Resources to support preconception care for women with diabetes

Melinda Morrison, Ralph Audehm, Alison Barry, Christel Hendrieckx, Alison Nankervis, Cynthia Porter, Renza Scibilia, Glynis P Ross

Preconception care has been shown to reduce the rates of adverse pregnancy outcomes in women with pre-existing type 1 or type 2 diabetes. With an increasing prevalence of diabetes among women of child-bearing age, health professionals working in primary care have an important role in encouraging women with diabetes to plan and prepare for pregnancy. New resources, described here, are available for health professionals and women with diabetes and provide up to date, evidence-based information on pregnancy and diabetes.

Pre-existing diabetes (type 1 or type 2 diabetes) is estimated to affect approximately 1% of pregnant women in Australia (Australian Institute of Health and Welfare, 2016), and evidence suggests that the prevalence is increasing (Abouzeid et al, 2014). In particular, the prevalence of type 2 diabetes in pregnant women is expected to increase as a result of older maternal age, high rates of obesity and an ethnically diverse population (Cheung et al, 2005; Temple and Murphy, 2010).

Diabetes in pregnancy has many well-documented risks to both mother and baby (Macintosh et al, 2006; Dunne et al, 2009; Kitzmiller et al, 2010); however, these risks can be mitigated by effective preconception and pregnancy care, and most women with diabetes will go on to have a healthy pregnancy and a healthy baby (Ray et al, 2001; Wahabi et al, 2010; Holmes et al, 2017).

While most women with type 1 diabetes access specialist services, the majority of women with type 2 diabetes are managed in primary care. Health professionals in primary care are often the first point of contact for women seeking pregnancy information, and have a key role in promoting and providing appropriate contraception to women with pre-existing diabetes to prevent unplanned pregnancies, and in specialist referral. They are also critically important in encouraging diabetes-specific preconception care in all women with pre-existing diabetes to optimise maternal and fetal outcomes (Temple and Murphy, 2010). In the National Diabetes Services Scheme (NDSS)* Contraception, Pregnancy & Women’s Health Survey (2015) women with type 1 or type 2 diabetes (n=967) indicated that diabetes specialists (endocrinologists and diabetes educators) and general practitioners were the health professionals with whom pregnancy and diabetes was most frequently discussed. Interestingly, the majority of women reported that they, rather than health professionals, initiated the conversation about pregnancy and diabetes.

Preconception care in the primary health setting

Despite the documented benefits of preconception care for women with pre-existing diabetes (Ray et al, 2001; Wahabi et al, 2010), many women with diabetes do not plan their pregnancies. Zhu et al (2012) reported that 45% of pregnancies in women with diabetes attending a tertiary obstetric hospital in Western Australia during 2009–2010

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

Citation: Morrison M, Audehm R, Barry A et al (2017) Resources to support preconception care for women with diabetes. Diabetes & Primary Care Australia 2: 50–3

Article points
1. Women with diabetes are at increased risk of adverse pregnancy outcomes. Early intervention and planning can reduce the risks.
2. Primary health care professionals have a key role in providing appropriate contraception to women with diabetes to prevent unplanned pregnancies, as well as encouraging optimal pregnancy planning and preparation.
3. To address the gap in information for women with diabetes who are seeking or already accessing pre-pregnancy advice and care, Diabetes Australia has developed a suite of resources with funding through the National Diabetes Services Scheme.

Key words
- Diabetes in pregnancy
- Education
- Preconception care
- Pregnancy
- Resources
- Type 1 diabetes
- Type 2 diabetes

Authors
See page 53 for details.
were unplanned. While in an earlier Australian multicentre study of pregnancies complicated by diabetes, pre-pregnancy counselling was documented in only 20% of women – 28% of those with type 1 diabetes and 12% of those with type 2 diabetes (McElduff et al, 2005).

Planning for pregnancy
The primary health care setting is where many women with diabetes seek advice on reproductive issues and access contraception. However, in the NDSS Contraception, Pregnancy & Women’s Health Survey (2015) only 49% of Australian women with type 1 or type 2 diabetes could recall being advised by a health professional to use some form of contraception to prevent an unplanned pregnancy, and 55% could recall being advised by a health professional that they should access diabetes-specific pre-pregnancy care before becoming pregnant or planning a pregnancy. These results differed by type of diabetes, with those with type 2 diabetes being less likely to recall receiving advice. These findings are consistent with those reported in the TRIAD (Translating Research into Action for Diabetes) preconception study of US women aged 18–45 years enrolled in managed care (Kim et al, 2005). Of these women, 52% recalled discussions with a health professional regarding glucose control before conception, and 37% could recall receiving family planning advice.

Due to the impact of an unplanned pregnancy on both the developing fetus and mother, adequate contraception should be maintained until glycaemia and all aspects of care are optimised. The longer-acting reversible contraceptives are an excellent choice (e.g. intrauterine contraceptive devices or implant) and are safe for women with diabetes to use. When reviewing contraception in women with diabetes, timing of pregnancy should be discussed. Preconception planning for women with diabetes should occur well before conception. If available, involvement of a specialist diabetes in pregnancy service is recommended.

