

# Diabetes Update

## RSS Diabetes Service

Welcome to the March issue of Diabetes Update. This newsletter is designed to keep our partners in health up-to-date on diabetes related information, our activities and accomplishments.

We welcome your input to this publication and would be delighted to hear of any service improvement activities, community groups, staff achievements that you know of, or any new ideas you may have, to include.

## Diabetes Service patient and professional resources

### Website

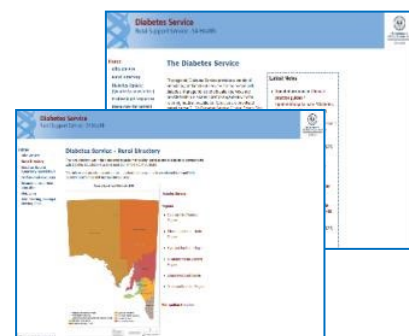
The [Diabetes Service](#) website offers access to a rural directory of key diabetes service contacts, policies, guidelines and patient and professional education resources.

### Consumer factsheets and clinical resources

Patient education resources developed by the Diabetes Service are available on [Regional Health Hub Intranet](#) and our [Diabetes Service](#) website.

The following protocols and action plans been updated. Click on the title to download.

1. [Diabetes Assessment and Education - Protocol](#)
2. [Diabetes Specialist Nurse Service Clinical Prioritisation Tool](#)
3. [Insulin Titration Service - Stabilisation of diabetes in the community setting - Protocol](#)
4. [Treatment of hypoglycaemia in people with diabetes in residential aged care - Protocol](#)
5. [MY SICK DAY ACTION PLAN: high blood glucose \(hyperglycaemia\) in type 1 diabetes on multiple daily injections](#)
6. [MY SICK DAY ACTION PLAN: high blood glucose \(hyperglycaemia\) in type 1 diabetes on insulin pump](#)
7. [MY SICK DAY ACTION PLAN: high blood glucose \(hyperglycaemia\) in type 2 diabetes](#)
8. [MY SICK DAY ACTION PLAN: high blood glucose \(hyperglycaemia\) in gestational diabetes mellitus](#)



## General Information

### Impact of COVID

Policy responses to the COVID-19 pandemic, including isolation and physical distancing measures, may in certain circumstances have a greater impact on some people more so than others. Treatment protocols, in certain circumstances have the potential to unintentionally or unknowingly discriminate against people when their needs and preferences are not adequately taken into account.

The Australian Human Rights Commission developed the [Guidelines on the rights of people with disability in health and disability care during COVID-19](#) to assist health care, disability services and support workers take a human rights-based approach to decision-making.

Safety and continuity of care is extremely important, particularly for vulnerable people with diabetes. There are mounting concerns that Australians are not maintaining their regular medical, nursing and/or allied visits for existing conditions and/or putting off getting assessed, investigated or immunised due to fears of contracting COVID-19 or burdening the health system. The Continuity of Care Collaboration has launched the [#DontWaitMate](#) campaign encouraging people to continue with appointments with their healthcare professionals.

### A cure for type 1 diabetes?

Unfortunately, no....not yet. However, two American companies ViaCyte and Vertex recently demonstrated that stem cell-derived cells can become functional beta cells when infused into human beings.

Vertex released the results of their first patient to receive these stem cell-derived differentiated islet cells plus immunosuppression. Within 90days, this patient's insulin dose was reduced, his C-peptide response improved and his HbA1c fell. He also had no severe hypoglycemia events. Further information is available in the [Cell Reports Medicine paper](#). ViaCyte's utilised subcutaneous pouches which contained stem cell-derived pancreatic cells. These pancreatic cells turn into functioning islet cells. In the 17 trial participants, development of positive C-peptide levels was noted as early as 6 months after implantation. Further information is available in the [Cell Reports Medicine paper](#).

This is a significant advancement, but the next step is to make beta cells that do not require immunosuppression to function.

