

NDSS

National Diabetes Services Scheme

An Australian Government Initiative

NDSS Helpline 1800 637 700
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Diabetes Technology Standards



This resource was developed in collaboration with:



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Introduction

These Diabetes Technology Standards have been developed by the National Association of Diabetes Centres (NADC) to assist diabetes health professionals and services to review, reflect and achieve safe and high-quality care for people using diabetes technologies. These Standards are one tool in a range of strategies that can be used to improve safety and quality in the provision of diabetes care.

The Standards are focused primarily on health professionals and services providing care to people with diabetes using continuous subcutaneous insulin infusions (CSII or insulin pumps) but also includes consideration of use of other diabetes technologies including Continuous Glucose Monitoring (CGM), Flash Glucose Monitoring and other diabetes devices and applications. These Standards may be particularly useful for diabetes services for children and youth with type 1 diabetes and for delivery of CSII for use in pregnancy.

The Diabetes Technology Standards sit alongside the NADC Diabetes Technology Accreditation package which aims to benchmark services against the Standards and lift the quality of care delivered to people with diabetes who are using technology across Australia. This supports our efforts to meet key goals within the Australian National Diabetes Strategy 2016-2020 particularly practices and procedures resulting in improved care, improved quality of life among people with diabetes, and a reduction in the prevalence of diabetes-related complications.

Applicability of the Diabetes Technology Standards

These Standards are applicable to all diabetes services. One of the great strengths of diabetes care is its diversity. If a service provides diabetes care, regardless of the structure of the service, then the Diabetes Technology Standards are applicable.

Continuous Quality Improvement Approach

Quality Improvement is integral for ensuring the best possible consumer health outcomes through reflective practice, evidence-based care, and best practice clinical care. There are many components to quality improvement including: physical structure and processes of an organisation, governance, leadership, education and training, and clinical care.

To be effective, the Diabetes Technology Standards require monitoring and improvement strategies to be put in place. Therefore, it is suggested that these Standards are used to guide the service's overall approach to quality improvement.

Limitations of the Diabetes Technology Standards

Currently, there is no national, standardised training of healthcare professionals (HCPs) in diabetes technologies, including CSII and CGM. Some HCP based training is provided by the companies who sell and supply devices and technologies for diabetes. Both the Australian Diabetes Society (ADS) and the Australian Diabetes Educators Association (ADEA) offer a range of training and resources and are working toward developing independent endorsement of health care professional training in the delivery of diabetes technology care.

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* Indicates Core Criterion

*A Indicates Core Criterion

Section 1: Healthcare improvement

Standard 1.1 Referral and indications for diabetes technology	
Criterion	Indicators
<p>Criterion 1.1.1* Consumer access to diabetes technology</p>	<p>A. Our service has an established referral pathway for accepting consumers wanting to use diabetes technology:</p> <ul style="list-style-type: none"> • Continuous subcutaneous insulin infusion (CSII) • Continuous glucose monitoring (CGM) • Automated insulin delivery systems (AID) • Other forms of diabetes technology.
<p>Criterion 1.1.2* Indications for diabetes technology</p>	<p>A. Our team are able to identify with the consumer their goals and targets, in managing diabetes with the use of technology.</p> <p>B. Thorough assessment, with the use of decision-making tools, is undertaken to establish the suitability of diabetes technology for each consumer.</p>
<p>Criterion 1.1.3* Optimising use of diabetes technology</p>	<p>A. Our team offer an Individualised, evidence-based approach to facilitate optimal use of diabetes technology, in Collaboration with the consumer.</p>
Standard 1.2 Multidisciplinary care	
Criterion	Indicators
<p>Criterion 1.2.1* Core multidisciplinary team</p>	<p>A. Our service supports evidence -based multidisciplinary care for consumers using diabetes technology. Our consumers are able to be referred to a core team, including as a minimum:</p> <ul style="list-style-type: none"> • Diabetologist / Endocrinologist • Credentialed Diabetes Educator • Accredited Practising Dietitian.
<p>Criterion 1.2.2* Timely and comprehensive care</p>	<p>A. There is consumer access to:</p> <ul style="list-style-type: none"> • Psychology services • Podiatrist • Ophthalmologist. <p>B. Our multidisciplinary team strive to facilitate the following:</p> <ul style="list-style-type: none"> • Referrals for diabetes technology start up and upgrades • Timely clinical follow up • Review of more complex or challenging cases • Review and addressing problematic hypoglycaemia e.g. severe hypoglycaemia or impaired awareness of hypoglycaemia • Address technical problems or other issues related to technology.

