

The background features a dark blue field with a complex pattern of curved, overlapping lines that create a sense of depth and movement. On the right side, there is a prominent, glowing blue structure that resembles a tunnel or a series of concentric, curved layers, with a grid-like texture on its surface. The overall aesthetic is modern and technological.

What are the Barriers, Burdens & Benefits of Diabetes Technology & Therapeutics

DR KONRAD KANGRU - FRACGP

If there's only one answer..... it's money

- **For patients with Type 2 Diabetes / Month**
- Metformin \$14 / 60 tabs; Gliclazide \$17.30 / 100 tabs
 - Glucose test strips \$38.30 for 100
- Insulin Glargine \$181 for 5 x 300U pens
 - Flash Glucose sensor \$185
- Fast Insulin Aspart \$124 x 5 1000U vials
 - MiniMed 670G consumables \$270




But what about subsidies?

- Dept of Health spending (2015/16)
- Total Diabetes: >\$2.1b
 - \$100m on T1DM pharmaceuticals
 - \$310m on T2DM pharmaceuticals
- Private Health Insurance coverage inconsistent
- Access depends on eligibility, clinical need, age, endorsement




When a GP isn't enough



NDSS
The National Diabetes Service Scheme (NDSS) is an initiative of the Australian Government administered with the assistance of Diabetes Australia.

Blood Glucose Test Strip Six Month Approval



This form allows access to additional subsidised blood glucose test strips after the initial six month period provided by the Scheme.

Your details

1 Given name(s)

2 Family name

3 Date of birth

4 Medicare card (preferred) or DVA file number

5 NDSS card number (Optional)

6 By signing here, you are confirming that the information you have provided on this form is true and complete, and that you agree to the collection, use and disclosure of your information for the purposes set out in this form.

Guardian or carer

If the person named in Q1 & Q2 is under 15 years old, or is an adult receiving ongoing care, this section must be completed by a primary guardian or carer.

7 Given name(s)

8 Family name

9 By signing here, you are confirming that:

- you are a primary guardian or carer for the person named in Q1 and Q2; and
- the information you and the person named in Q1 & Q2 have provided is true and complete; and
- both you and the person named in Q1 & Q2 agree to the collection, use and disclosure of your information for the purposes set out in this form.

Lodge this form in person at your local NDSS access point

Certifier

Only to be completed by a registered medical practitioner, nurse practitioner, or credentialed diabetes educator (CDE).

10 Main reason for extension (Choose one only):

Inter-current illness (INT)

Medication affecting blood glucose (MED)

Clinical need for self-monitoring (CON)

Diabetes management change (DMN)

Diabetes management not stable (DMN)

11 Which are you? (Choose one only):

CDE Endocrinologist

GP Nurse practitioner

Other registered medical practitioner Describe:

12 Your full contact details OK to use stamp

Your name

Medicare provider number/CDE number

Church/hospital name

Address line 1

Address line 2

Suburb

State

Postcode

Phone number

Fax number

13 By signing here, you are confirming the person named in Q1 and Q2 needs additional access to subsidised blood glucose test strips, for the reason given in Q10.

14 Signed _____ Dated ____/____/____

Need help with this form?
Call 1300 136 588 or visit ndss.com.au
TTY: 133 677 Speak and Listen: 1300 555 727
Translation: 131 450 Internet Relay: internet-relay.nsc@call.gov.au

NDSS/SGTS Form 2016/12/01 Diabetes Australia ABN 47 538 528 461 Quality Management System ISO 9001:2008 Certificate F3320008 Page 1 of 1

Certifier

To be completed by an authorised health professional who specialises in diabetes, as listed below

20 Which are you?

Endocrinologist/Diabetologist Go to 21

Credentialed Diabetes Educator Go to 21

Other registered health professional who specialises in diabetes, please tick:

Physician Nurse Practitioner Go to 21

None of the above You must verify the form

21 Eligibility Criteria

The person meets ALL of the following criteria:

- the person is expected to benefit clinically from the use of CGM; AND
- the person or family/carer has the willingness and capability to use CGM; AND
- the person or family/carer has the commitment to actively participate in a diabetes management plan which incorporates CGM.

AND

- the person has experienced one or more episodes of hypoglycaemia within the last 12 months, with significant cognitive impairment requiring third-party assistance for recovery; AND
- you have taken reasonable steps to confirm details of ambulance attendance or hospitalisation.

