  Phone ordering clinician to ensure mandatory reporting obligations have been addressed
  Send letter/notification form to ordering clinician
  Inform PHU director and staff specialist
- No ↓

Is the case 13 - <16 years old?*
- Yes → **HIGH** public health follow-up required
  Send letter/notification form to ordering clinician*
  Inform PHU director and staff specialist
  **Phone call to ordering clinician may also be appropriate*
- No ↓

Is the case female?

Is the case female and ≥16 - ≤44 years?
Note 'woman of reproductive age' = 15-44 years
- Yes → **HIGH** public health follow-up required
  Ascertain pregnancy status
  - Yes pregnant → **HIGH** public health follow-up required **See 'Syphilis in pregnancy' flowchart**
  - Not pregnant
- No ↓

All other cases:
Male cases ≥ 16 years
OR
Non-pregnant female cases ≥16 - >44 years
OR
Female cases ≥ 45 years

Is the RPR/VDRL ≥ 16 and/or PCR positive?
- Yes → **HIGH** public health follow-up required **See 'Syphilis in anyone not pregnant' flowchart**
- No → **ROUTINE** public health follow-up required **See 'Syphilis in anyone not pregnant' flowchart**

** For interstate case <16 years old: if the case is present in NSW or has a sufficient connect to NSW, follow the above steps in this flowchart. See NSW specific syphilis guidance for 'Cases under 16 years' in the syphilis control guidelines for more information.*

CONGENITAL SYPHILIS

Public health priority: HIGH
Response: commence follow-up within 1 working day
Data entry: commence within 3 working days

New notification

Review notification and lab results

1. Enter any laboratory results not received by ELR

2. Attach any revelant documentation to event

Previous syphilis events?
Decreased/unchanged RPR titre?

Review serology results and request merge with original event. Update case name if available.

Classify^ (confirmed/probable/excluded) when sufficient lab and clinical evidence is available.

^Note that congenital syphilis cases can remain as possible beyond 90 day classification window as follow-up testing is obtained

Review follow-up testing results. Enter any results not received by ELR. Enter any other relevant data/information in NCIMS

Follow-up with the managing clinician to ascertain that there is a plan in place for the treatment and follow-up testing of neonate, as required. Document this in NCIMS.

*Refer to **'ASID Perinatal Guidelines - Algorithm 3'** for guidance*

IMPORTANT:
The assessment and management of congenital syphilis cases (including at birth or follow-up after discharge) is the responsibility of the managing clinician. Each local health district must have clearly defined local protocols and processes.

Public health and/or sexual health staff should ensure that the managing clinician is aware of the support of specialist services that are available. In collaboration with other services and as per local protocols, PHU/SHS staff should ensure that public health actions in this flowchart have been completed.

No previous syphilis events or 4-fold increase in RPR (e.g. likely re-infection)

Change condition to 'Congenital syphilis'
- Leave as possible until able to classify
- Leave as 'Baby of X' until case name is available
- Link mother's NCIMS record to event

Investigation for neonate

Follow-up with managing clinician and/or check eMR for the following:
1. Clinical examination of neonate
2. Pathology and serology tests (both maternal and neonate)

Record information in relevant NCIMS fields

*Refer to **'ASID Perinatal Guidelines - Algorithm 3'** for guidance*

Ensure that relevant tests have been ordered (both neonate and mother) to meet the surveillance case definition (e.g. blood, placental and/or umbilical cord samples)

Risk assessment of neonate should be done by treating and/or specialist teams. Following their assessment of the neonate, ensure consideration of all questions below

Was the mother engaged in antenatal care?

Did the mother complete adequate treatment at least 30 days prior to delivery?

Did the maternal RPR drop 4-fold prior to delivery?

Is the neonate RPR 4-fold lower than the maternal RPR?

Is the placental histopathology/ PCR negative?

Is the neonate clinically well with no signs associated with congenital syphilis?

