



Diabetes Alliance Program Plus



LHD, PHN, HMRI and UON Collaboration Project - Spotlight on The Diabetes Alliance Program

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Hunter New England
Local Health District





Diabetes Alliance Program Plus acknowledges
Traditional Owners of Country throughout Australia and recognises
the continuing connection to lands, waters and communities.
We pay our respect to Aboriginal and Torres Strait Islander cultures;
and to Elders past and present.

Innovation leading to Intervention

DAP+ is an Innovative, Integrated care approach to link GP practices with Specialist teams to:

-Intensive capacity building intervention

-Standardisation of best evidenced care delivery

-Provide a supportive specialist networking mechanisms for primary care

Model 3 main elements 2014-2022:

- Case Conferences in GP practices
- GP Practice data extraction and diabetes performance appraisal
- Master Classes throughout our LHD, offered to all clinicians

2023 onwards

- Phone advice line
- Virtual case conference access

Diabetes Alliance Program Core Model

Joint case conferencing Since 2016	Virtual joint case conferencing Since July 2023	Data driven quality improvement Since 2016	Diabetes Masterclasses Since 2016
<p>>190 GP practices >6,000 patients seen (15% identify as Indigenous Australians)</p>	<p>274 joint virtual case conferences with GP and specialist team conducted DNA rate=14%</p>	<p>>190 GP practices</p>	<p>80 sessions held >2,600 clinicians attended</p>
			

DAP+ Monitoring and Evaluation

Direct DAP+ intervention outcomes at Primary Care

- Clinician and consumer acceptability and experience ✓
- Improved clinical outcomes for DAP+ intervention patients ✓
- Improved primary care processes related to diabetes care ✓
- Improved primary care evidenced based care delivery ✓

Downstream DAP+ intervention outcomes

- Health system utilisation impact ✗
- Long-term impacts ✗

Consumer and clinician acceptability and experience



“Thank you for organising this event in Taree. It was lovely to see so many people come to the event which shows this is an area of need and priority for our community.”

Taree GP – GP Education Dinner Diabetic Emergencies 2023



Hi Morag
 Thank you for forwarding this flyer.
 Also would like to express our appreciation for the DAP team visit yesterday. We found it to be an extremely educational day. The team was so supportive and we look forward to beeting up again.

Kind Regards

Christine Minchell | Registered Nurse



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Evidence of Clinical Effectiveness for DAP+ intervention patients

Table 2. Change in mean scores between baseline and 6 months for intervention patients (n = 344) from 14 practices

If 6-month data were not available and the baseline levels were at guideline-recommended levels, the initial value was carried forward (HbA1c ≤ 55 mmol/mol; BMI ≤ 30 kg/m²; total cholesterol < 4.0 mmol/L; systolic BP < 130 mmHg; urine ACR < 3.5 mg/mmol). Values are reported as mean \pm standard deviation, median (interquartile range) or % (n). HbA1c, Haemoglobin A1c; BMI, body mass index; ACEI, angiotensin converting enzyme inhibitor; ARB, angiotensin II receptor blocker; ACR, albumin/creatinine ratio; CVD, cardiovascular disease

Variable (n = number of patients with parameter collected at both initial assessment and follow up)	Initial	6 months	Missing	P value
HbA1c (mmol/mol) (n = 266)	60.0 \pm 16.2	55.3 \pm 12.6	78	<0.001
Weight (kg) (n = 264)	95.5 \pm 20.9	94.5 \pm 21.5	80	0.006
Total cholesterol (mmol/L) (n = 263)	4.3 \pm 1.2	4.2 \pm 1.1	81	0.03
Systolic BP (mmHg) (n = 280)	134 \pm 18	131 \pm 17	64	0.004
Diastolic BP (mmHg) (n = 280)	77 \pm 12	74 \pm 11	64	<0.001
ACEI or ARB use (n = 199)	70.4 (140)	73.4 (146)	145	0.51
Urine ACR < 3.5 (n = 257)	80.9 (208)	82.9 (213)	87	0.19
Urine ACR > 3.5 mg/mmol on ACEI/ARB (n = 106)	75.4 (49)	89.2 (58)	41	0.01
Absolute 5-year CVD risk (%; n = 150)	18.4 (9.9 – 30.6)	16.7 (8.5 – 28.6)	0	<0.001
PAM activation score (%; n = 105)	56.4 (47.4 – 68.5)	63.2 (56.4 – 75.3)	239	<0.001

