Common Challenges in Primary Care – Diabetes

Thursday 10 August 2023

Education Centre, The Prince Charles Hospital

Dr Kylie Norris | GPLO, Metro North Health and Brisbane North PHN

phn BRISBANE NORTH
An Australian Government Initiative

Metro North Health | Queensland Government

Acknowledgement

Metro North Hospital and Health Service and Brisbane North PHN respectfully acknowledge the Traditional Owners of the land on which our services and events are located. We pay our respects to all Elders past, present and future and acknowledge Aboriginal and Torres Strait Islander people across the State.

Common Challenges in Primary Care: Diabetes

Program

Welcome & GPLO Liaison Update

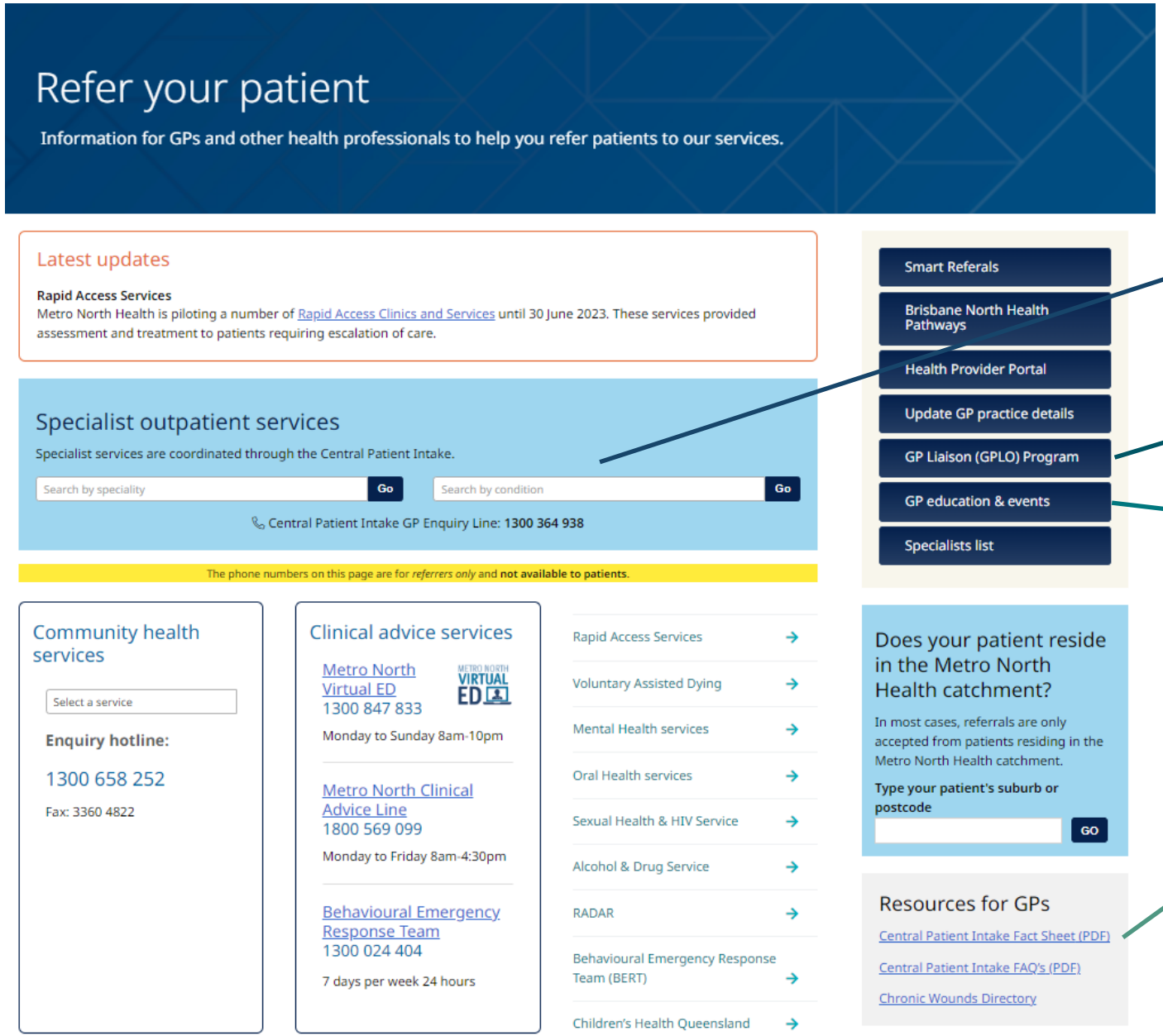
Metro North Diabetes and Endocrinology service introduction and overview

Case based discussion

- **The diabetic foot – conditions, complications and management**
- **T2DM management and insulin tips and tricks**

Introducing a mini-audit for diabetes patients

Metro North – Refer Your Patient



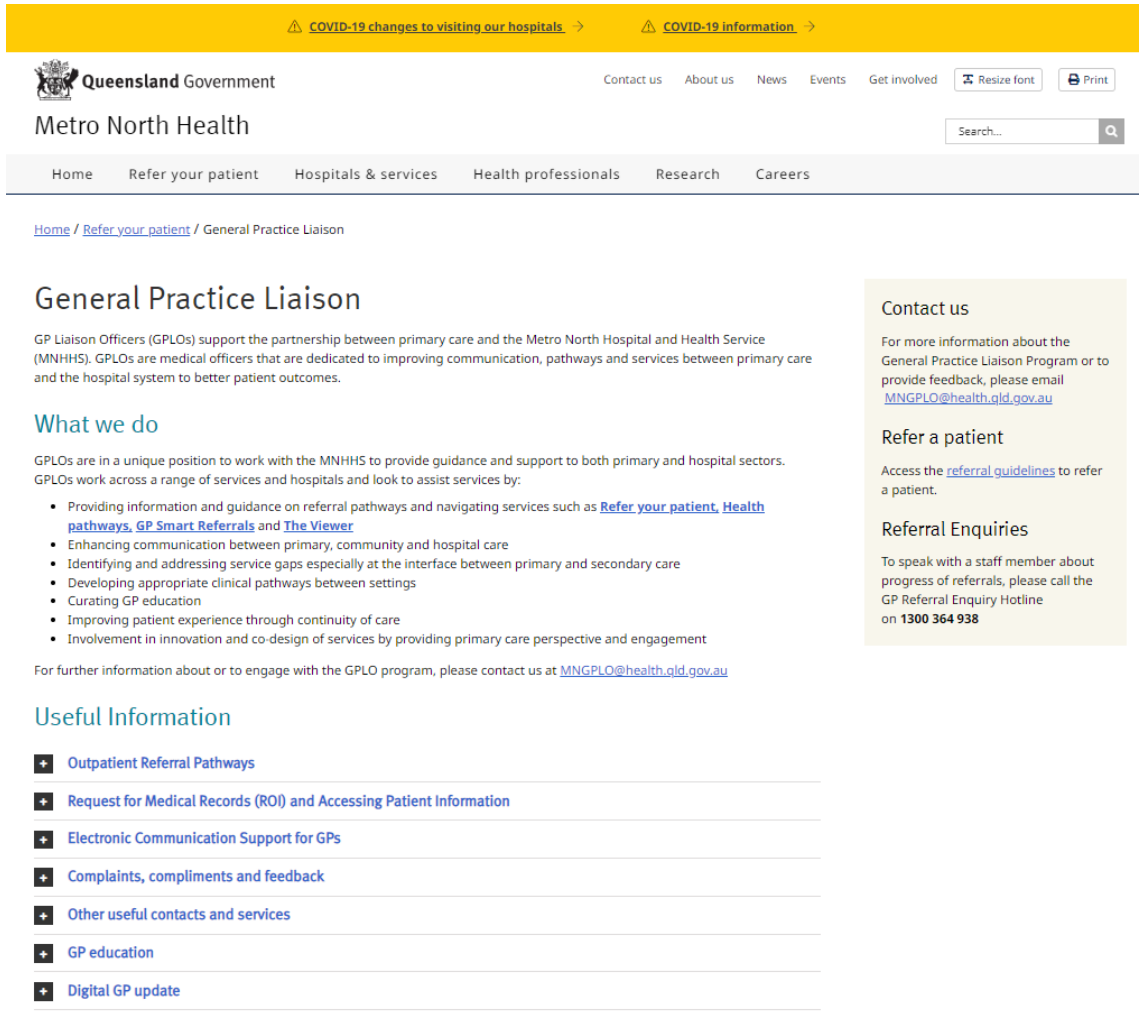
Specialist Referral Guidelines
(condition and specialty based)

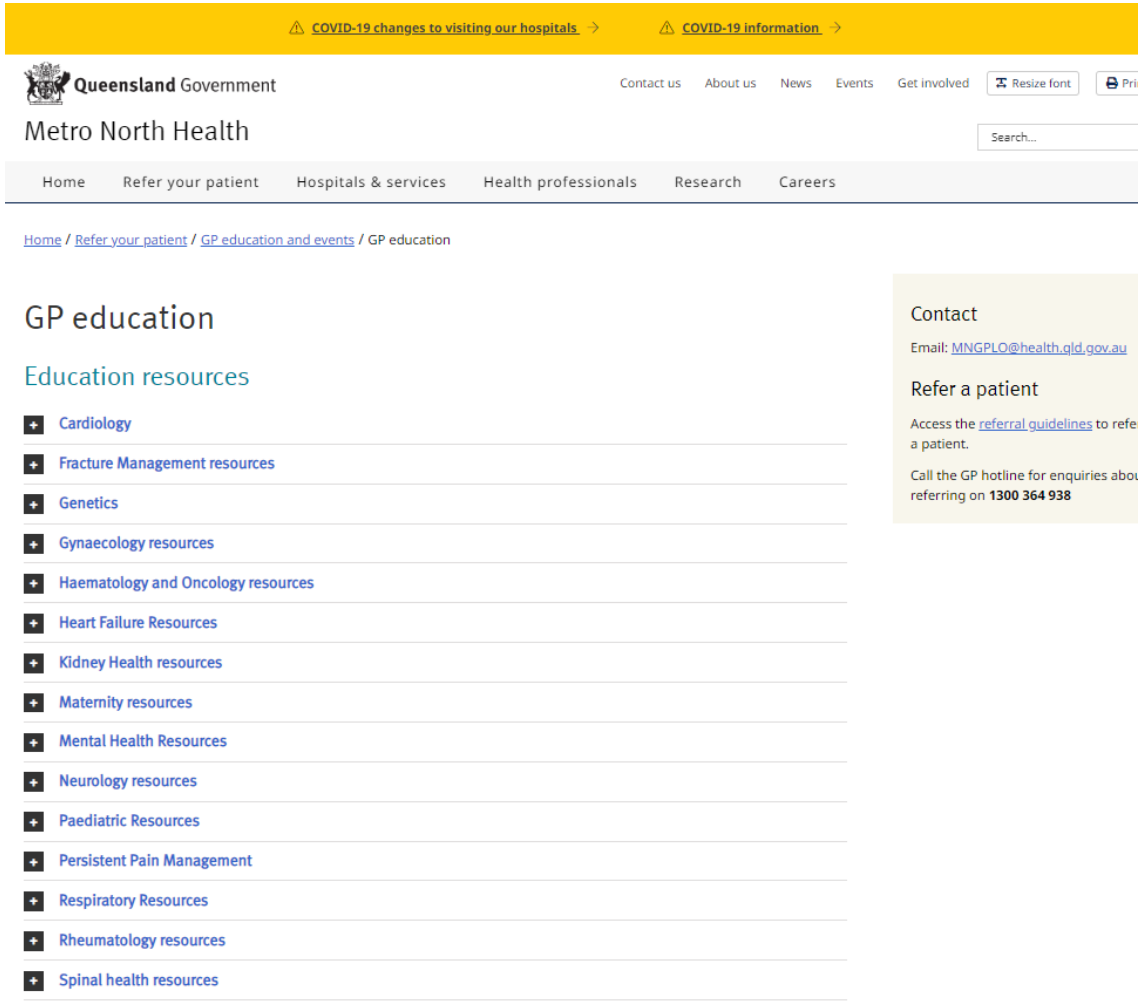
GP Liaison page

GP education and events
(previous events, presentations and resources)

Resources for GPs

Metro North – GP Liaison and GP Education pages





Metro North Virtual ED

Virtual Emergency Department

Open: 7 days
(8am-10pm Monday to Sunday)

METRO NORTH VIRTUAL ED

For GPs and QAS

Metro North Virtual ED offers alternative pathways that can help avoid your patient waiting in an Emergency Department.

METRO NORTH VIRTUAL ED
1300 847 833
8am to 10pm Monday to Sunday
(GPs and QAS ONLY)

Metro North Health has developed a Virtual Emergency Department service to provide primary healthcare providers with access to specialist emergency medicine advice, by telephone or video conferencing with one of our senior FACEM's.

It is a safe, fast and efficient way for you to consult with an emergency physician and use real-time technology to align treatment and ongoing services for your patient.

How to use this service

GPs

NOTE: The MNHHS Virtual ED Service is for Queensland GPs only

1. Call 1300 VIRTED (1300 847 833). Hours: 7 days per week (8am to 10pm Monday to Sunday). You will be connected directly to a senior emergency nurse who will rapidly Triage your call.
2. Please have the following information ready **(this will take less than 1 minute)**
   - Clinician's name and phone number
   - An email or other link if you require video consultation
   - The patient's name, date of birth, hospital number (if available) and brief description of the problem
3. You will then be connected directly to an Emergency Specialist.

This is a clinician only service. Patients can contact the Virtual ED direct via the Patient Virtual ED service.

The Emergency Specialist can assist in many ways:

1. Advice to assist you to continue your patient management within the community

QAS

When referring patients to Virtual ED, QAS clinicians must first follow the QAS guidelines.

- Is it a Queensland incident?
- Is the incident between the hours of 8am to 10pm?
- Is the patient stable after a physical and clinical assessment?

If the answer to all three questions is yes, then Virtual ED can help.

Contact the QAS Consultation & Advice Line – Option 6, and they will send through an invitation with a link to start a telehealth consultation.

Virtual ED physicians will be relying on a thorough clinical assessment to have been completed by QAS clinicians, as well as a comprehensive, professional handover.

It is important to note that any treatment requested of paramedics that is outside the QAS CPM Scope of Practice requires approval via the QAS 24/7 Clinical Consultation line.

A comprehensive eARF must be completed for every case and on resolution. The QAS Operations Centre must be updated with an outcome of the consultation.

Consult with an emergency clinician

If you are a patient, *you cannot use* to this service. You may be eligible for our Patient Virtual ED service.

Hotline: 1300 847 833

Open: 7 days – 8am to 10pm Monday to Sunday

Email: ved@health.qld.gov.au

Health pathways

Access to Health Pathways is free for clinicians in Metro North Brisbane.

For login details email: healthpathways@brisbanenorthphn.org.au

Login to Brisbane North Health Pathways: brisbanenorth.healthpathwayscommunity.org

Resources

Virtual ED fact sheet for GPs (PDF)

How to access Metro North Virtual ED:

Call 1300 847 833 (1300 VIRTED)

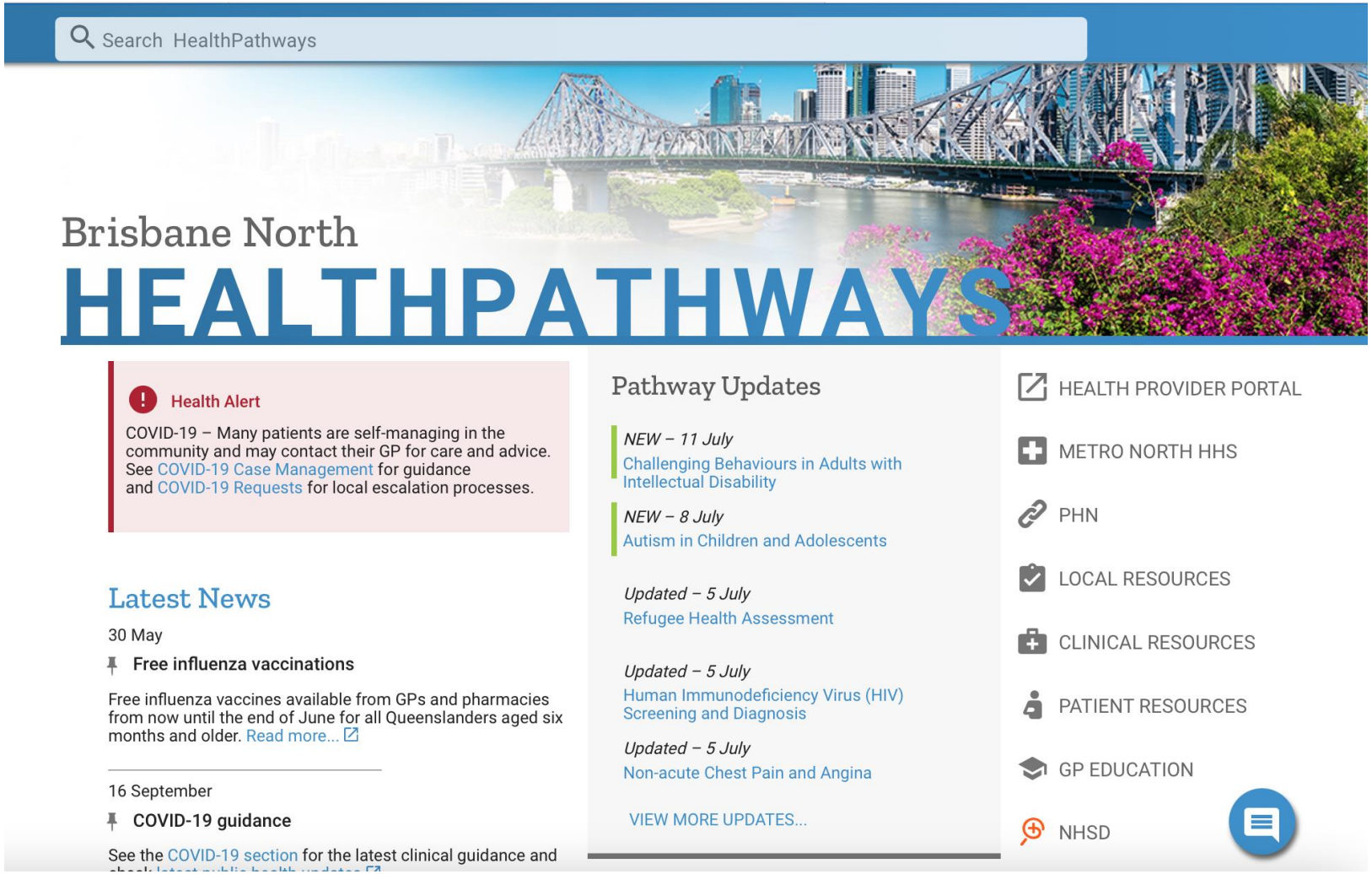
Monday to Sunday 0800 – 2200

Virtual ED is aware that your time is precious.