### Dapagliflozin Withdrawal for Type 1 Diabetes in the European Union

Dapagliflozin (Forxiga®), a sodium-glucose co-transporter 2 inhibitor (SGLT2i) was approved for use in type 1 diabetes in the European Union in 2019. However, in November 2021, this approval was withdrawn.

Manufacturer AstraZeneca said the decision is not motivated by safety concerns but acknowledges an increased risk of diabetic ketoacidosis associated with SGLT2i use in those with type 1 diabetes. AstraZeneca also stated that it might cause 'confusion' among prescribers using the drug to treat numerous other indications for which this agent is now approved (e.g. heart failure and chronic kidney disease).

JDRF International noted that the withdrawal was unwelcome as dapagliflozin was the 'only other drug besides insulin' (licensed in EU) for the treatment of type 1 diabetes and represented a 'major advancement since the discovery of insulin 100 years ago.'

In the United States and Australia, dapagliflozin and other drugs from the SGLT2i class are approved for the treatment of type 2 diabetes. However, SGLT2i have been prescribed 'off label' in the type 1 diabetes cohort with benefit.

### Tubeless Insulin Pumps

Two new tubeless insulin delivery devices are now available in Australia which offer an alternative to both multiple daily injections and insulin pumps for people with either type 1 or type 2 diabetes.

The Accu-Chek Solo Micropump System was the first detachable micropump that does not require the tubing (giving sets) used in conventional insulin pump systems.



The Accu-Chek Solo Micropump System consists of:

- a diabetes manager (similar to a smart phone) which serves as a remote control to operate the insulin pump without needing to touch the pump each time.
- the micropump which is a small, lightweight, waterproof, stores up to 200units of insulin and offers up to 96 hours of continuous insulin delivery.

The Omnipod DASH® Insulin Management System consists of:



- a personal delivery manager (PDM) or receiver (similar to a smart phone) which sends information to the pump for insulin delivery. Using bluetooth® wireless technology, the PDM is programmed based on the person's insulin requirements and controls all functions.
- the disposable pod is a small, lightweight, waterproof, stores up to 200units of insulin and offers up to 72 hours of continuous insulin delivery.

For further information, visit the [Accu-Chek Solo Micropump System](#) and/or the [Omnipod DASH® Insulin Management System](#) website.

## Top 10 PBS/RPBS drugs by DDD/1000 pop/day

Based on Pharmaceutical Benefits Scheme and Repatriation Pharmaceutical Benefits Scheme prescriptions from the date of supply, the top 10 drugs for the year July 2020 – June 2021 are:

Drug	Indication	Mode of Action	DDD/1000pop/day*
1. Atorvastatin	Dyslipidaemia	Inhibit 3-hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase	76.22
2. Rosuvastatin	Dyslipidaemia	Inhibit 3-hydroxy-3-methylglutaryl coenzyme A (HMG-CoA) reductase	66.54
3. Perindopril	Hypertension, heart failure, prevention of progressive renal failure, post myocardial infarction (MI)	Angiotensin converting enzyme inhibitors	54.35
4. Amlodipine	Hypertension, Angina	Calcium channel blockers	53.35
5. Candesartan	Hypertension and chronic heart failure	Block binding of angiotensin II to type 1 angiotensin receptors	34.56
6. Telmisartan	Hypertension and chronic heart failure	Block binding of angiotensin II to type 1 angiotensin receptors	34.55
7. Irbesartan	Hypertension and chronic heart failure	Block binding of angiotensin II to type 1 angiotensin receptors	29.36
8. Sertraline	Major depression, obsessive-compulsive disorder, panic disorder, social phobia	Inhibit the presynaptic reuptake of serotonin	27.42
9. Metformin	Type 2 diabetes	Reduces hepatic glucose production; increases peripheral utilisation of glucose.	26.59
10. Ramipril	Hypertension, post MI, prevention of MI, stroke, cardiovascular death or progressive renal failure in persistent proteinuria	Block conversion of angiotensin I to angiotensin II	26.52

\*DDD/thousand population/day is a more useful measure of drug utilisation than prescription counts. It shows how many people in every thousand Australians are taking the standard dose of a drug every day. DDD includes use in combination products. The calculation is based on ABS 3101.0 – Australian Demographic Statistics for December 2020.

