

Statewide Diabetes Clinical Network Type 1 Diabetes Transition Model of Care

A journey from Paediatric to Adult Health Care

Type 1 Diabetes Transition Model of Care Guideline, A journey from Paediatric to Adult Health Care Published by the State of Queensland (Queensland Health), December 2020

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1 Introduction

1.1 Background

Diabetes affects approximately 1 in 700 young people in Australia and complications due to poor control of this illness places economic burden on the health system. Adolescents with diabetes often struggle with glycemic control which is exacerbated during the transition from paediatric to adult-centred care. Adolescence is a time of major physiological and psychological change and young people with type 1 diabetes who are transitioning to adult services may disengage from the health system, as well as their treatment regimes. Young adults have specific health needs relating to the physical, emotional, psychological and socio-cultural stages of adolescence, which are separate from their diabetes. The Australian National Diabetes Strategy (2016–2020) identified strengthening and expanding programs which assist young people with diabetes to transition to adult care services as an area for action (Commonwealth of Australia, 2015). Successful transition to an adult diabetes service is important both in terms of immediate outcomes such as better glycemic control and reduced hospitalisations with diabetic ketoacidosis but also reduced longer term diabetes related complications/ mortality, reduced health costs and increased productivity, (David, 2014).

Transition care that is inadequately led can lead to additional long-term health care costs, preventable comorbidities and poorer quality of life along with carer distress. (Paediatric chronic disease transition framework WA, 2009, p.11). However, transition that is based on the needs of the young person, that is planned and structured, includes continuous age-appropriate education and encompasses a multidisciplinary approach can provide much more favourable long-term health outcomes for young people with long-term chronic health conditions. Furthermore, a transition process that is embedded in service delivery is advocated, keeping the young person and their individual needs at the core of this.

1.2 Purpose

The Statewide Diabetes Clinical Network in partnership with consumers, clinicians, and practitioners supporting young people with type 1 Diabetes designed a program of work to:

- Develop a Paediatric to Adult Transition Model of Care for Type 1 Diabetes that includes assessing transition readiness, transition planning, information for young people and their families and methods for evaluating the transition process.
- Review the resources supporting paediatric patients with Diabetes Mellitus that are transitioning to young adult care.

The model of care and supporting clinical tools are suitable for use at all service levels throughout Queensland. The work supports Hospital and Health Services in Queensland to provide services in alignment with the Australian Diabetes Strategy 2016-2020.

1.3 Paediatric to adult transition of care

Transition of care is the purposeful, planned movement of adolescents and young adults with chronic physical and medical conditions from child-centred to adult-oriented health care system or service (Blum et al 1993). Structured transition promotes wellness by offering continuity of care between paediatric and adult services, and by supporting the child to have ownership of their health over a period of time. The process of transition is much more than a single event involving a simple physical transfer from paediatric to adult care.

1.4 Common barriers

Little empirical data on the specific barriers to transition for patients with Type 1 Diabetes exists. Previous limited research in this area has described gaps between paediatric and adult diabetes care, decreased post transition clinic attendance and patient dissatisfaction with the transition process as some generalised barriers. Garvey et al., (2013) state:

“To design interventions that will strengthen transition preparation, facilitate the establishment of adult diabetes care and ultimately provide glycemic control in young adults, it is imperative to better understand young adults’ perspectives regarding specific barriers to transition and their relative importance”.

Improved understanding of the barriers to effective transition inform the design of effective transition programs. Barriers to transition can be linked to four main categories; patient related factors; parent related factors, paediatric providers and adult providers, which are described in Table 1.

Table 1 Barriers to Paediatric to Adult Transition of Care

| | |
|--|---|
| Patient related | <ul style="list-style-type: none">• Burn out• Poor adherence• Limited knowledge about disease and treatments• Limited insights about long term impact of poor adherence• Inadequate self-advocacy skills• Reluctance to leave known and trusted staff |
| Parent related | <ul style="list-style-type: none">• Difficulty in relinquishing control• Difficulty in relinquishing the relationships with known and trusted staff• System related• Gaps in health care service• Lack of appropriate service for youth• Difficulty in providing for smooth transfer of records between new and old care providers |
| Paediatric healthcare providers | <ul style="list-style-type: none">• Difficulty in letting go |
| Adult healthcare providers | <ul style="list-style-type: none">• Limited knowledge of some paediatric conditions• Inadequate coordination and support for these complex patients• Limited availability of multiple service providers |

1.5 Telehealth and transition of care

Transition can be complicated by the fact that young people can lose connection with their diabetes provider and experience lapses in their diabetes care. For patients that live remotely or in rural areas with no access to a large hospital health service or multidisciplinary diabetes team, this can also prove to be challenging time for both the patient and the sole practitioner/GP that might be guiding the young person through the transition process. Raymond (2017, p. 193) states that comprehensive strategies and innovative clinical models are needed to engage this population in diabetes medical care to address barriers to ideal management and improve outcomes. Furthermore, 'telemedicine shared medical appointments (SMA) or a combination is potential models to address the need for improved care in this high-risk population'.