You will be connected to an experienced emergency nurse. Please have the following information ready:

- Your name and phone number
- The patient's name, date of birth, hospital number (if available) and brief description of the problem
- The practice phone number

Brisbane North Health Pathways



Brisbane North HealthPathways

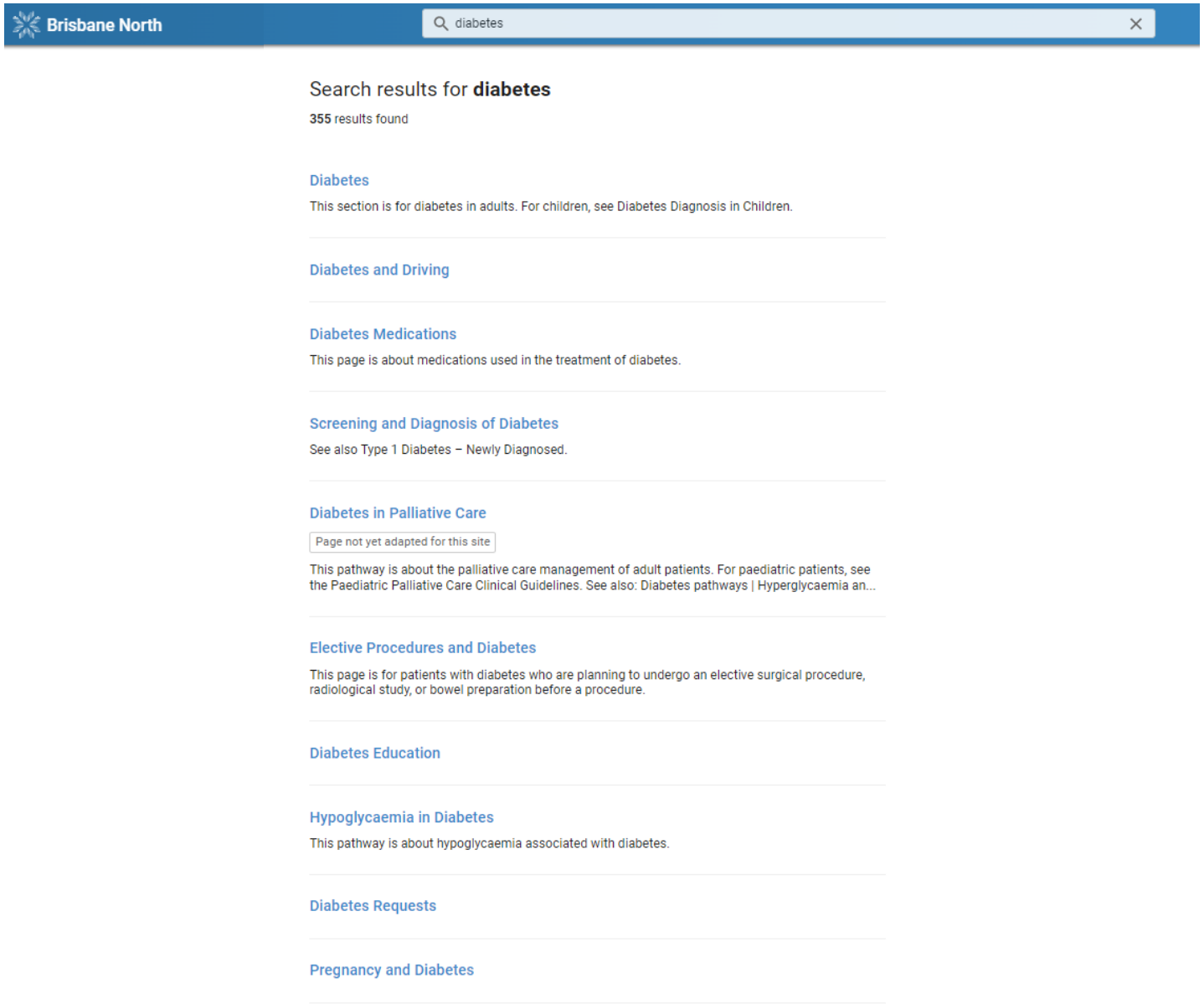
Username: Brisbane
Password: North

Statewide Portal

https://qld.healthpathwayscommunity.org

Username: Queensland
Password: Pathways

Brisbane North Health Pathways - Diabetes



GP Smart Referrals

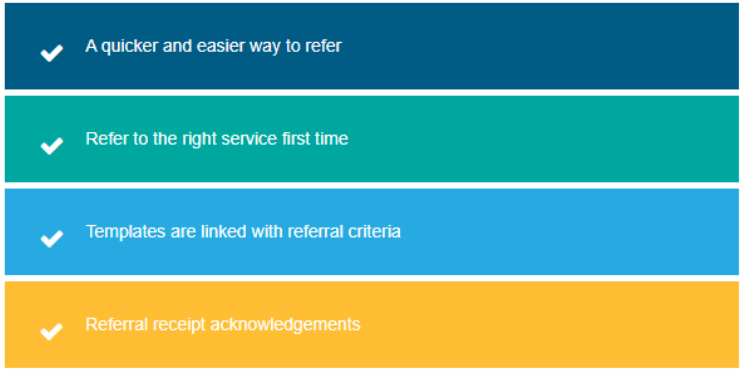
Why should I use it?

1. Allows you to attach any test results, imaging reports and other clinical documents from the patient's clinical record or your PC to the referral
2. GP Smart Referrals supports you in provision of essential clinical information, reducing the number of referrals being returned to you requesting additional clinical information
3. Integrated with a service directory to ensure the appropriate speciality closest to the patient's address is identified
4. A more automated referral management system, faster to use and process, which contributes to a streamlined patient journey
5. Automated notifications are issued when the referral has been received by Metro North HHS
6. Improved quality of referrals with essential clinical information to assist with more efficient processing and triaging of referrals.

Brisbane North PHN Digital Health Support Officers
GPSR@brisbanenorthphn.org.au

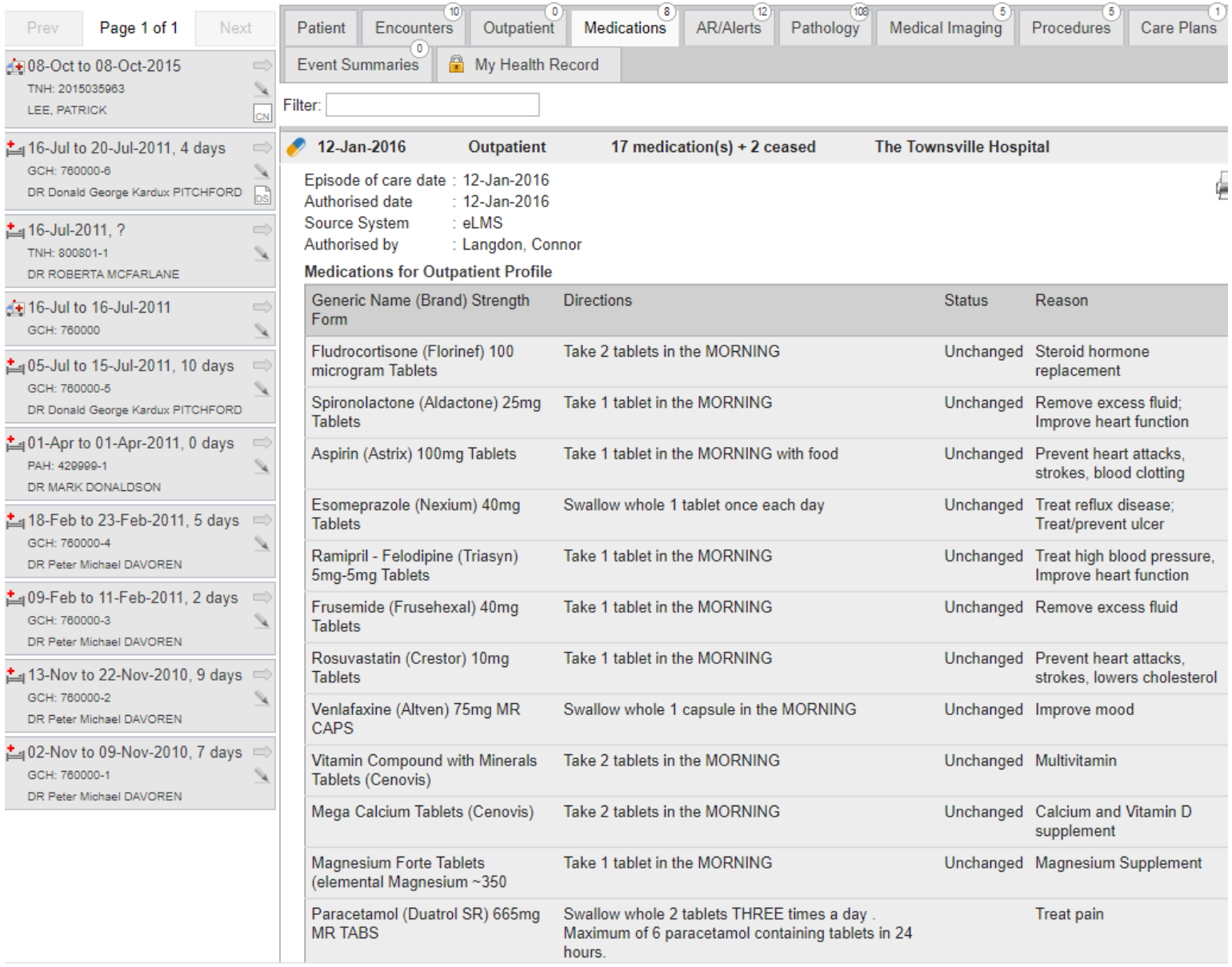
Smart Referrals

GP Smart Referrals features



- GP Smart Referrals are referral templates that allow for the creation and submission of an electronic referral to a Queensland Health Outpatient Specialty, with the required patient demographics and clinical record auto-populating, reducing time required to submit a referral.
- Integrates with *Best Practice* and *Medical Director* software across Queensland
- Aligned with state-wide referral guidelines to prompt essential referral information required to triage, decreasing the number of referrals returned for additional clinical information.

Health Provider Portal (The Viewer)



Better connecting Queensland's Health Practitioners and public hospitals

- The Health Provider Portal provides Queensland's *eligible health practitioners (HPs) with secure online access to their patient's Queensland Health (QH) records.
- Read-only online access will allow HPs to view public hospital information including appointment records, radiology and pathology reports, treatment and discharge summaries, demographic and medication details.

* Queensland AHPRA registered GPs, nurses, midwives, paramedics & pharmacists

What's New?

Metro North Clinical Advice

1. Phone advice

Specialty	Catchment*	Exclusion Criteria
General Medicine and Rapid Access Clinic	TPCH	• Excludes Cardiology, Heart Failure or Respiratory Conditions • Excludes Residential Aged Care residents (Call RADAR - 1300 072 327)
Haematology	Metro North	• Excludes Patients under 16 years
Heart Failure Service and Rapid Access Clinic	Redcliffe TPCH	• Excludes New heart failure patients • Excludes Patients seen by another heart failure service
Inflammatory Bowel Disease	Redcliffe Caboolture	• Excludes Patient anticipated to require surgical input
Rapid Access to Community Care	Metro North	• Excludes Patients under 16years • Excludes Acute mental health, alcohol or drugs related. • Excludes Residential Aged Care Facility Residents (Call RADAR - 1300 072 327)
Sexual Health	Metro North	• Excludes Patients under 14 years
Sleep Disorders	TPCH Caboolture Redcliffe	• Excludes Patients seen by another Sleep Unit
Termination of Pregnancy	Metro North	• Excludes Outside Metro North referral catchment
Vestibular Rapid Access Service	TPCH	• Out of catchment for TPCH

****Catchment* – where the patient would usually be referred for a face to face specialist outpatient clinic appointment.**

Note: If you think your patient is new to any of these services on the page, please ensure your patient is aware you are seeking advice and they consent to their demographic details, including Medicare number, being provided to Metro North Health at the time of the call.

Call the Clinical Advice Line, Monday to Friday 8:30am to 4.00pm on

1800 569 099

Note: this is for GPs only and the phone line is not open to patients.

Metro North Clinical Advice Line

Connecting GPs directly to Metro North specialties.

The Metro North Health Clinical Advice Line connects local GPs to specialist advice from hospital and community clinicians. There are two pathways:

1. Phone line
2. Written request for advice.

The range of adult specialities currently available to support patient care in the community includes:
(This list will expand over time so keep coming back for the latest advice services available)

2. Written request for advice

GPs can seek advice via the written "request for advice" (RFA) via GP Smart Referrals (GPSR) for the specialties listed below. Details of how to send the RFA in GPSR and how the response is provided via the Request for Advice function on GPSR information sheet. (PDF)

Specialty	Catchment*	Exclusion Criteria
General Medicine	TPCH	• Cardiology, Heart Failure or Respiratory Conditions • Residential Aged Care residents (Call RADAR)
Paediatric Medicine	Redcliffe	• Out of catchment for Redcliffe
Rheumatology *(available from 24 July 2023)*	Redcliffe	• Out of catchment for Redcliffe
Urology	RBWH	• Out of catchment for RBWH

****Catchment* – where the patient would usually be referred for a face to face specialist outpatient clinic appointment.**

Please do not request urgent advice via this method. If there are no in-catchment services that offer Request for Advice for your patient, the Service will show as 'Out of Catchment'. In this instance it is recommended that a referral is created to an appropriate service within catchment for the patient.

What's New?

Rapid Access Clinics

Rapid Access Services

On this page

Metro North Health is piloting a number of Rapid Access Clinics and Services. These services provide assessment and treatment to patients requiring escalation of care. They aim to bypass the need to attend ED where this is avoidable.

Referrals for most Rapid Access Clinics can be made by calling the Metro North Clinical Advice Line on 1800 569 099, Monday to Friday, 8:30am – 4pm. Eye Casualty is a walk in only clinic, please send referral information with the patient.

This page will be updated as further services are made available.

General Medicine Rapid Access Clinic (RAC) – The Prince Charles Hospital Catchment

This clinic provides **adult** patients in the TPCH catchment area with a rapid **general medicine** clinic assessment and treatment (**within 2-3 business days**). The aim is to prevent an avoidable Emergency Department (ED) presentation by providing an early specialist intervention (but shouldn't be seen as an alternative to an outpatient clinic referral).

Operates Monday to Friday 8am -4pm.

- Eligibility Criteria
- How to Refer
- Referral information required
- How will I know the outcome of the visit?
- More information

Contact us

Metro North Clinical Advice Line
Phone: 1800 569 099
Hours: Monday to Friday, 8am – 4pm

Rapid Access to Community Care (RACC)
Phone: 1300 220 922

Rapid Access to Community Care Service – Metro North wide catchment

Rapid Access to Community Care (RACC) provides timely access to community care for community adult clients to prevent avoidable hospital presentations.

RACC accepts direct clinician to clinician referrals via phone from GPs for adult patients experiencing chronic disease exacerbation and illness requiring rapid community response.

Operates Monday to Friday 8am – 4pm.

- Eligibility Criteria
- How to Refer
- Who will see the patient?
- Referral information required
- How will I know the outcome of the visit?
- For more information

Rapid Access Heart Failure Treatment Service (RAHFTS)

The aim is to prevent an avoidable Emergency Department presentation for heart failure by providing early specialist nursing intervention within 24 to 72 hours. IV diuretics can be administered.

- Eligibility Criteria
- How to Refer
- Referral information required
- How will I know the outcome of the visit?
- For more information

Eye Casualty

This clinic provides adult patients in the Metro North catchment area with a rapid eye assessment and treatment on a walk in basis only. Eye Casualty is a Rapid Access Clinic for acute or urgent eye assessment and patients are triaged on arrival; and seen in order of assessed urgency.

Operates Monday to Friday 8am – 3:30pm.

- Eligibility Criteria
- How to Refer
- Referral information required
- For more information

Upcoming education

Invitation for GPs

Mental Health: Brief psychological interventions

Thursday 7 September 2023

Metro North Health and Brisbane North PHN invite GPs to join our panel of experts for an evening of education and discussion.

GPs are the first point of contact for many patients experiencing psychological distress, and GPs are caring for increasing numbers of patients with mental health issues.

Mental illness is the single most common reason for patient visits to a general practitioner, and general practice bridges the gap between the community and institutions such as hospitals and mental health outpatient services. As demand for psychological services increases, there are often delays for patients to access these services, and GPs continue to support their patients during this time.

Presentations will include how to perform brief interventions that can be used in your day-to-day practice to support these patients, increasing GP confidence in managing more complex patients, and reducing patient distress.

Presenters and program will be available soon.

For more information, please email mhaod@brisbanenorthphn.org.au.

EVENT DETAILS

DATE AND TIME:
6.30–8.00 pm (AEST)
Thursday 7 September 2023

VENUE:
Online webinar - Zoom

COST:
No cost to attend

Activity ID: Pending approval

REGISTER HERE

Register using the QR code or link below.

https://us06web.zoom.us/meeting/register/tZEldu...

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Upcoming education

MATERNITY WORKSHOP

Metro North GP Alignment Program

SATURDAY 2 SEPTEMBER 2023

Numbers will be limited to 80 participants

Clinical Skills Development Service, Level 5, Block 6, RBWH

ABOUT THE WORKSHOP

The Metro North Health and Brisbane North PHN GP Liaison Officer Program invite GPs to join us at the 2023 Maternity GP Alignment Workshop. The workshop will provide over 6 hours of education with topics including:

- First trimester presentations
- Screening and diagnostic tests
- Diabetes in pregnancy
- Prescribing in pregnancy
- Options for maternity care
- Communicating with Metro North birthing facilities
- Rh-negative women
- Early pregnancy bleeding
- Hyperemesis
- Immunisations
- Hypertension
- Pre-eclampsia
- Reduced fetal movements
- Pre-term birth prevention
- Perinatal mental health
- VTE prevention
- Postnatal care
- Breast feeding

PRESENTERS

Multidisciplinary presenters and facilitators include specialists in obstetrics and gynaecology, maternal fetal medicine, obstetric medicine, perinatal mental health, genetic counselling, pharmacists, physiotherapists, dieticians, social workers, lactation consultants, midwives, nurses and GPs.

This workshop is closely aligned with the Mater Mothers Maternity GP Alignment Program and other Queensland Health Maternity GP Alignment Programs.

By registering for this event, you agree to participate in the full program including any pre-workshop and evaluation activities.

Activity ID: 546725

RACGP 2.5 0.5 4.0

WORKSHOP DETAILS

Date: Saturday 2 September 2023

Venue: Clinical Skills Development Service Level 5, Block 6, Royal Brisbane and Women's Hospital

PROGRAM

7:30am Registration and refreshments

8:00am Welcome and workshop commencement

4:00pm Workshop conclusion

REGISTRATION

To register please visit: https://www.eventbrite.com.au/e/maternity-workshop-tickets-662053699437?aff=oddtdtcreator

For all registration enquires please contact Brisbane North PHN on (07) 3630 7300 or email administration.integration@brisbanenorthphn.org.au

For all other enquires please contact the Metro North GPLO Program via email at mngplo@health.qld.gov.au.

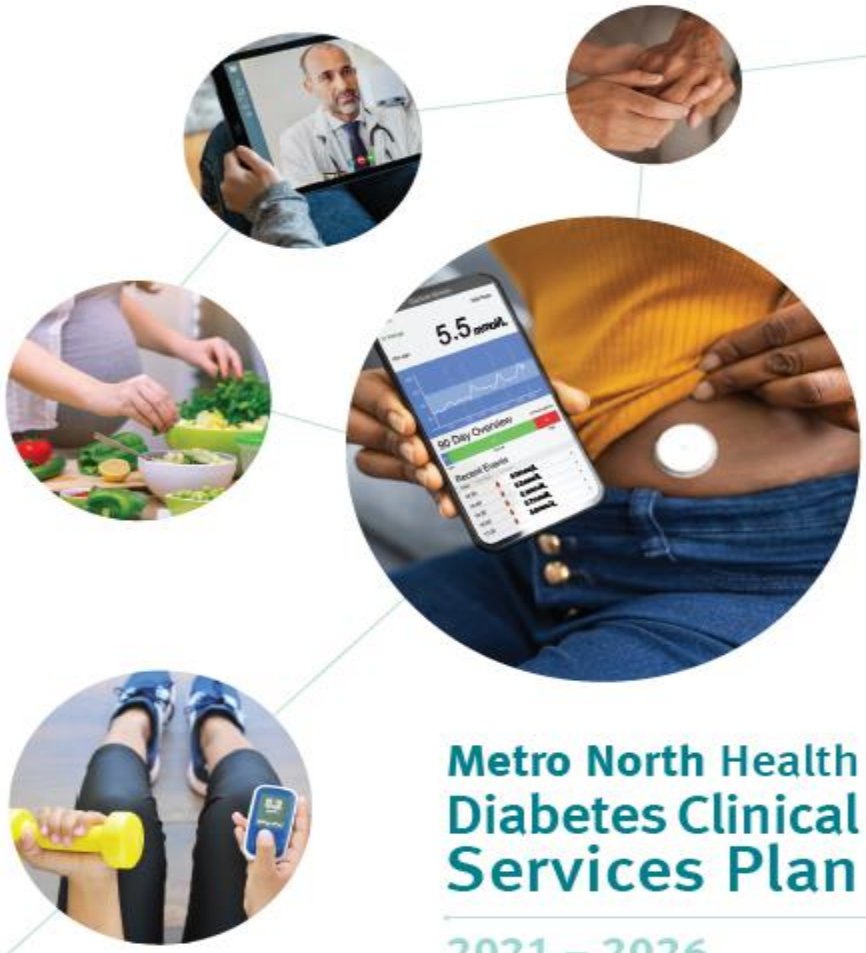
By providing your email address for registration, you consent to receiving updates from Metro North Health and Brisbane North PHN about local education opportunities, new services and health service news. If you do not wish to receive these communications, please advise upon registration.

phn | Queensland Government Metro North Health

This is a joint initiative between Metro North Health and Brisbane North PHN

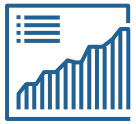
Metro North Health Diabetes Services

Who, What & Where



Current Health System Challenges

Diabetes has been recognised as the eleventh highest cause of **disease burden** in QLD and diabetes complications are the leading cause of potentially preventable hospitalisation in Metro North representing **19.2%** of all **preventable hospitalisations**.