## Useful resources

### Choice and Medication© website

The Choice and Medication© website is an up-to-date, informative and easy to navigate web portal which provides consumer friendly resources on mental illness medicines and related topics.

Consumer information leaflets are available in a range of languages, font sizes, language proficiency and literacy levels, encouraging the active involvement of consumers in their own care, and to facilitate shared decision making. For further information, please visit the [SA Health Choice and Medication](#) webpage.

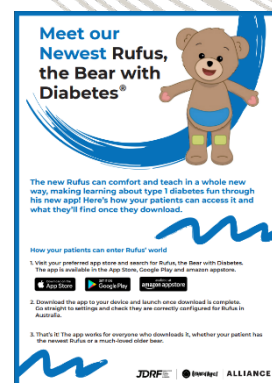
## Rufus the bear with diabetes App

Rufus, the Bear with Diabetes has been offered to newly diagnosed children with type 1 diabetes for over 18 years. A newly created App offers another avenue for learning and playing for children with diabetes and their families.

Interactive learning and play activities include:

- checking blood glucose by lancing Rufus' finger and adding a test strip to the glucometer
- describing Rufus' symptoms when his BGLs go low or high and learning to recognise and communicate
- using a virtual insulin pen or pump to dose insulin, learning about injection site rotation
- attaching a sensor to one of Rufus' patches and monitoring his blood glucose after eating or receiving insulin
- feeding Rufus a healthy diet to help him feel his best or give him energy dense nutritionally poor food
- explore how different carbohydrates impact glucose and practice carbohydrate counting of basic foods.

Rufus the Bear's App is completely free and accessible to anyone who lives with or wants to learn more about type 1 diabetes via the App Store, Google Play and Amazon Appstore.



## Diabetes Action Plans for Children and Young People

All children and young people with type 1 diabetes must have a Diabetes Action Plan and a Medication Agreement in place to ensure that their health care needs can be met.

Diabetes Action Plans were developed by Diabetes Victoria, Monash Children's Hospital, Royal Children's Hospital and the Women's and Children's Hospital are based on current best practice paediatric guidelines. The plans can be used in SA government, Catholic and independent sectors.

To access the 2022 Diabetes Action Plans with appendices pertaining to the Medtronic 670G hybrid closed loop insulin pump and the AMSL Basal IQ (BIQ) – Tandem T-Slim for the early childhood, primary and secondary school setting and the Medication Agreement, visit the [Department for Education SA](#) website.

## SA Health Regional Aged Care Strategy 2021-2025

Informed by evidence and considered from a whole of system perspective, the [SA Health Regional Aged Care Strategy](#) will become an integrated part of the Australian Healthcare System and inform the work, priorities and strategic direction for our regional aged care services for the next five years.

Fundamental changes to Aged Care are expected to include:

- moving to a human-rights based approach that supports more choice to receive care closer to home.
- paradigm shift focused on the ageing individual who is receiving care, not the organisation that is delivering care.
- changes from a responsibility framework to a customer-centric, human rights based framework that will see
- consumers making purchasing decisions.
- consumers will be funded based on an individual assessment
- changes to the market landscape including increases in competition in some areas, and reduced market supply
- to other areas, such as those with more complex needs or small demand.
- a new Commonwealth Aged Care Act, new Aged Care Standards for accreditation of providers and a new aged care funding model.
- service providers will move toward a business mindset where decisions are evidence based and data driven.
- realignment of Aged Care sector culture to one that places consumer need at the centre and drives for system sustainability.