The Digital Health Strategic Vision for Queensland 2026 outlines system-wide goals for digital health goals in Queensland. Digital health is enabling new models of care, such as the developed Type 1 Diabetes Consolidated Model of Care. The ten-year vision for digital health in Queensland has prioritised the embedding of digital technologies throughout all aspects of healthcare. Horizon 3 (Digital Health Strategic Vision for Queensland, (2017, p.31) states that 'telehealth enables patient care regardless of care setting'. The benefits of this digital revolution in healthcare will markedly improve the management of chronic conditions such as diabetes for both the patient and the clinician. For the remote or rural GP managing the transition process for their patient it will assist in the isolation from their clinical network and specialist advice.

1.6 Phases adolescent transition into adult healthcare

Transition in healthcare is generally recognised to consist of three main stages:

- **Active preparation**—Involves the introduction of the young person and their family to the concept and importance of transitioning of care. In this phase the focus is on identification, assessing readiness to transition, providing education and support.
- **Active transition**—Involves the actual transition of care from paediatric to adult setting. This is a phase in transition when the young person finds it developmentally appropriate and feasible to take increasing responsibility of his/her care.
- **Integration/evaluation**—Involves the relinquishing of care by the paediatric services and taking over of care by adult services. It involves putting in place processes to ensure that the best person-centred care is provided along with ongoing psychosocial support.

1.7 Designing a Model of Care

A Model of Care defines the way a health service will be delivered. It outlines best practice care and services for a person, population or cohort as they progress through the stages of a condition, injury or event. When designing a sustainable model of care, particularly for a complex and chronic disease such as type 1 Diabetes, it is imperative that health service planning considers many factors such as sustainability, the changing healthcare landscape (the application as a change agent) and how this can challenge the status quo of service delivery. The core elements of a successful model of care include; interdisciplinary teamwork, communication and information exchange, use of shared care guidelines/pathways, training and education, access and acceptability, sustainable funding models.

Type 1 Diabetes Transition Model of Care – A journey from Paediatric to Adult Health Care

2 Type 1 Diabetes Transition Model of Care

A consolidated Type 1 Diabetes Model of Care has been developed which incorporates common features of transition in diabetes. This model was originally designed by the Psychology Department at the Townsville University Hospital and has been adapted by the SDCN Transition working group for supporting young people with Type 1 Diabetes.

The model contains four phases of transition, planning, preparation, transfer and evaluation. The Four phase Transition model involves a multidisciplinary approach utilising the professions of medicine (i.e., Endocrinologist, GP), Diabetes Education, Psychology and Dietetics:



Figure 1 Four phases of the Transition model of care

This model includes the recommended resources and clinical tools to be administered at each phase, as well as suggestions for additional resources. A unique feature of this model is the inclusion of 'organisational considerations' [refer to Appendix 1 – Type 1 Diabetes Consolidated Model of Care].

2.1 Objectives and principles

Objectives of the transition of care process for people with type 1 diabetes are:

1. Assist the young person with better management of their chronic condition
2. Enable a smooth transition for management of chronic condition between paediatric and adult services

The transition model of care is underpinned by the principles presented in Table 2

