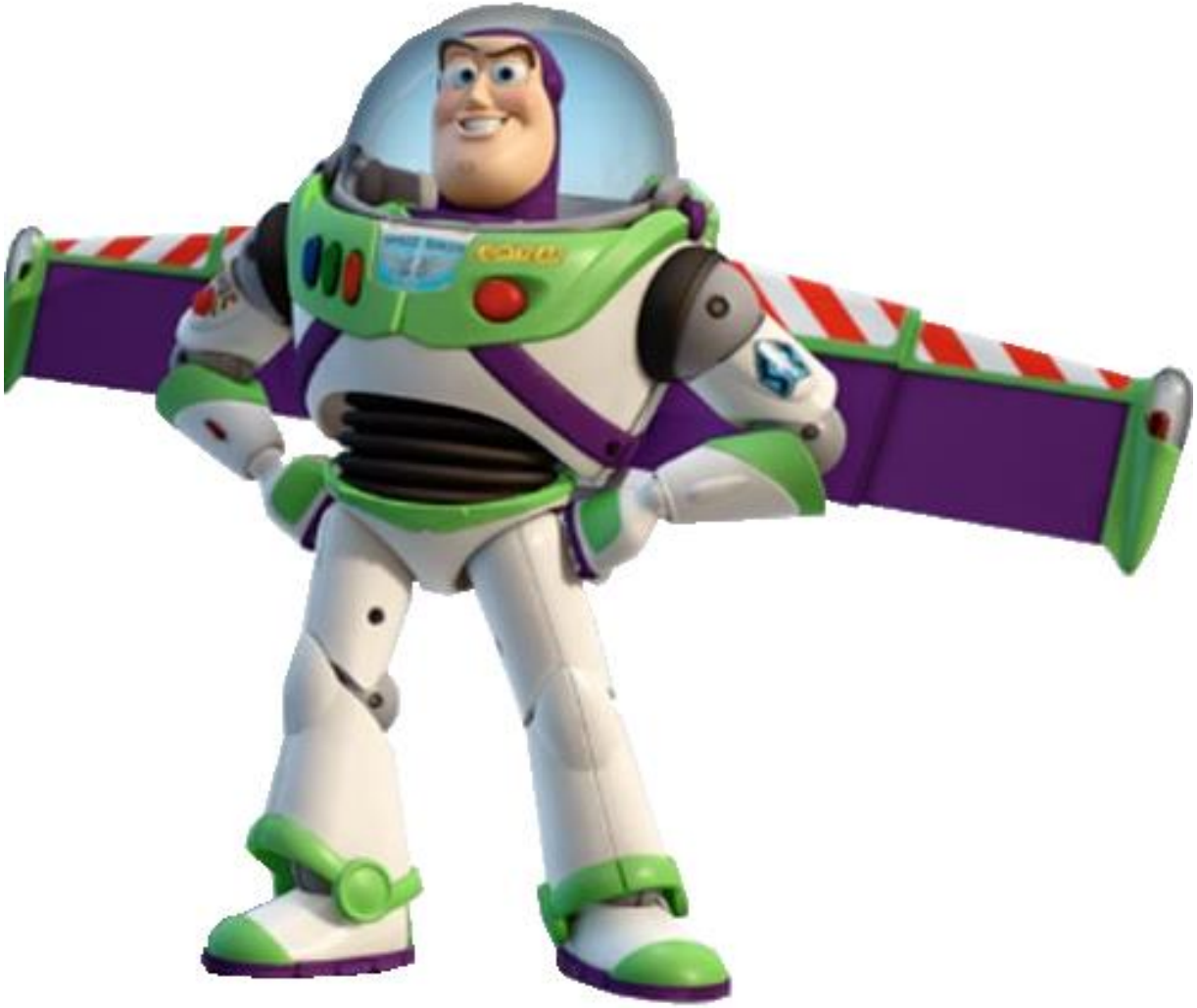
WellSouth
Primary Health Network
Hauora Matua Ki Te Tonga



To Infinity and Beyond

Diabetes in General Practice – the next level

He mana tō te whānau Whānau Centred	Tōkeke Equitable	Manawa whakaute Respectful	Pono Transparent

We are planning some educations sessions on Insulin Initiation and also on Intensifying insulin, for 2024.

We are also happy to provide these for groups of Practice Nurses (perhaps from several practices in one location) in an evening time or a lunch time , which ever best suits.

If an evening session is something you feel would be beneficial, please let Kate Norris know.

Dr Kate Norris- RN, MA (Nursing), DHSc
Professional Nurse Advisor/Leader, WellSouth
0225604176 | 0800 477 115 | wellsouth.org.nz
Level 1, Cargill House 333 Princes St, PO Box 218, Dunedin 9054
Available 9.00am-4.00pm, Monday – Thursday

Wonderful quote from a lady who has lived with Type 1 diabetes and insulin, for 50 of the 100 years that it has existed

100 years of insulin; 50 years of diabetic life

Maggie Loughran West Sussex, UK

The keystone of effective diabetes care is shared knowledge and good communication with supportive professionals willing to listen and take account of each person's individual concerns and health beliefs

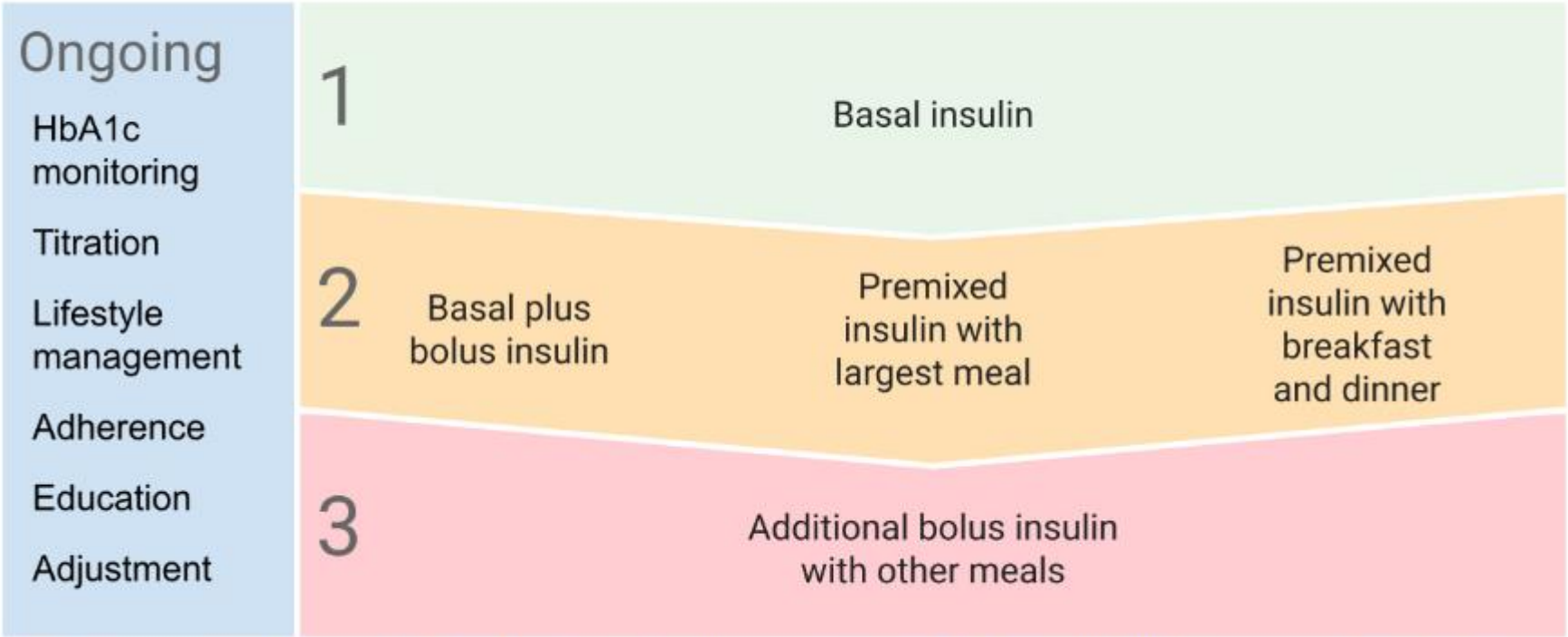
https://southern.communityhealthpathways.org/

Insulin for Type 2 Diabetes

Username: health
Password: p1thw1ys

Covers all aspects of starting insulin, all education aspects, intensifying insulin if needed, monitoring etc.

Stepped insulin treatment



Escalate treatment to the next step when HbA1c remains above target despite appropriate lifestyle management, non-insulin medications, and other non-insulin management.

Southern

Community HealthPathways

Starting and monitoring insulin regimens

Practice point

Arrange insulin education and support

Māori and Pacific patients receive inequitable delivery of healthcare.

Make sure all patients get the support and education they need to help them with their insulin regimens.

Basal insulin

Basal plus bolus insulin

Premixed insulin with the largest meal

Premixed insulin with breakfast and dinner

Additional bolus insulin with other meals

Lots of patient resource links as well.