In response to the final report of the Royal Commission into Aged Care Quality and Safety, the Australian Government will create a single Support at Home Program. From July 2023, the new Support at Home Program will replace the:



- Commonwealth Home Support Programme (CHSP)
- Home Care Packages (HCP) Program
- Short-Term Restorative Care (STRC) Programme
- Residential respite programs

Key aspects of the program and consultation plan for 2022 are available at the [Support at Home](#) website.

## Calendar dates

**Australian Diabetes Educations Association SA Branch Seminar** – will be held at the Adelaide Entertainment Centre in May 2022. For further information, visit the [ADEA](#) website.

**16<sup>th</sup> National Rural Health Conference** will be held from the 30<sup>th</sup> May - 1<sup>st</sup> June 2022 at the Perth Convention Centre, Perth, WA. Further information available on the [National Rural Health](#) website.

**First Nations Allied Health Conference** in Cairns from the 8<sup>th</sup> – 10<sup>th</sup> June 2022. For further information, visit the [Indigenous Conference](#) website.

**Australasian Diabetes Congress** will be held in Brisbane from the 8<sup>th</sup> – 10<sup>th</sup> August 2022. More information to follow.

**SOMANZ Annual Scientific Meeting** will be held from the 14<sup>th</sup> - 16<sup>th</sup> October 2022 at the Hotel Grand Chancellor, Hobart. More information will follow.

**Australian Paediatric Endocrine Group Annual Scientific Meeting** will be held from the 3<sup>rd</sup> - 16<sup>th</sup> November 2022 in Christchurch, New Zealand. More information to follow.

**Australian Diabetes in Pregnancy Society and International Association of Diabetes in Pregnancy Study Groups Annual Scientific Meeting** in Sydney in November 2022. For further information, visit the [ADIPS](#) website.

**International Diabetes Federation Complications Congress** – will be held in Lisbon, Portugal from the 5<sup>th</sup> – 8<sup>th</sup> December 2022. For further information, including access to the online program, visit the [IDF](#) website.

**38<sup>th</sup> CRANApplus Conference** – For further information and to join the mailing list, visit the [CRANApplus](#) website.

## Professional development and scholarships

### Australian College of Nursing (CAN) and SA Health Nursing & Midwifery Scholarships

The ACN and SA Health Scholarships aim to support nurses and midwives to explore best practice. A number of scholarships are available at [ACN](#) and [Nursing & Midwifery Office - SA Health](#) website.

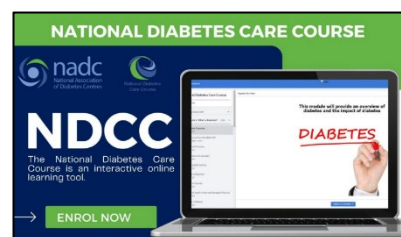
### Webinars, online training modules and podcasts

Numerous webinars, online training modules and podcasts can be viewed 'live' or retrospectively are offered by the ADS, ADEA, National Association of Diabetes Centres (NADC), National Prescribing Service (NPS) and Pharmacia. For further information, visit the:

- [ADS](#) website and go to the ADS Conference Connect webpage to register
- [ADEA](#) website
- [NADC](#) website and the
- [NPS Medicinewise](#) website.

The National Diabetes Care Course has been developed by the National Association of Diabetes Centres (NADC) to provide healthcare providers in a range of general care settings with current knowledge of diabetes clinical management and self-care regulation has been updated.

To register your interest and cost, please contact: [admin@nadc.net.au](mailto:admin@nadc.net.au).



## For more information

### Rural Support Service Diabetes Service

PO Box 3017, Rundle Mall  
ADELAIDE SA 5000

Email: [Health.DiabetesService@sa.gov.au](mailto:Health.DiabetesService@sa.gov.au)

[www.chsa-diabetes.org.au](http://www.chsa-diabetes.org.au)

[www.sahealth.sa.gov.au/regionalhealth](http://www.sahealth.sa.gov.au/regionalhealth)

Public-I3-A2

© Rural Support Service, SA Health, Government of South Australia. All rights reserved.