The service demand continues to **grow** in line with the burden of disease which is further **exacerbated** by the SEQ **population expansion**

Outpatient diabetes's services are **currently booked weeks in advance this can further delay the provision of diabetes education to hospital inpatients**. This in turn leads to increase length of stay, and/or patients being discharged without receiving education, leaving them at increased risk of serious complications until they can access outpatient services.

There have been significant **advances** in **clinical technology** for clients and staff as well as changes to the commonwealth funding arrangement specifically regarding type 1 clients having access to continuous glucose monitoring (CGM)

MNH continues to face significant credentialled diabetes educator **workforce challenges** which includes **retention**, **attraction** as well as defined robust succession planning pathways

Metro North Diabetes Services:

Aims to assist clients with clinical knowledge and skills for self-management and prevention of diabetes-related complications by using a Multidisciplinary approach

Our services have access to: Endocrinologists, Paediatricians, Diabetes Educators, Nurse Practitioners, Podiatrists, Dietitians, Social Workers and Exercise Physiologists (this will vary from site to site – services do not accept individual HP referrals)

Our ambulatory services care for patients with:

- Type 1 diabetes (adults & children)
- Type 2 diabetes with complex Needs
- Diabetes – related foot disease such as foot ulceration and charcot foot

Where are our Ambulatory Services:

- All acute services have access to inpatient Specialist Endocrinologists
- RBWH, Redcliffe and Caboolture Hospital have GDM clinics linked to their maternity services
- Metro North Health have ambulatory clinics at:
    - Royal Brisbane & Womens Hospital (Adult service)
    - The Prince Charles Hospital Community Centre (Adult Service)
    - North Lakes Health Precinct (Adult & Paediatric Service)
    - Caboolture Community Health Centre (Adult & Paediatric Service)

Who to refer:

Our Metro North Services utilise the State-wide Clinical Diabetes criteria:

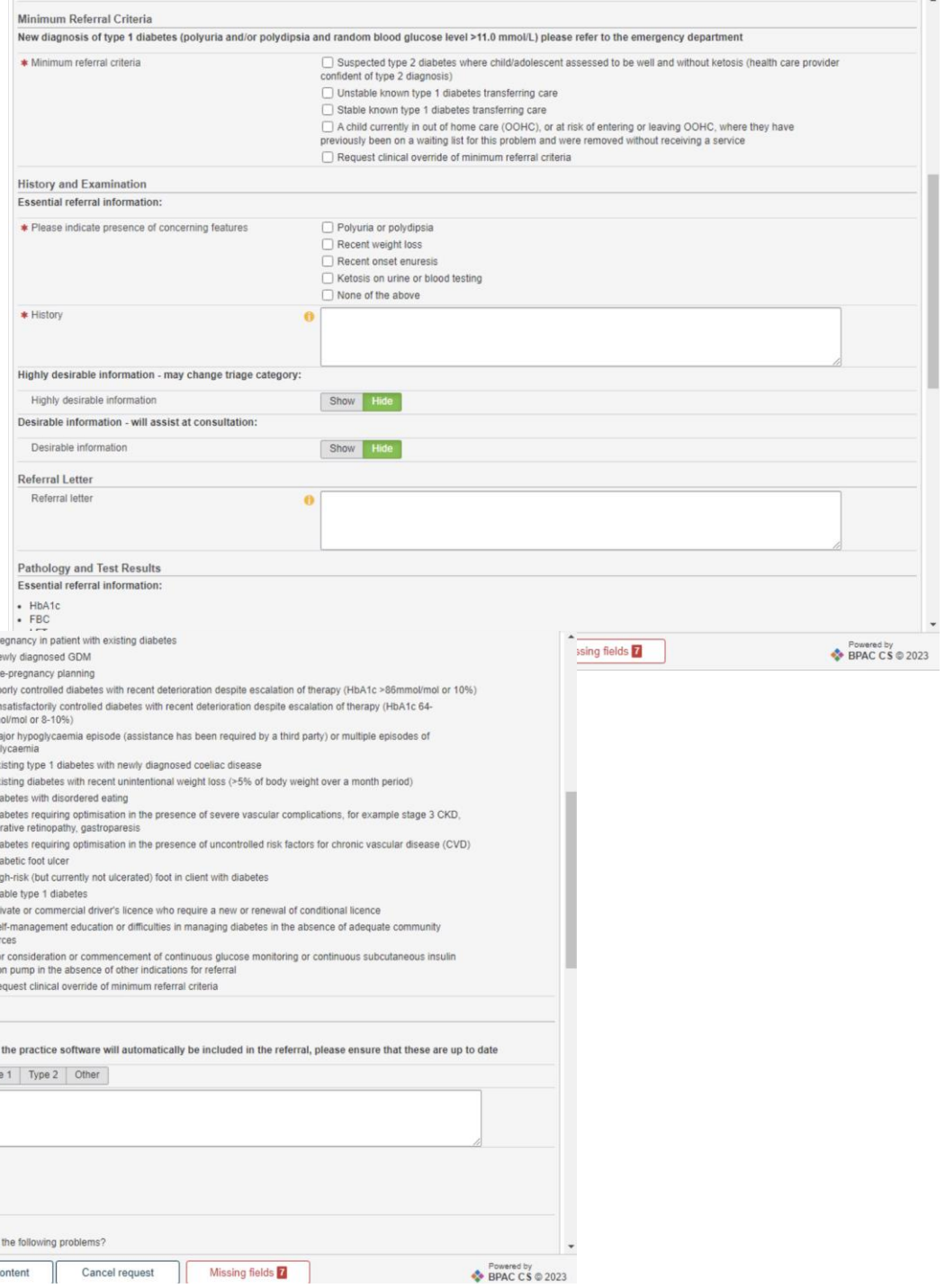
- Newly diagnosed T1 Diabetes in adults (children NLHP & Caboolture)
- Unstable Type 1 Diabetes
- Problematic hypoglycaemia or hypoglycaemia unawareness
- Type 2 Diabetes requiring insulin therapy and education and training for safe discharge (or seen as outpatient if clinically assessed)
- Complex Type 2 diabetes, uncontrolled and deteriorating control
- Steroid induced diabetes, pancreatitis, surgery (causing diabetes)
- CSII insulin pump therapy and CGM monitoring as a part of ongoing care for Type 1 diabetes

Who not to refer

- Pre-diabetes
- Stable, well-controlled type 2 diabetes
- Newly diagnosed type 2 diabetes and not acutely unwell
- Referrals where the primary problem requiring attention is not directly related to the diabetes and should be directed to another speciality service e.g. chest pain for investigation should go to cardiology
- Dietary advice for weight reduction, high cholesterol, hypertension or CVD in patients with diabetes
- Clinical Prioritisation Criteria | Clinical Prioritisation Criteria (health.qld.gov.au) (Excellent tool to assist referrers)

What information helps us triage a referral:

- Reason for referral
- Medical conditions and medications
- Client Goals
- [Diabetes mellitus | Clinical Prioritisation Criteria (health.qld.gov.au)]



Podiatry Foot Wounds:

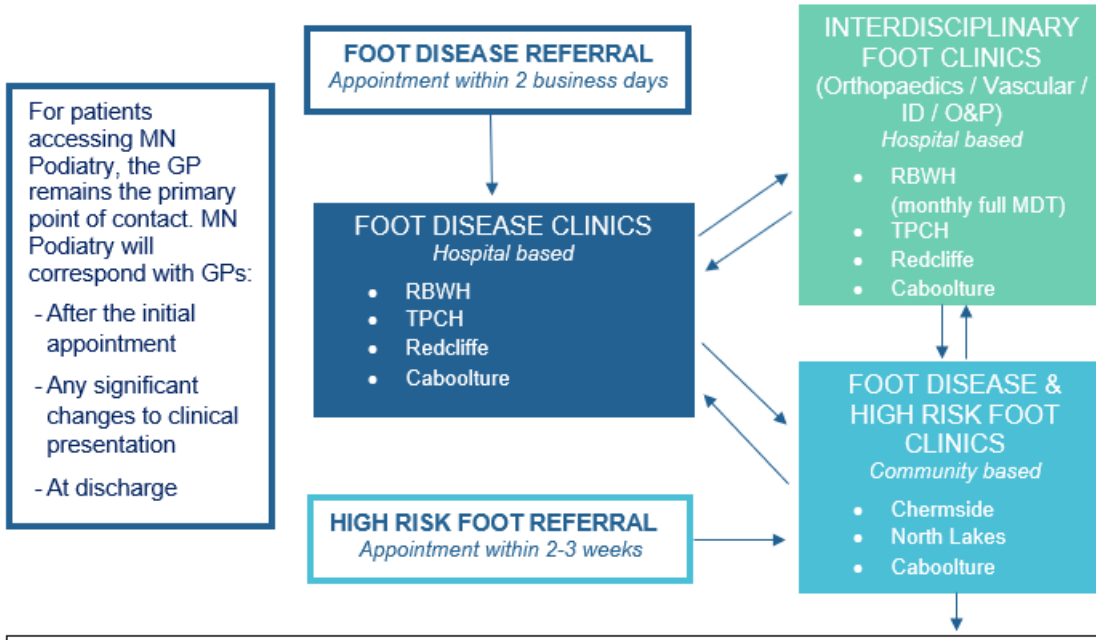
The following eligibility criteria guides access to Metro North Podiatry Service:

- Active foot disease: foot ulcers, foot pressure injuries, acute or suspected Charcot* (unexplained foot redness, warm, swelling, +/- pain).

  * Call to request same day review, if not available refer directly to the Emergency Department.
- High Risk Foot – as defined by Table 1. Aboriginal &/or Torres Strait Islander people should be considered high risk of foot disease until assessed otherwise.

In accordance with the Queensland Clinical Prioritisation Criteria[3], refer the following directly to the Emergency Department:

- Foot ulcer with infection AND systemically unwell or febrile, invasive infection or spreading cellulitis (defined by peripheral redness around the wound >2cm)
- Acute ischaemia
- Wet gangrene
- Acute or suspected Charcot (unexplained foot redness, warmth, swelling +/- pain)



Shared care with private podiatry will be initiated when the patient's foot status is high risk. Private podiatry is an essential component of discharge care for ongoing stable high risk foot management.

Table 1 – *International Working Group on the Diabetic Foot Risk Stratification System*[2]

Risk Category	Ulcer Risk	Characteristics
0	Very low	No LOPS and no PAD
1	Low	LOPS or PAD
2	Moderate	LOPS + PAD **or** LOPS + foot deformity **or** PAD + foot deformity
3	High	LOPS **or** PAD And one or more of the following: • History of a foot ulcer • A lower-extremity amputation (minor or major) • End-stage renal disease

LOPS = Loss of protective sensation; PAD = peripheral artery disease. Adapted from: Bus SA, Lavery LA, Monteiro-Soares M, et al. Guidelines on the prevention of foot ulcers in persons with diabetes (IWGDF 2019 update). Diabetes Metab Res Rev. 2020;36 Suppl 1:e3269. Pp 3.

People identified with 'very low, low risk and moderate risk' of foot complications will not be prioritised for Metro North Podiatry services and instead directed to alternative services. The performing of routine nail

Central Patient Intake

Single access point to Metro North Outpatient Services

Administration and Clinical Nursing staff available via the hotline: 8:00am – 16:30pm
Monday – Friday - 1300 364 938

HOW

- ❑ GP Smart Referrals
- ❑ Speak with your local PHN for access
  www.health.qld.gov.au/metronorth/refer

WHERE

- ❑ Royal Brisbane and Women's Hospital
- ❑ The Prince Charles Hospital
- ❑ Redcliffe Hospital
- ❑ Caboolture Hospital

INFO

- ❑ Referrals must have full patient and referrer demographic information
- ❑ Please call the CPIU Hotline – If you have not heard before you re-send referrals. This helps reduce duplicate referral management.
  Ph 1300 364 938

Metro North Health | Queensland Government

The Diabetic Foot

Conditions, Complications and Management

Sarah Jensen – Director Podiatry Metro North

August 2023

Metro North Health | Queensland Government

Overview

- Background – Burden Diabetes Foot Disease
- Evidence-based Practice – National Guidelines
- Diabetes Foot Risk Stratification & Triage
- Diabetes Foot Disease – Recognise, Respond, Refer
- Case Study
- Referral Information
- Resources

Definitions

International Working Group on the Diabetic Foot – Definitions and criteria for diabetes foot disease[1]

- Diabetic foot disease: Infection, ulceration or destruction of tissues of the foot associated with neuropathy and/or peripheral artery disease in the lower extremity of a person with (a history of) diabetes mellitus.
- Diabetic neuropathy: The presence of symptoms or signs of nerve dysfunction in a person with (a history of) diabetes mellitus, after exclusion of other causes.
- Loss of protective sensation: Inability to sense light pressure e.g. as applied with a 10 gram Semmes-Weinstein monofilament.
- Neuro-osteoarthropathy (Charcot-foot): Non-infectious destruction of bone and joint(s) associated with neuropathy, which, in the acute phase, is associated with signs of inflammation.

1. Van Netten et al. Definitions and criteria for diabetes foot disease. Diab Metab Res Rev. 2020. e3268.

Diabetes foot care is everybody's business

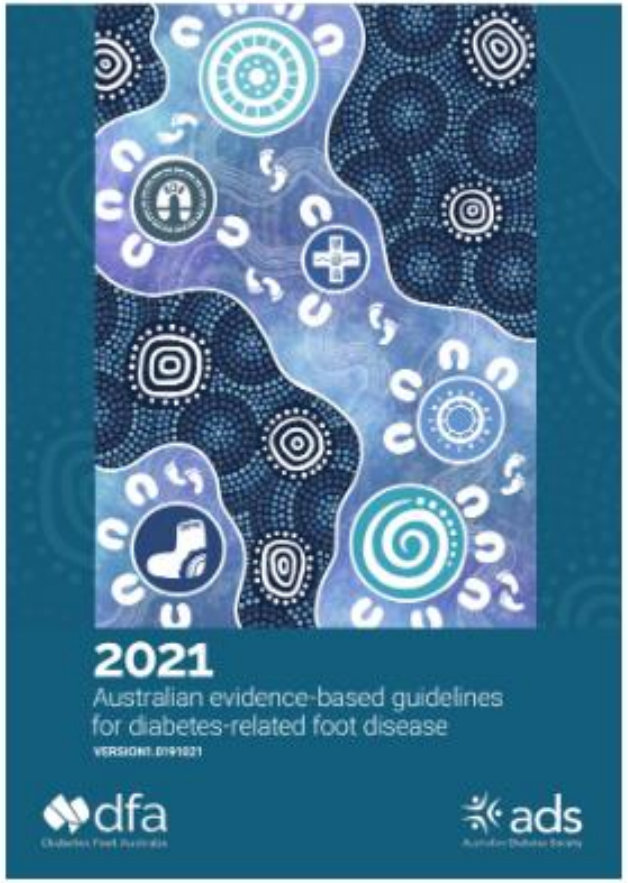
- Diabetes-related foot disease (DFD) is "common, complex and costly"[2]
- A leading cause of Queensland's hospitalisation, disability and amputation burdens, significantly reducible with timely access to quality ambulatory care[3,4]
- Investment in evidence-based, interdisciplinary high risk foot care has been demonstrated to be cost effective[5]

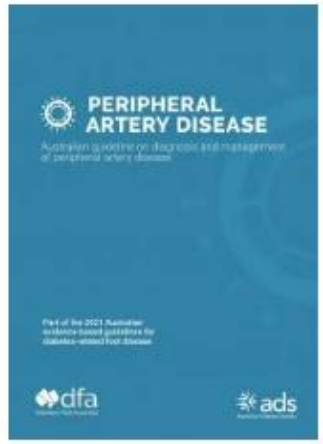
dfa
Diabetes Feet Australia

Australian Diabetes-Related Foot Disease Strategy 2018-2022

2. Armstrong DG, Boulton AJM, Bus SA. Diabetic Foot Ulcers and their Recurrence. N Engl J Med 2017; 376:2367-2375.
3. Lazzarini PA, Gurr JM, Rogers JR, Schox A, Bergin SM. Diabetes foot disease: the Cinderella of Australian diabetes management? Journal of Foot and Ankle Research. 2012;5(1):24.
4. Lazzarini PA. The burden of foot disease in inpatient populations [PhD thesis]. Brisbane: Queensland University of Technology, 2016. https://eprints.qut.edu.au/101526/
5. Cheng Q, Lazzarini PA, Gibb M, Derhy PH, Kinnear EM, Burn E, et al. A cost-effectiveness analysis of optimal care for diabetic foot ulcers in Australia. International Wound Journal. 2017;14(4):616-28.