Information

For health professionals

For patients

NZSSD

Search

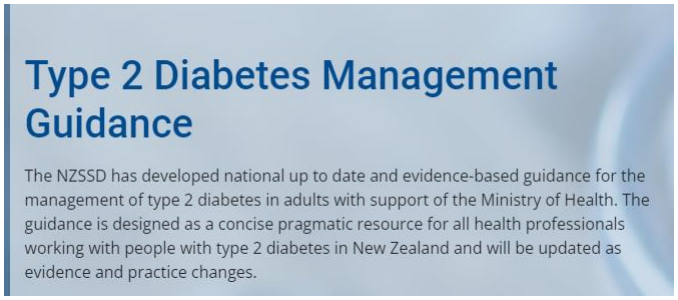
Members Sign

HOME | ABOUT | RESOURCES | INTEREST GROUPS | NEWS | NOTICEBOARD | MEETINGS | AWARDS & GRANTS

https://www.nzssd.org.nz/

Click on here

https://t2dm.nzssd.org.nz/



Algorithms

Management

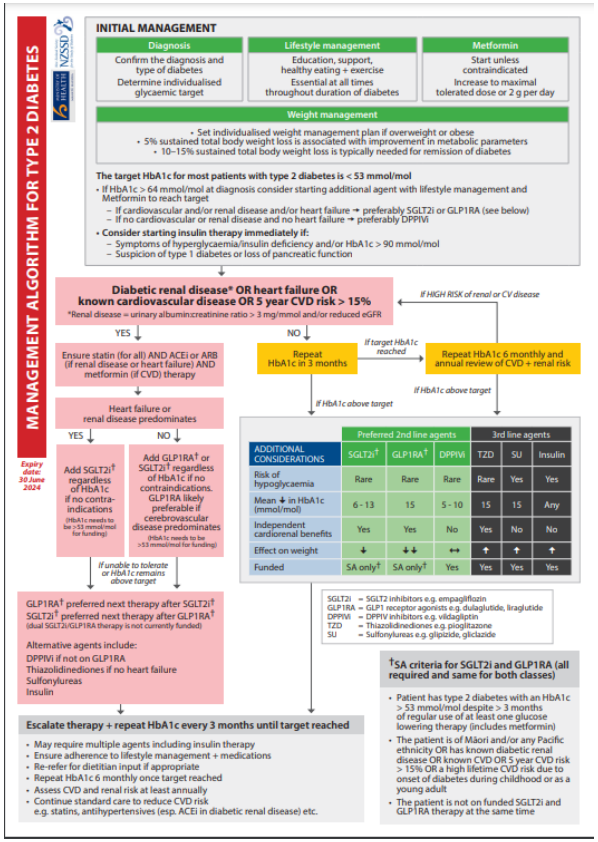
Insulin

Click on Management – opens flow chart and a PDF link

Management Algorithm For Type 2 Diabetes

Download PDF

Opens up A4 size chart, ideal to laminate and have to hand



Algorithms

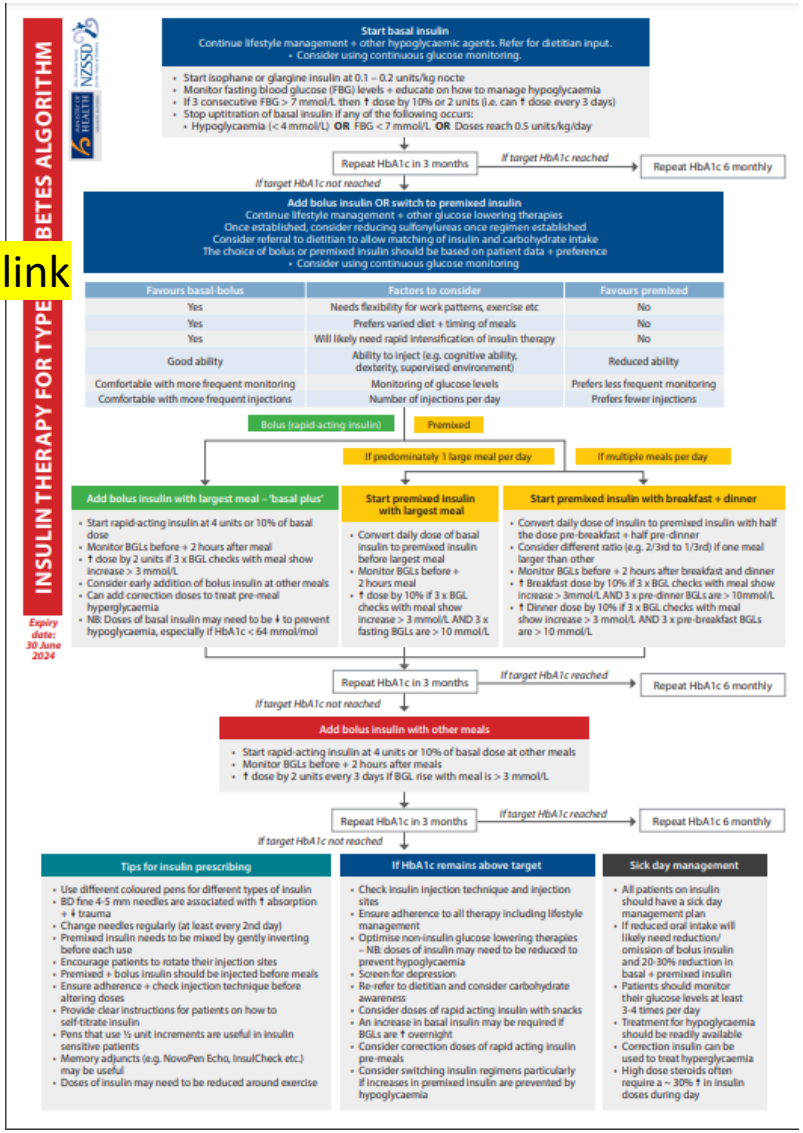
Insulin

Click on Management – opens flow chart and a PDF link

Insulin Algorithm

Download PDF

Opens up A4 size chart, ideal to laminate and have to hand




CareSens N POP
5.5
mmol/L
09:24
12:37
S


CareSens N
5.5
mmol/L
09:24
12:37
S

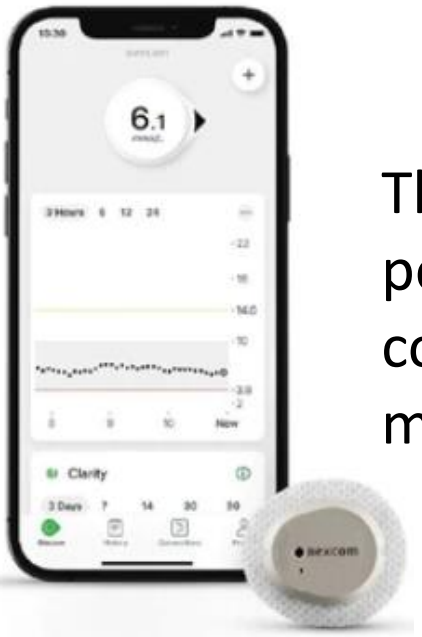

CareSens N
Premier 0
5.7
mmol/L
09:24
12:37
S

Contact Theresa to find out about being able to provide sensors for a free 2 week trial for patients (Type 2 DM and on insulin)

THERESA ROSSELLINI
DIABETES CARE TERRITORY MANAGER

Theresa Rossellini <rossellini@mediray.co.nz> 021 441 295 | 0800 106 100

PLEASE NOTE: MY USUAL DAYS OF WORK ARE MONDAY, TUESDAY & WEDNESDAY.



nzms diabetes | dexcom

a Dexcom company

The new and powerfully simple continuous glucose monitoring system.

Dexcom G7 Single Sensor

$129.95

Dexcom G7 Sensor

10-day lifespan

Dexcom G7 Receiver

$287.50

Figure 3. Glucose monitoring and the DVLA

Impact on decision making

Safe to drive a car?

Still safe to drive a car?

Procurement status

Continuous glucose monitors (CGMs), Evaluation committee September 2023

Provisional implementation date

TBD 2024

About 10% of people with type 2 diabetes manage their condition the same way as type 1 is managed. The Committee felt that this group of people could benefit from access to CGM and/or insulin pumps.

https://www.nzssd.org.nz/news/news-item/38/position-statement-on-cgm-funding

NZSSD lobbying hard!

We collectively urge the New Zealand Government to support Pharmac to fully fund Continuous Glucose Monitoring (CGM) technology for all New Zealanders living on insulin to improve health outcomes and promote equitable care for people with diabetes.