If mostly 'yes'

If mostly 'no'

Less likely to be 'confirmed/probable' congenital syphilis

More likely to be 'confirmed/probable' congenital syphilis

Refer relevant cases to LHD clinical governance units

Ensure neonate is in care with ID/ paediatric specialist

Complete Appendix F and send to CD on call as soon as practicable

Investigation for mother

Find mother in NCIMS and link to neonate's record

Follow-up with managing clinician and/or check eMR/ NCIMS to ascertain mother's testing and treatment history

*Refer to **'ASID Perinatal Guidelines - Algorithm 2'** for guidance*

Enter any placental PCR testing results into mother's NCIMS record

SYPHILIS IN PREGNANCY

Public health priority: HIGH
Response: commence follow-up within 1 working day
Data entry: commence within 3 working days

New notification

Review notification and lab results

1. Enter any laboratory results not received by ELR

2. Attach any relevant documentation to event

No previous syphilis events?
4-fold increase in RPR?
Re-infection?

Keep/create as 'New Event'

Leave as 'Syphilis - Unspecified' until able to classify

Previous syphilis events?
Decreased/unchanged RPR titre?

Review serology results. If no 4-fold rise in RPR (i.e. not a re-infection), request merge with most recent previous event

Update pregnancy status in Clinical Package.

Complete 'Gestational age at notification' and 'Expected delivery date' in Clinical Package.

If <16 years old, update 'GP reminder letter sent' in Admin Package.

Does the ordering clinician have sexual health experience? (e.g. SHSs, s100s)

No

Refer to local SHS; SHS to contact ordering clinician to provide support. Ordering clinician to refer to specialist services, if required

Yes

Send the managing clinician the notification form for their completion. Special arrangements may be made with your SHS to obtain enhanced surveillance data.

Check eMR or contact the managing clinician to ascertain the following:

1. Is the case engaged in care with a maternity service?
2. Has the case had their universal antenatal syphilis screens as per the Policy Directive?
3. Has treatment been initiated?

Refer to
'ASID Perinatal Guidelines - Algorithm 2' *for guidance*
and ***'Syphilis in Pregnancy and Newborns Policy Directive - Appendix 2'***
for antenatal screening recommendations

Yes

Follow-up with the managing clinician and/or specialist teams to ascertain the following:

1. Ordered and are monitoring follow-up serological testing results
2. Commenced appropriate treatment for the case
3. Contact tracing is being undertaken

No

Ensure that the managing clinician is aware of the specialist services available to them.

If required (especially if there are ongoing attempts to link case into care), the managing clinician should consider escalation/notification to following services:

- NSW Sexual Health Services (SHS)
- NSW Sexual Health Infolink (SHIL)
- Justice Health and Forensic Mental Health Network
- Emergency Departments
- Maternity Assessment Centre
- Social Work Services
- Drug and Alcohol Services
- Mental Health Services
- Aboriginal Medical Services
- GP services
- Child Well-Being Units
- Department of Communities and Justice - *is a high risk birth alert warranted?*

Re-engage in care

Risk assessment of the case should be done by the treating and/or specialist teams.

Following their assessment, ensure consideration of below questions has been addressed:

1. Was adequate treatment completed >30 days prior to delivery?
2. Has the RPR/VDRL dropped 4-fold at delivery?
3. Is the managing clinical team confident that the case is well-engaged in care?

^Note that cases must be classified within 90 days of initial notification with the information available. If further information becomes available after this time, this should be added to the event and reclassified if necessary

Once forms are received from managing clinician, enter all information in NCIMS/ complete 'Syphilis Questionnaire' wizard

Classify case as per the surveillance case definition

If mostly 'yes'

Lower risk of congenital syphilis

Refer to 'Congenital Syphilis' flowchart

If mostly 'no'

Increased risk of congenital syphilis

Refer to 'Congenital Syphilis' flowchart

LTFU or not confident that case is well-engaged in care

Notify CD on call given the risk of congenital syphilis

IMPORTANT:
The assessment, management and follow-up of women with a positive syphilis result in pregnancy is the responsibility of the managing clinician/s. Each local health district must have clearly defined local protocols and processes.

Public health and/or sexual health staff should ensure that the managing clinician is aware of specialist services that are available for support. In collaboration with other services and as per local protocols, PHU/SHS staff should ensure that the public health actions in this flowchart have been completed.