National Guidelines





https://www.diabetesfeetaustralia.org/new-guidelines/

Prevention

There are five key elements that underpin prevention of foot problems:

1. Assess all people with diabetes and stratify their risk of developing foot complications
2. Regular inspection and examination of the at-risk foot
3. Education of patient, family and healthcare providers
4. Routine wearing of appropriate footwear
5. Treatment of pre-ulcerative signs

Prevention

Figure 2. Australian evidence-based clinical pathway on prevention of foot ulcers for people with diabetes

PERSON WITH DIABETES AT-RISK OF FOOT ULCERATION

SCREENING

- Examine for LOPS and PAD^
  - Neither present
    - Very low risk (IWGDF risk 0)^
      - Re-examine every 12 months
  - Either present
    - At-risk (IWGDF risk 1-3)^
      - Also examine for: Foot ulcer history, amputation history, ESRD, foot deformity, limited joint mobility, abundant callus + pre-ulcerative signs
      - Categorise risk according to IWGDF System^:
        - Low risk (IWGDF risk 1)^ → Re-examine every 6-12 months
        - Moderate risk (IWGDF risk 2)^ → Re-examine every 3-6 months
        - High risk (IWGDF risk 3)^ → Re-examine every 1-3 months

EDUCATION

- Provide education based on risk category of person^
  - At-risk (IWGDF risk 1-3)^
    - Structured education on:
      - ✓ Foot ulcers and consequences
      - ✓ Foot self-care behaviours
      - ✓ Footwear that protects feet
      - ✓ Regular foot examinations
      - ✓ Any increase in weight-bearing activity should be gradual
      - ✓ Seeking help from health professional if discover a foot problem
    - Perform self-care by:
      - ✓ Inspecting feet daily
      - ✓ Checking inside shoes
      - ✓ Washing feet daily
      - ✓ Using emollient for dry skin
      - ✓ Cutting nails straight across
      - ✓ Avoiding chemical agents
    - Protect feet by:
      - ✓ Not walking barefoot
      - ✓ Wearing well-fitted socks
      - ✓ Wearing well-fitted shoes
    - If Moderate OR High risk (IWGDF risk 2-3)^ also consider education on:
      - Perform self-monitoring by:
        - ✓ Checking foot temperatures daily*
        - ✓ Immediately consult health professional if >2.2°C temperature difference in similar regions of both feet on 2 consecutive days and limit weightbearing*
      - Protect feet further by:
        - ✓ Wearing medical grade footwear that fits well and reduces plantar pressure
        - ✓ Wearing custom-made footwear and/or foot orthoses or toe orthoses (if foot deformity or pre-ulcerative sign is present)

TREATMENTS

- Provide treatment based on risk category of person^
  - At-risk (IWGDF risk 1-3)^
    - Provide treatment for:
      - ✓ Pre-ulcerative signs
      - ✓ Abundant callus
      - ✓ Ingrown toenails
      - ✓ Fungal infections
    - Consider orthotic interventions to reduce abundant callus
    - Consider digital flexor tendon tenotomy in a person with abundant callus for preventing a first ulcer
    - If High risk (IWGDF risk 3)^ also consider providing:
      - Integrated foot care including:
        - ✓ Professional foot care
        - ✓ Adequate footwear
        - ✓ Structured education about self-care

        (Repeat every 1-3 months)
      - Medical grade footwear with demonstrated plantar pressure relieving effect to prevent ulcer recurrence
    - If Moderate OR High risk (IWGDF risk2-3)^ also consider:
      - Digital flexor tendon tenotomy in a person with non-healing distal digital ulceration, to help prevent ulcer recurrence
      - Achilles tendon lengthening, single or pan metatarsal head resection, metatarsophalangeal joint arthroplasty or osteotomy in a person with non-healing plantar forefoot ulceration, to help prevent ulcer recurrence
      - NOT using a nerve decompression procedure for ulcer prevention or neuropathic pain

IWGDF Risk Stratification System^

Risk Category	Ulcer Risk	Characteristics
0	Very low risk (IWGDF risk 0)	No LOPS + No PAD
1	Low risk (IWGDF risk 1)	LOPS OR PAD
2	Moderate risk (IWGDF risk 2)	LOPS + PAD OR LOPS + Foot deformity OR PAD + Foot deformity
3	High risk (IWGDF risk 3)	LOPS OR PAD AND one or more of: • Foot ulcer history • Amputation history • ESRD

LOPS = loss of protective sensation; PAD = peripheral artery disease; ESRD = end-stage renal disease
IWGDF= International Working Group on the Diabetic Foot

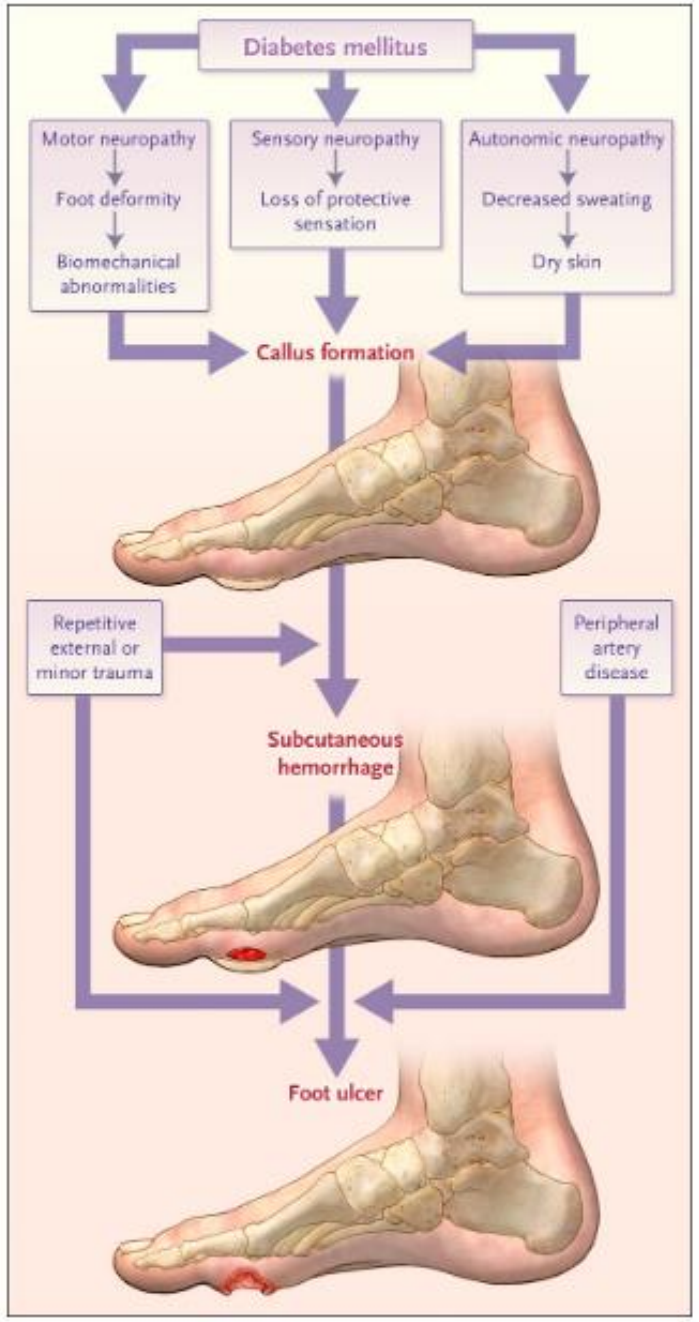
Adapted from: Bus SA, Lavery LA, Monteiro-Soares M, et al. Guidelines on the prevention of foot ulcers in persons with diabetes (IWGDF 2019 update). *Diabetes Metab Res Rev*. 2020;36 Suppl 1:e3269. Pp 3.

LEGEND

DARK BLUE BOX: Prevention categories
LIGHT BLUE BOX: IWGDF risk stratification
GREEN BOX: Prevention recommendations
RED BOX: Not recommended for prevention

*Contingent on device approval and availability in Australia

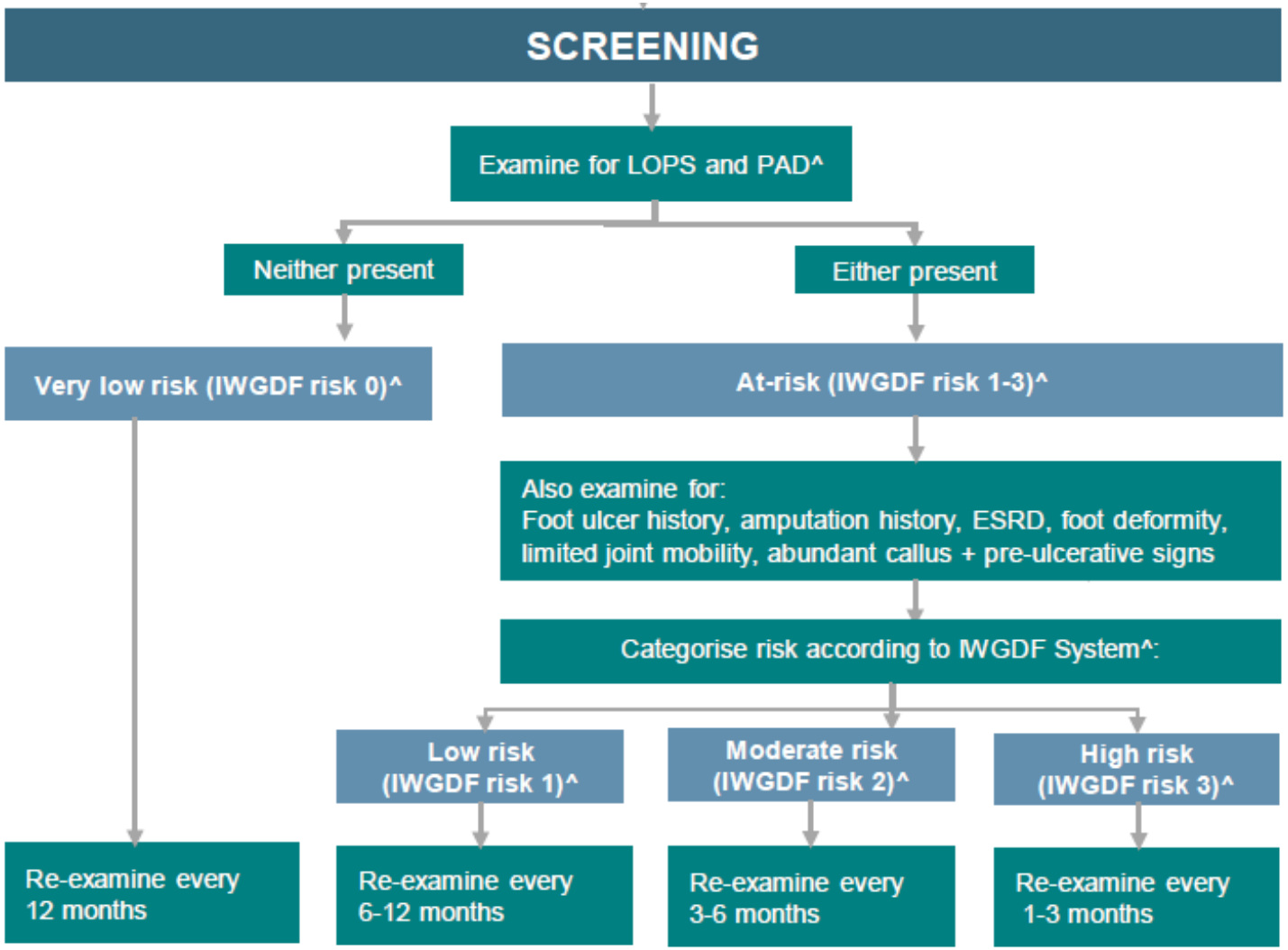
Pathway to Foot Ulceration



Armstrong DG, Boulton AJM, Bus SA. Diabetic Foot Ulcers and Their Recurrence. N Engl J Med. 2017 Jun 15;376(24):2367-2375. doi: 10.1056/NEJMra1615439. PMID: 28614678.

Screening

- Screening should be performed by an adequately trained healthcare professional
- Aboriginal and Torres Strait Islander people should be considered ‘High Risk’ until assessed otherwise

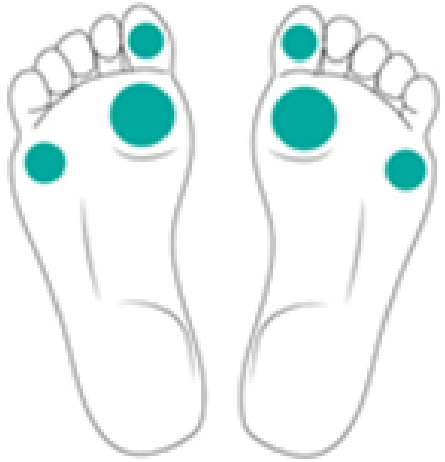


Screening

Screening

Loss of Peripheral Sensation (LOPS)

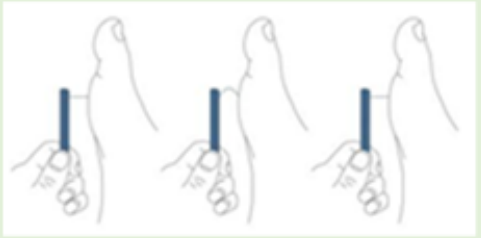
- 10g Semmes Weinstein monofilament or if unavailable use Ipswich Touch Test
- LOPS exists when 2/3 or 3/3 sites are not detected on each foot



Screening

It is important to standardise the way the assessor conducts this test. Below is the recommended procedure for monofilament testing:

1. Apply the filament to a sensitive area of skin (e.g. the forearm) so that the patient is aware of the sensation they are supposed to feel.
2. Ask the patient to close their eyes and say 'yes' every time that they feel you touch the skin on the foot.
3. Place the monofilament at 90° to the skin surface. If callus is present at any of the sites then test at the nearest non-calloused area.
4. Slowly push the monofilament until it has bent approximately 1cm (don't jab)
5. Hold the monofilament in this position for 1-2 seconds, then slowly release the pressure until the monofilament is straight.



6. Remove contact from the skin.
7. Repeat for all testing sites.
8. If the patient does not respond, repeat the test at the site twice. If there is still no response, record as a negative response.

* Avoid prompting the patient, by asking 'Can you feel that?', as this can result in a false positive result.

Screening

Screening

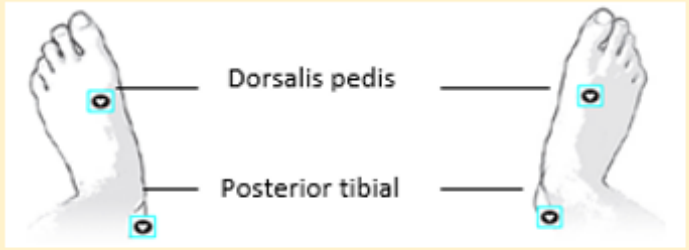
Peripheral Artery Disease (PAD)

- Examine the feet of all patients with diabetes annually for the presence of PAD even in the absence of foot ulceration
- At a minimum, this should include:
  - taking a relevant history
  - palpating foot pulses

When testing for either pulse use the middle three fingertips together.

Dorsalis pedis – is frequently located in the groove between the 1st and 2nd metatarsal bones on the dorsum of the foot, lateral to the extensor hallucis longus tendon. Dorsalis pedis is anatomically absent in 5-10% of the population.

Posterior tibial – is located in the hollow behind the medial malleolus, 1/3 of the distance from the medial malleolus to the bottom of the heel. Anatomical variance is rare.



Peripheral Artery Disease

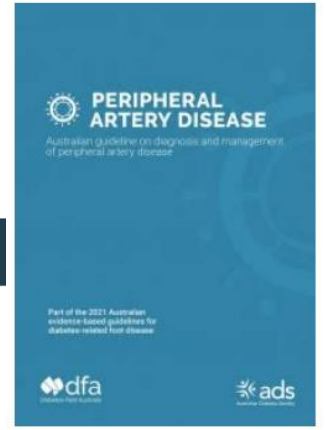
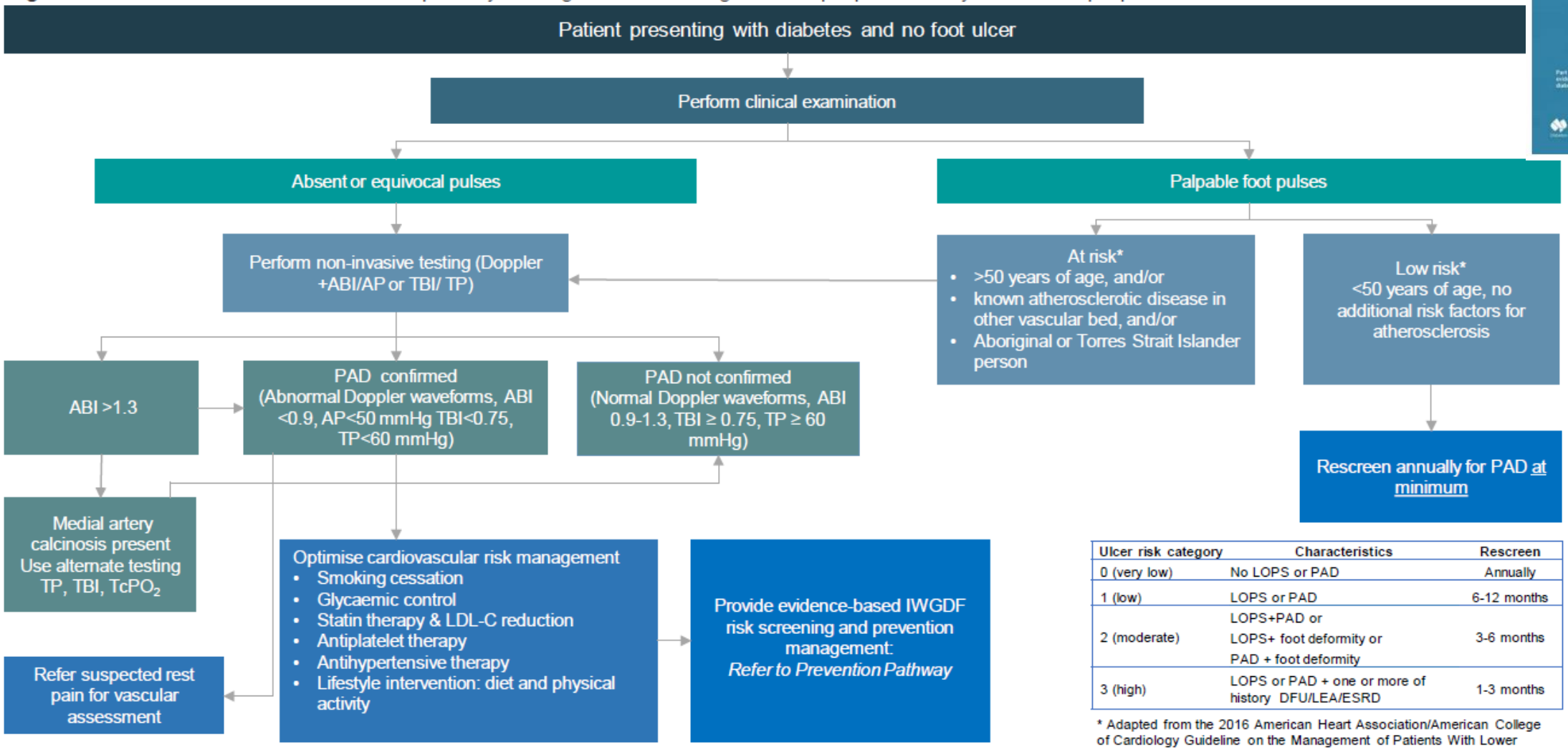


Figure 1. Australian evidence-based clinical pathway on diagnosis and management of peripheral artery disease for people with diabetes without a foot ulcer



Ulcer risk category	Characteristics	Rescreen
0 (very low)	No LOPS or PAD	Annually
1 (low)	LOPS or PAD	6-12 months
2 (moderate)	LOPS+PAD or LOPS+ foot deformity or PAD + foot deformity	3-6 months
3 (high)	LOPS or PAD + one or more of history DFU/LEA/ESRD	1-3 months

* Adapted from the 2016 American Heart Association/American College of Cardiology Guideline on the Management of Patients With Lower Extremity Peripheral Artery Disease 'at increased risk' classification (38).