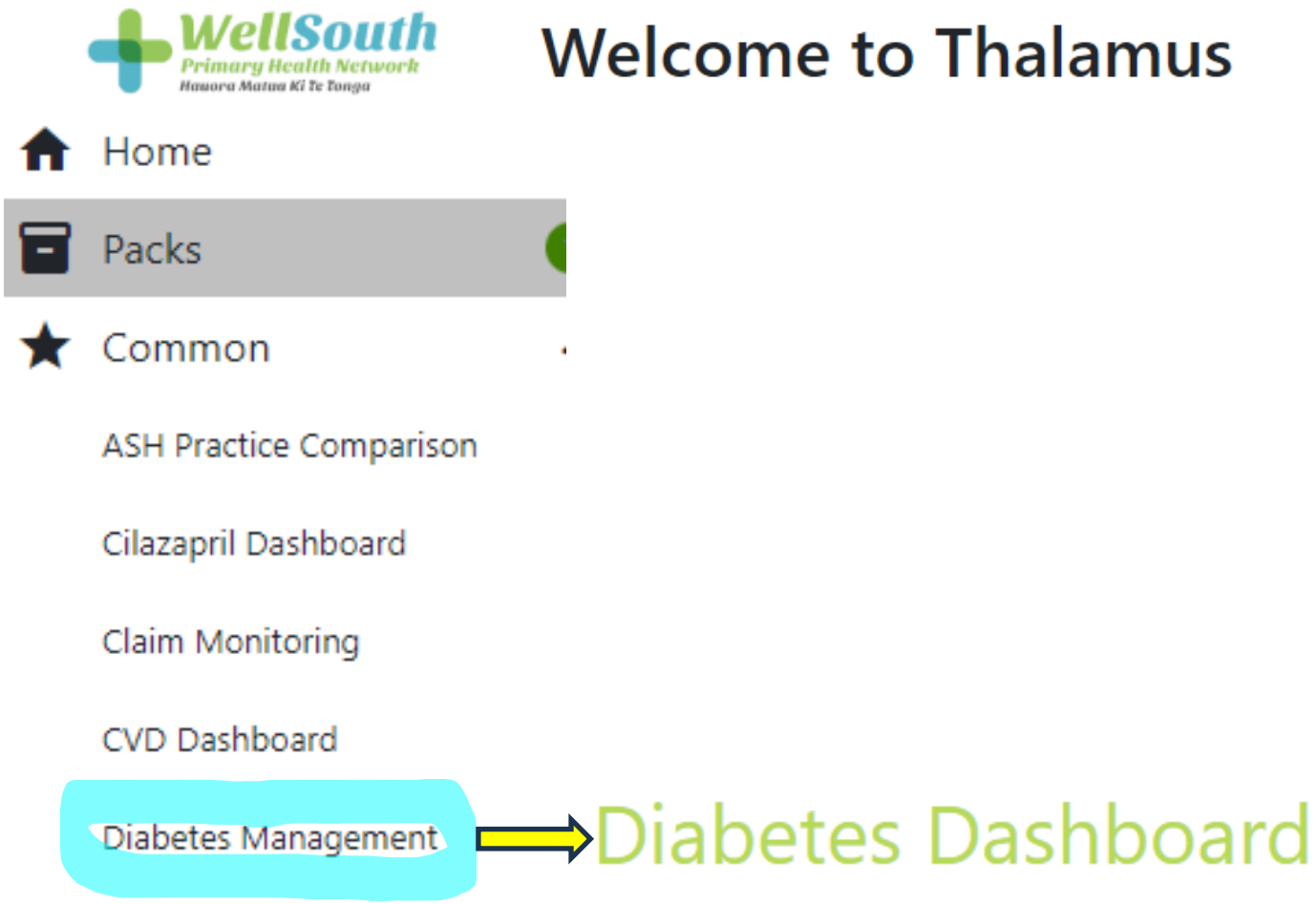
New kids on the block……

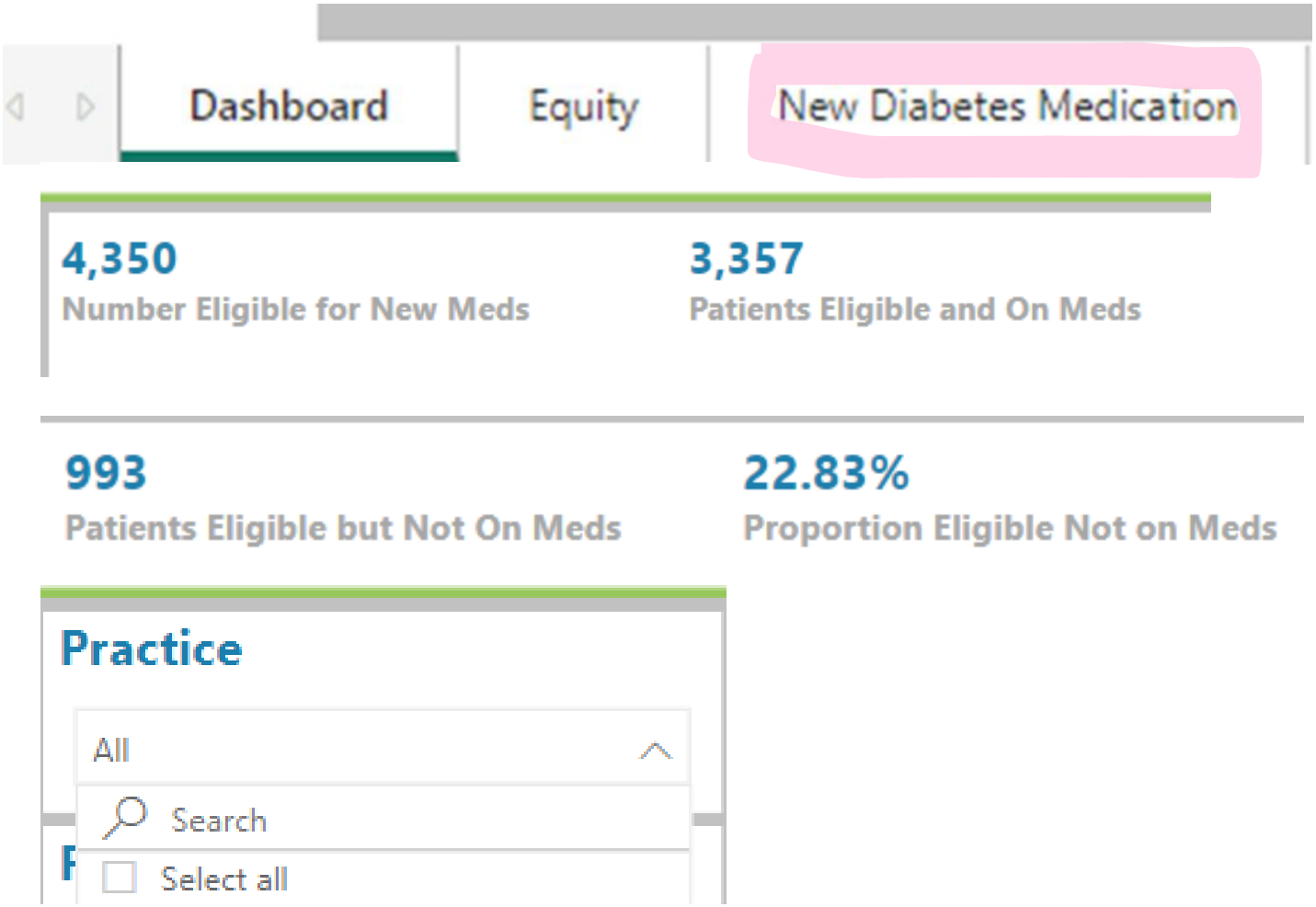

NDC 0597-0152-30
Jardiance®
(empagliflozin)
Tablets
10 mg
Rx only
30 tablets
Boehringer Ingelheim
Lilly
NDC 0597-0153-30
Jardiance®
(empagliflozin)
Tablets
25 mg
Rx only
30 tablets
Boehringer Ingelheim
Lilly

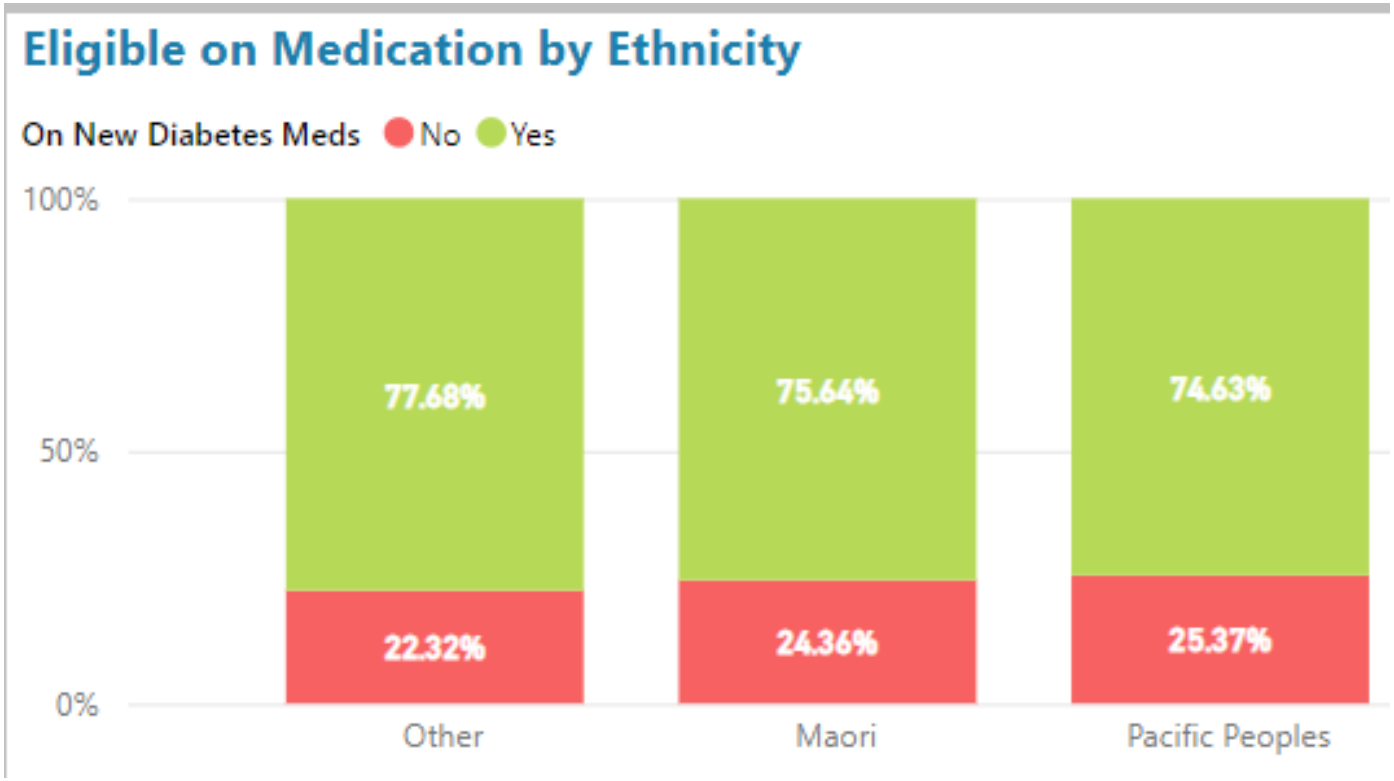

S 10


S 25

Use Thalamus to help identify high risk people with T2DM who may be eligible for funded new medicines




Dashboard
Equity
New Diabetes Medication
4,350
Number Eligible for New Meds
3,357
Patients Eligible and On Meds
993
Patients Eligible but Not On Meds
22.83%
Proportion Eligible Not on Meds
Practice
All
Search
Select all

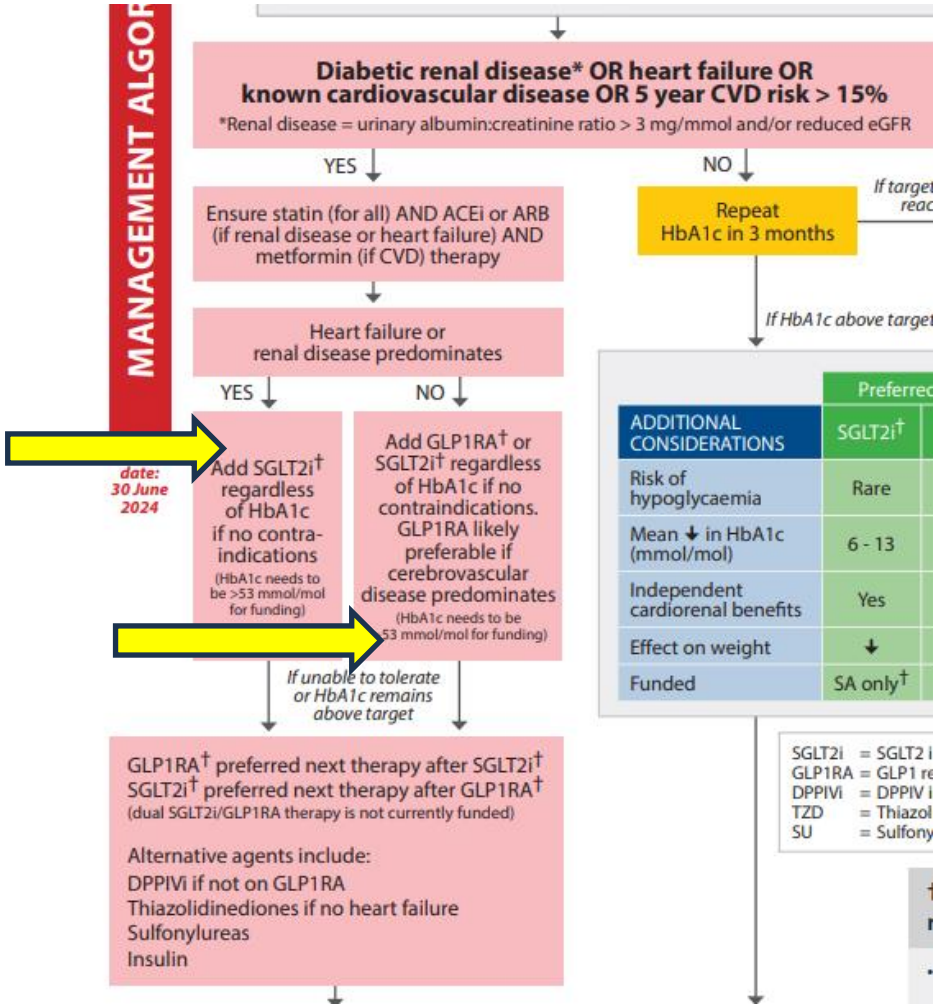


Thalamus can give a list of patients and NHI, to help identify who may benefit form being on the new medicines

NZSSD management of Type diabetes – emphasis on lifestyle, education and metformin as first line .

†SA criteria for SGLT2i and GLP1RA (all required and same for both classes)

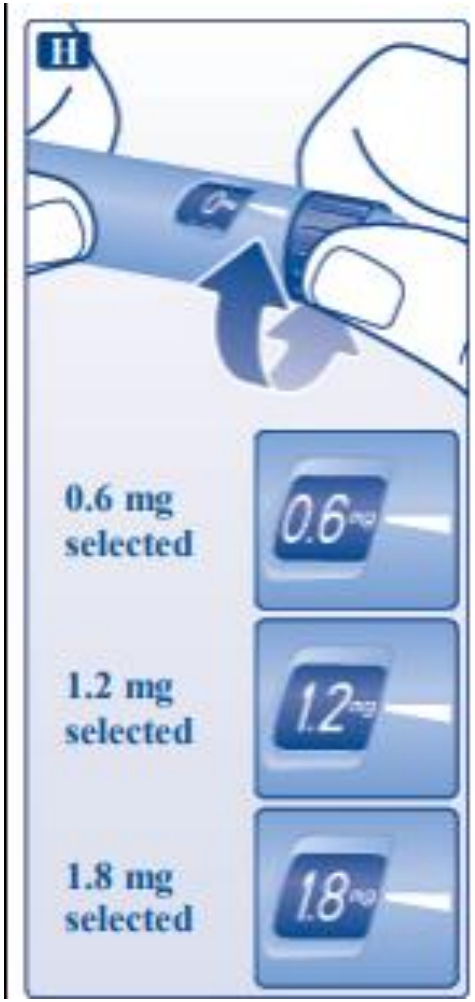
- Patient has type 2 diabetes with an HbA1c > 53 mmol/mol despite > 3 months of regular use of at least one glucose lowering therapy (includes metformin)
- The patient is of Māori and/or any Pacific ethnicity OR has known diabetic renal disease OR known CVD OR 5 year CVD risk > 15% OR a high lifetime CVD risk due to onset of diabetes during childhood or as a young adult
- The patient is not on funded SGLT2i and GLP1RA therapy at the same time



If starting dulaglutide then start 1.5 mg weekly as this is the only dose available in Aotearoa New Zealand.