SYPHILIS IN ANYONE NOT PREGNANT

INFECTIOUS SYPHILIS public health priority: HIGH
Response: commence follow-up within 1 working day
Data entry: commence within 3 working days

ROUTINE SYPHILIS public health priority: ROUTINE
Response: commence follow-up within 3 working days
Data entry: commence within 5 working days

New notification

Review notification and lab results

1. Enter any laboratory results not received by ELR

2. Attach any relevant documentation to event

Previous syphilis events or decreased/unchanged RPR titre

Review serology results. If no 4-fold rise in RPR (i.e. not a re-infection), request merge with most recent previous event

No previous syphilis events or 4-fold increase in RPR (e.g. likely re-infection)

Keep/create as 'New Event'

Leave as 'Syphilis - Unspecified' until able to classify

Update pregnancy status in Clinical package.

If < 16 years old, update 'GP reminder letter sent' in Admin package.

Does the ordering clinician have sexual health experience? (e.g. SHSs, s100s)

No

Is the RPR/VDRL ≥ 16 and/or PCR positive?

Likely to be infectious syphilis

Yes

Refer to local SHS as local protocols.

SHS to contact ordering clinician to provide support. Ordering clinician to refer to specialist services, if required

No

Yes

Send letter and notification form to managing clinician (enter date in 'Administrative' package).

Special arrangements may be made with your SHS to obtain enhanced surveillance data.

Once forms are received from managing clinician, enter all information into NCIMS/complete 'Syphilis Questionnaire' wizard.

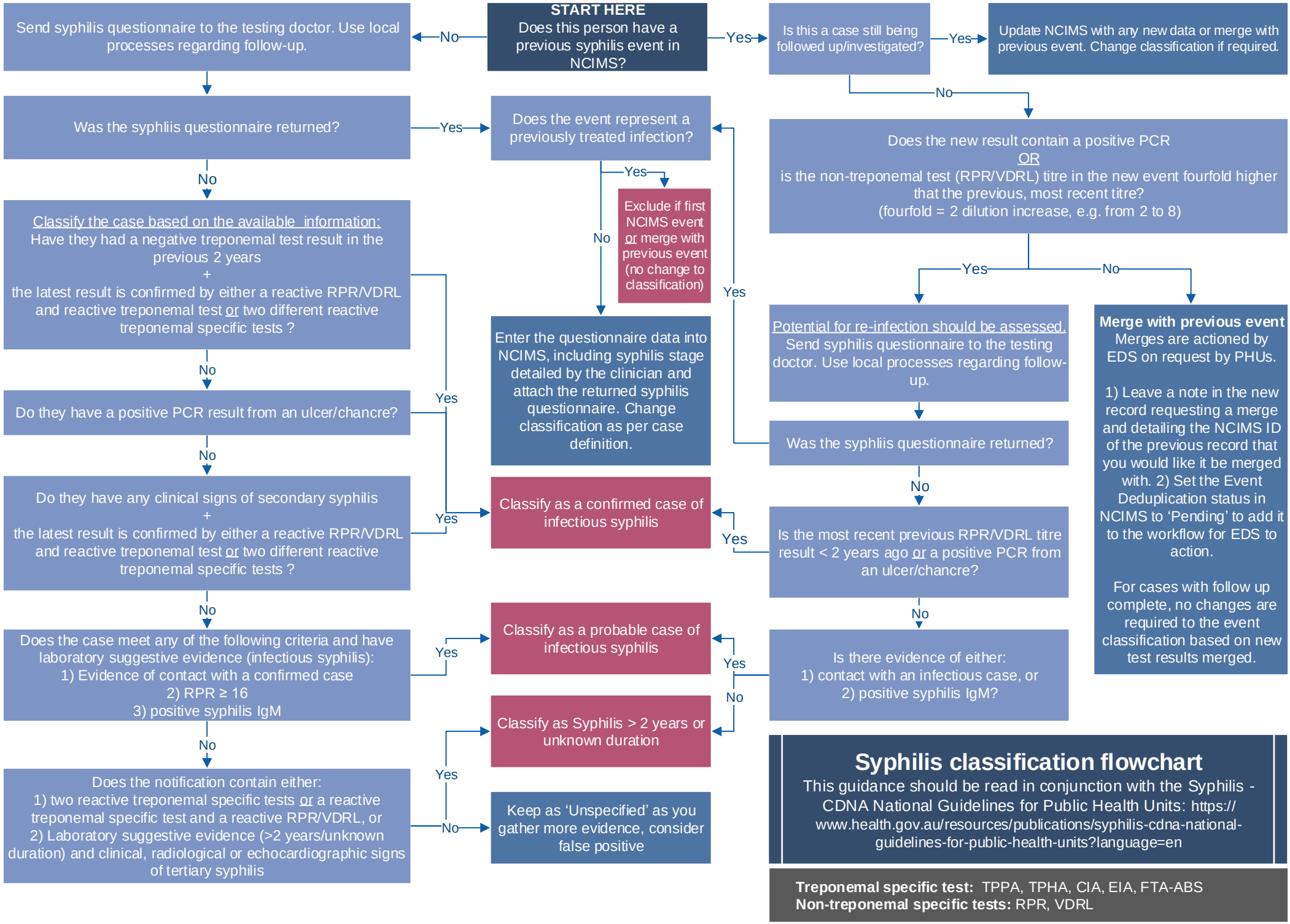
Classify^ case as per surveillance case definition