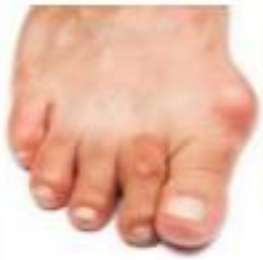
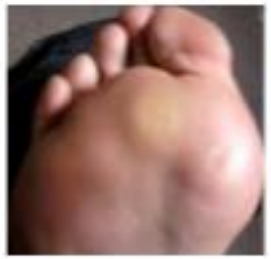
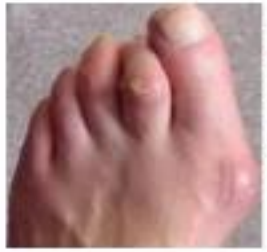
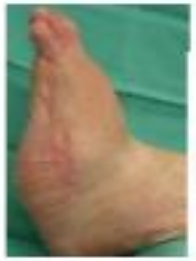
ABBREVIATIONS: **ABI** Ankle-brachial index **AP** Ankle pressure **DFU** Diabetes-related foot ulcer **ESRD** End-stage renal disease **IWGDF** International Working Group for the Diabetic Foot **LDL-C** Low density lipoprotein cholesterol **LEA** Lower extremity amputation **LOPS** Loss of protective sensation **PAD** Peripheral artery disease **TBI** Toe-brachial index $TcPO_2$ Transcutaneous oxygen pressure **TP** Toe pressure

PAD treatments recommended

Foot Deformity Score

- Six criteria inform the foot deformity scale
- A score of 3 or more indicates the presence of foot deformity

Examples of each foot deformity criteria:

Small muscle wasting  Lack of tissue between the extensor tendons indicates small muscle wasting and results in toe deformity	**Bony prominence**  Malalignment of bone structure resulting in an area where a pressure injury/ rubbing are most likely to arise	**Prominent metatarsal heads**  Plantar prominence which arises from malalignment &/or loss of protective soft tissue structures
Hammer or claw toes  Fixated deformity often resulting in apical and dorsal pressure areas	**Limited joint mobility**  Reduced range of motion, easily tested at the hallux and ankle for dorsiflexion	**Charcot foot deformity**   Severe loss of joint alignment

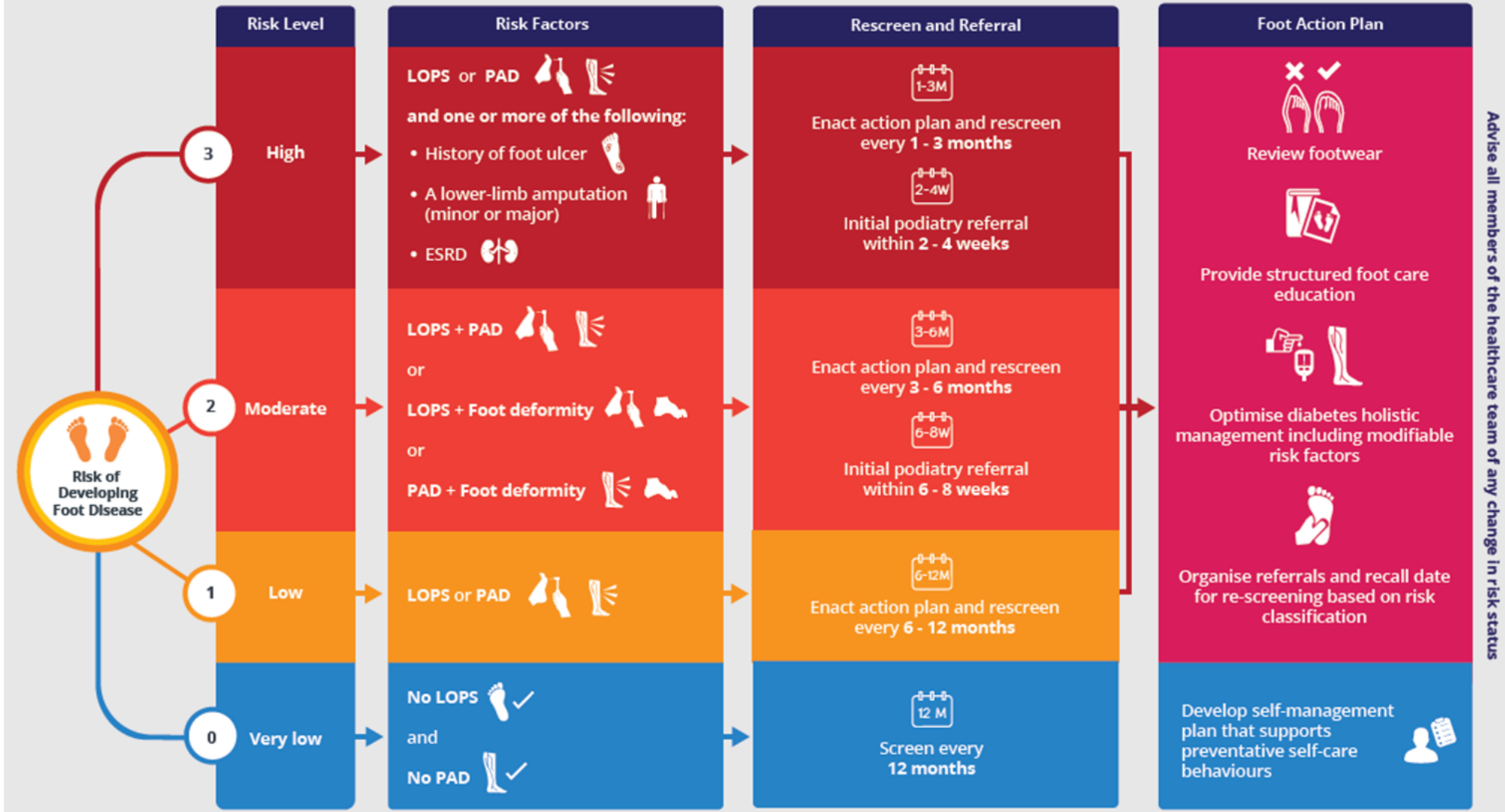
NDSS National Diabetes Services Scheme — An Australian Government Initiative

FootForward for diabetes

Integrated Diabetes Foot Care Pathway

NDSS Helpline **1800 637 700**
ndss.com.au

Diabetes Foot Risk Stratification and Triage



Aboriginal and Torres Strait Islander people should be considered "High Risk" until assessed otherwise – consider cultural safety when conducting a foot assessment and providing foot care advice.

Prevention

NDSS National Diabetes Services Scheme An Australian Government Initiative

FootForward for diabetes

Integrated Diabetes Foot Care Pathway

Structured foot care education should include

- ✔ Foot ulceration and the consequences
- ✔ Preventative foot self-care behaviours, such as:
  - Seeking professional help in a timely manner after identifying a foot problem
  - Not walking barefoot, in socks without shoes or in thin soled slippers
  - Wearing adequately protective footwear
  - Undergoing regular foot checks
  - Practicing proper foot hygiene

Deadly Feet

Your foot health, closer to home.

The Deadly Feet program is a specialist multi-disciplinary outreach service for Aboriginal and/or Torres Strait Islander peoples. We help you to manage your foot health and keep your feet healthy.

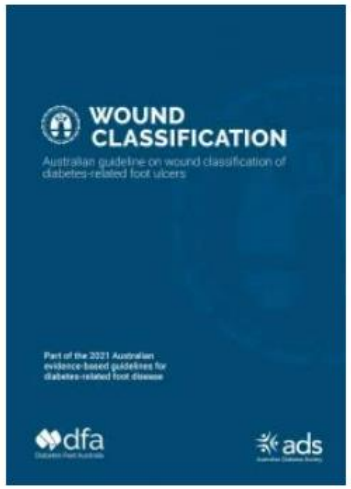
Certain diseases mean that you may be more likely to develop a foot condition. We can provide specialist review if you have any of these:

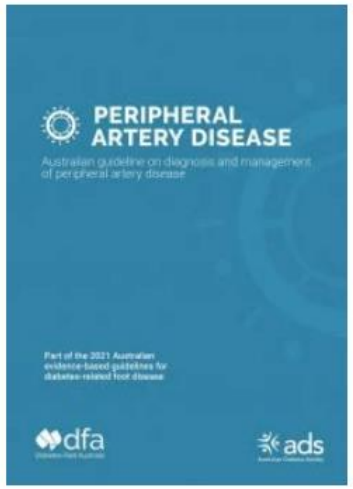
- Have any concerns about your feet
- Have any risk factors that might make it more likely for you to develop foot conditions
  - If you smoke, or used to
  - If you have diabetes
- Have any problems with your kidneys
- Have any sores on your feet

We help you to improve your health, so that you don't develop foot conditions in the future. If you do, we can help you recognise these conditions early so that we can help your feet heal. We provide our services closer to your home, saving you time and money on travelling to appointments.

For more information, have a chat with your nurse, doctor or Indigenous Hospital Liaison Officer. You can also call or email the team to see if you're eligible to take part: MNVOP@health.qld.gov.au or (07) 3647 1500.

Diabetes Foot Disease – Recognise, Respond, Refer

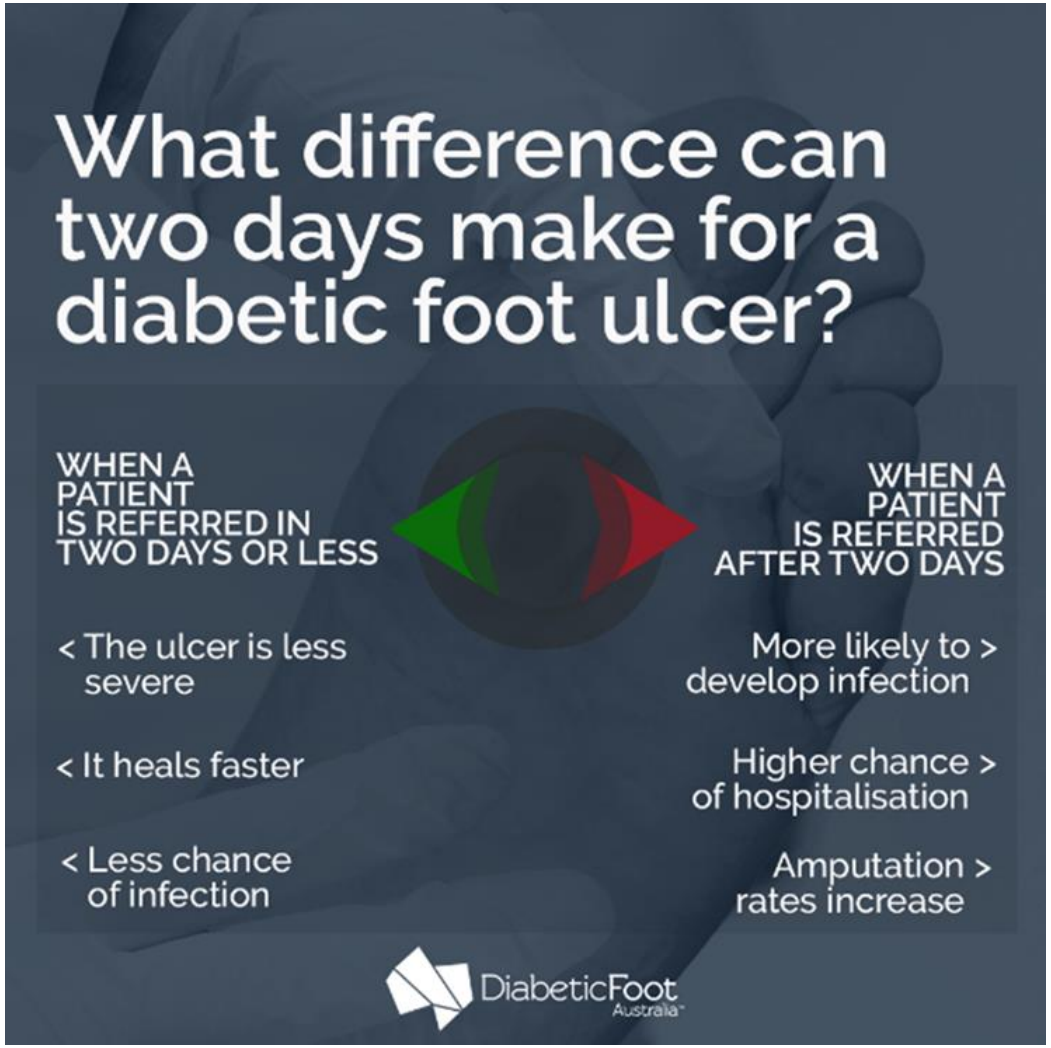




Active Foot Disease Pathology	
Acute Limb Ischaemia	Foot Ulceration +/- Infection
Chronic Limb-Threatening Ischaemia	Acute or suspected Charcot Foot

In the presence of active foot disease it is incumbent on the primary care team to ensure timely referral to appropriate services, either interdisciplinary high-risk foot services, specialist vascular care, or in the most severe cases, hospitalisation.

Diabetes Foot Disease – Recognise, Respond, Refer



Queensland Health Ambulatory High Risk Foot Services have a timely access KPI, ≥80% new foot ulcer referrals to be offered an appointment within 2 business days

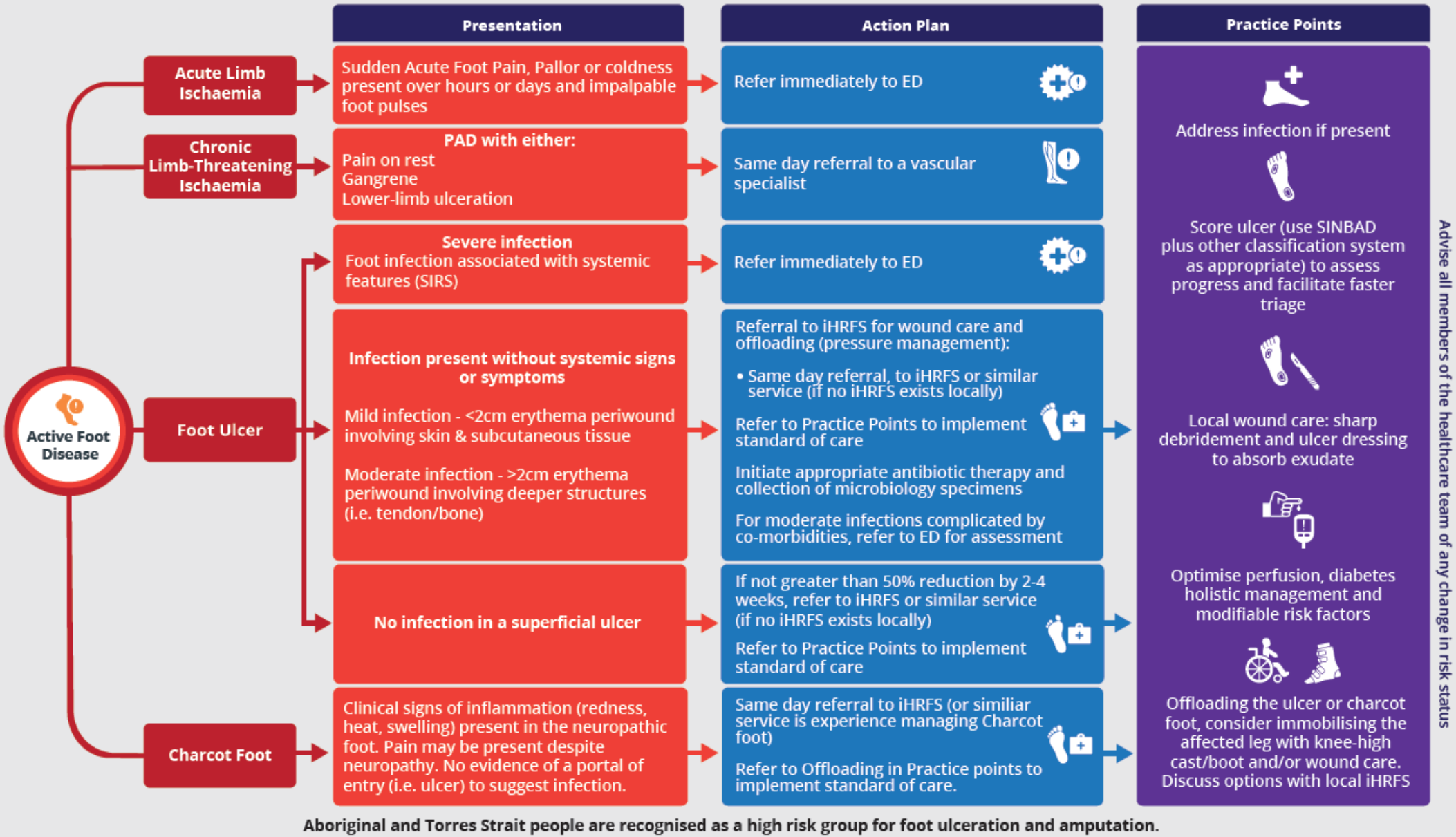
NDSS National Diabetes Services Scheme An Australian Government Initiative

FootForward for diabetes

Integrated Diabetes Foot Care Pathway

NDSS Helpline **1800 637 700**
ndss.com.au

Active Foot Disease Pathway



Aboriginal and Torres Strait people are recognised as a high risk group for foot ulceration and amputation.

Wound Classification

Figure 1. Australian evidence-based clinical pathway on wound classification of foot ulcers for people with diabetes

Person presenting with a diabetes-related foot ulcer(s)

Assess medical and diabetes history
(including cardiovascular disease, kidney disease, smoking and other comorbidity status, diabetes type, duration, HbA1c, foot ulcer history, amputation history, other complications)

Assess ulcer at a minimum by using the
SINBAD wound classification system* characteristics
(including Site, Ischaemia/PAD, Neuropathy, Bacterial infection, Area, Depth)

Communicate ulcer at a minimum with other health professionals using the SINBAD Wound Classification system*

If no signs of infection or ischaemia/PAD

Provide evidence-based:
Wound healing management:
Refer to Wound Healing Pathway
Pressure offloading management:
Refer to Offloading Pathway

If signs of ischaemia/peripheral artery disease (PAD)

Assess ischaemia/PAD ulcer severity using WIfI scoring system

Provide evidence-based: PAD management:
Refer to PAD Pathway

If signs of infection

Assess infection ulcer severity using IDSA/IWGDF infection classification system

Provide evidence-based: Infection management - *Refer to Infection Pathway*

Ulcer(s) not healed in 6 weeks

Review evidence-based ulcer(s) classification:
Repeat above *Classification Pathway*

Ulcer(s) healed

Provide evidence-based:
Prevention management: *Refer to Prevention Pathway*

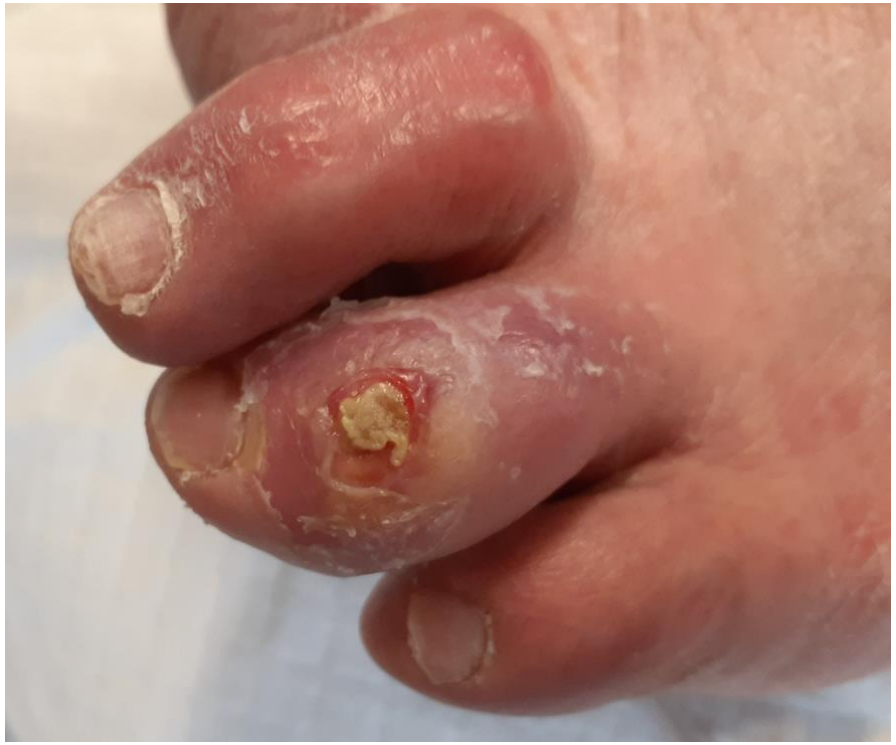
CAUTION: Be cautious using any foot ulcer classification system to provide a definite individual ulcer prognosis

LEGEND
DARK BLUE BOX: Ulcer characteristics LIGHT BLUE BOX: Wound classification recommendations GREEN BOX: Best standard of care recommendations ORANGE BOX: Monitor and review progress

Case Study

Mr T

- 72 year old, non-indigenous
- Medical history: Type 2 DM (dx 2014), hypertension, dyslipidaemia, myocardial infarct (2014), heart failure, past smoker
- Foot Disease history: previous ulceration, amputation Left hallux (2016) & Left D2 (2017)
- Presenting history: blister from new shoes, burst approximately 4 weeks ago. Patient self managing.
- Referred to Metro North Podiatry by private podiatrist after attending regular scheduled appointment, same day review with GP for antibiotics
- GP commenced Mr T on amoxicillin & clavulanic acid



Case Study

Mr T

Assessment

- HbA1c – 7%
- Foot risk factors - LOPS, foot deformity, PAD
- Vascular assessment: pedal pulses not palpable, doppler waveforms monophasic. Left TP: 38mmHg TPI: 0.3. Right TP: 44mmHg TPI: 0.34. No rest or claudication pain.
- Mild infection
- Wound depth – superficial
- SINBAD - 3
- WIfI – W:1 I:2 fI:1

Impression

- Mildly infected neuroischaemic ulcer, non-progressive. Requiring timely vascular review.

Case Study – Mr T

Management

- Minimal wound debridement, due to ischaemic status
- Wound dressing choice – antimicrobial e.g. inadine + foam and hypafix
- Off-loading – post op shoe to avoid any dorsal pressure
- Referral for x-ray to exclude underlying osteomyelitis
- Appropriate antibiotic cover with GP review planned
- Education – foot risk status, foot ulcer & consequences, ulcer management, SOS

Plan

- Referral to joint Podiatry / Vascular consultant clinic – access 1-2 weeks
- Referral to GP to review the need for repeat antibiotics
- Dressing care plan provided patient
- Review 1/52 – check x-ray result 1/7 and correspondence to GP.