Table 2 Principles of paediatric to adult transition

| | |
|--------------------|---|
| Principle 1 | Planned and Coordinated Care <ul style="list-style-type: none"> • Evidence-based best practice. • Systematic and formal transition process. • Plan carefully and start early. • Family-centred and highly individualised model - transition plan. Needs to be clear to a young person, parents/carers and professionals what the process is, who is involved and steps to be taken along the way by whom. |
| Principle 2 | Readiness for Transition <ul style="list-style-type: none"> • Developmentally appropriate - taking into account the person's maturity, cognitive ability, psychological status and long-term needs based on clinical conditions, social and personal circumstances, communication styles. • Occurs at different times and at a different pace for all young people • Requires an adjustment of expectations on all parties • Requires health care professionals and parents/carers to recognise the need for the young person to be equipped with appropriate and adequate knowledge to self-manage and transition to adult-life. • Every person in transition will have a broad psychological assessment to assess for these needs. • |
| Principle 3 | Ownership of Transition by the Young Person <ul style="list-style-type: none"> • Requires the young person to prepare to take ownership of their health condition • Relinquishing of control by parents/carers • Enabling the young person to practice safely taking autonomy and responsibility for their condition. • Focused on education, empowerment and self-management of the chronic condition |
| Principle 4 | Shared Responsibility by all involved in the Transition <ul style="list-style-type: none"> • Establishment of cohesive relationship between all healthcare providers as well as patients and their parents/carers • Ensuring the special role of the General Practitioner in this process • Utilises all healthcare providers involved in providing care to the young person to provide specific input to their chronic condition. |
| Principle 5 | Accessibility and availability of services <ul style="list-style-type: none"> • Requires those involved to recognise possible limitations and availability of health care services due to geographical location and resource allocation. Planning and communication around options where this applies is essential. |

Adapted from 'Paediatric Chronic Diseases Transition Framework' (2009), WA Child and Youth Health Network.

2.2 Phase One: Planning

Phase one commences at ages 12 to 14 years (or when developmentally appropriate).

The planning phase involves the introduction of the young person and their family to the concept and importance of transitioning care. The young person is already involved in a paediatric clinic for their diabetes management. In this phase the focus is on identification, assessing readiness to transition, providing education and support to assist the young person to prepare for building their independence for their diabetes control.

Table 3 Tasks of Transition Phase One: Planning

| Transition task | Process | Responsibility/ designated to | Frequency of review / occurrence |
|---|---|-------------------------------|--|
| Invitation to transition | Invitation to transition through transition register | Administration team | Once |
| Introduction to the concept of transition care discussion /education | Readiness, willingness and motivation to engage in transition, service and patient needs | Diabetes Educator | 3 monthly review |
| Assessment of young person's knowledge of disease and self-management skills | Assessment in depth of self-management skills, parental involvement, knowledge of chronic condition, current needs for successful transition | Diabetes Educator | 3 monthly review |
| Psychosocial assessment | Interview and psychosocial assessment of risks, strengths and needs. Through clinical assessment that feeds into the capability and planning matrix | Psychologist | Annual review or as needed |
| Assessment of the young person's knowledge and skills regarding nutrition support for diabetes | Assessment of knowledge around the young person understanding link and manage the effect of food on their blood glucose levels (e.g. carb counting). Additionally, reviewing healthy eating, weight management and screening for disordered eating. | Dietician | 3 monthly review or as needed |
| Medical Review | Standard Medical Review | Paediatric Medical Officer | 3 monthly review |
| Ensuring primary care involvement | Letter sent out to GP regarding readiness to transition and transition care plan | Paediatric Medical Officer | Once or as needed when transition care plan is updated |

2.3 Phase Two: Preparation

Phase two commences at ages 14 to 16 years (or when developmentally appropriate)

The preparation phase involves the young person developing the skills and knowledge to manage their diabetes independently. The young person is now involved in a Transition clinic for their diabetes management. In this phase the young person's diabetes management will move from reliance on parental support to the young person developing their capacity and confidence to complete their treatment regime to successfully control their diabetes. Through education and support, the young person will positively adjust to their diabetes treatment and feel empowered to manage their diabetes, attend clinic appointments on their own, and developed the skills and knowledge to continue managing their diabetes as a young adult, once they have transitioned to adult services.

Table 4 Tasks of Transition Phase Two: Planning

| Transition task | Process | Responsibility | Frequency of review / occurrence |
|--|---|--|---|
| Independent visits or parts of visits encouraged between the young person and their clinician. Confidentiality explained to young person and strictly adhered to (as appropriate) | Discussions with the young person and joint or sequential clinics arranged. Slowly phasing out parental involvement in session to support independence, whilst ensuring the young person is still well supported when difficulties arise. | <ul style="list-style-type: none"> • Admin • All clinicians | Once in a transition clinic |
| Ongoing Psychosocial assessment and Written transition plan with regular revision of goals and priorities. | Psychosocial Assessment in depth; any changes in willingness and motivation to engage in transition, service needs. Assessment of clinical risks and needs. Through clinical assessment that feeds into the capability and planning matrix | <ul style="list-style-type: none"> • Psychologist with input from Patient, family and treating team | 6 monthly review or as needed |
| Ongoing assessment of young person's knowledge of disease and self-management skills and nutritional knowledge and skills. | Ongoing assessment in depth of self-management skills, knowledge of chronic condition and treatment regime, current needs for successful transition. Ongoing assessment nutritional knowledge for healthy eating and diabetes control (i.e. carb counting), weight management and screening for disordered eating. | <ul style="list-style-type: none"> • Diabetes Educator • Dietician | 3 monthly review 3 monthly review or as needed |
| Medical Review | Standard Medical Review | <ul style="list-style-type: none"> • Paediatric Medical Officer | 3 monthly review |
| Correspondence addressed to young person as well as parent/carer | Written correspondence via letters, email or texts. | <ul style="list-style-type: none"> • Treating team Admin | Once in a transition clinic |