^Note that cases must be classified within 90 days of initial notification with the information available. If further information becomes available after this time, this should be added to the event and reclassified if necessary

IMPORTANT:
The assessment and managment of the case (including treatment and contact tracing) is the responsibility of the managing clinician/s. Each local health district must have clearly defined local protocols and pathways.

Public health and/or sexual health staff should ensure that the managing clinician is aware of specialist services that are available for support.

In collaboration with other services and as per local protocols, PHU/SHS staff should ensure that the public health actions in this flowchart have been completed.


START HERE
Does this person have a previous syphilis event in NCIMS?
No
Send syphilis questionnaire to the testing doctor. Use local processes regarding follow-up.
Was the syphliis questionnaire returned?
No
Classify the case based on the available information:
Have they had a negative treponemal test result in the previous 2 years
+
the latest result is confirmed by either a reactive RPR/VDRL and reactive treponemal test or two different reactive treponemal specific tests ?
No
Do they have a positive PCR result from an ulcer/chancre?
No
Do they have any clinical signs of secondary syphilis
+
the latest result is confirmed by either a reactive RPR/VDRL and reactive treponemal test or two different reactive treponemal specific tests ?
No
Does the case meet any of the following criteria and have laboratory suggestive evidence (infectious syphilis):
1) Evidence of contact with a confirmed case
2) RPR ≥ 16
3) positive syphilis IgM
No
Does the notification contain either:
1) two reactive treponemal specific tests or a reactive treponemal specific test and a reactive RPR/VDRL, or
2) Laboratory suggestive evidence (>2 years/unknown duration) and clinical, radiological or echocardiographic signs of tertiary syphilis
Yes
Does the event represent a previously treated infection?
Yes
Exclude if first NCIMS event or merge with previous event (no change to classification)
No
Enter the questionnaire data into NCIMS, including syphilis stage detailed by the clinician and attach the returned syphilis questionnaire. Change classification as per case definition.
Yes
Classify as a confirmed case of infectious syphilis
Yes
Classify as a probable case of infectious syphilis
Yes
Classify as Syphilis > 2 years or unknown duration
Yes
Keep as 'Unspecified' as you gather more evidence, consider false positive
No
Is this a case still being followed up/investigated?
Yes
Update NCIMS with any new data or merge with previous event. Change classification if required.
No
Does the new result contain a positive PCR
OR
is the non-treponemal test (RPR/VDRL) titre in the new event fourfold higher that the previous, most recent titre?
(fourfold = 2 dilution increase, e.g. from 2 to 8)
Yes
No
Potential for re-infection should be assessed.
Send syphilis questionnaire to the testing doctor. Use local processes regarding follow-up.
Was the syphliis questionnaire returned?
Yes
No
Is the most recent previous RPR/VDRL titre result < 2 years ago or a positive PCR from an ulcer/chancre?
Yes
No
Is there evidence of either:
1) contact with an infectious case, or
2) positive syphilis IgM?
Yes
No
Merge with previous event
Merges are actioned by EDS on request by PHUs.
1) Leave a note in the new record requesting a merge and detailing the NCIMS ID of the previous record that you would like it be merged with. 2) Set the Event Deduplication status in NCIMS to 'Pending' to add it to the workflow for EDS to action.
For cases with follow up complete, no changes are required to the event classification based on new test results merged.
Syphilis classification flowchart
This guidance should be read in conjunction with the Syphilis - CDNA National Guidelines for Public Health Units: https://www.health.gov.au/resources/publications/syphilis-cdna-national-guidelines-for-public-health-units?language=en
Treponemal specific test: TPPA, TPHA, CIA, EIA, FTA-ABS
Non-treponemal specific tests: RPR, VDRL

