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Shub, A

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Diabetes and pregnancy

Alexis SHUB

Assoc Professor, Department of Obstetrics and Gynecology, University of Melbourne, Parkville, Australia

Perinatal Department, Mercy Hospital for Women, Heidelberg, Australia

Ph 03 84584504

ashub@unimelb.edu.au

ORCID 0000-0001-9719-5753

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DR. ALEXIS SHUB (Orcid ID : 0000-0001-9719-5753)



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Drs Rudland, Price and Calloway are to be commended for their much needed, detailed, evidence based guideline on the management of diabetes in pregnancy [1].

There are some notable changes in practice from the previous guideline, published in 2005[2]. Significant changes have taken place in advice for preconception care, mental health, gestational weight gain targets, use of aspirin for preeclampsia prevention and intra-partum care.

In no area of obstetrics does the care of the women before she conceives have as much impact on the outcomes for her and her baby as in diabetes. We have long known that the degree of diabetes control in the periconception period has a huge influence on the risk of miscarriage, congenital anomalies and stillbirth [3,4,5]. The guideline highlights the importance of prepregnancy care, with specific advice provided regarding screening for complications of diabetes including renal, retinal, cardiac, autonomic, autoimmune, nutritional and diabetic foot disease. Guidance is also provided regarding referral, glycaemic control, folic acid supplementation, mental health screening, and medication changes including oral glucose lowering medications, statins and renin angiotensin blocking agents. This responsibility to provide prepregnancy care rests broadly with GPs, endocrinologists, fertility specialists, diabetes educators and obstetricians. All of these clinicians must ensure that women are aware of the importance of prepregnancy care, are encouraged to plan their pregnancy, and to delay pregnancy until glycaemic control is optimised. Around one third of pregnancies in Australia are unplanned, but even in planned pregnancies, preconception counselling is not universal [6,7]. Sadly, we see only too often women who have suboptimal glycaemic control leading into pregnancy, and who are not taking appropriate folic acid, sometimes even in pregnancies where the pregnancy has been conceived through assisted reproductive technology – about as planned as it is possible for a pregnancy to be. This guideline

provides detailed advice on preconception care for women with diabetes, and so the challenge remains in ensuring that these messages are widely read and implemented in all the stakeholder groups.

The landscape for people with type 1 diabetes has changed dramatically since the previous guideline publication. Many women are now using a continuous subcutaneous insulin infusion pump, rather than multiple daily injections, and continuous glucose monitors (CGM). These monitors, subsidised in Australia, provide real time feedback for women on glucose levels without the need for a finger prick. CGM is particularly helpful for women with unstable blood glucose levels, suspected/undetected hypoglycaemia, previous severe hypoglycaemia, fear of hypoglycaemia and impaired awareness of hypoglycaemia. RCT data shows improved outcomes for women and neonates from the use of CGM [8]. This technology is now available for women who are planning pregnancy, as well as women who are pregnant. The details of the technology are somewhat intimidating for clinicians who do not regularly deal with people with type 1 diabetes, as is the case for many maternity providers, and close liaison with the endocrinology team, including a diabetes educator is recommended. The guideline provides detailed advice on how to provide the best care for these women, including intrapartum care.

The guideline is based on the best possible published evidence, but often this is consensus opinion or smaller cohort studies. In the same way that pregnant women are often excluded from mainstream clinical trials [9], pregnant women with diabetes are often excluded from clinical trials in obstetrics, or participate in such small numbers so that it can be difficult to extrapolate the findings to these high risk women. Nowhere in the area of diabetes in pregnancy is this more evident than around the administration of antenatal steroids to reduce neonatal respiratory morbidity. We do not have data available to answer the vexed questions around the impact of antenatal steroid administration for women having elective cesarean section before 39 weeks – a relatively common scenario in diabetes, or for delivery in the late preterm period. The potential benefits of decreased respiratory morbidity for the neonate need to be balanced against the disturbance in maternal blood glucose levels, the possible worsening of neonatal cardiac function and the risk of neonatal hypoglycaemia, with subsequent potential long term neurodevelopmental harm. The issues have been summarised succinctly in a recent review article [10]. What should clinicians do in this scenario? The authors have provided helpful detailed advice on the management of blood glucose levels after steroid administration, but can only suggest that the decision to prescribe antenatal steroids takes “into account unique features of the clinical situation, advice from local paediatricians or neonatologists, consideration of local guidelines, and discussion with the woman”.

Similarly, we know that women with prepregnancy diabetes are at increased risk of stillbirth, but the crucial questions of when is the safest gestation to deliver, and what fetal surveillance to undertake leading up to delivery, can only be answered by consensus opinion.

Disappointingly, it seems women with diabetes were not involved in the drafting of this guideline. Women with type 1 and type 2 diabetes have lived with diabetes, often for significant periods of time; the effect of diabetes is lifelong and leaves a legacy reflected in the impact on the woman's offspring. The perspectives of the women with the condition should be considered. In particular, clinicians who become involved in the woman's care for the time around the pregnancy should be mindful that this is a relatively small interval in the woman's life and should be careful to be respectful of their lived experience with diabetes. This experience has not always been positive for some women and can cause distress at times [11]. The clinician's role is to partake in a shared care environment with the women, acknowledging that she has been managing her diabetes every day and offering support to enhance her experience and optimise her pregnancy outcomes. Equally, it is important to acknowledge that some women choose to take a less active role in managing their diabetes, and our job is also to support these women in the best way for them to balance the care of their diabetes and their pregnancy.

The difficulty, as with all guidelines, is with implementation. Clinicians are busy, and some obstetric care providers in regional or remote areas will only see a small number of pregnant women with diabetes each year. These are the clinicians who stand to gain the most from this guideline, in both the full and executive summary. In bigger centres, the management of diabetes in pregnancy has traditionally been undertaken in specialist clinics, tucked away from general antenatal clinics, but as numbers of women with type 2 diabetes increases, including in women of reproductive age, this care may need to be diversified among a broader range of clinicians. The increasing number of women with diabetes, and increasing complexity of their care makes it even more important for all clinicians involved in the care women with diabetes to have access to a resource to help provide the best possible care. We can be grateful to the ADIPs for compiling the evidence for us.

Thanks to Cath McNamara for her assistance and contribution



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