2.4 Phase Three: Transfer

Phase three commences at age 16 years or over, when developmentally appropriate.

The transfer phase involves the actual transition of care from Paediatric to adult setting. Prior to this transfer the young person has been provided with practical information about adult health services. This is a one-off event where the young person is assessed if they are ready to be transferred. It is a phase in transition when the young person is developmentally appropriate, ready and it is feasible for the young person to take on the responsibility of his/her care in an adult clinic. This phase should never occur at a time of crisis for the young person or during periods of acute stress (i.e. Year 12 of high school). The young person should be having been given appropriate warning and information about the transition to adult care and be provided with a copy of their own medical information. Additionally, the young person is provided with the opportunity to write their own letter of introduction to be provided to adult services as well as their paediatric team providing a comprehensive transfer of patient records and information from Paediatrics services to adult services.

Table 5 Tasks of Transition Phase Three: Transfer

| Transition task | Process | Responsibility | Frequency of review / occurrence |
|---|--|--|----------------------------------|
| Assessment of readiness to transfer | Assessment of readiness to transfer including Psychosocial assessment, review transition goals and risk factors for poor control. | <ul style="list-style-type: none"> Psychologist with input from treating team, and collateral information from the Patient and family | One final review |
| Reviewed knowledge and skills assessment | Administer a knowledge assessment and review diabetes specific skills to provide education according Assessment of eating patterns impacting diabetes control (e.g. Eating disorders) | <ul style="list-style-type: none"> Diabetes Educator Dietician | One final review |
| Comprehensive information transfer | Transfer of all relevant information across teams. | <ul style="list-style-type: none"> Treating team coordinated through the medical lead for the patient and Adult team. | One final review |
| Practical information about adult health service provided | Differences between paediatric and adult services and service expectations explained. | | One final review |
| Final appointment with Paediatric Medical Officer and Adult Medical Officer where possible | Final appointment Meeting between all parties and sharing of care information Can be completed via telehealth to support introductions to Adult team | <ul style="list-style-type: none"> Paediatric Medical Officer Adult Medical Officer | One final review |

2.5 Phase Four: Evaluation

Phase four commences at age 16 years or over, when developmentally appropriate.

The evaluation phase involves the relinquishing of care by the paediatric services and taking over of care by the adult services. This includes putting in place processes to ensure that the best person-centered care is provided along with ongoing psychosocial support, particularly where cognitive capacity of the young person is limited. Additionally, the process of transition is evaluated to ensure ongoing service improvement and the young person's needs are assessed to ensure follow up through the Adult team.

Table 6 Tasks of Transition Phase Four: Evaluation

| Transition task | Process | Responsibility | Frequency of review / occurrence |
|--|---|--|-------------------------------------|
| A first appointment with adult team | Ensure young person is aware of how adult services will be managing their care from now on. Young person can talk about their management and ongoing goals for their treatment | • Adult Medical Officer or Diabetes Educator depending on service preference | First appointment in Adult Services |
| Six-month follow-up | Information is collated from Paediatric and sent to Adult services. Adult team follows up assessments to ensure ongoing needs are addressed | • Adult team (Psychologist, Diabetes Educator, and Dietician) | 6-month follow up review |
| Evaluation | Evaluation survey completed on the young person's experience of the transition process for ongoing service improvement | • Adult Psychologist • if Psychologist not available, MDT member | 6-month follow up review |

2.6 Evaluation of the transition process

In order to evaluate and measure the success of transition, it is essential that information regarding the numbers of young people in both the active and preparation transition phase is kept. This includes:

- Documenting completed individual Transition Plans, or their progress towards completion annually.
- Documenting the numbers of patients transitioned annually from each service.
- Recording numbers of adolescents admitted over the age of 16 years.
- Evaluation of consumer review completed in phase four.