It is now best practice to consider adding further dulaglutide 1.5 mg injections of per week if tolerating well and the HbA1c remains above target to a maximum of 4.5 mg of dulaglutide per week

Updated 2023 Recommendations
A RESEARCH REVIEW from the NZSSD



start 0.6 mg **daily** and increase to 1.2 mg daily after 1 week

Doses of liraglutide may to be increased to 1.8 mg daily if tolerating well

MEDICINE FUNDING AND SUPPLY

Back to Medic notices

Dulaglutide (Trulicity) and Liraglutide (Victoza): Supply issue

Last Updated: 2 October 2023

Supply issue

There are global constraints on the supply of GLP-1 agonists. The suppliers of both dulaglutide (Eli Lilly) and liraglutide (Novo Nordisk) have advised Pharmac that they can secure enough stock for current patients only

Eli Lilly anticipates this will continue for the rest of 2023.

To safeguard stock for people currently using dulaglutide and liraglutide, we strongly urge you to consider other blood glucose-lowering medicines for all new patients(external link).

	Preferred 2nd line agents			3rd line agents		
ADDITIONAL CONSIDERATIONS	SGLT2i†	GLP1RA†	DPPIVi	TZD	SU	Insulin
Risk of hypoglycaemia	Rare	Rare	Rare	Rare	Yes	Yes
Mean ↓ in HbA1c (mmol/mol)	6 - 13	15	5 - 10	15	15	Any
Independent cardiorenal benefits	Yes	Yes	No	Yes	No	No
Effect on weight	↓	↓↓	↔	↑	↑	↑
Funded	SA only†	SA only†	Yes	Yes	Yes	Yes

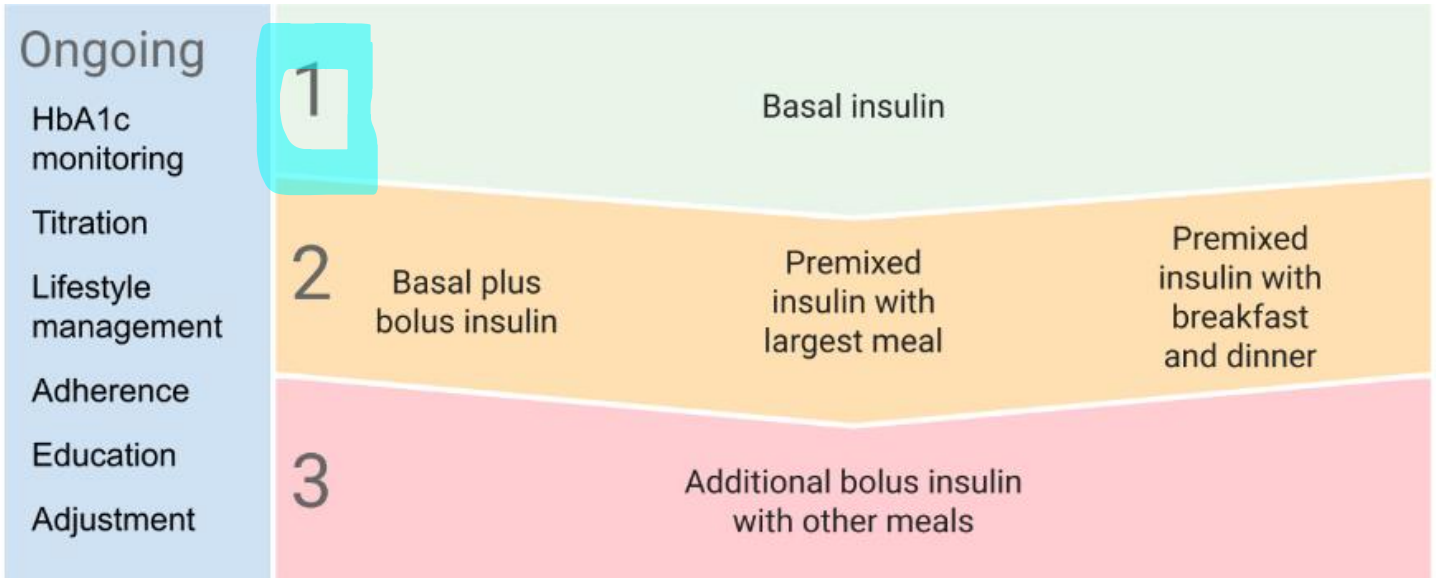
(dual SGLT2i/GLP1RA therapy is not currently funded)

Southern Community HealthPathways

New Zealand Society NZSSD for the Study of Diabetes

Medical / Diabetes / Insulin for Type 2 Diabetes

Stepped insulin treatment

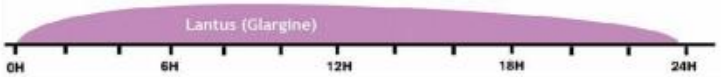


Starting with a basal insulin

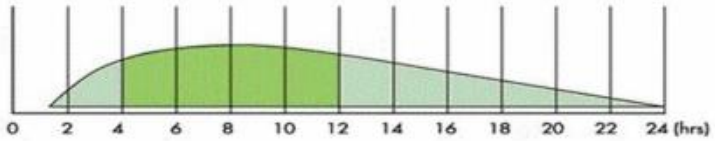
Pre-filled pens or disposable? Long acting or intermediate?

Basal Insulins (New Zealand)

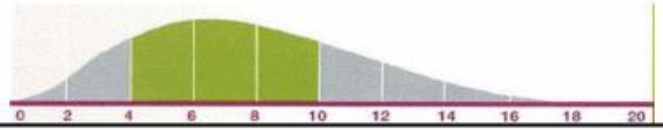
Lantus



Protaphane



Humulin NPH



Type 2 Diabetes Management Guidelines

Basal insulin

New Zealand Society NZSSD for the Study of Diabetes

- 0.1 units/kg daily if HbA1c < 64 mmol/mol or BMI < 18 kg/m2 or elderly or renal/liver failure

- 0.2 units/kg daily if HbA1c > 64 mmol/mol and BMI > 18 kg/m2

Southern Community HealthPathways

Same guidelines in Health Pathways

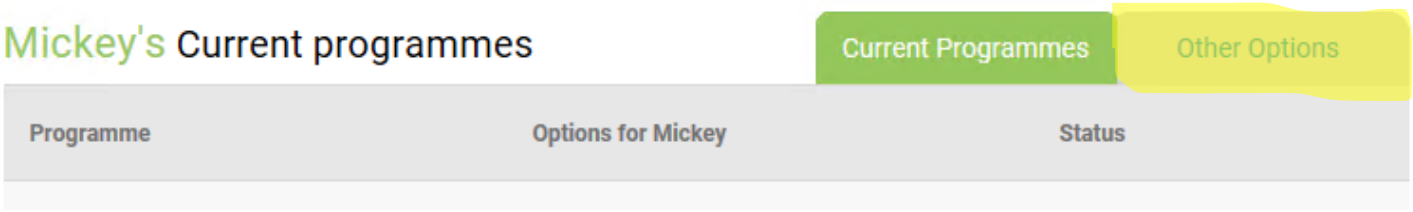
Fix the fasting First!!!!

Monitor fasting blood-glucose levels daily.

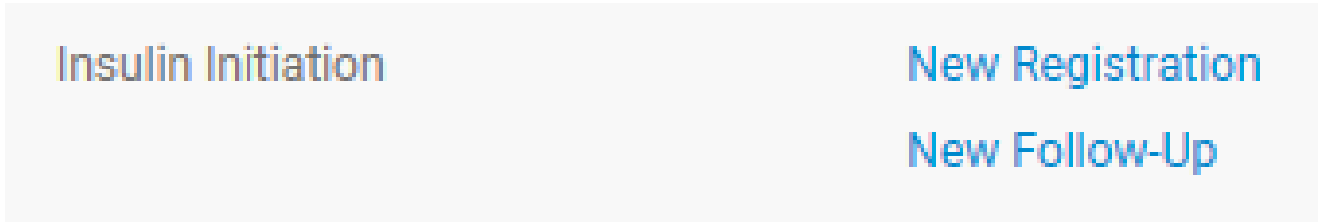
- Increase dose by 10% (or 2 units) if 3 consecutive fasting blood-glucose levels > 7 mmol/L

<u>Stop increasing the dose</u> when fasting blood-glucose levels < 7 mmol/L, or if there is hypoglycaemia or daily dose reaches 0.5 units/kg

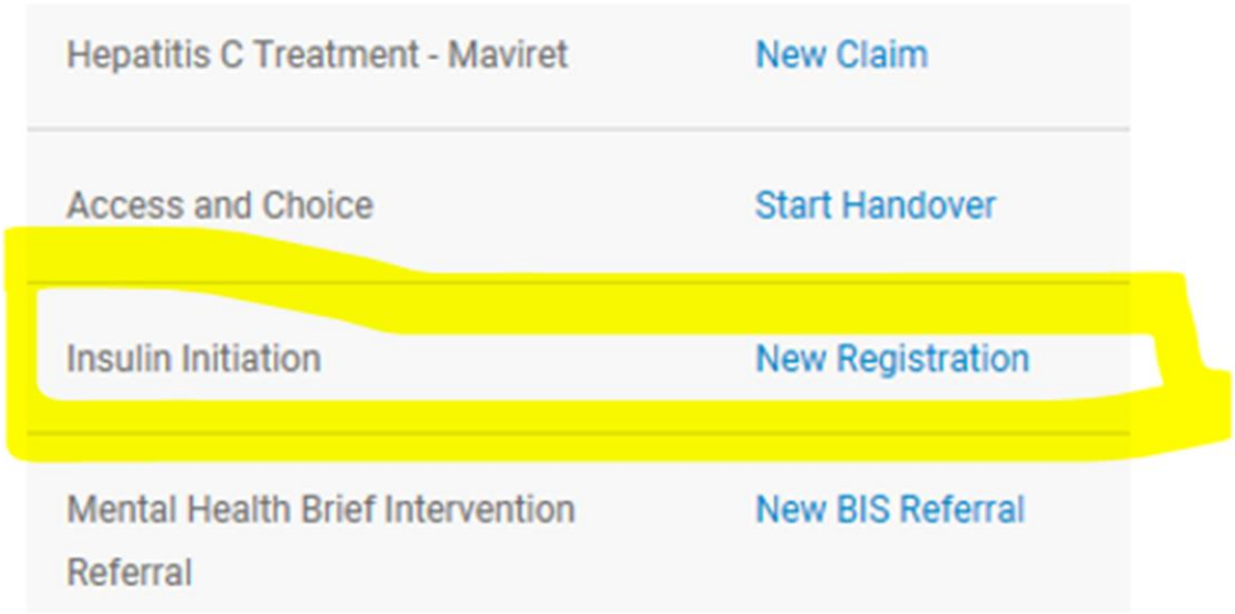
Use Wellsouth Portal claim for the funding and all the education points to cover



Click on Other options, then scroll all the way down to end of the page – click on Show all options



Portal info for Insulin initiation



Insulin Initiation - Registration

Patient | Provider | Registration Details

Registration Date
09/01/2023

Next Follow-up
16/01/2023

Enrolment Details
- ☐ Type 2 Diabetes
- ☐ HbA1c is consistently > 64 mmol/mol
- ☐ Compliant with medications
- ☐ Vocational Driver

Oral medications
- ☐ On oral medication
- ☐ Oral medication contraindicated

Previous HbA1c

Result	Date

Education Plan:

Topic	Covered today
Refresh knowledge of diabetes.	☐
Refresh blood glucose monitoring skills.	☐
Teach insulin administration skills.	☐
Introduce hypoglycaemia.	☐
Discuss identification.	☐
Discuss driving regulations.	☐