Australian Journal of Primary Health
<https://doi.org/10.1071/PY18179>

Practice & Innovation

Hunter and New England Diabetes Alliance: innovative and integrated diabetes care delivery in general practice

Shamasunder Acharya^{A,B,F}, Annalise N. Philcox^C, Martha Parsons^A, Belinda Suthers^D, Judy Luu^{A,B}, Margaret Lynch^E, Mark Jones^D and John Attia^{A,D}

- One session of case conference with primary care clinician led to significant improvement in HbA1c 0.9%, lipids, BP, weight and cardiovascular outcomes
- In addition, secondary diabetes, type 1 diabetes, monogenic forms identified
- Significant partnership and trust value
- Consumer and clinician high satisfaction rate

Patient Outcomes Dashboard

Friday, February 09, 2024

Latest clinic data entered

Change in patient data:

616 Patients 608 Baseline visits 180 Follow-up visits



Clinical Marker	Baseline	Follow-up	% Change
HbA1c (%)	8.60	7.70	▼ -9.63 %
Weight (kg)	97.00	95.00	▼ -1.89 %
Systolic BP (mmHg)	130.00	132.00	▲ +1.56 %
Non-HDL Cholesterol (mmol/L)	3.10	2.60	▼ -5.26 %
Albumin-Creatinine Ratio (mg/mmol)	3.30	1.90	▼ -4.90 %

Note. Table contains medians for each Clinical Marker for those patients with both Baseline and Follow-up data. The % Change represents the median of each individual's change, therefore may not exactly reflect the absolute group difference between Baseline and Follow-up. For research purposes, data will be compared to an appropriate control/reference group for interpreting DAP+ effectiveness.

Improved primary care improved process and evidenced based care delivery

Acharya et al. *BMC Endocrine Disorders* (2024) 24:183
<https://doi.org/10.1186/s12902-024-01692-4>

BMC Endocrine Disorders

RESEARCH

Open Access











Spillover effects from a type 2 diabetes integrated model of care in 22,706 Australians: an open cohort stepped wedge trial



Shamasunder Acharya^{1,2,3*}, Rachael Taylor^{2,3}, Martha Parsons¹, John Attia^{1,2,3}, Lucy Leigh^{3,4}, Christopher Oldmeadow^{3,4}, Katie Wynne^{1,2,3}, Christopher Rowe^{1,2,3}, Morag Joseph^{1,5}, Judy Luu^{1,2}, Annalise Philcox^{1,2}, Damien Jackel^{1,2}, Tuan Quach^{1,2}, Christy Sankoorikal^{1,2}, Simone Dagg^{1,2} and Alexis Hure^{2,3}

Improved primary care improved process and evidenced based care delivery

Geographic variation in sodium-glucose cotransporter 2 inhibitor and glucagon-like peptide-1 receptor agonist use in people with type 2 diabetes in New South Wales, Australia

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Richard O. Day FRACP^{3,5}  | Sophie L. Stocker PhD^{3,6}  |
Brendon L. Neuen PhD^{7,8}  | Alys Havard PhD^{1,9}  | Sallie-Anne Pearson PhD¹  |
Michael O. Falster PhD¹ 

¹Medicines Intelligence Research Program, School of Population Health, Faculty of Medicine and Health, University of New South Wales, Sydney, New South Wales, Australia

“We also observed areas in the north-east of NSW where the prevalence of GLP-1RA use was atypically high. This included the majority of SA2s with a prevalence between 30% and 39% and all three SA2s with a prevalence of >40%, up to 2.5 times higher than the median.”