References

- Argarwal, Shivani et al (2016), An Adult Health Care-Based Pediatric to Adult Transition Program for Emerging Adults with Type 1 Diabetes, The Diabetes Educator, Volume 43, Number 1:87-96
- Australian Commonwealth (2015) Australian National Diabetes Strategy 2016-2020, Australian Government Department of Health www.health.gov.au/sites/default/files/documents/2019/09/australian-national-diabetes-strategy-2016-2020_1.pdf
- Blum RW, Garell D, Hodgman CH, et al. (1993) Transition from child-centred to adult health-care systems for adolescents with chronic conditions. A position paper of the Society for Adolescent Medicine. Journal of Adolescent Health 1993; 14(7): 570-6.
- Garvey, K., Wolpert, H, Laffel, L, Rhodes, E, Wolsforf, J., Finkelstein, J. (2013) 'Health care transition in young adults with type 1 Diabetes: Barriers to timely establishment of adult diabetes care'. Endocrine Prac. 2013 Nov-Dec; 19(6):946-952
- Kime, N., Bagnall, A-M. and Day, R. (2013) Systematic review of transition models for young people with long-term conditions: A report for NHS Diabetes. London; NHS Diabetes: 1-152
- Nathan, David M, (2014) 'The Diabetes Control and Complications Trial/Epidemiology of Diabetes Interventions and Complications Study at 30 years' for the DCCT/EDIC Research Group, Diabetes Care, 37 (1) 9-16
- Singh, S. P., Anderson, B., Liabo, K., & Ganeshamoorthy, T. (2016). Supporting young people in their transition to adults' services: summary of NICE guidance. *bmj*, 353, i2225.
- State Government of Queensland, Queensland Health, (2017), Digital Health Strategic Vision for Queensland 2026 www.health.qld.gov.au/data/assets/
- State Government of Queensland, Department of Health (2015) 'Guide to Health Service Planning – Version 3, https://www.health.qld.gov.au/data/assets/pdf_file/0025/443572/guideline-health-service-planning.pdf
- State Government of Queensland, Queensland Health, (2020), 'Prevention Strategic Framework 2017 to 2026, https://www.health.qld.gov.au/data/assets/pdf_file/0017/537101/cho-report-complete.pdf
- State Government of Queensland, Queensland Health, (2016), 'The health of Queenslanders 2016: report to the Chief Health Officer, Queensland, www.health.qld.gov.au/data/assets/pdf_file/0017/537101/cho-report-complete.pdf
- State Government of NSW, Agency for clinical Innovation (2013), A practical guide on how to develop a Model of Care at the Agency for Clinical Innovation, Version 1.0, www.aci.health.nsw.gov.au/data/assets/pdf_file/0009/181935/HS13-034_Framework-DevelopMoC_D7.pdf
- State Government of Western Australia, (2009), 'Paediatric Chronic Diseases Transition Framework', www2.health.wa.gov.au/~media/Files/Corporate/general%20documents/Health%20Networks/Child%20and%20Youth/Paediatric-Chronic-Diseases-Transition-Framework.pdf
- Raymond, Jennifer, K (2017) Models of Care for Adolescents and Young Adults with Type 1 Diabetes in Transition: Shared Medical Appointments and Telemedicine, Pediatric Annals, Vol.46, No.5, 193-197

Appendix 1 – Type 1 Diabetes Consolidated Model of Care

Phase One: Planning (12–14 years)

| Tasks | Resources/Tools | Designate* | Organisational considerations |
|---|--|--|---|
| <ul style="list-style-type: none"> • Invitation to transition • Skills assessment | <ul style="list-style-type: none"> • Diabetes Transition Progress Sheet (part one) • Patient Information sheet 'What is Transition?' | <ul style="list-style-type: none"> • Diabetes Educator | <ul style="list-style-type: none"> • Are we equipped to begin this journey? • For Rural and Remote clinicians – do we need to consider linking in with a Multidisciplinary team in a Diabetes Centre? • Do we need training in Young Adult Health? |
| <ul style="list-style-type: none"> • Clinical Interview and psychosocial assessment | <ul style="list-style-type: none"> • DPAT (Paediatric version) including PAID-C, PAID-C-Parent | <ul style="list-style-type: none"> • Psychologist | <ul style="list-style-type: none"> • A strengths-based approach to transition |
| <ul style="list-style-type: none"> • Knowledge Assessment | <ul style="list-style-type: none"> • M-WIKAD | <ul style="list-style-type: none"> • Diabetes Educator | <ul style="list-style-type: none"> • Other recognised Diabetes Knowledge Assessments |
| <ul style="list-style-type: none"> • Ensuring primary care involvement e.g. GP | <ul style="list-style-type: none"> • Letter to GP | <ul style="list-style-type: none"> • Paediatric Medical Officer | <ul style="list-style-type: none"> • Does the patient have a GP? Is it possible to arrange shared medical appointments with this GP? • Have you advised the GP of the transition process? • Have you involved the school or school nurses? • Map the resources accessible to the person – the 'social capital'. |