Ambulance Attendance Details

| Date | Time | Location |
|------|------|----------|
| | | |

Hospital Attendance Details

| Date | Time | Location |
|------|------|----------|
| | | |

Hospital or Ambulance assistance for a hypoglycaemic event has not occurred in the last 12 months
The person is not eligible. Do not continue with this form!

AND

- that a health professional has assessed the person as having a demonstrated impaired awareness of hypoglycaemia using a Clarke score (ndss.com.au/cgm) with a score of:
 - 4 or above **Go to 22**
 - 1-3: *The person is not eligible. Do not continue with this form!*

*If the person does not meet the specific clinical criteria but you believe the person has an equivalent level of 'high risk / high clinical need', consideration may be given on a case by case basis. Please contact the NDSS Helpline on 1300 136 588 for more information.

22 Is the person with type 1 diabetes currently using a CGM device?

Yes – they will continue to use their current CGM device and can access CGM products through NDSS Access Points without requiring a starter kit.

Which CGM device is the person using?
Last device _____ **Go to 25**

Yes – but will commence using a different CGM device and will require a new starter kit, a starter kit will be sent to the health professional listed at 24.

Go to 23

No – for new CGM users, a starter kit will be sent to the health professional listed at 24.

Go to 23

23 The choice of device to be used remains a decision of the health professional in consultation with the person/family/carer, noting that not all CGM products are indicated for use in all conditions or all age groups. Please view devices at www.ndss.com.au/cgm.

Which device will the person be using?

- Dexcom G4 Platinum
- Dexcom G5 Mobile
- Medtronic Guardian Connect
- Medtronic MiniLink
- Medtronic Guardian 2 Link
- Medtronic Guardian Connect (3)
- Medtronic Guardian Link (3)

24 Contact details for the health professional receiving the starter kit:

| Health professional name | | |
|--------------------------|-------|----------|
| Given name | | |
| Family name | | |
| Address line 1 | | |
| Address line 2 | | |
| Suburb | State | Postcode |
| Phone number | | |

25 Certifier details

| Certifier name | | |
|------------------------------|-------|----------|
| Given name | | |
| Medicare provider or CDE no. | | |
| Church | | |
| Address line 1 | | |
| Address line 2 | | |
| Suburb | State | Postcode |
| Phone number | | |

26 By signing here, you are confirming that:

- you have assessed the person named in Q1 & Q2 and confirm that they have met all relevant eligibility criteria, as indicated by your assessment; AND
- you are aware that not all CGM products are indicated for use in all conditions or all age groups, and have considered available advice about the selected device including the relevant ARTG listing and any specific condition comments (if unsure search the device information at www.ndss.com.au/cgm); AND
- you have obtained informed consent from the person/family/carer for the specific device chosen for use.

1300 136 588 Diabetes Australia ABN 47 538 528 461 Quality Management System ISO 9001:2008 Certificate F3320008

Except.... You aren't just diabetes

DIABETES CLINIC HOLISTIC CARE

- HbA_{1c} monitoring
- Medication choices & dosages
- Expert information & Education
- Dietitian advice
- Foot / Eye / Renal screening
- Psychological support
- CV risk assessment

GENERAL PRACTICE HOLISTIC CARE

- Diabetes management
- Lifestyle modification
- BP, lipids, aspirin, puffers, cOCP
- Cancer screening & management
- Back, knee & shoulder pain
- Infections & immunisations
- Consolidating Specialist opinions

And you aren't just data



- HbA_{1c}, weight, BGLs, BP, Lipids, etc
- CGMS / Pump downloads VERY useful for optimising care
- Seldom tell the whole story
- Dependent on uploads
- Can exclude GP from decision making, increasing error risk
- Individuals don't fit into algorithms

But benefits too great to ignore

- Patient experiences of hypoglycaemia frequency and self-control
- Clinical parameters of HbA_{1c}, time in range, lower average BGL
- Ideal for Telehealth models of care
- Shared decision making for:
 - Patient & primary Diabetes professional
 - GP & Endocrinologist



So overall...

- Cost certainly most discriminatory and significant barrier to access
- Dependence on specialist centres not equitable
- Burdens of ongoing consumables and data volume
- Risks of fragmenting care and potential medication errors
- Benefits of shared care, better self-management and quality of life all worthwhile