NSW Health: Lumos Linkage

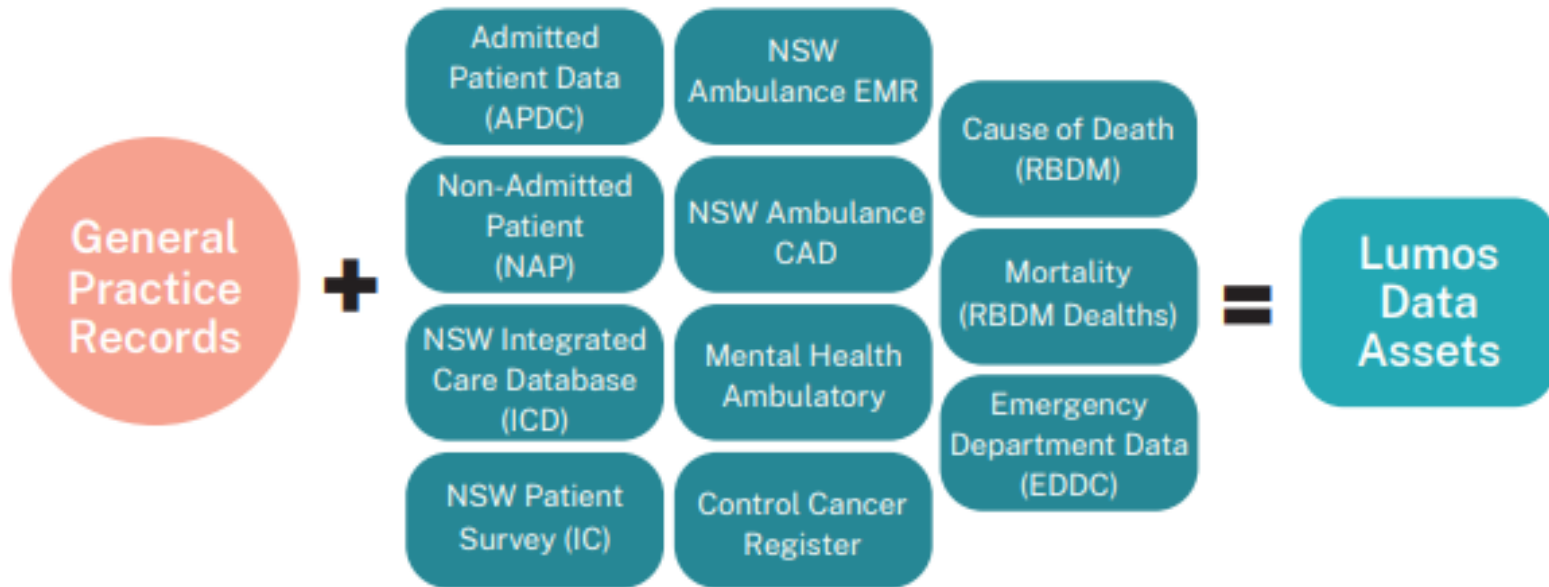


Figure 6
Data sets linked to general practice records to form the Lumos data asset

- Biomedical measures
- Lifestyle risk data
- Diagnosis data
- GP encounter data
- Medications prescribed
- Admitted pt data
- ED data
- Death registration data
- Non-admitted pt data
- Perinatal data
- Mental health ambulatory data
- MBS item number data
- Immunisations

Evaluating Health Service Level Impact

Collaboration with NSW Health LUMOS team to answer the question:

Does DAP+ improve longer-term health outcomes of patients with type 2 diabetes (T2DM) attending GP practices?

- DAP+ evaluation includes data for >22,000 patients belonging to practices who have participated in the DAP+ model (1100 pts were seen directly as DAP+ intervention patients)
- Propensity matched practices across NSW will also be analysed

Downstream DAP+ intervention outcomes

- **Research Question:**

Does DAP+ improve longer-term health outcomes of patients with type 2 diabetes (T2DM) attending GP practices?

- Method: Applying a Target Trial Protocol for Emulating a Cluster RCT using Lumos data for active GP patients with T2DM
- Primary outcome: three-year hospitalisation rates
- Secondary outcomes: preventable admissions and ED presentations, length-of-stay, lower limb loss, and metabolic markers



We're improving care for people with diabetes in rural and regional areas.