**Recommended where staff are accessible. Where recommended staff are not accessible, the tools can be administered by the medical officer or nominee from the clinical team.*

Phase Two: Preparation (14–16 years)

| Tasks (what's involved) | Resources/Tools (to be administered) | Designate* | Organisational considerations |
|--|---|--|--|
| <ul style="list-style-type: none"> • Independent or part-independent visits encourage and discussed. • Skills assessment | <ul style="list-style-type: none"> • Diabetes Transition Progress Sheet (part two) | <ul style="list-style-type: none"> • Diabetes Educator | <ul style="list-style-type: none"> • Encouraging the young person to become more independent |
| <ul style="list-style-type: none"> • Knowledge Assessment | <ul style="list-style-type: none"> • M-WIKAD | <ul style="list-style-type: none"> • Diabetes Educator | <ul style="list-style-type: none"> • Other recognised Diabetes Knowledge Assessments |
| <ul style="list-style-type: none"> • Psychosocial Assessment including goal setting and identify any risk factors for poor control. | <ul style="list-style-type: none"> • DPAT (Paediatric version 2) • Readiness to Transfer Checklist | <ul style="list-style-type: none"> • Psychologist | <ul style="list-style-type: none"> • A strengths-based approach to transition |
| <ul style="list-style-type: none"> • Assessment of eating patterns impacting diabetes control e.g. Eating disorders. | <ul style="list-style-type: none"> • Nutritional checklist • Screening for eating disorders or problematic eating patterns – DEPS-R | <ul style="list-style-type: none"> • Dietitian | <ul style="list-style-type: none"> • Are there suitable professionals with relevant training/expertise to deal with this |
| <ul style="list-style-type: none"> • Correspondence addressed to young person as well as parent/carer | <ul style="list-style-type: none"> • Any standard communication | <ul style="list-style-type: none"> • Paediatric Medical Officer | <ul style="list-style-type: none"> • Have you ensured all correspondence/communication is addressed to the person as well as the parent/ |
| <ul style="list-style-type: none"> • Ensuring primary care involvement | <ul style="list-style-type: none"> • Any standard communication | <ul style="list-style-type: none"> • Paediatric Medical Officer | <ul style="list-style-type: none"> • Has the GP been advised the young person is now part of a transition clinic? • Has the young person been provided with additional details of new clinic including: clinic times, contact details, maps and transport options. • Provide or arrange resources which will support the young person's needs and support the transition of chronic condition management from the carers to the young person. |

**Recommended where staff are accessible. Where recommended staff are not accessible, tools can be administered by the medical officer or nominee from the clinical team.*

Phase Three: Transfer (16 years or older)