Referral Pathways

Clinical Prioritisation Criteria

- High Risk Foot (Diabetes and Endocrinology)

Minimum Referral Criteria	
Category 1 (appointment within 30 calendar days)	◦ Refer directly to emergency - Foot ulcer with infection and systemically unwell or febrile, invasive infection or rapidly spreading cellulitis (defined by peripheral redness around the wound >2cm), acute ischaemia, wet gangrene, acute or suspected Charcot - **A** ◦ Foot ulcer or pressure injury with mild to moderate infection <2cm around wound. - **B** ◦ Necrosis/dry gangrene (with or without ulceration) - **B** ◦ Non-infected foot ulcer. For optimal care, a patient with an ulcer will be reviewed within 48 hours by a specialist High Risk Foot Service **Urgent cases – (refer to key below)** **A** – client to present to emergency department immediately **B** – client to present to diabetes specialist service within 24 hours. If no specialist service is available, consult with a specialist service via telehealth, or present to an emergency department.
Category 2 (appointment within 90 calendar days)	◦ High Risk Foot (IWGDF Risk Stratification): Loss of protective sensation (LOPS) **or** Peripheral artery disease (PAD), **and** one or more of the following: ▪ History of foot ulcer ▪ A lower extremity amputation (minor or major) ▪ End-stage renal disease ◦ Peripheral arterial disease, peripheral neuropathy, or foot deformity in the absence of adequate community resources
Category 3 (appointment within 365 calendar days)	◦ No category 3 criteria

Metro North Podiatry – Referral

Foot Disease and High Risk Podiatry Service

Specialising in:

- Foot ulceration
- Foot pressure injuries
- Charcot foot
- High risk feet
- Multidisciplinary care

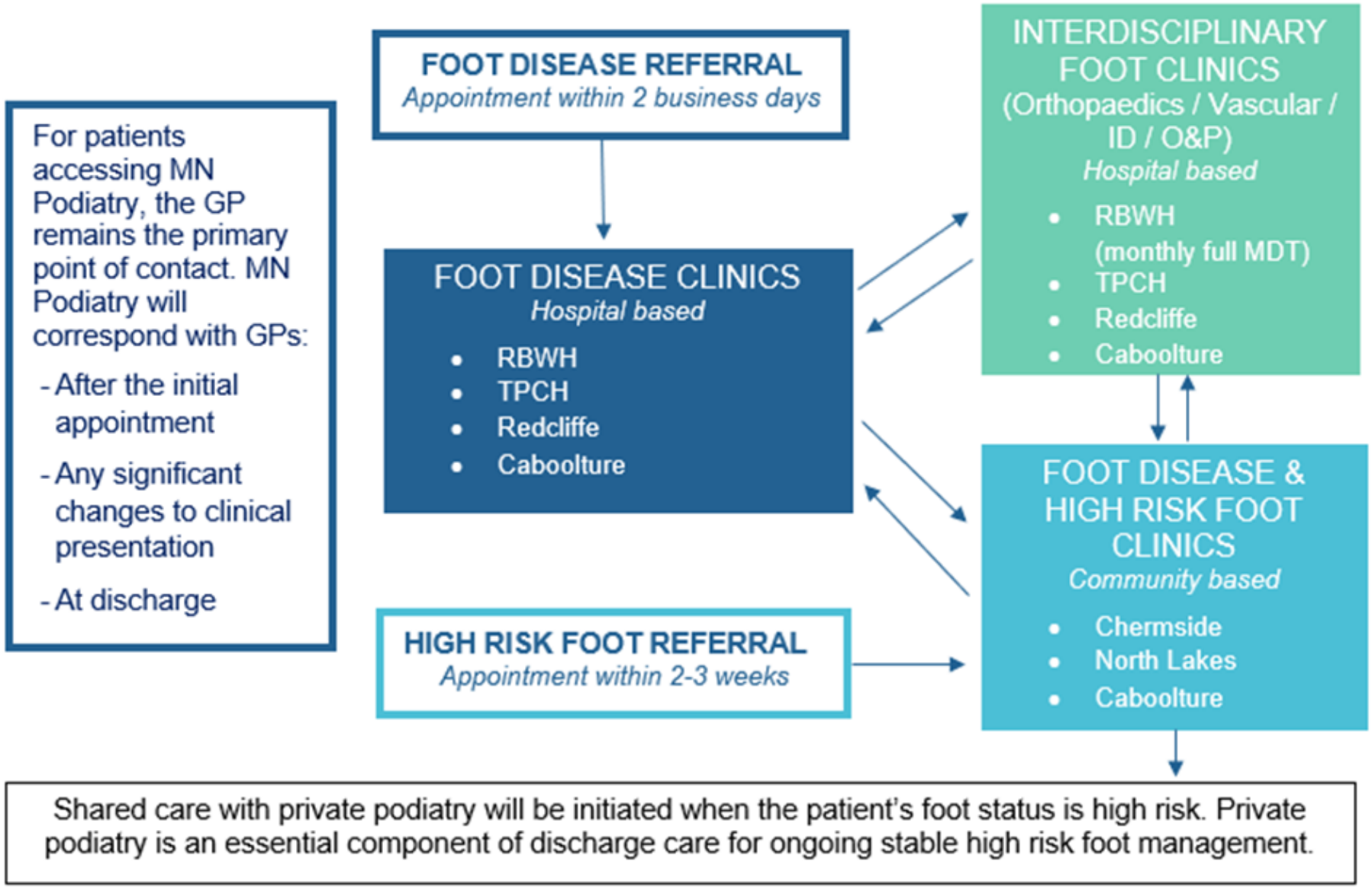
Referrals accepted from Medical | Nursing | Allied Health | Health Workers via:
GP Smart Referral OR Central Patient Intake | Phone: 1300 364 938 | Fax: 1300 364 952

For referral advice phone 3139 4443
Business hours Monday – Friday

Metro North Health | Queensland Government

https://metronorth.health.qld.gov.au/specialist_service/refer-your-patient/foot-ulcer

Metro North Podiatry – Referral Flow



Resources – Health Professionals

Education Courses:

- Foot Disease: Recognise, Respond, Refer

  Short online course provides an introduction to the assessment of foot disease (ulcers, infection, ischaemia and acute Charcot) to support the diagnosis and management of patients

- Foot Forward: E-learning modules for healthcare professionals caring for people with diabetes-related foot disease
- Foot Forward: Training packages for Aboriginal and Torres Strait Islander Health Workers

❖ Peak National Clinical And Research Body For Diabetes-Related Foot Health And Disease:

Diabetes Feet Australia - Health Professionals

❖ International Working Group on the Diabetic Foot (IWGDF): Guidelines 2023

❖ National Diabetes Services Scheme (NDSS) – Diabetes and feet toolkit

Resources - Consumers

- Foot Forward for Diabetes
- Diabetes Feet Australia – for patients
- Diabetes UK – Putting Feet First

Thank-You & Contact Details

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Director Podiatry
Metro North

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E sarah.jensen2@health.qld.gov.au
W metronorth.health.qld.gov.au
A The Prince Charles Hospital
Building 14
Chermside Q, 4032

Metro North Health acknowledges the Traditional Custodians of the Land upon which we live, work and walk, and pay our respects to Elders both past and present.

QUESTIONS

Diabetes Management – Tips and Tricks

TPCH August 2023
Dr Sam Donaldson Endocrinologist
Bronwyn Buckley RN-CDE
Jen Zhen RN-CDE
Andrea Cawte APD-CDE

Case scenarios

1. Sourcing glucometers, transition to insulin

2. Glucose monitoring and insulin for patients with poor vision

3. T2DM management for patients with poor compliance

Case 1

- 50yo male
- Married with 2 kids
- Smoker, no alcohol
- Retail work Monday to Friday
- BMI 40
- FHx T2DM and IHD

Case 1

- Diagnosed with Type 2 diabetes aged 42
- HbA1c > 9-10% long term
- Non proliferative diabetic retinopathy
- Urine ACR positive
- Peripheral neuropathy with current foot ulcer – right 5th toe, not infected
- Nil known macrovascular complications
- HTN/Dyslipidaemia (in target)
- OSA on CPAP

Case 1

- Current medications
  - Metformin XR 2 x 1000mg od
  - Empagliflozin 25mg od
  - Gliclazide MR 120mg od
  - Sitagliptin 100mg od
  - Perindopril 5mg od
  - Rosuvastatin 10mg od

Case 1

- Normal liver renal function
- Urine ACR pos
- HbA1c 10%
- Euthyroid
- Normal vitamin B12

Case 1

- What further information do we need?
- What is HbA1c target?
- What are our treatment options?

Case 1

- What further information do we need?
  - Has he tried to **quit smoking**? Motivation to do so.
  - Has he tried to **lose weight**? Seen a dietitian? Seen an exercise physiologist? Done a T2DM self-management group?
  - Focus on patient-centered actions – things they CAN do or swap first
  - Build rapport – it's a long journey together!
  - SGBM – 3-day study QID OR Libre study

Case 1

- HbA1c target 6.5% unless otherwise clinically indicated
- Options for medication adjustment
  - ? GLP1-RA
  - Add in insulin
    - Basal +/- bolus
    - Mixed od
    - Mixed bd
- Other options
  - Remission
    - VLED - TOMS
    - Bariatric surgery – State-Wide Bariatric Surgery Pathway

Case 1

- Insulin education
- Glucometer access – CGM trial
- NDSS registration
- Driving and medical certificate

NDSS Code	Product Description	Packs of	Product Application	Order QTY	General	Concession (A, B, C, D)	ATSI Pen/Conc (E) SN Card (F)	Amount Payable
Blood Glucose Monitoring Strips					**PRICE PER PACK**			
135	Accu-Chek Aviva	50	Accu-Chek Aviva Expert, Accu-Chek Aviva Solo		$7.50	$0.60	FREE	
200	Accu Chek Guide	100	Accu-Chek Guide, Accu-Chek Guide Me, Accu-Chek Guide Link		$15.00	$1.20	FREE	
48	Accu-Chek Mobile	100	Accu-Chek Mobile		$15.00	$1.20	FREE	
107.5	Accu-Chek Performa	100	Accu-Chek Performa, Accu-Chek Performa Nano, Accu-Chek Performa Combo		$15.00	$1.20	FREE	
195	Contour Next	100	Contour Next, Contour NEXT ONE, Contour Next link, Contour NEXT link 2.4		$15.00	$1.20	FREE	
322	CareSens N	100	CareSens N, CareSens N POP, CareSens N Voice, CareSens N Premier		$15.00	$1.20	FREE	
320	CareSens Pro	100	CareSens Dual		$15.00	$1.20	FREE	
44	Freestyle Lite	100	Freestyle Lite, FreeStyle Papillon mini, Freestyle Freedom Lite		$15.00	$1.20	FREE	
27	FreeStyle Optium	100	Optium, Optium Xceed, FreeStyle Optium Neo		$15.00	$1.20	FREE	
318	GlucoKey	100	GlucoKey		$15.00	$1.20	FREE	
330	GluNeo	100	GluNeo		$15.00	$1.20	FREE	
312	Lifesmart 2 Twoplus	100	LS - 946		$15.00	$1.20	FREE	
120	OneTouch Verio	50	OneTouch Verio, OneTouch Verio IQ, OneTouch Verio Flex		$7.50	$0.60	FREE	
332	GS700	100	Rightest GM700S, Rightest GM700SB		$15.00	$1.20	FREE	
316	TRUE METRIX	100	TRUE METRIX Air, TRUE METRIX Go		$15.00	$1.20	FREE	
Urine Monitoring Strips								
31.50	Diastix Strips	50	Urine glucose indicator		$3.60	$0.30	FREE	
40.50	Keto - Diastix Strips	50	Ketone/glucose indicator		$3.60	$0.30	FREE	

PATIENT NAME	INSULIN NAME	DOSE (UNITS)	SHOTS/DAY	ORAL DIABETES MEDICATIONS	DOSE	TIMES/DAY	PHYSICIAN NAME
PATIENT PHONE							PHYSICIAN PHONE

360° View 3-day Profiling Tool

	Day 1 Date _____							Day 2 Date _____							Day 3 Date _____						
	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Before bed	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Before bed	Before breakfast	2 hours after breakfast	Before lunch	2 hours after lunch	Before dinner	2 hours after dinner	Before bed
Time																					
Insulin Units																					
Meal Size S M L	–	S M L	–	S M L	–	S M L	–	–	S M L	–	S M L	–	S M L	–	–	S M L	–	S M L	–	S M L	–
Activity Level*	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Blood Glucose																					
BLOOD GLUCOSE RANGE HIGH >16.7 mmol/L																					
HIGH 14.5-16.7 mmol/L																					
HIGH 12.3-14.4 mmol/L																					
HIGH 10.1-12.2 mmol/L																					
HIGH 7.8-10.0 mmol/L																					
6.2-7.7 mmol/L**																					
4.5-6.1 mmol/L**																					
LOW 2.8-4.4 mmol/L																					
LOW <2.8 mmol/L																					

After Meal Goal

Fasting/ Before Meal Goal

*ACTIVITY LEVEL					
What is your activity level?	1 Very Low	2 Somewhat Low	3 Moderate	4 Somewhat High	5 Very High

WARNING: Do not adjust your prescribed oral medication or insulin therapy without first consulting your physician.

YOUR COMMENTS

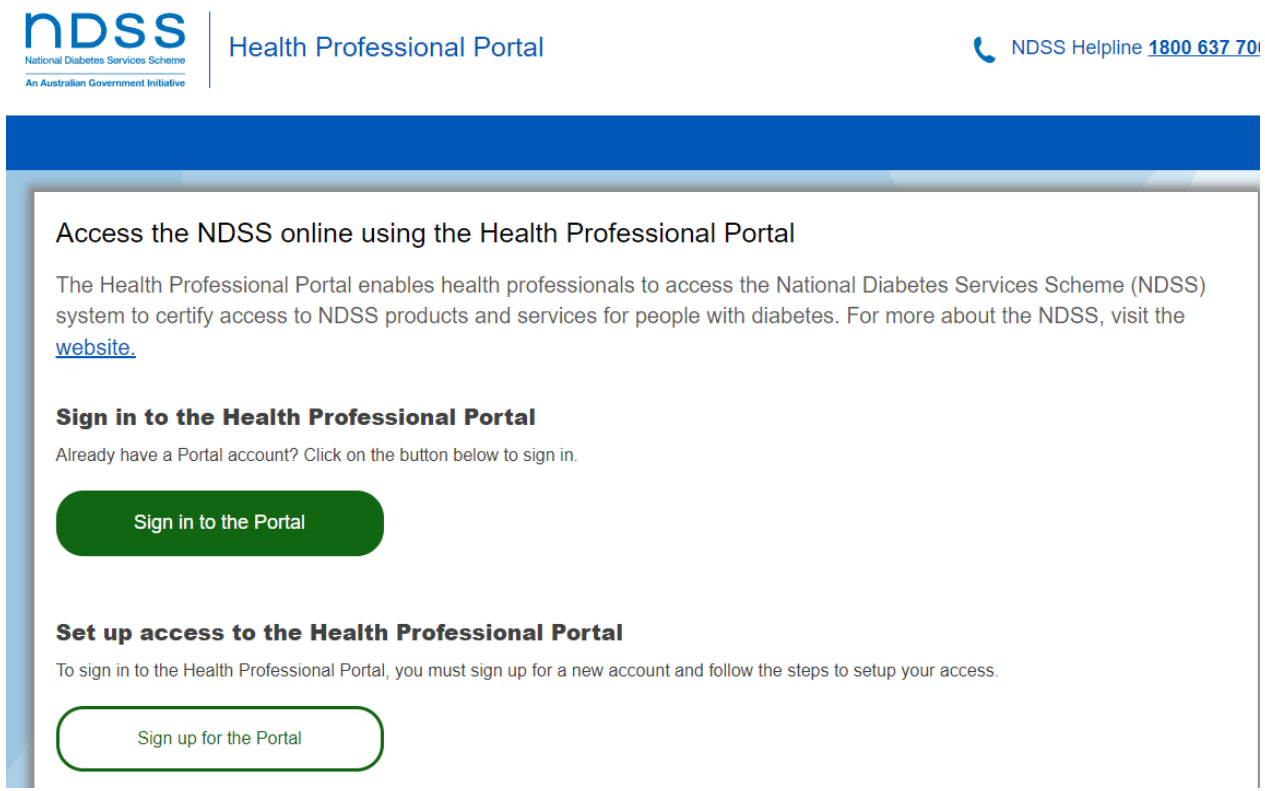
_____

_____

Bring this form and your blood glucose monitoring system to your next healthcare professional appointment.

** American College of Endocrinology Consensus Statement on Guidelines for Glycemic Control. 2002.

- NDSS Health Professional Portal



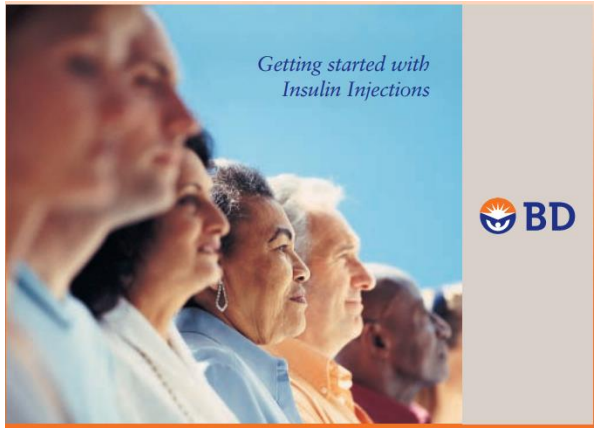
- registration form
- syringe or pen needle access form

Insulin Start Education

- What is insulin
- Action and duration of insulin
- Dose and timing of injections
- Monitoring glucose levels
- Hypoglycaemia
- Storage

- How to use pen device
- Driving requirement
- Disposal of needles
- Rotation of injection sites
- NDSS subsidy
- Insulin adjustment

nDSS
National Diabetes Services Scheme
An Australian Government Initiative



Other ways of gathering GL data

- Continuous glucose monitoring – CGM
- Flash glucose monitoring – FGM
- Please liaise with your local CDEs for support

Case 2

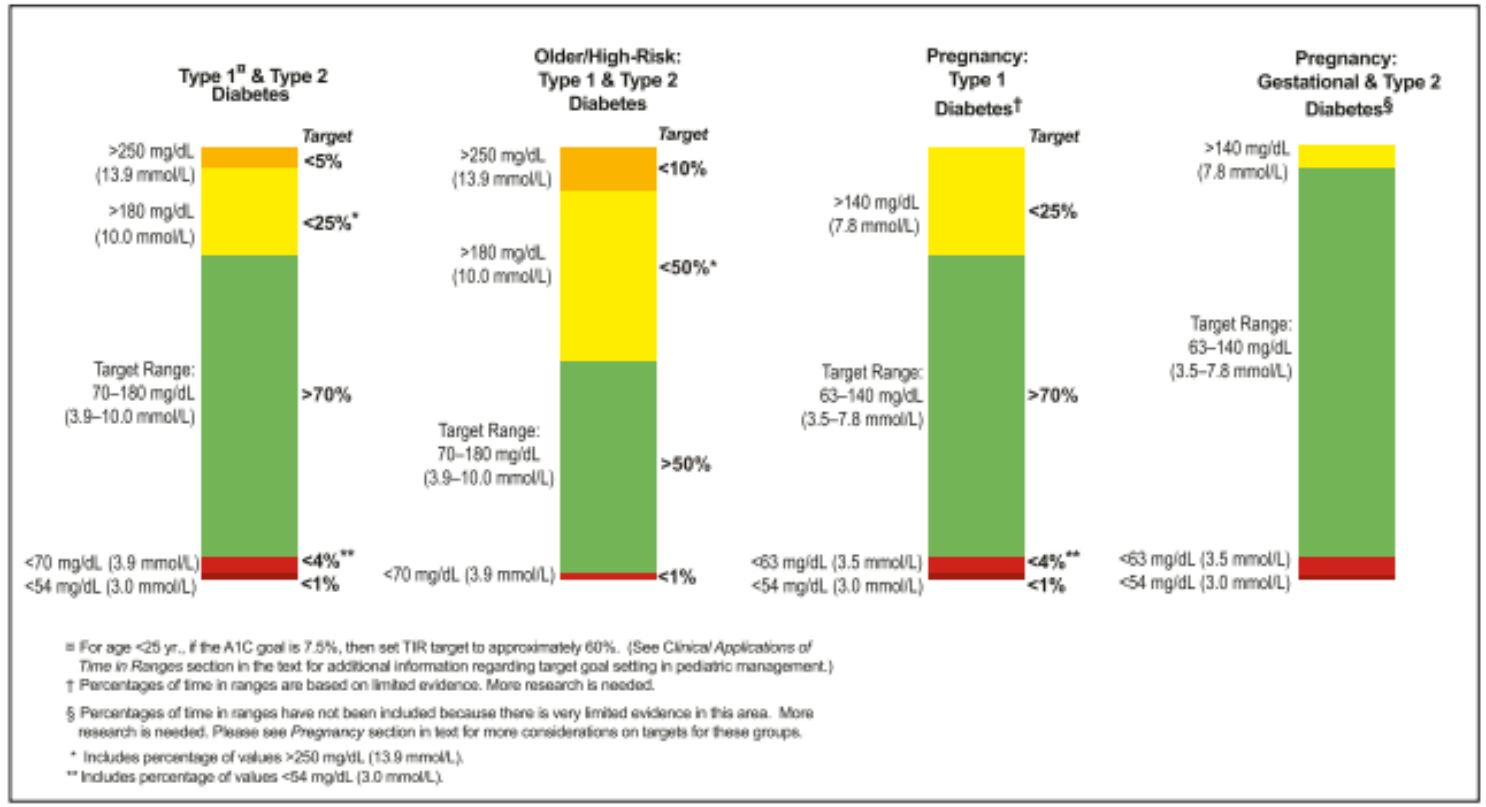
- 84yo man, vision impaired (legally blind)
- Type 1 diabetes/LADA since 40yo
- Lives alone
- Community support for cleaning every 2 weeks
- Meals on wheels for daily main meal
- Community transport
- Family assist with groceries

Case 2

- Diabetes management
  - Insulin Aspart tds with meals – set doses or QA ratio?
  - Insulin Glargine 100u/L daily in evening with dinner
  - Libre sensor for home glucose monitoring
  - Hypo aware? Assess early symptoms in clinic
  - HbA1c 8%

Case 2

- Issues
  - Vision
  - Hearing?
  - Glucose monitoring/upper end target
  - Safety with insulin administration – Insulet device
  - HbA1c target 8% without hypos
  - Avoid hypoglycaemia
  - Adequate nutrition for quick acting insulin doses



¤ For age <25 yr., if the A1C goal is 7.5%, then set TIR target to approximately 60%. (See *Clinical Applications of Time in Ranges* section in the text for additional information regarding target goal setting in pediatric management.)