Standard 1.3 Promotion of consumer self-management	
Criterion	Indicators
<p>Criterion 1.3.1* Co-management with consumers</p>	<p>A. Our clinical team review consumers diabetes related targets and goals at each clinic visit.</p> <p>B. Our service has measures in place to track and reflect how our consumers are being supported to meet their individual goals.</p>
<p>Criterion 1.3.2* Consumer care tailored to culture, language and health literacy.</p>	<p>In consultation with the consumer:</p> <p>A. Our team discuss the advantages, disadvantages, risks and benefits of the various options for technology, promoting informed decision making.</p> <p>B. Consumers are taught how to upload and access technology generated data.</p> <p>C. Consumers are able to exchange Information with the clinical team as required, to assist the clinical review.</p>
<p>Criterion 1.3.3* Consumer resources</p>	<p>A. Consumers are informed of the following:</p> <ul style="list-style-type: none"> • Clinical service support lines • When to call for an ambulance • When to attend an emergency department • Diabetes technology support lines i.e. medical device manufacturer details. <p>B. Our service provides support and resources as required for consumers who are using diabetes technology and planning travel, which may include:</p> <ul style="list-style-type: none"> • Travel interstate or for extended periods • Travel overseas, including information and resources for customs and management of time zone changes • Referral to other services locally • Provision of summaries and resources as required, for international travel or relocation.
<p>Criterion 1.3.4* Appointment reminders</p>	<p>A. Our service provides consumers with systematic and timely reminders of clinic appointments.</p> <p>B. Processes are in place to ensure consumers are followed up after missed appointments.</p>

Standard 1.4 Integrated care

Criterion

Indicators

Criterion 1.4.1

Engagement with other services

- A.** Our service is able to refer consumers across sectors as required i.e. Primary, Secondary, Tertiary level services, where those services are equipped and competent to meet the specific needs of the consumer using diabetes technology
Including, but not limited to:
- Tertiary diabetes centres
 - Secondary diabetes centres
 - General Practice / Primary Care centres
 - Exercise Scientists e.g. Exercise Physiologist, Physiotherapist
 - Ante-natal, pregnancy and post-natal care and follow up.

Criterion 1.4.2*

Integrated continuous care

- A.** Our service ensures continuity and coordination in the ongoing review of consumers accessing diabetes technology.
- B.** Service integration is facilitated by:
- Diabetes care coordination processes
 - Technical / system support for diabetes technology
 - Administration support is adequate, for example:
 - ordering of devices and supplies, appointment
 - management, arranging multidisciplinary team meetings,
 - data collection of our technology service and related outcomes.

Section 2:

Organisation and capacity

Standard 2.1 Service structure	
Criterion	Indicators
<p>Criterion 2.1.1 Timely and accessible consumer contacts</p>	<p>A. Our service provides timely and accessible consumer contacts utilising:</p> <ul style="list-style-type: none"> • Consultant led multidisciplinary clinics • Face to face appointments • Remote consultations e.g. via telephone, webcam or email.
<p>Criteria 2.1.2 Service capacity</p>	<p>A. Our team have allocated time to review device reports outside of face to face visits when required.</p> <p>B. Time and resources are allocated to support administrative activities of staff such as equipment orders, time for set-up, capturing activity and reviewing data and documentation, including follow up letters and referral requirements, liaising with health funds or other technology related activities.</p>
<p>Criterion 2.1.3* Diabetes technology education</p>	<p>A. Our service provides education for the following:</p> <ul style="list-style-type: none"> • Insulin pump initiation and management • CGM initiation and management. <p>B. Our service is able to refer consumers to appropriate education as required:</p> <ul style="list-style-type: none"> • Diabetes in pregnancy • DAFNE • DESMOND • Type 1 education • Type 2 education.
Standard 2.2 Service communication	
Criterion	Indicators
<p>Criterion 2.2.1*^B Information about the service</p>	<p>A. Our service promotes access and scope of our technology service to consumers via referral pathways e.g. websites.</p> <p>B.* Out of hours support pathways are clearly defined for consumer support related to diabetes technology technical problems e.g. in the event of a device failure.</p> <p>C. Out of hours support pathways are clearly defined for consumer support related to clinical diabetes emergencies e.g. sick day management.</p>

Criterion 2.2.2

External communications

- A.** Our service provides comprehensive information to service providers outside the organisation.
- B.** Our service has a structured letter proforma that provides a comprehensive and up to date summary of all details relating to consultations. Information contained within the letter includes but is not limited to:
- Current treatment regimen
 - Current personalised settings for diabetes technology devices
 - Changes to diabetes management and rationale
 - Planned follow-up and referrals
 - Other information as appropriate.
- C.** Letters are provided to the GP and other healthcare professional team members and copied to the consumer.
- D.** Clinical information is shared with My Health Records where consumer consents to this.