| Tasks | Tools | Designate* | Organisational considerations |
|--|--|--|--|
| <ul style="list-style-type: none"> • Assessment of readiness to transfer | <ul style="list-style-type: none"> • DPAT (Paediatric version 3) including PAID T and Transition care plan goals • Readiness to Transfer checklist | <ul style="list-style-type: none"> • Psychologist | <ul style="list-style-type: none"> • A strengths-based approach to transition |
| <ul style="list-style-type: none"> • Reviewed knowledge and skills assessment | <ul style="list-style-type: none"> • M-WIKAD • Diabetes Transition Progress Sheet (part three) | <ul style="list-style-type: none"> • Diabetes Educator | <ul style="list-style-type: none"> • Other recognised Diabetes Knowledge Assessments |
| <ul style="list-style-type: none"> • Comprehensive information transfer | <ul style="list-style-type: none"> • Letter to GP • Letter to Adult team 'Transition letter template' | <ul style="list-style-type: none"> • Paediatric Medical Officer | <ul style="list-style-type: none"> • Has the GP been advised of the discharge to the adult service? • What do we need to provide to the young person's GP and Adult team to ensure they are well supported when they transition? • Has the process of transfer been explained in detail? When their referral will be sent, how soon they will likely be seen, who they can call if they are concerned, what the first important appointment will look like and what they should bring with them to it. • Has the young person been provided with additional details of their new service including; contact details, maps and transport options? • Provide an opportunity for the young person to ask questions about the transfer and the new service. |
| <ul style="list-style-type: none"> • Assessment of eating patterns impacting diabetes control e.g. Eating disorders. | <ul style="list-style-type: none"> • Nutritional checklist • if indicated based on previous screening in Phase 1 or 2, screen for eating disorders or problematic eating patterns using DEPS-R | <ul style="list-style-type: none"> • Dietitian | <ul style="list-style-type: none"> • Are there suitable professionals with relevant training/expertise to deal with this? |
| <ul style="list-style-type: none"> • Final appointment with Paediatric Medical Officer if required | <ul style="list-style-type: none"> • Appointment | <ul style="list-style-type: none"> • Paediatric Medical Officer | <ul style="list-style-type: none"> • Has the GP been advised of the discharge to the adult service? • Provide or arrange for services, facilities or resources which will prevent, delay or reduce the young person's need for care and support or the need for the support of carers |

*Recommended where staff are accessible. Where recommended staff are not accessible, tools can be administered by the medical officer or nominee from the clinical team

Phase Four: Evaluation (16 years or older)

| Tasks (what's involved) | Resources/Tools (to be administered) | Designate* | Organisational considerations |
|---|--|---|---|
| • First appointment with adult and paediatric MO | • Standard Appointment | • Paediatric Medical Officer | • Encouraging the young person to become more independent |
| • Six month Follow-up | <ul style="list-style-type: none"> • Diabetes Transition Progress Sheet (part four) • M-WIKAD • DPAT (adult version) including PAID Adult • Screening for eating disorders | <ul style="list-style-type: none"> • Diabetes Educator • Diabetes Educator • Psychologist • Dietitian | • Are there any outstanding psychosocial needs or treatment consideration that need to be addressed to ensure the young person continues to management their chronic condition independently? |
| • Evaluation | • Transition survey | • Psychologist | • Evaluation feedback will inform future organisation consideration for the ongoing quality improvement of services provided |

**Recommended where staff are accessible. Where recommended staff are not accessible, tools can be administered by the medical officer or nominee from the clinical team.*

Appendix 2 Additional clinician knowledge resources

The following resources are provided for ease of access to assist clinicians to gain general understanding of concepts considered during development of this model of care guideline. Individual resources are not endorsed by the Statewide Diabetes Clinical Network. The accuracy and appropriateness of content has not been assessed in relation to specific clinical scenarios [Refer to Disclaimer].

| Topic | Resources |
|--|---|
| General transition information | <ul style="list-style-type: none"> • https://www.rch.org.au/uploadedFiles/Main/Content/transition/Adolescent_Transition_checklist_1.pdf • https://www.rch.org.au/transition/factsheets_and_tools/resources • https://www.ndss.com.au/wp-content/uploads/resources/booklet-young-people-moving-on-up.pdf |
| What is Diabetes | <ul style="list-style-type: none"> • https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-understanding-type1-diabetes.pdf |
| Insulin therapy and insulin adjustment | <ul style="list-style-type: none"> • https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-insulin.pdf |
| Management of hypoglycaemia | <ul style="list-style-type: none"> • https://www.ndss.com.au/about-diabetes/resources/find-a-resource/managing-hypoglycaemia-fact-sheet/ |
| Exercise and diabetes | <ul style="list-style-type: none"> • Nutrition Education Materials Online (NEMO), Queensland health • https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-physical-activity.pdf |
| Glucose monitoring and targets | <ul style="list-style-type: none"> • https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-blood-glucose-monitoring.pdf • https://www.ndss.com.au/about-diabetes/resources/find-a-resource/continuous-glucose-monitoring-for-children/ |
| Sick day management | <ul style="list-style-type: none"> • https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-managing-sick-days-for-type1.pdf • Sick day management plans, Queensland Health |
| Management of school and school camps | <ul style="list-style-type: none"> • https://www.diabetesqld.org.au/about-diabetes/young-people/school-plans/ • https://www.diabetesqld.org.au/about-diabetes/children-and-teens/exams-sports-days-and-school-camps/ |
| Effects of puberty on Diabetes and sexual health and Diabetes | <ul style="list-style-type: none"> • https://www.ndss.com.au/living-with-diabetes/about-you/young-people/young-women-with-diabetes/ • https://www.ndss.com.au/about-diabetes/resources/find-a-resource/moving-on-up-to-adult-health-care-services/ • https://www.ndss.com.au/about-diabetes/resources/find-a-resource/having-a-healthy-baby-guide-for-women-with-type-1-diabetes/ • https://www.ndss.com.au/about-diabetes/pregnancy/pregnancy-planning-checklist/ • https://www.ndss.com.au/about-diabetes/pregnancy/type-1-diabetes/contraception/ |
| Diabetes and complication screening | <ul style="list-style-type: none"> • https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-diabetes-related-complications.pdf • https://www.ndss.com.au/about-diabetes/resources/find-a-resource/your-diabetes-annual-cycle-of-care-fact-sheet/ |
| Confidentiality | <ul style="list-style-type: none"> • Health agencies – Privacy, confidentiality, and children's information, Office of the Information Commissioner, Queensland |