† Percentages of time in ranges are based on limited evidence. More research is needed.

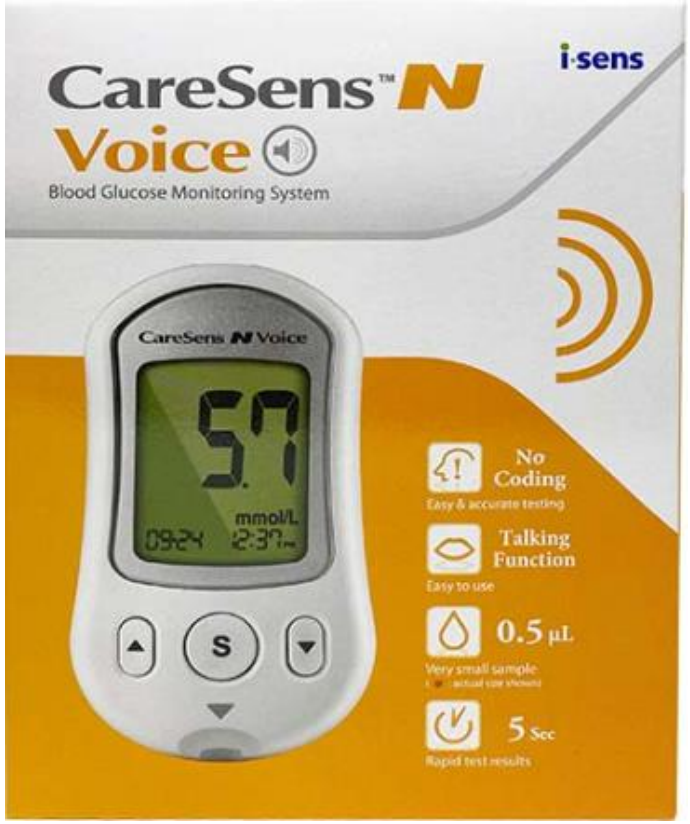
§ Percentages of time in ranges have not been included because there is very limited evidence in this area. More research is needed. Please see *Pregnancy* section in text for more considerations on targets for these groups.

* Includes percentage of values >250 mg/dL (13.9 mmol/L).

** Includes percentage of values <54 mg/dL (3.0 mmol/L).

Case 2

- Vision impairment and glucose monitoring
  - Capillary/fingerprick glucose
    - CareSens Voice
  - Libre App voice to text
  - Dexcom G6 CGM
    - Siri/Alexa support



Case 3

- 45yo man
- T2DM duration 10 years
- Intellectual impairment
- Lives with sister
- Disability pension/NDIS support

Case 3

- BMI 35
- Hypertension
- Dyslipidaemia
- OSA on CPAP
- Nil known T2DM related complications
- HbA1c 10%
- Normal renal function

Case 3

- Current medications
  - Sitagliptin/metformin 50/1000mg XR 2 od
  - insulin aspart 30 units/mL + insulin aspart protamine 70 units/mL – 30 units breakfast and 30 units dinner
  - Anti hypertensive and statin
  - Cannot tolerate empagliflozin with recurrent thrush and balanitis

- Limited home blood glucose levels – intermittent CGM study prior to GP reviews

Case 3

- What do you want to know?

- HbA1c target

Case 3

- Adherence to oral medications is reasonable
- Adherence to insulin is poor
- Takes insulin aspart 30 units/mL + insulin aspart protamine 70 units/mL 1 daily, perhaps 5 days a week
- Rarely remembers twice daily dosing
- Eats 2 regular meals
  - “breaky” at 11am – sometimes includes carbohydrates
  - Dinner at 7pm – always includes carbohydrates
  - Snacks during the day

Case 3

- Options for improving glycaemic control?

Case 3

- Consider Sitagliptin/metformin to metformin and weekly GLP1RA
- Consider converting insulin aspart 30 units/mL + insulin aspart protamine 70 units/mL to insulin degludec 70 units/mL + insulin aspart 30 units/mL either daily or bd
- Daily insulin degludec 70 units/mL + insulin aspart 30 units/mL may have improved adherence and if missed dose still have some effect with ultralong degludec

Case 3

- Issues with insulin degludec 70 units/mL + insulin aspart 30 units/mL pen supply
- Using reusable pens
- Access to pens and education on reusable pen set up

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AUSTRALIAN DIABETES EDUCATORS ASSOCIATION

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Find a CDE
(Credentialled Diabetes Educator)

Postcode/Suburb

Suburb / Postcode

Within
Within

10KM | Find

Back to search results

Diabetes Support Queensland

Name

Deanne Tate

Description

Providing diabetes education, support and management to people living with diabetes and/or their care givers. Through knowledge comes empowerment to live well with diabetes.

Address

Address: Heathwood

Postcode: 4110

Suburb: Heathwood

State: QLD

Country: Australia

Geo-Location

Latitude/Longitude: -27.6348, 152.9917

Contact details

Preferred contact method: Email

Landline/Work no.: 0477164236

Mobile no.: 0477164236

Email: dsqld@outlook.com

Misc. info

Wheelchair access: Yes

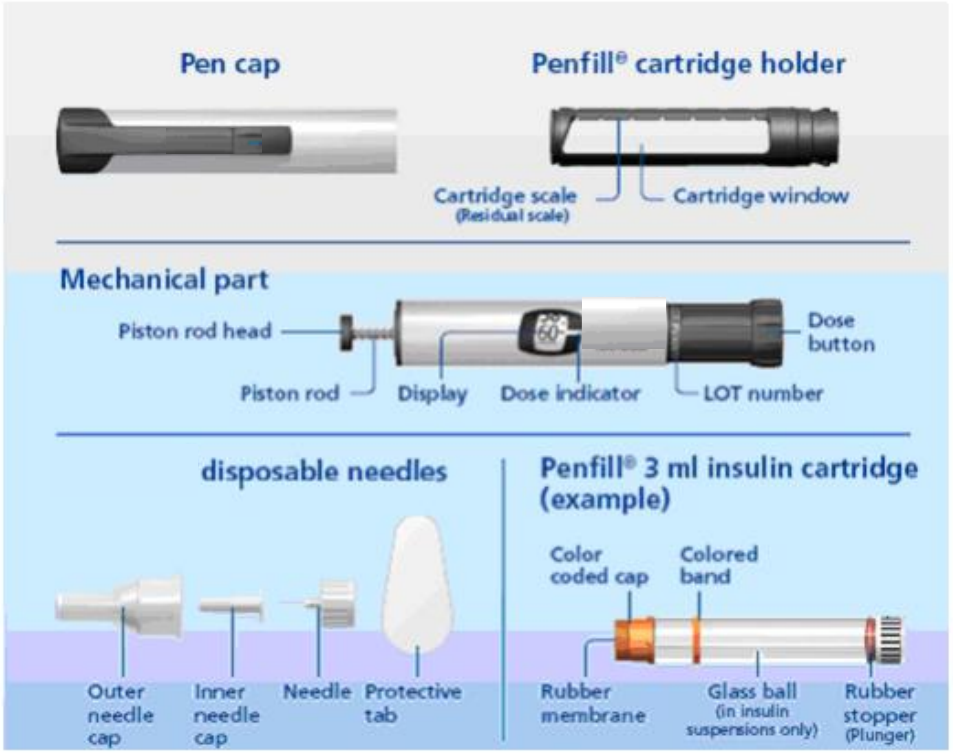
Service delivery in languages other than English: None

How to use NovoPen 4

Non-disposable Insulin Pen Device

- A current shortage of Insulin degludec/insulin aspart 70/30 insulin prefilled pen until 5 June 2024

- Insulin degludec 70 units/mL + insulin aspart 30 units/mL penfill + non-disposable pens



Common Challenges in Primary Care: Diabetes

Program

Welcome & GPLO Liaison Update

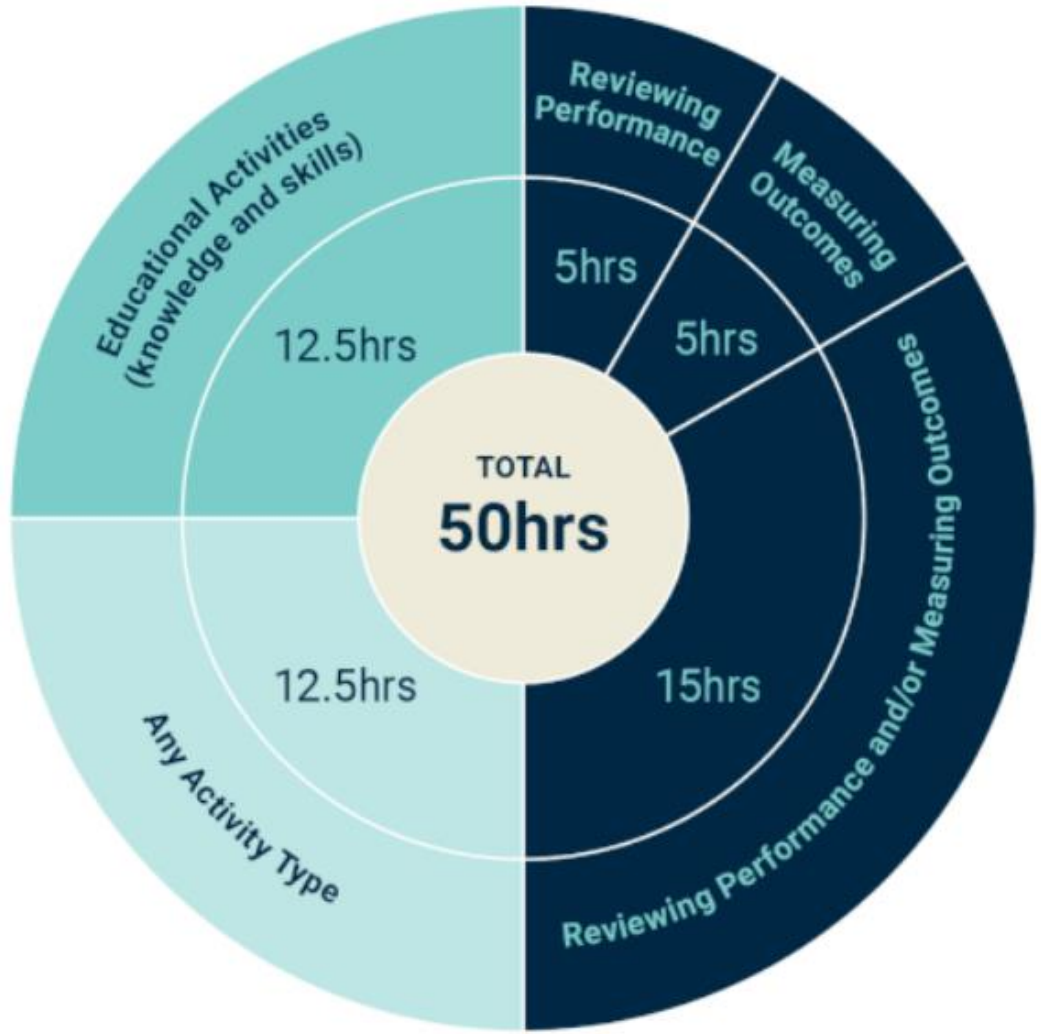
Metro North Diabetes and Endocrinology service introduction and overview

Case based discussion

- **The diabetic foot – conditions, complications and management**
- **T2DM management and insulin tips and tricks**

Introducing a mini-audit for diabetes patients

Minimum requirements



Mini-Audit Template

MyCPD - Guides and Templates (racgp.org.au)

RACGP CPD

Mini audit/audit - activity template

Activity type | measuring outcomes

Use this template to record your mini audit or audit cycle.

A mini audit or audit is a planned activity that systematically reviews aspects of GPs' clinical or practice performance against established best practice guidelines or standards. This activity can be undertaken by an individual GP, a group of GPs, practice or multidisciplinary team. It requires completion of the five steps audit cycle.

A Mini Audit (steps 1 – 4) concludes at the data analysis and implementation of change stage. A full audit (steps 1 – 5) includes monitoring of progress and sustaining improvement by repeating steps 3 and 4 and concludes after a suitable period of time monitoring progress of the changes and consideration of sustainability of the improvements. We recommend a minimum of 6 hours for a mini audit and 10 hours for a full audit.

Linking your activity to the new CPD types

For an activity to be recognised as satisfying the chosen activity type, it should be a minimum of 30 minutes in duration and meet the criteria below. Some examples are provided for guidance.	
Educational activities: Activities that expand General Practice knowledge, skills and attitudes.	Reading, viewing and listening to educational material in the form of lectures, courses, workshops, forums, panel and small group sessions.
Reviewing performance: Activities that require the General Practitioner (GP) to reflect on feedback about their work.	Self-evaluation and reflection activities including direct observation of practice by colleagues and case discussions with peers.
Measuring outcomes: Activities that use GP work data to ensure quality results.	Assessing incident reports, undertaking practice audits, root cause analysis, quality improvement projects and including Morbidity and Mortality meetings and case conferences.

Primary Sense

An Introduction

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An Australian Government Initiative

PRIMARY SENSE

The patient is at the center, supported by their GP

- Extracts the patient's clinical history and related data for the past 5 years (or other set period)
- Extracts new and updated data every 3 to 5 minutes

- Cleans and maps data to international classification systems such as ICDC-10, SNOMED and LOINC
- Runs data through evidenced based algorithms including Johns Hopkins ACG risk stratification tool

- At the point of care delivers real-time, evidenced-based medication safety alerts
- High risk and other clinical prompts provided in a non-intrusive manner

- Delivers reports highlighting potential gaps in care at both patient, clinician and practice population levels
- Aligns interventions to the business model where possible

- Delivers reports highlighting areas to improve clinical care based on health needs of the region
- Informs practice staff training and education, resources and pathways

- Provides reports and dashboards on improvement and performance
- Monitors intentions to treat, clinical changes and outcomes

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Primary Sense Benefits

- Highly intuitive and easy to use software providing near real time data.
- Easier identification of high-risk patients with complex needs with the John Hopkins ACG (Adjusted Clinical Groups) tool.
- Facilitate self-directed measuring outcomes with RACGP points.
- Increased opportunity for integrated quality improvement during funded GP time.
- Faster distribution of targeted reports supporting a response to community health and emergency events (e.g. COVID).
- Increased practice revenue through automated identification of MBS claimable items in care plans.
- More consistent provision and application of evidence-based decision support through prompts, such as missing interventions on opening the patient record.
- Medication safety alerts at the point of prescribing.

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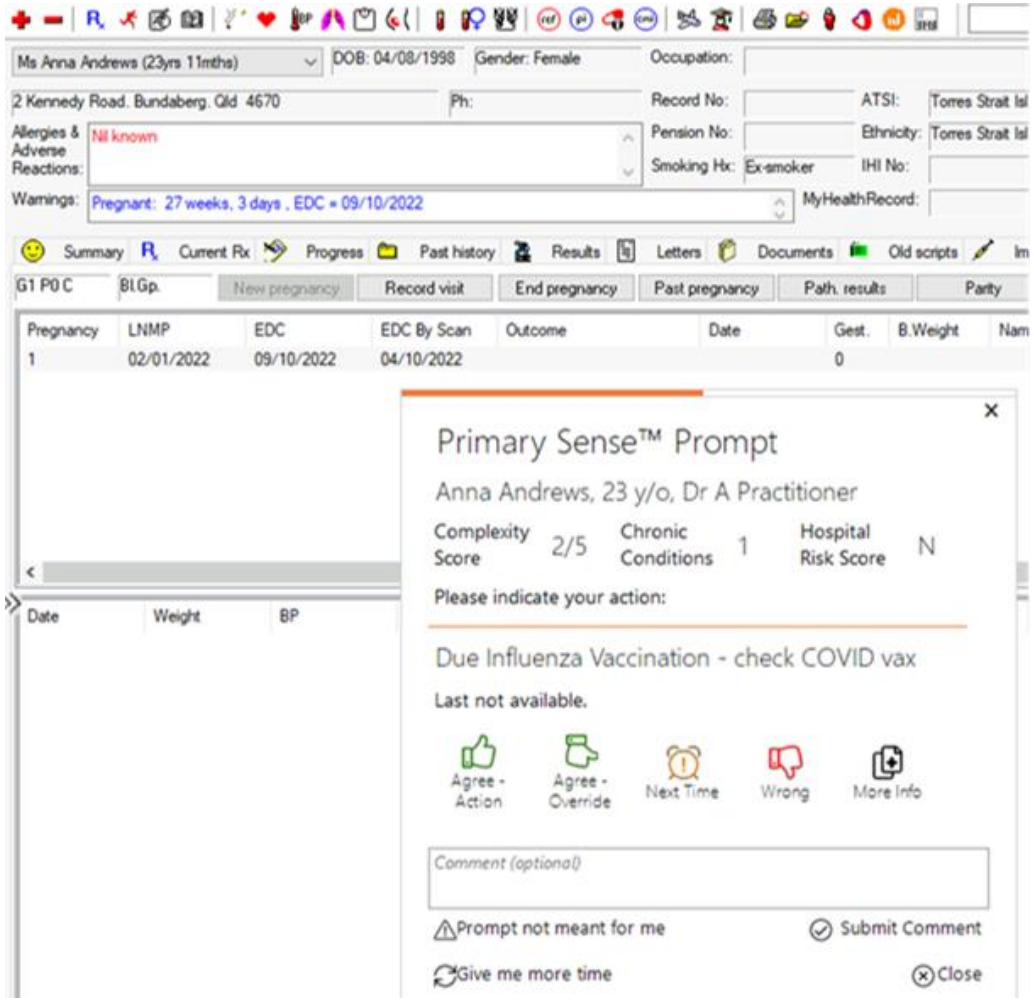
Prompts

Due Influenza vaccination
Due Pertussis vaccination
Due Meningococcal vaccination
Due Hepatitis A Vaccination
Consider Haemochromatosis testing
Missing CV Risk Medication
Due Heart Health Check Assessment
Due Microalbumin Pathology
Due Care Plan
Due Mental health care plan
Due Medication Review



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Medication Alerts

Prescribing Azathioprine/ Mercaptopurine without thiopurine methyltransferase (TPMT) testing