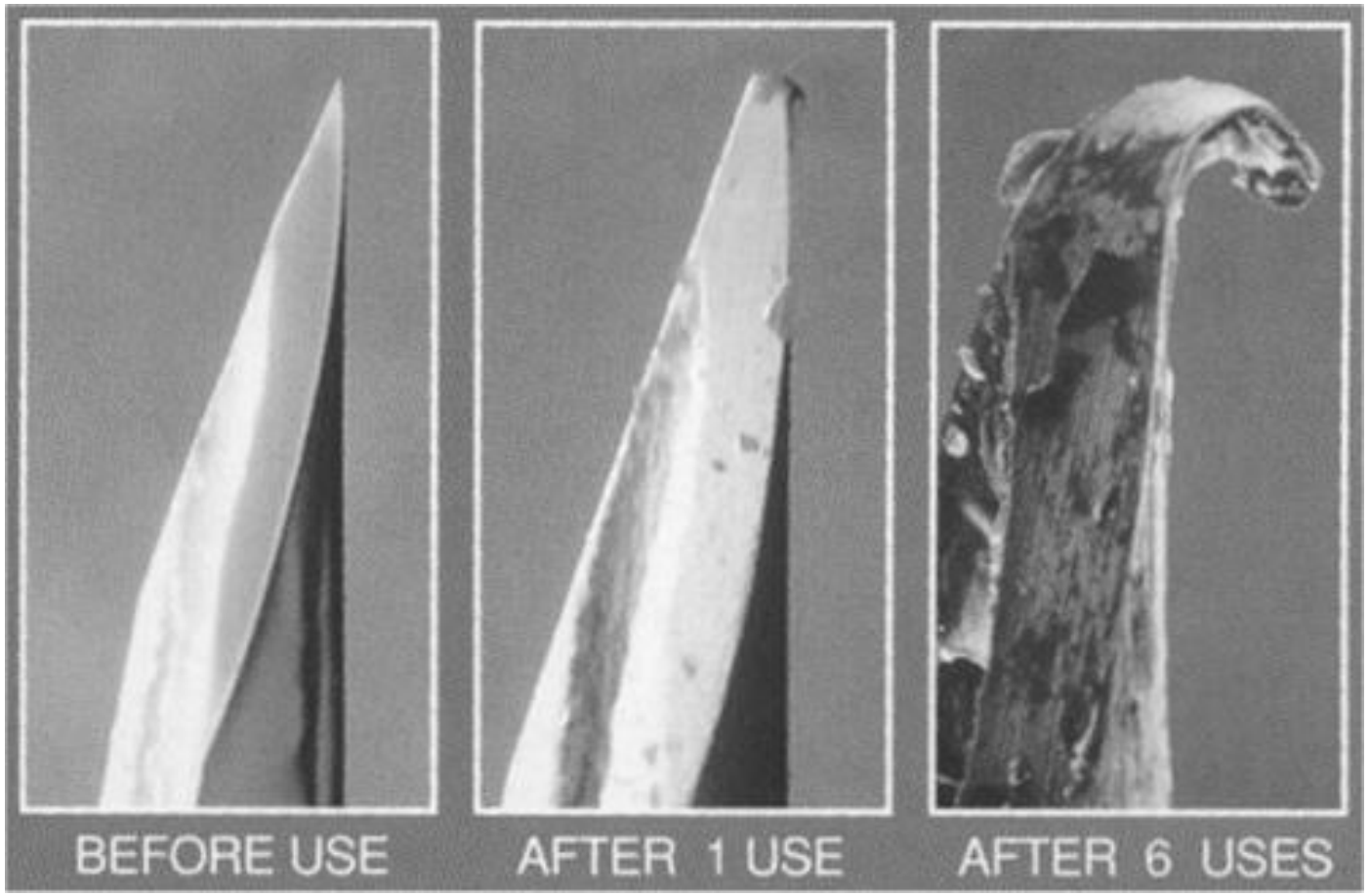
Summary:

Links

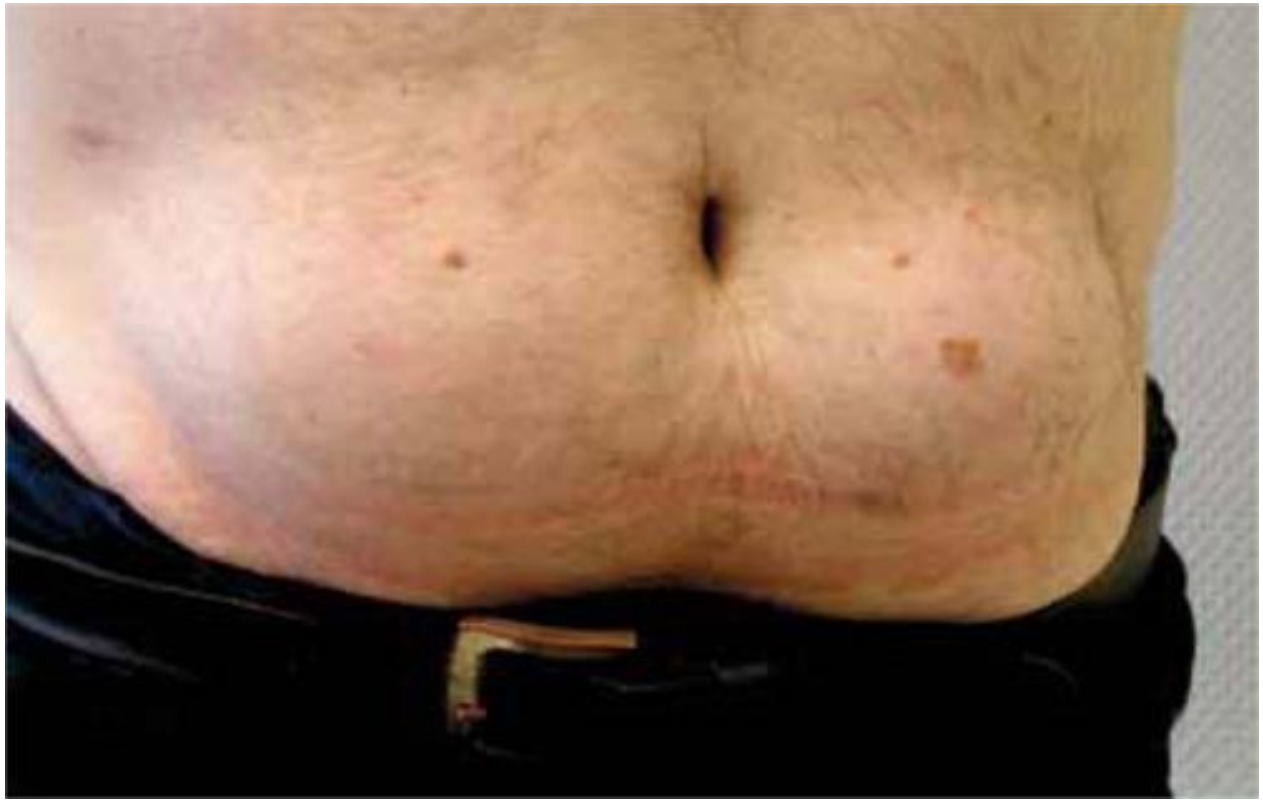
NZ Primary Care Handbook
HealthPathways - Insulin Initiation Assessment
HealthPathways - Insulin Initiation Management

Click on icon – opens up with info, as follows.

Practice point – strongly encourage single use of pen needle!



Reinforce the importance of rotating injection sites, single use of pen needle – also always check injection sites at Annual Diabetes review, if possible.



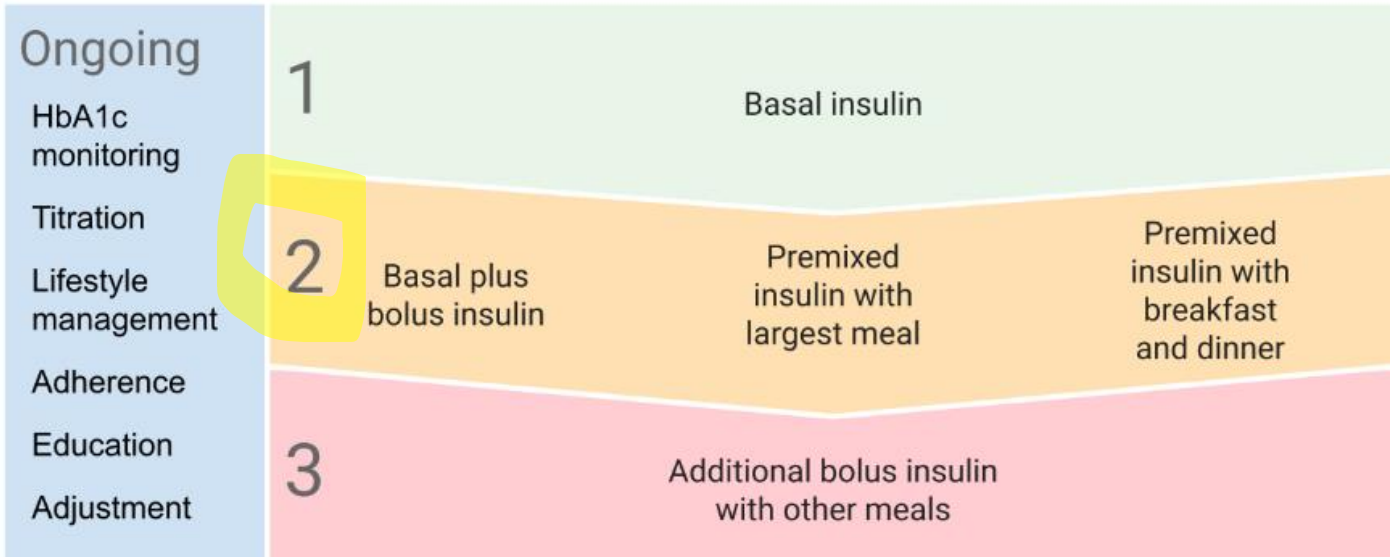
Next step, if target BG and HbA1c not to target – consider intensifying insulin regimen.

Southern Community HealthPathways

/ Medical / Diabetes / Insulin for Type 2 Diabetes

Insulin for Type 2 Diabetes

Stepped insulin treatment



Medical / Diabetes / Insulin for Type 2 Diabetes

Insulin for Type 2 Diabetes

Southern Community HealthPathways

Second-step insulin regimen suitability

	Basal plus bolus	Premixed
Schedule e.g., work patterns, exercise	Needs flexibility	Keeps a regular schedule
Meals	Has a varied diet and irregular mealtimes	Has a consistent diet and regular mealtimes
Monitoring	Comfortable with frequent monitoring	Prefers less frequent monitoring
Speed of insulin therapy intensification	Likely to need rapid intensification	Slower intensification likely sufficient
Injection frequency	Comfortable with more frequent injections	Prefers fewer injections
Ability to inject e.g., cognitive ability, dexterity, supervision	Good ability	Reduced ability

A great chart of factors to consider for which regimen to choose

Consider changing to basal plus bolus insulin if HbA1c not reached on basal insulin alone, despite either

- a fasting blood glucose level (BGL) < 7 mmol/L or
- reaching the maximum dose of basal insulin (0.5 units/kg per day)

Southern Community HealthPathways

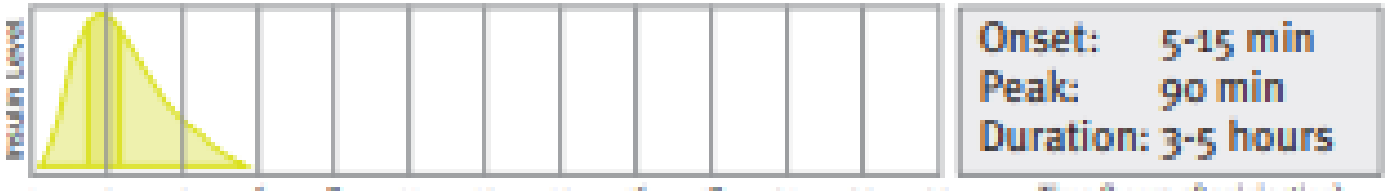
New Zealand Society NZSSD for the Study of Diabetes

Continue the first-step basal insulin regimen, but consider reducing the dose if required to prevent hypoglycaemia, especially if HbA1c < 64 mmol/mol

Add rapid-acting insulin (NovoRapid, Humalog, or Apidra) immediately before the largest meal, with an initial dose of 4 units

Apidra®

10ml Vial 3ml Cartridge, 3ml SoloSTAR®

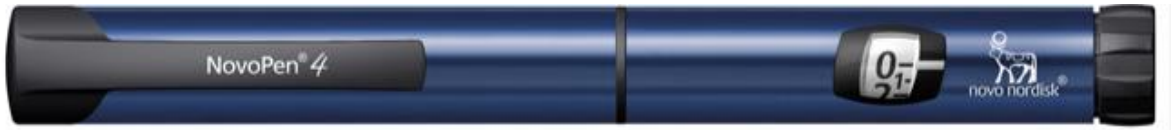


Humalog®

10ml Vial 3ml Cartridge

NovoRapid®

10ml Vial, 3ml Penfill® ,3ml FlexPen®



Monitor blood-glucose levels before the meal and 2 hours after.