Definitions for infectious syphilis – less than two years duration

Laboratory definitive evidence
Seroconversion in past two years: treponemal specific test reactive when previous treponemal specific test non-reactive and the latest result is confirmed by either a reactive non-treponemal test or a different reactive treponemal specific test, or
A four-fold or greater rise in non-treponemal antibody titre compared with the titre within the past two years, and a reactive treponemal specific test.

Laboratory suggestive evidence
Demonstration of *T. pallidum* by dark-field microscopy (not oral lesion), or direct fluorescent antibody microscopy, equivalent microscopic methods (e.g. silver stains), or DNA methods (e.g. nucleic acid testing), or
A reactive treponemal test confirmed by either a reactive non-treponemal test or a different reactive treponemal specific test, or
A reactive non-treponemal test confirmed by a treponemal specific test

Clinical evidence
Presence of a primary chancre (or ulcer) or clinical signs of secondary syphilis.

Confirmed case:
1) Laboratory definitive evidence, or
2) Laboratory suggestive evidence + clinical evidence

Probable case:
Requires that the case does not meet the criteria for a confirmed case and either:

A) In a person with no known previous reactive serology: no history of adequate treatment of syphilis, or endemic treponemal disease, and
Contact with an infectious case and laboratory suggestive evidence or
Laboratory suggestive evidence and RPR ≥16 or
Positive syphilis IgM and laboratory suggestive evidence

B) In a person with previous reactive serology: a fourfold or greater rise in non-treponemal antibody titre when the previous serology was done more than two years ago and
Contact with an infectious case or
Positive syphilis IgM

Definitions for syphilis >2 years or unknown duration

Laboratory definitive evidence
A reactive treponemal specific test which is confirmed by either a reactive non-treponemal test or by a different reactive treponemal specific test, and

A) In a person with no known previous reactive serology: no history of adequate treatment of syphilis, or endemic treponemal disease (e.g. Yaws), or

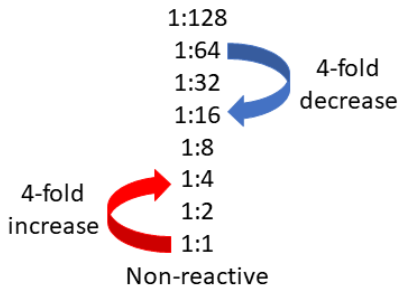
B) In a person with previously reactive serology: a four-fold or greater rise in non-specific treponemal antibody titre when the previous serology was done more than two years ago.

Laboratory suggestive evidence
Demonstration of *T. pallidum* by dark-field microscopy (not oral lesion), or direct fluorescent antibody microscopy, equivalent microscopic methods (e.g. silver stains), or DNA methods (e.g. nucleic acid testing), or

Clinical evidence
Clinical, radiological or echocardiographic signs of tertiary syphilis.

Confirmed case:
1) Laboratory definitive evidence, or
2) Laboratory suggestive evidence + clinical evidence

Below are some titre dilutions depicting a 4-fold increase and decrease:



RPRs are typically 1-2 titre dilutions higher than a VDRL. It is preferable to compare the same non-treponemal tests.