New NDSS resources to support preconception care
To address the gap in information for women with diabetes who are seeking or already accessing pre-pregnancy advice and care, Diabetes Australia has developed a suite of resources with funding through the NDSS. These resources were developed following extensive consumer and stakeholder consultation, and provide up-to-date, evidence-based pregnancy information for women living with type 1 or type 2 diabetes. The NDSS resources available include the following:

- Pregnancy planning checklist: A checklist to help women with diabetes prepare for a healthy pregnancy. The checklist can be completed as an online tool or downloaded as a printable checklist (Figure 1).
- Having a Healthy Baby booklets: Booklets providing comprehensive information on planning and managing pregnancy. Separate booklets are available for women with type 1 or type 2 diabetes (Figure 2).
- NDSS pregnancy and diabetes factsheet: Available for download in English, Arabic, Chinese, Vietnamese, Korean, Turkish, Urdu, Greek, Italian and Spanish.
- Plan for the best start e-newsletter: A quarterly e-newsletter for women with diabetes and health professionals. It provides information on planning and preparing for pregnancy, and there is access to the latest NDSS resources and research updates.
- Health professional continuing professional development learning: E-learning modules for primary health care providers on the topic of preconception care for women with type 1 or type 2 diabetes. The course includes three modules with two non-assessed case studies and can be accessed from the NDSS pregnancy and diabetes website. CPD points are available for eligible health professionals.

These resources for patients and health care professionals can be accessed at www.pregnancyanddiabetes.com.au. Hard copies of the booklets can be ordered online or by phoning the NDSS Helpline (1300 136 588).
Resources to support preconception care for women with diabetes

Figure 1. Pregnancy planning checklist, to help women with diabetes prepare for a healthy pregnancy. Produced by the National Diabetes Service Scheme.

Other resources

The Australasian Diabetes in Pregnancy Society (ADIPS)-endorsed Pregnant with Diabetes app has been developed for pregnant women with diabetes, and women with diabetes who intend to become pregnant (Figure 3). It is written by Prof. Elisabeth R Mathiesen and Prof. Peter Damm and is based on the recommendations of the Centre for Pregnant Women with Diabetes at Rigshospitalet in Copenhagen, Denmark. The Australian version has been adapted by an Australian working party to reflect the ADIPS guidelines. The app can be downloaded from app stores free of charge. The information covered in the app is suitable for women with gestational, type 1 and type 2 diabetes and covers topics such as: how to plan for pregnancy, goal blood glucose levels, gestational weight gain, diet and carbohydrate intake, physical activity and insulin dosing.

© OmniaMed SB and the Primary Care Diabetes Society of Australia – www.pcdsa.com.au
Conclusion

Primary health care providers play an important role in promoting effective contraception use and encouraging women with pre-existing type 1 or type 2 diabetes to plan and prepare for pregnancy. They are also ideally placed to increase the awareness of women with diabetes about the available resources which are being actively reviewed and developed to meet their needs.

Acknowledgements

The authors are grateful to the women who took part in the NDSS Contraception, Pregnancy & Women's Health Survey, to the Australasian Diabetes in Pregnancy Society for approving the use of the image of the Pregnant with Diabetes app and to Effie Houvardas and Kaye Farrell, for their contribution to Diabetes in Pregnancy.

Resources to support preconception care for women with diabetes

National Development Program Expert Reference Group (2013–16). We acknowledge D. Charron-Prochownik for permission to reproduce questions from the RHAB questionnaire and V. Holmes for permission to use reproductive health knowledge questions in the NDSS Contraception, Pregnancy & Women’s Health Survey.


“Primary care health professionals are also ideally placed to increase the awareness of women with diabetes about the available resources which are being actively reviewed and developed to meet their needs.”

Authors

Melinda Morrison, NDSS Diabetes in Pregnancy Priority Area Leader*, Diabetes, NSW, Glebe, NSW; Ralph Audehm, General Practitioner, Carlton Family Medical and Department of General Practice, University of Melbourne, Vic; Alison Barry, Credentialled Diabetes Educator and Midwife, Mater Mothers’ Hospital, South Brisbane, Qld; Christel Hendriecks, Senior Research Fellow, The Australian Centre for Behavioural Research in Diabetes, Deakin University, Geelong, Vic; Alison Nankervis, Senior Physician to the Diabetes Service, The Royal Women’s Hospital and Clinical Head, Diabetes, Royal Melbourne Hospital, Parkville, Vic; Cynthia Porter, Advanced Accredited Practising Dietitian/Credentialled Diabetes Educator, Geraldton Diabetes Clinic, Geraldton, WA; Renza Scibilia, Manager Type 1 Diabetes and Consumer Voice, Diabetes Australia, Melbourne, Vic; Glynis P Ross, Visiting Endocrinologist, Royal Prince Alfred Hospital, Camperdown, NSW, and Senior Endocrinologist, Bankstown-Lidcombe Hospital, Bankstown, NSW.

*Melinda Morrison is representing Diabetes Australia/National Diabetes Service Scheme.