| Topic | Resources |
|---|---|
| Diabetes and mental health | <ul style="list-style-type: none"> • https://www.ndss.com.au/about-diabetes/resources/find-a-resource/diabetes-distress-fact-sheet/ • https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-adjusting-to-life-with-diabetes.pdf • https://au.reachout.com/mental-health-issues • https://headspace.org.au/ • https://www.youthbeyondblue.com/ |
| Diabetes and schoolies week | <ul style="list-style-type: none"> • https://www.ndss.com.au/about-diabetes/resources/find-a-resource/alcohol-fact-sheet/ • https://www.ndss.com.au/wp-content/uploads/resources/booklet-young-people-drug-use-type1-diabetes.pdf • https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-travel.pdf |
| Smoking and recreational drugs | <ul style="list-style-type: none"> • https://www.ndss.com.au/wp-content/uploads/fact-sheets/fact-sheet-alcohol.pdf • https://www.ndss.com.au/wp-content/uploads/resources/booklet-young-people-alcohol-type1-diabetes.pdf • https://www.ndss.com.au/wp-content/uploads/resources/booklet-young-people-drug-use-type1-diabetes.pdf • Moving on up booklet: https://www.ndss.com.au/about-diabetes/resources/find-a-resource/moving-on-up-to-adult-health-care-services/ |
| Travel and Diabetes | <ul style="list-style-type: none"> • https://www.rch.org.au/uploadedFiles/Main/Content/transition/transition%20-%20travelling.pdf • https://www.ndss.com.au/about-diabetes/resources/find-a-resource/travel-fact-sheet/ • https://www.ndss.com.au/about-diabetes/resources/find-a-resource/travel-type-1-diabetes-booklet/ |
| Healthcare systems and costs | <ul style="list-style-type: none"> • https://www.rch.org.au/uploadedFiles/Main/Content/transition/Adolescent_Transition_factsheet_2.pdf • http://www.trapeze.org.au/content/finding-good-gp-you |
| Tertiary studies and employment | <ul style="list-style-type: none"> • https://www.rch.org.au/uploadedFiles/Main/Content/transition/Finding%20a%20job%20brochure.pdf |
| Obtaining a driver's license | <ul style="list-style-type: none"> • https://www.ndss.com.au/about-diabetes/resources/find-a-resource/diabetes-and-driving-booklet/ • https://www.qld.gov.au/transport/licensing/update/medical/fitness • http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwiO_7CcqajqAhXuyzgGHdQQBFMQFjAEegQIAxAB&url=http%3A%2F%2Fwww.tmr.qld.gov.au%2F~%2Fmedia%2Flicensing%2Fmedical%2520condition%2520reporting%2Fmedical%2520requirements%2Fjetslawbrochure.pdf&usq=AOvVaw0WlqtOYTWq2pVaFce6QfJN |
| Obtaining a Medicare card | <ul style="list-style-type: none"> • https://www.servicesaustralia.gov.au/individuals/services/medicare/medicare-card/how-get-your-own-card-15-years-old |
| What to expect from a medical consultation | <ul style="list-style-type: none"> • Moving on up booklet, National Diabetes Services Scheme (NDSS) |
| Nutrition Related Topics I.e. understanding carbohydrate portions, carbohydrate counting, exercise and T1DM, low carbohydrate ideas | <ul style="list-style-type: none"> • https://www.health.qld.gov.au/nutrition/patients • https://www.baker.edu.au/health-hub/fact-sheets/carbohydrates-gi • https://www.health.qld.gov.au/nutrition/patients |