- Increase dose of rapid-acting insulin by 2 units if BGL rise with meal is > 3 mmol/L (consistently, on 3 occasions).

- Stop increasing the dose if the rise in BGL with meals is typically < 3 mmol/L or if any hypoglycaemia occurs or when target BG is reached

Review non-insulin diabetes medications:

1. Stop sulfonylureas once the patient is established on basal plus bolus insulin.
2. Continue other agents.

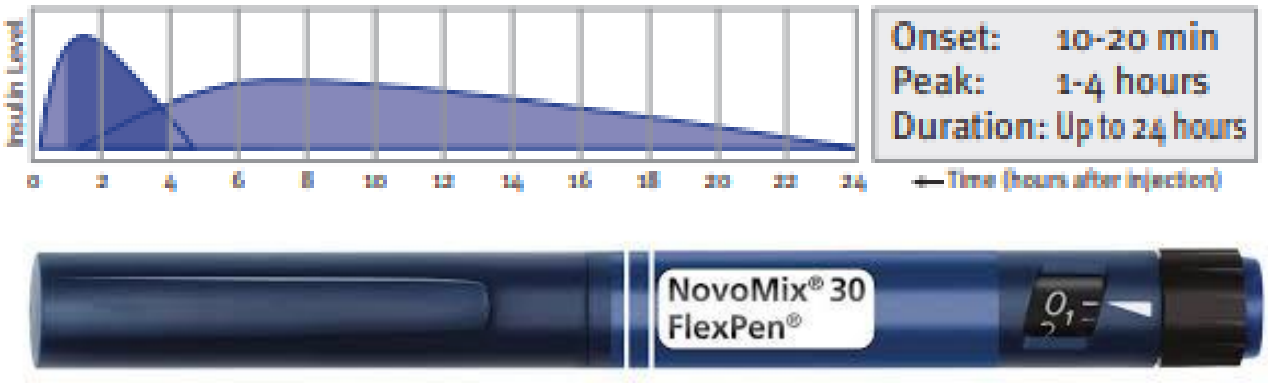
Premixed insulin with breakfast and dinner

Only consider moving from basal insulin to premixed insulin with breakfast and dinner if:

HbA1c is above target on basal insulin despite a fasting blood glucose level (BGL) < 7 mmol/L or reaching the maximum dose of basal insulin (0.5 units/kg per day

And the patient regularly eats both breakfast and dinner

NovoMix® 30

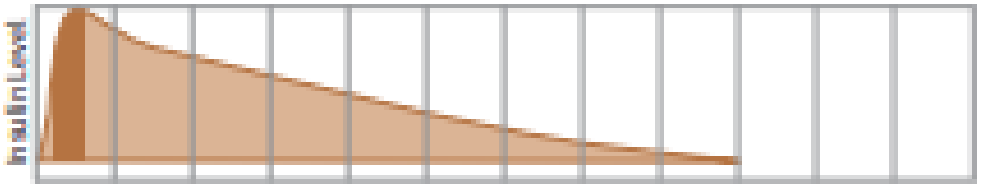


- Determine the starting dose by converting their daily basal insulin to the equivalent dose of premixed insulin, taken before breakfast and evening meal

Consider reducing the starting dose by 30% for safety- it is always easier to increase the doses – rather than the person have a hypo episode and lose confidence and trust in the new insulin.

If a person prefers reusable pen – this is an option.

Humalog® Mix 25®



Onset: 0-15 min
Peak: 1 hour
Duration: 16-18 hours

- Determine the starting dose by converting their daily basal insulin to the equivalent dose of premixed insulin, taken before meals.

•Determine the starting dose by converting their daily basal insulin to the equivalent dose of premixed insulin, taking half before each meal.

- Stop sulfonylureas once the patient is established on premixed insulin.
- Continue other agents.

Premixed insulin twice daily easy Titration

M = Lunch and Tea

E = Before breakfast and bed

M = Morning dose - affects BG at lunch and tea
E = Evening dose – affects BG at breakfast and before bed

Premixed insulin twice daily easy Titration

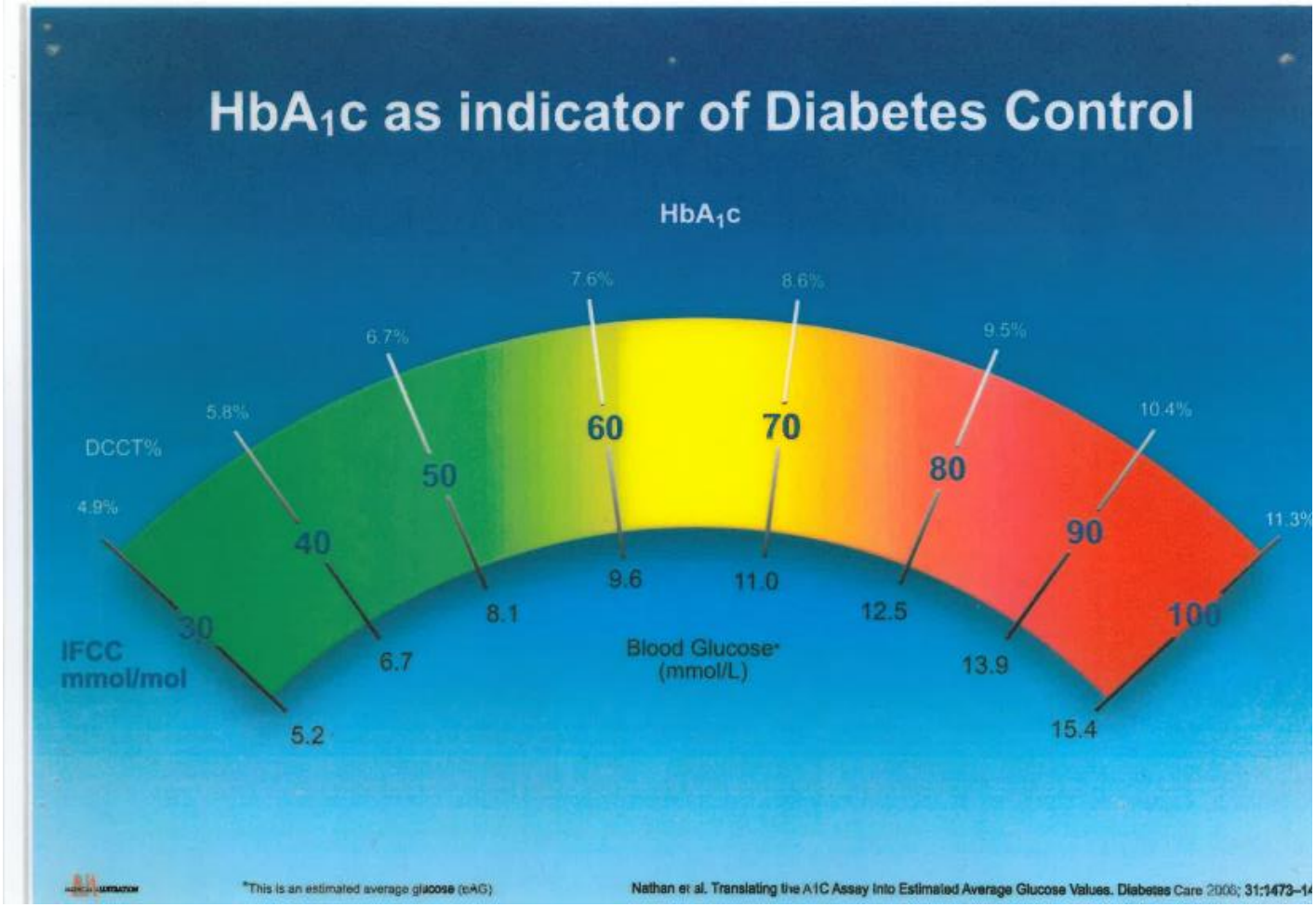
Increase dose by 4 units if BG >15mmol/L every 3 days if BG over target

Increase dose by 2 units if BG <15 every 3 days if BG over target

Clear instructions for patient to stop when target reached!

Take Home point - Individual BG and Hba1c targets!!!!

Great visual aid!



Examples of intensifying insulin.

WellSouth Primary Health Network
Hauora Matua Ki Te Tonga

Basal Plus One?

Before Breakfast	After Breakfast	Before Lunch	After Lunch	Before Tea	After Tea
5.2	5.9	7.0	6.8	6.2	12.7
6.1	6.1	6.9	6.5	7.0	13.2
6.o	6.3	7.1	6.6	6.8	12.0
5.4	5.0	5.1	6.1	5.8	11.0

On Basal insulin already but HbA1c not to target

PreMix? Or Basal plus one – two- three

Before Breakfast	After Breakfast	Before Lunch	After Lunch	Before Tea	After Tea
5.2	10.9	9.0	9.3	9.0	14.0
6.1	11.8	9.8	10.5	12.4	16.1
6.0	11.9	11.7	11.9	11.8	14.9
5.4	9.9	10.5	12.7	10.2	15.0

On Basal - Fasting fixed but not to Hba1c target

What to do? Possibly straight to premix or start Basal plus one. Often it is what the person can manage that determines which insulin to use

Before Breakfast	After Breakfast	Before Lunch	After Lunch	Before Tea	After Tea
10.1	11.1			8.7	9.2
9.2		10.1	11.3		
9.6	10.2			9.8	10.8
8.5		9.7	11.5		

On max non-insulin treatment – BG & Hba1c not to target

What's new in the guidelines?

TAKE-HOME MESSAGES

What's new in the guidelines – take home messages

- Confirm a diagnosis of T2D on the same or next day if possible; waiting three months is no longer advised

The target HbA1c for most patients with T2D is < 53 mmol/mol

But for elderly, living alone, complex multiple comorbidities etc – consider a higher target – assess for each individual!

Start lifestyle management and metformin together at diagnosis, in combination with individualised self-management education and support

Don't hang about !