Section 3:

Management of quality and safety

Standard 3.1 Education and training	
Criterion	Indicators
<p>Criterion 3.1.1* Multidisciplinary team trained in the use of diabetes technology</p>	<p>A. Our multidisciplinary team have formal training in all CSII systems available in Australia</p> <p>B. Our multidisciplinary team have formal training in CGM and flash glucose monitoring systems that are utilised within the service.</p> <p>C. Our team receive regular updates on current and emerging diabetes technology.</p> <p>D. Our team receive regular updates on current international evidence, informing clinical indications for technology.</p> <p>E. Our team receive routine in-service diabetes technology updates to ensure staff remain upskilled.</p>
<p>Criterion 3.1.2 Participation in knowledge sharing</p>	<p>A. Our multidisciplinary team are actively encouraged to mentor and upskill members of the broader clinical team involved in the care of consumers using diabetes technology.</p>
Standard 3.2 Quality improvement practices	
Criterion	Indicators
<p>Criteria 3.2.1 Commitment to quality improvement</p>	<p>A. Our service has a minimum dataset of information of our consumers using diabetes technology, for benchmarking and quality improvement activities. Information collected includes but is not limited to:</p> <ul style="list-style-type: none"> • Hba1c • Mean glucose and standard deviation • Time in target range • Time in Hypoglycaemia <3.9 • Severe hypoglycaemic events • Diabetic ketoacidosis • Satisfaction and quality of life measures. <p>B. Our multidisciplinary team have the opportunity to regularly meet, to consider service evolution and developments to incorporate new technology.</p> <p>C. Our service participates in ANDA</p> <p>D. Our service participates in ADDN</p>

Standard 3.3 Safety in the use of diabetes technology

Criterion	Indicators
<p>Criteria 3.3.1^{*A} Consumer safety with the use of diabetes technology</p>	<p>A*. Our service out of hours support pathways are clearly defined for consumer support related to diabetes technology technical problems e.g. in the event of a device failure.</p> <p>B. Our service provides consumers with information and education for how to deal with clinical diabetes emergencies e.g. sick day management, and we evaluate their knowledge of how to deal with emergencies annually.</p> <p>C. Our service provides or can access interpreter services as required, at the point of care.</p>
<p>Criterion 3.3.2^{*A D E} Safety and risk mitigation</p>	<p>A*. Our team are formally trained in the assessment and re-evaluation of consumer suitability and indications for use of different types of diabetes technology:</p> <ul style="list-style-type: none"> • In the community • In the hospital setting. <p>B. Multidisciplinary meetings are held to review optimal and safe use of diabetes technology.</p> <p>C. Our service has systems in place to support service coordination and clinical oversight.</p> <p>D*. Our service has a clear process in place that ensures timely clinical reviews, with follow up appointments offered to consumers.</p> <p>E*. Our service has systems in place to follow up with consumers who do not attend appointments.</p> <p>F. Multidisciplinary communication exists for:</p> <ul style="list-style-type: none"> • Audit and reflection • A process for staff to troubleshoot and report safety issues related to diabetes technology. • Incident reviews including relevant mortality and morbidity. <p>G. Our service has a clinical protocol to guide the continuation of CSII for consumers who are hospital inpatients.</p> <p>H. Our service has a clinical protocol to guide the management of diabetes technology for consumers attending the emergency department.</p> <p>I. Consumers are made aware of device recalls as appropriate.</p>

Section 4:

Informatics and data management

Standard 4.1 Infrastructure to support diabetes technology data	
Criterion	Indicators
Criterion 4.1.1* Security of consumer data	<p>A. Our service has a policy for managing confidentiality, privacy and consumer consent to forward information.</p> <p>B. All consumer data is accessed through secure electronic systems.</p> <p>C. Our service has an electronic record system or other secure method, for storage of consumer data.</p> <p>D. Software/data issues or breach of data security are reported and appropriately managed through an established incident reporting system.</p>
Criterion 4.1.2 Consumer access to technology informed data	<p>A. Our service ensures appropriate support and resources, for consumers to be able to access data from their devices.</p>
Criterion 4.1.3* Clinical team access to data	<p>A. Technical support is available to the clinical team to assist with data access and management.</p> <p>B. Our service has platforms that allow all multidisciplinary staff to access data that enable continuity of clinical review e.g. Diasend, CareLink</p> <p>C. Our service has the capacity and supports to download consumers data on arrival to their appointments.</p> <p>D. Information technology is in place to enable remote viewing of data uploaded from devices, email correspondence, teleconference and webcam</p> <p>E. Consumer records include and are not limited to:</p> <ul style="list-style-type: none"> • Technology warranty status • Documented individual glycaemic data and targets.

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