Prescribing an immunosuppressive drug without laboratory tests within the last 6 months

Prescribing a biological drug without laboratory tests within the last 6 months

Prescribing an antipsychotic drug without laboratory test within the last 12 months

Prescribing metformin where latest eGFR <30ml/min

Prescribing digoxin where latest eGFR < 45 ml/min

Prescribing a bisphosphonate drug for osteoporosis where latest eGFR <35ml/min

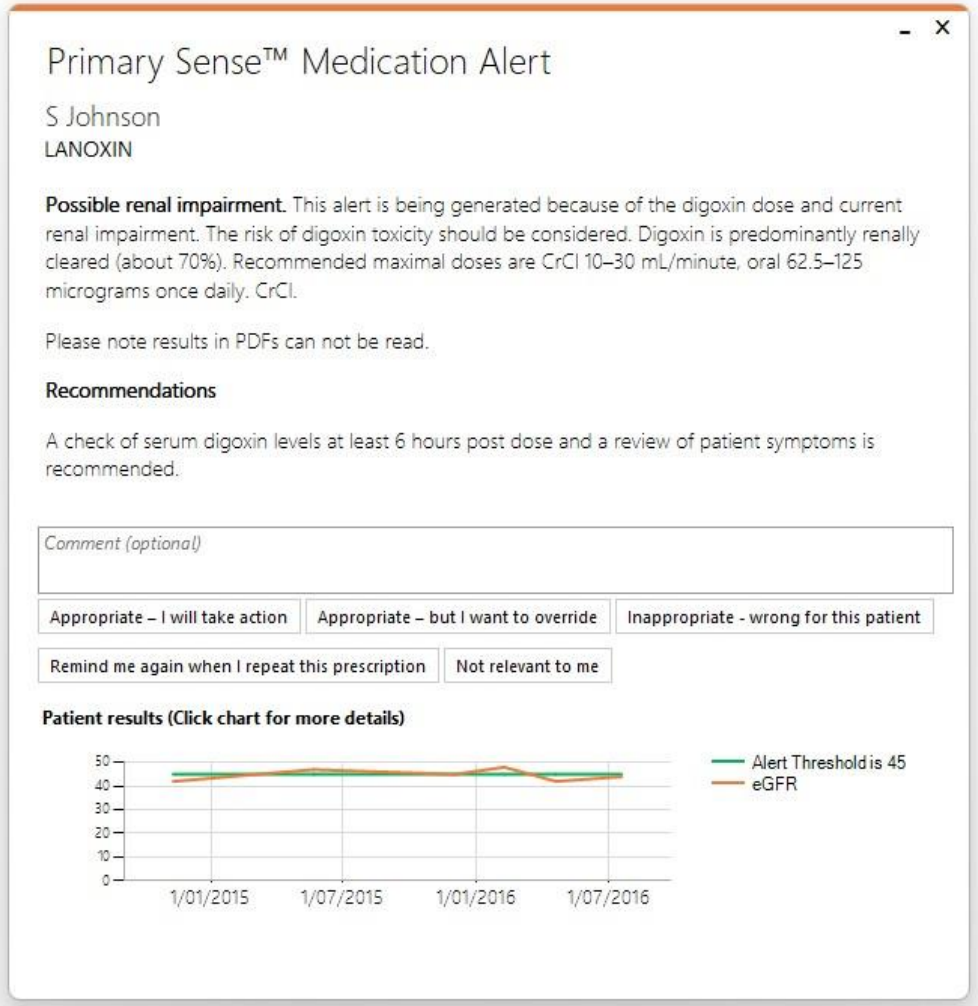
Prescribing an anti-platelet drug where there is history of peptic ulcer or gastrointestinal bleed and no gastroprotection

Prescribing a fentanyl patch where there is non-cancer pain

Prescribing a combined hormonal contraceptive where there is a history migraine

Prescribing a hypoglycaemic drug (other than single preparation metformin) in patients≤ 75yrs where latest HbA1c < 6.5% (<48mmol)

Prescribing a hypoglycaemic drug (other than single preparation metformin) in patients >75yrs where HbA1c < 7% (<53mmols)



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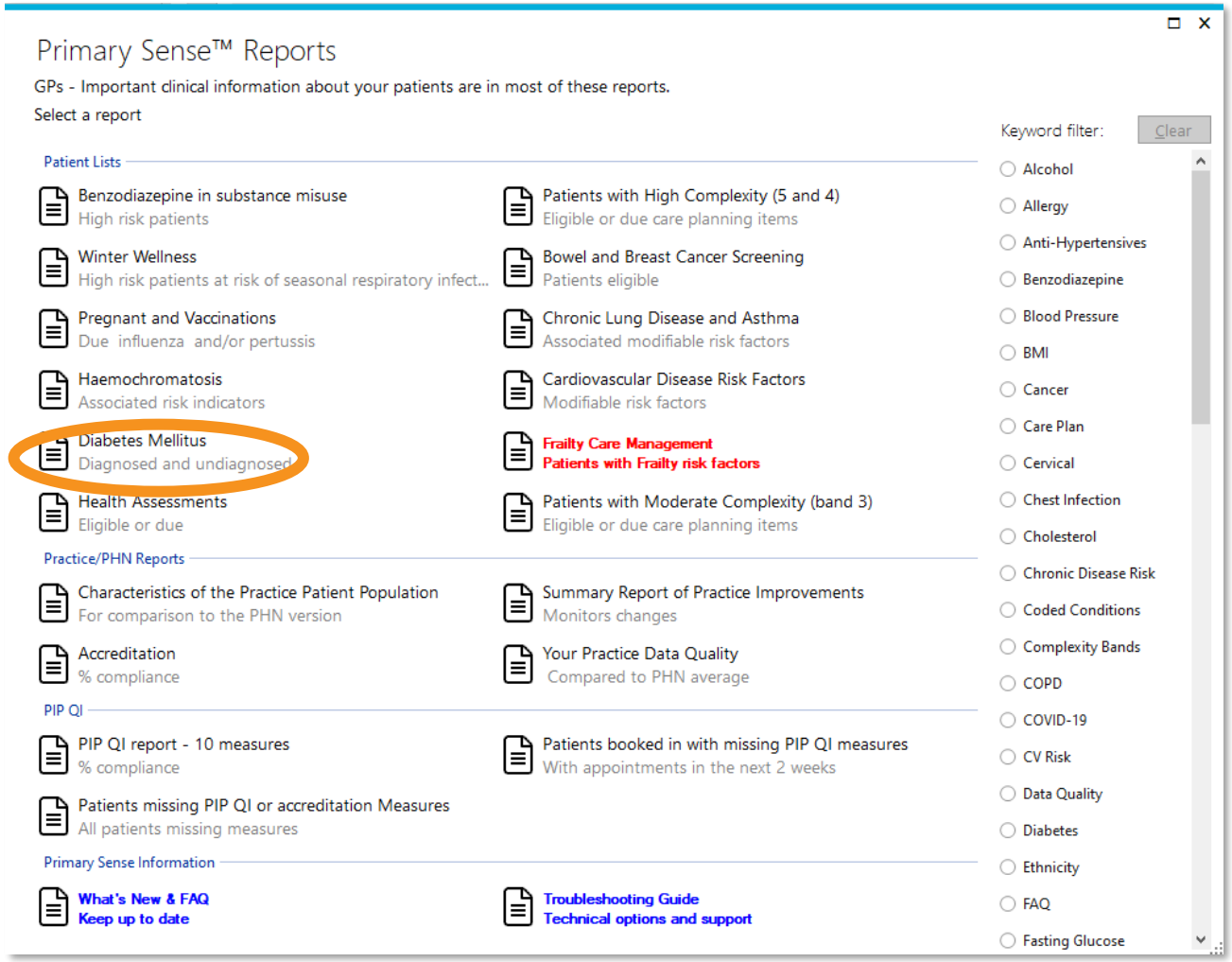
Reports



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PRIMARY SENSE

Diabetes Mellitus

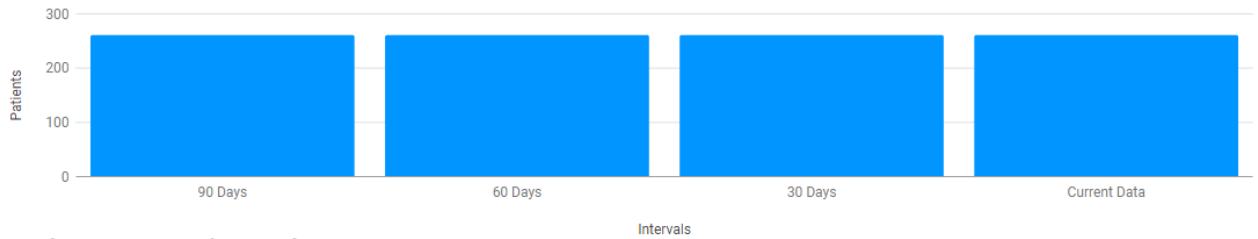
DEMO

07 August 2023 10:27

Which patients are included in this report? | What data is in this report? | How do we use this report? | What are ACG patient complexity levels?

Report Synopsis

Patients with diabetes across 30 day intervals



Patients

All Doctors

View As Columns

Current Report-Related Data:

Patients With HBA1c Test (Last 12 Months): 40

Patients who may require a HbA1C test

Information about this table

Remove	ACG Score	Patient Name	Patient Phone	Last Visit	Existing Appt	GP Name	Clinic	Age	ATSI	Glucose Test Date	Glucose Result

Patients who may need a clinical review for a diagnosis of diabetes

Information about this table

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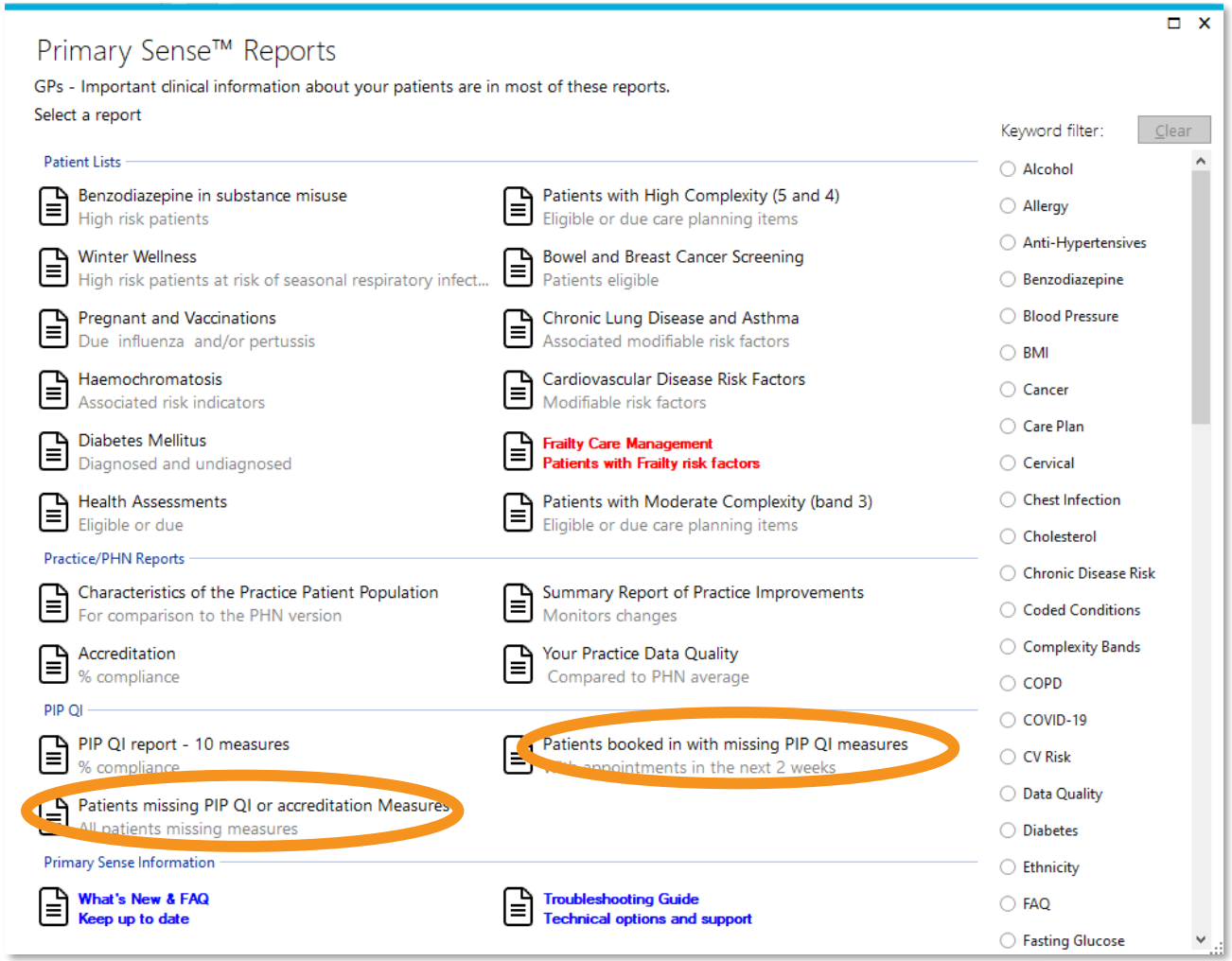
Remove	ACG Score	Patient Name	Patient Phone	Last Visit	Existing Appt	GP Name	Clinic	Age	ATSI	Diabetic Medication	Glucose Test Date	Glucose Result	HbA1c Test Date	HbA1c Result mmol	HbA1c Result %
Remove	0	Thomas, S	0401 234 567	2021-05-13	Nil	Dr K Jones	Surgery	28			2021-05-05	8.9	Nil		
Remove	3	Anderson, C	0401 234 567	2021-09-22	Nil	Dr K Jones	Surgery	31			2019-03-01	7.8	Nil		
Remove	1	Campbell, U	0401 234 567	2020-11-18	Nil	Dr K Jones	Surgery	32			2021-01-21	8.0	Nil		
Remove	3	Robinson, N	0401 234 567	2022-07-24	Nil	Dr K Jones	Surgery	33			2023-04-01	7.4	2019-08-14	68.3	8.4
Remove	1	White, C	0401 234 567	2021-05-02	Nil	Dr K Jones	Surgery	40			2017-07-18	7.3	Nil		
Remove	1	Kelly, Q	0401 234 567	2021-09-22	Nil	Dr K Jones	Surgery	49			2023-04-01	7.3	2019-07-15	37.0	5.5
Remove	1	Smith, U	0401 234 567	2021-09-22	Nil	Dr K Jones	Surgery	49			2021-02-03	8.3	2009-12-03	50.8	6.8
Remove	3	Brown, H	0401 234 567	2021-09-22	Nil	Dr K Jones	Surgery	56			2017-05-09	7.5	Nil		
Remove	1	Taylor, R	0401 234 567	2020-12-10	Nil	Dr K Jones	Surgery	57			2023-03-01	7.2	Nil		
Remove	1	Williams, L	0401 234 567	2021-09-22	Nil	Dr K Jones	Surgery	58			2021-02-18	8.0	2017-12-06	45.0	6.3
Remove	1	King, A	0401 234 567	2021-09-22	Nil	Dr K Jones	Surgery	58		insulin (human)	2021-02-18	7.2	Nil		
Remove	1	Taylor, W	0401 234 567	2021-10-02	Nil	Dr K Jones	Surgery	61			2023-03-01	7.5	Nil		
Remove	1	Kelly, G	0401 234 567	2021-10-02	Nil	Dr K Jones	Surgery	62			2021-02-18	7.9	Nil		
Remove	3	Jones, K	0401 234 567	2021-09-30	Nil	Dr K Jones	Surgery	68			2021-09-20	8.9	2019-04-15	61.8	7.8
Remove	1	King, W	0401 234 567	2021-09-22	Nil	Dr K Jones	Surgery	69			2021-01-21	8.5	2016-10-13	35.5	5.4
Remove	1	White, Y	0401 234 567	2021-09-22	Nil	Dr K Jones	Surgery	69			2021-05-05	7.3	Nil		
Remove	4	Kelly, U	0401 234 567	2021-09-22	Nil	Dr K Jones	Surgery	72			2021-10-20	7.9	2019-08-19	43.0	6.1
Remove	1	Smith, R	0401 234 567	2021-09-22	Nil	Dr K Jones	Surgery	75			2021-05-05	8.3	Nil		
Remove	1	Walker, H	0401 234 567	2021-09-22	Nil	Dr K Jones	Surgery	77		pioglitazone	2021-10-20	7.9	2019-02-07	35.0	5.4
Remove	1	Nguyen, J	0401 234 567	2021-09-30	Nil	Dr K Jones	Surgery	77			2018-10-23	7.3	2012-06-25	51.9	6.9
Remove	3	King, N	0401 234 567	2021-05-18	Nil	Dr K Jones	Surgery	78			2019-06-08	7.1	2018-06-05	61.8	7.8

Patients & PIPQI



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PRIMARY SENSE

Patients missing PIP QI or accreditation Measures

DEMO

07 August 2023 10:44

Patients without Accreditation Or PIPQI measures recorded

This table is a list of patients marked as active who are missing one or more accreditation or PIPQI measures. N indicates not recorded. Where the patient meets RACGP Active definition of 3 visits in the past 2 years, that is shown. To prevent potential re-identification, patients aged over 90yrs are presented as 90yrs. Due to the recent covid vaccination program inflating numbers of patients marked as active, the best way to find your regular patients is to filter on those with smoking status recorded by clicking the up and down arrow in that column

You can search the doctor's name to generate a GP list, and you can click on the arrows by each column header to create lists for a missing measure. Exporting to excel will keep the selections made

Patient Name	Patient Phone	Last Visit	GP Name	Clinic	Age	ATSI	RACGP Active	Ethnicity	Smoking Status	BMI	Alcohol Status	Allergy Status	Diabetics with missing factors	CV Risk Factors	Cervical Screening	Fluvax
Johnson, U	0401 234 567	2021-08-27	Dr V Johnson	Surgery	51			N		N				N		
Kelly, C	0401 234 567	2021-04-14	Dr V Johnson	Surgery	85			N		N						Over 65
Ryan, O	0401 234 567	2021-09-22	Dr V Johnson	Surgery	62					N			BP, HBA1c	N	N	
Nguyen, P	0401 234 567	2021-09-22	Dr V Johnson	Surgery	75			N								Over 65
Taylor, P	0401 234 567	2021-09-22	Dr V Johnson	Surgery	71									N	N	Over 65
Williams, B	0401 234 567	2021-09-22	Dr V Johnson	Surgery	70									N		Over 65
Smith, W	0401 234 567	2022-07-24	Dr V Johnson	Surgery	64			N		N				N	N	
Smith, D	0401 234 567	2021-09-22	Dr V Johnson	Surgery	51					N				N	N	
Thomas, G	0401 234 567	2021-09-22	Dr V Johnson	Surgery	58			N		N				N		
Nguyen, T	0401 234 567	2022-07-24	Dr V Johnson	Surgery	52			N					BP, HBA1c	N		
Ryan, X	0401 234 567	2022-07-24	Dr V Johnson	Surgery	65	Y				N						COPD, Over 65
White, I	0401 234 567	2022-07-24	Dr V Johnson	Surgery	67									N		Over 65
Johnson, B	0401 234 567	2021-09-22	Dr V Johnson	Surgery	70									N	N	Over 65
Taylor, O	0401 234 567	2022-07-24	Dr V Johnson	Surgery	69			N						N	N	Over 65
Kelly, D	0401 234 567	2021-09-22	Dr V Johnson	Surgery	74			N						N		Over 65
White, Q	0401 234 567	2021-09-22	Dr V Johnson	Surgery	71			N		N				N		Over 65

General Practice & Quality Improvement & Development (QI&D) Support

We are here to help answer your questions regarding Primary Sense.

Our QI & D Engagement Officers can provide remote or on-site face to face training for Primary Sense.

Kelly Moore
Support Coordination

Joanne Dieudonne
QI&D

Kimberley Charnock
QI&D

Leanne Pianeda
QI&D

Marisol Hernandez
QI&D

Michelle Casella
QI&D

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An Australian Government Initiative

Email: practicesupport@brisbanenorthphn.org.au
Ph: 07 3490 3495 (8.00 am–4.00 pm Monday to Friday)

Evaluation