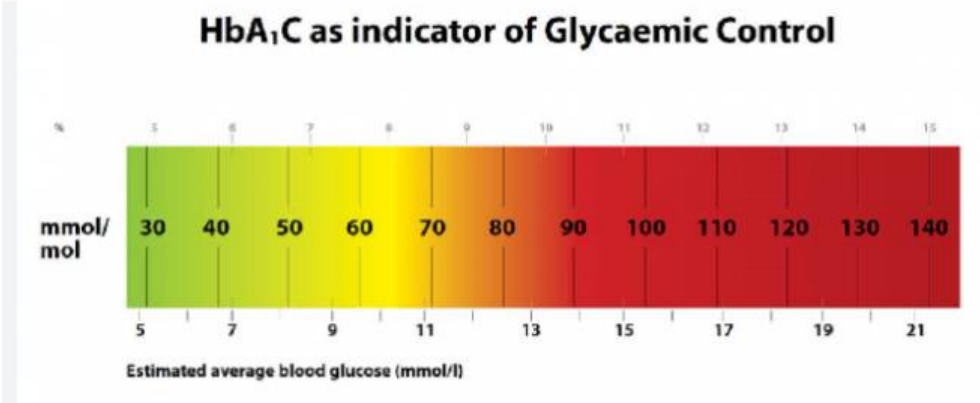
What's new in the guidelines – take home messages

Consider starting metformin and a second-line medicine at diagnosis if the HbA1c is > 64 mmol/mol;

SGLT2i and GLP1RA are the preferred second-line medicines for most patients with T2D

What's new in the guidelines – take home messages

Monitor HbA1c levels every three months and escalate treatment if the target is not met



What's new in the guidelines – take home messages

Prescribe an SGLT2i and/or GLP1RA to all T2D patients with diabetic renal disease **and/or** CV disease **and/or** five-year CV risk > 15%, regardless of their glycaemic control, if no contraindications

S/A – HbA1c >53 mmol/mol

What's new in the guidelines – take home messages

SGLT2i or GLP1RA are still the likely preferred second-line agents when escalation of metformin therapy is required in T2D (including aged 10-17 years) patients **without CV or renal disease who are overweight or obese**.

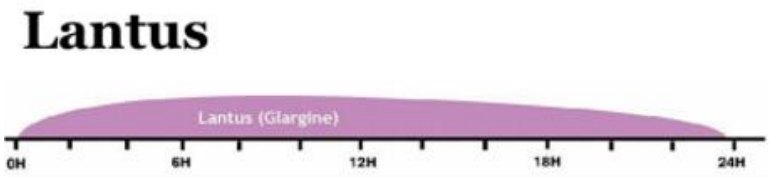
people may choose to self fund in this scenario.(as no S/A funding)

Vildagliptin is likely the preferred second-line agent when patients cannot afford to self-fund SGLT2i and/or GLP1RA therapy

OR when escalation of metformin therapy is required in patients with T2D without CV or renal disease who are of **normal weight.**

Initiate basal insulin with weight-based dosing.

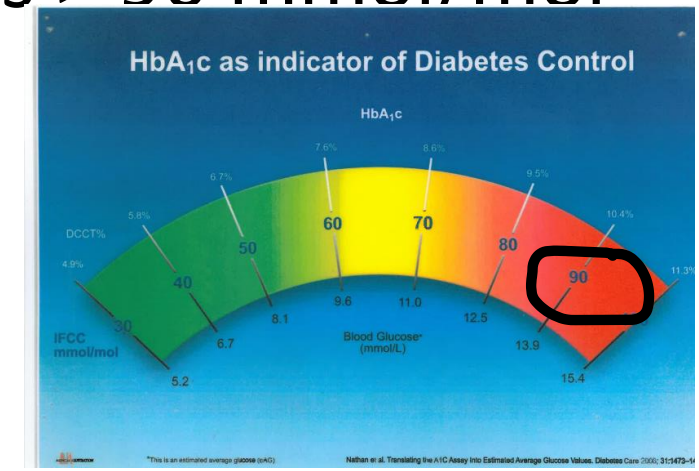
Weight-based dosing of isophane or glargine is safe and effective and typically results in faster glycaemic control than the traditional starting dose of 6 –10 units.



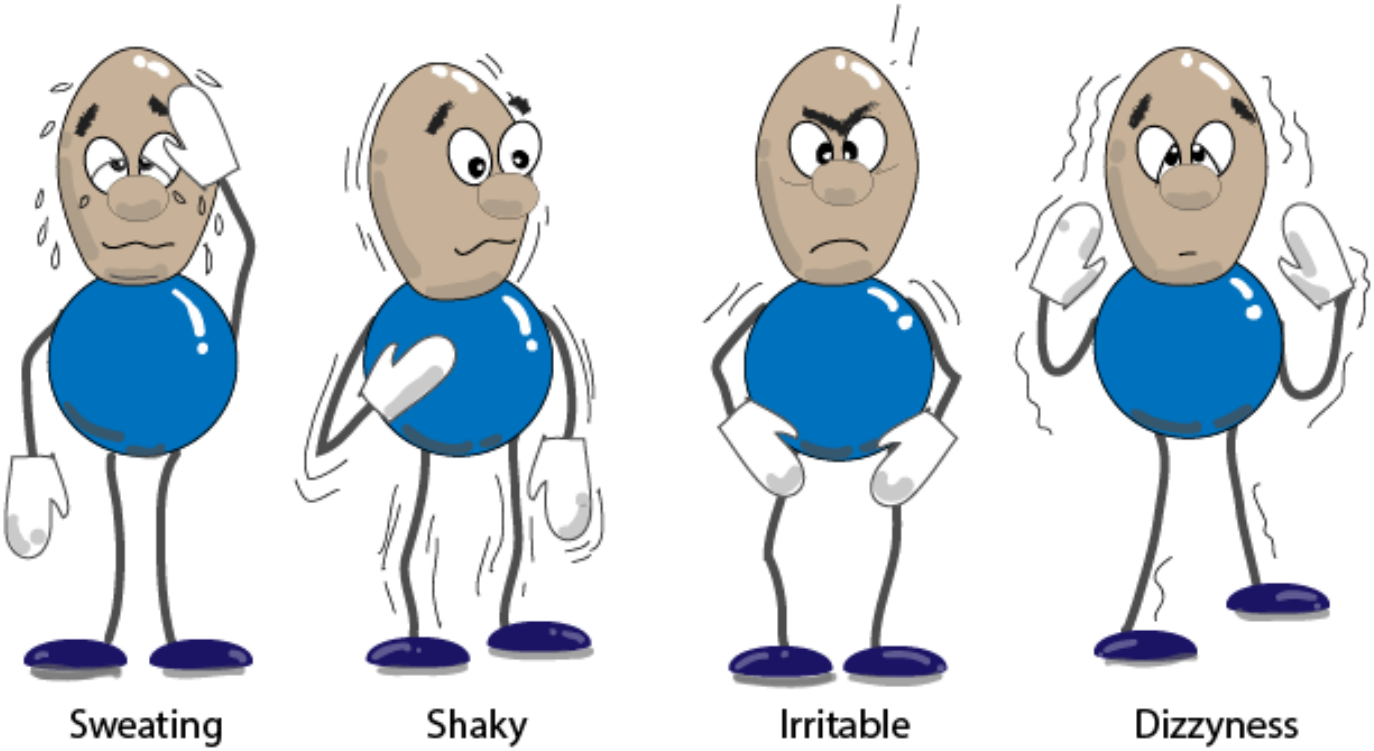
introduce prandial (fast acting) insulin if HbA1c above target despite doses of 0.5 units/kg/day.

What's new in the guidelines – take home messages

Initiate insulin at any time if patients have symptoms of insulin deficiency, e.g. weight loss, polyuria, polydipsia, and consider starting insulin at any time if the HbA1c is > 90 mmol/mol



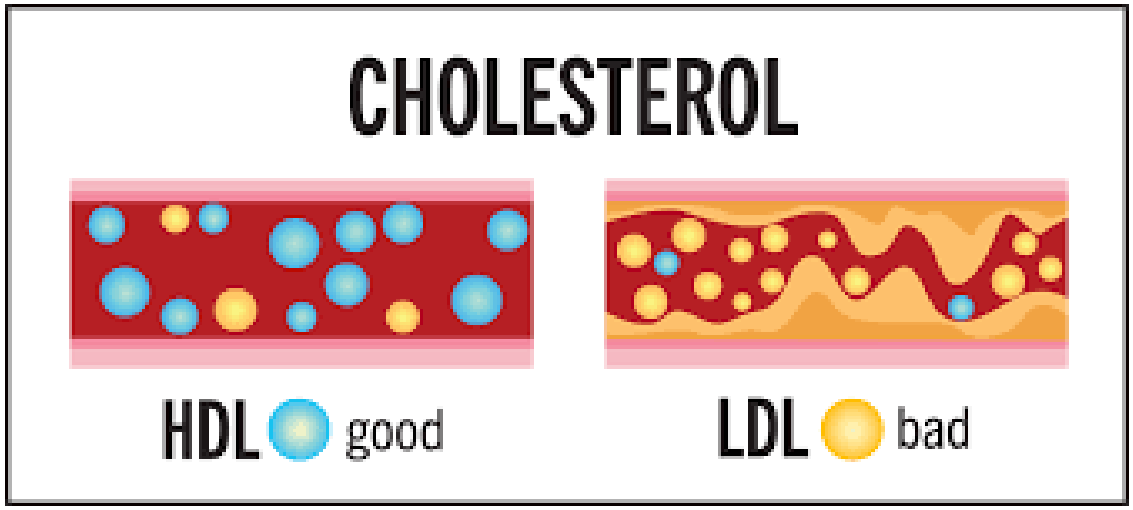
What's new in the guidelines – take home messages



Management of hypoglycaemia

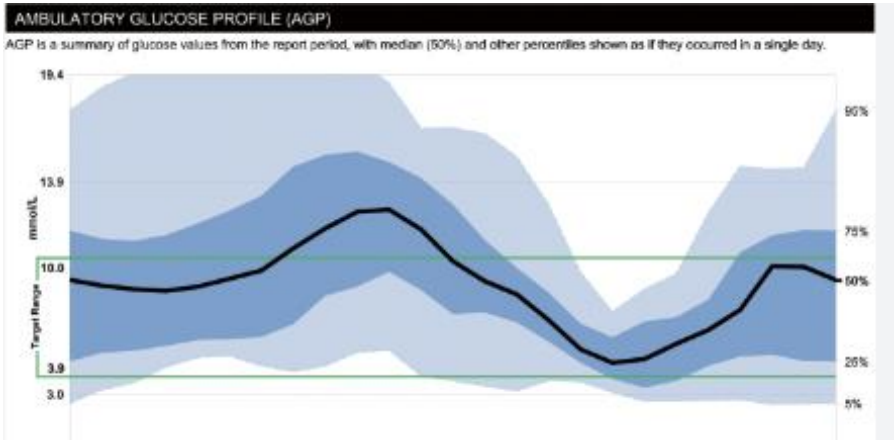
Changes to treatment protocol

What's new in the guidelines – take home messages

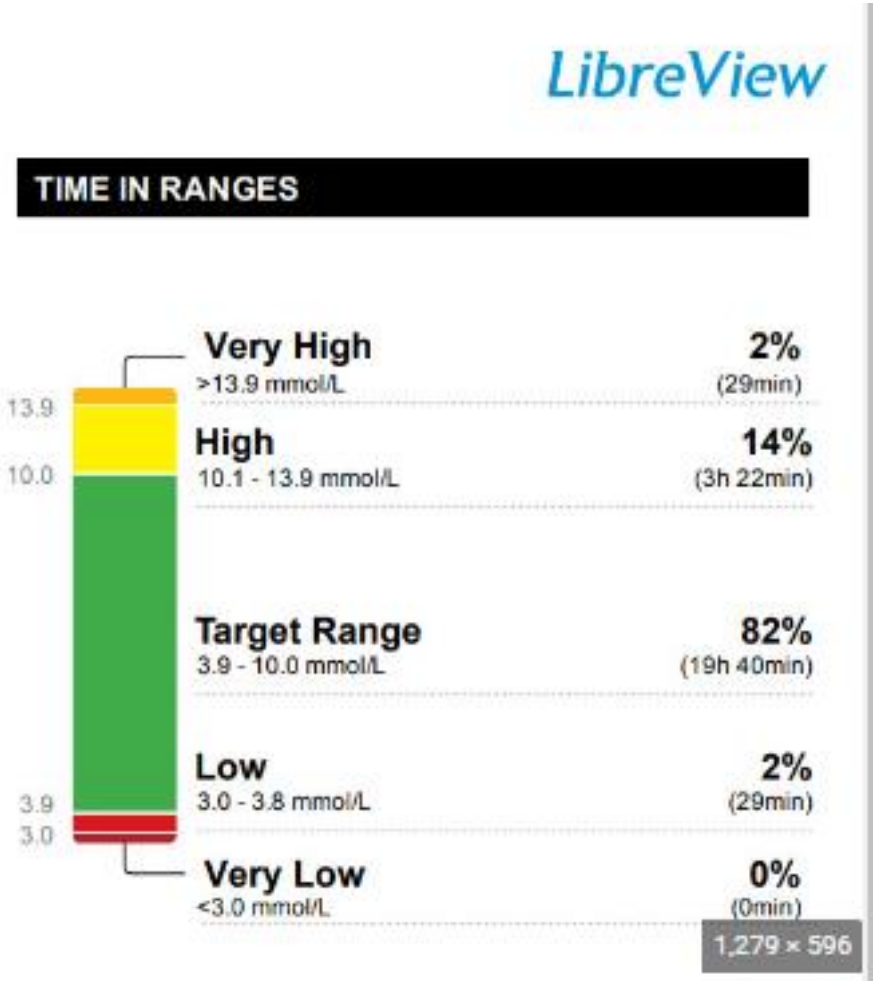


The target LDL has been lowered from 1.8 mmol/L to < 1.4 mmol/L

Continuous glucose monitoring (CGM) has been included with targets, e.g. TIR >70%



What's new in the guidelines – take home messages



More emphasis now on Time in Range for Blood Glucose readings – which is only possible with CGM.

Generally, a target of 70% of time in range is appropriate.

Lifestyle management

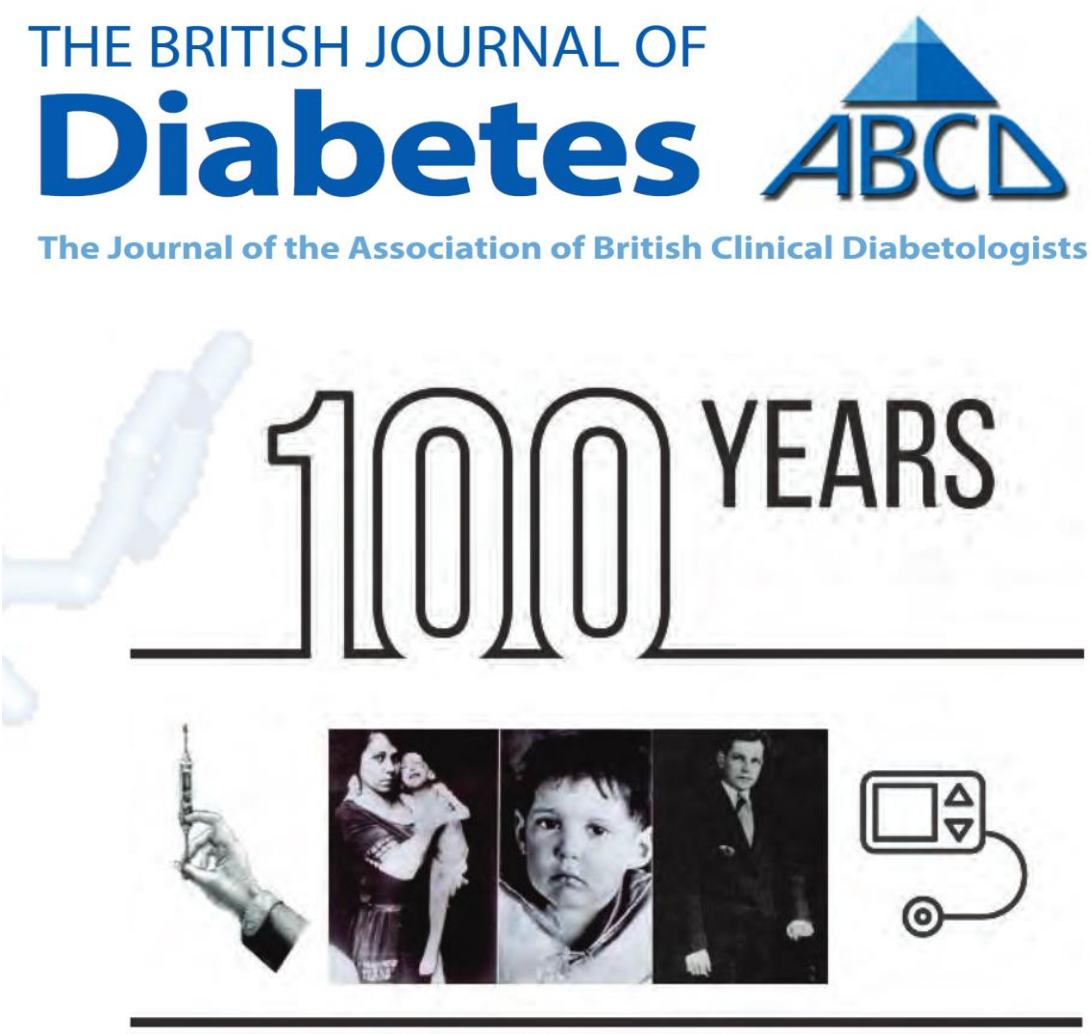
Lifestyle changes with healthy eating, physical activity, healthy sleeping,
education and support continues to be the cornerstone of T2D management.

Include sleep as part of healthy lifestyle advice

What's new in the guidelines – take home messages

Practice point: Explain to patients that a brisk 5-6 minute walk each day is associated with four additional years of life.

Some extra info on what may be coming in the future



THE BRITISH JOURNAL OF Diabetes ABCD
The Journal of the Association of British Clinical Diabetologists

The beginning of the end for insulin? – enter immunotherapy for T1DM

Type 1 diabetes can be detected at the preclinical stage by islet autoantibody testing

Immunotherapy given at the preclinical stage can delay the need for insulin in type 1 diabetes.

THE BRITISH JOURNAL OF Diabetes ABCD
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But the prize is in sight. If we can extend the period of not requiring insulin to 6-8 years, the median age of diagnosis will be 18-20, and childhood-onset diabetes will gradually become a disease of the past

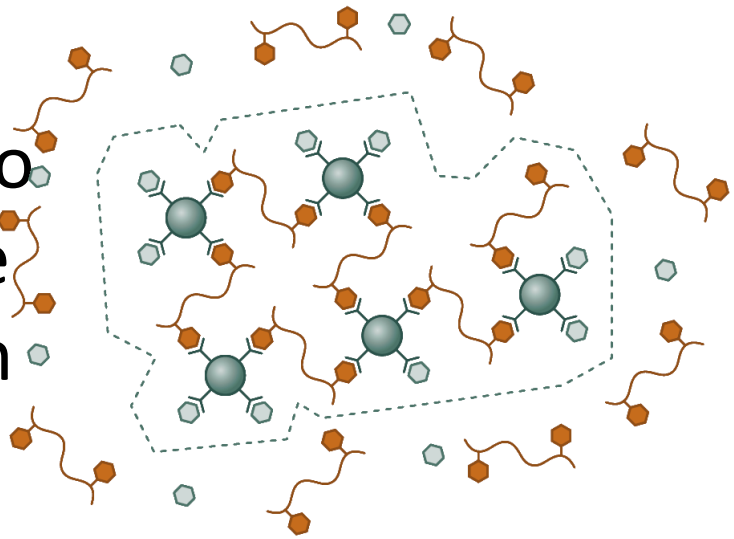
> insulin will be relegated to “rescue therapy” and more and more patients will live longer, less burdensome and less troubled lives.

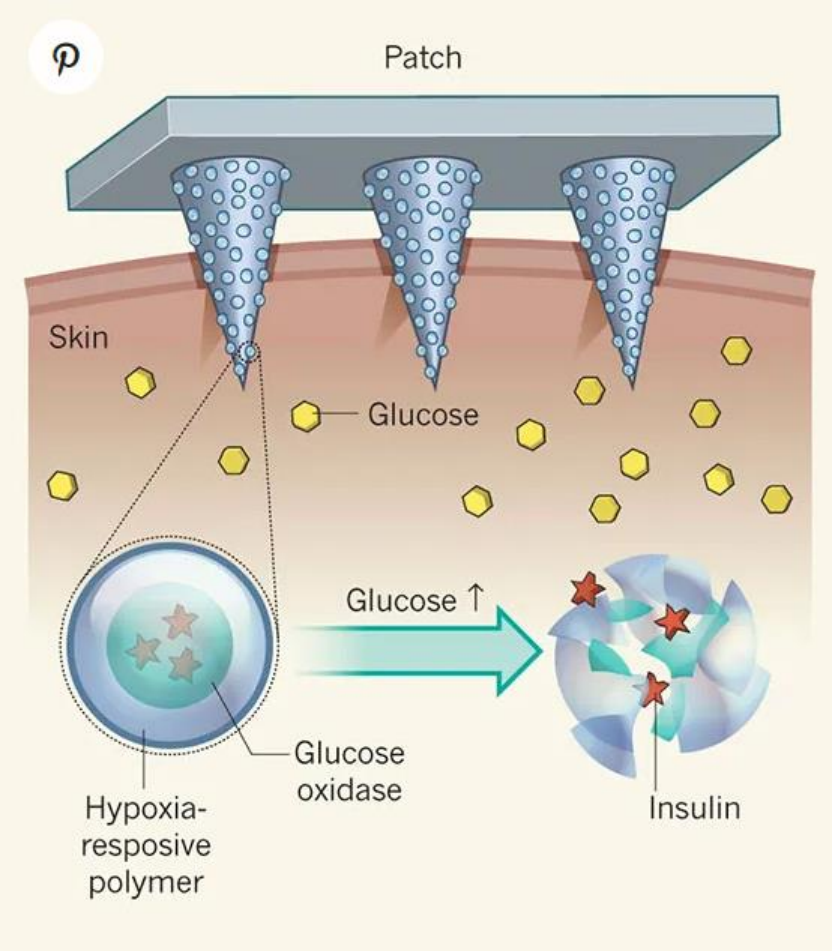
Professor Colin M Dayan Professor of Clinical Diabetes and Metabolism, Cardiff University,

Br J Diabetes 2022;22(Supp1):S65-S68

Smart insulin

New insulins could also include ‘smart’ insulins, also known as glucose-responsive insulins, which are designed to turn on when they’re needed and off when they’re not.





A microneedle patch design for delivering glucose responsive insulin.

Dry powder inhaled, fast acting insulin – in use in Europe and USA. Person has a basal insulin injection but can use this for meals

Novo Nordisk also working on a once weekly insulin injection

basal insulin Fc (BIF) produced by Eli Lily – is one of several weekly insulins being investigated.

And finally, remember your PPE!!


WellSouth
Primary Health Network
Hauora Matua Ki Te Tonga