

3 MEDICAL DISORDERS ASSOCIATED WITH PREGNANCY

3.1 DIABETES

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3.1.19 Management of GDM in team obstetric clinics
Section B
Clinical Guidelines
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3.1.19 MANAGEMENT OF GESTATIONAL DIABETES MELLITUS (GDM) IN TEAM OBSTETRIC CLINICS

AIM

The appropriate management of women with gestational diabetes mellitus.

BACKGROUND

The Diabetes Service at KEMH provides expert diabetes and obstetric management within a multidisciplinary team setting for women with diabetes during pregnancy and for those women with pre-existing diabetes who are planning pregnancy.

The current ADIPS (Australasian Diabetes in Pregnancy Society) guidelines for the diagnosis of Gestational Diabetes Mellitus (GDM) on OGTT are a venous plasma glucose level of:

Fasting level of equal to or greater than 5.5 mmol/L

2 hour level of equal to or greater than 8.0 mmol/L

A venous plasma glucose level of 11.1 mmol/L on an oral glucose challenge test (OGCT) is also considered to be diagnostic.

It is also important to recognise that women without a diagnosis of type1, type 2 or GDM are unable to access the National Diabetes Services Scheme (NDSS) for supplies e.g. blood glucose strips. The cost of strips outside the scheme ranges from \$40 - \$70 per pack.

CRITERIA FOR THE MANAGEMENT OF WOMEN WITH GDM

- All women with pre-existing diabetes or diagnosed with GDM attend for diabetes education with the diabetes educator and dietitian.
- Women with an early diagnosis of GDM (<26 weeks) remain with the diabetes service as do women transferred from other hospitals who are on or commencing insulin.
- Women with GDM diagnosed after 26 weeks whether on insulin or not will remain with their own obstetric team for ongoing care.
- Women attending team midwifery clinics and with a 2 hour OGTT level up to 8.9mmol/L may remain within that team unless insulin is commenced in which case they will then transfer to the relevant obstetric team clinic.
- **All women** with a diagnosis of GDM and attending the **Family Birth Centre** are transferred to the relevant obstetric team for management.

- The Diabetes Service Team will continue to provide support and advice to women with GDM and also for team clinic staff when they need assistance with managing suboptimal blood glucose levels.
- The guidelines for fetal and maternal surveillance, timing and mode of delivery for women with GDM are available on the intranet.
- Diet and exercise only
<http://kemh.health.wa.gov.au/development/manuals/sectionb/3/3370.pdf>
- Insulin and oral hypoglycaemic agents
[http://www.kemh.health.wa.gov.au/development/manuals/O&G_guidelines/sectionb/3/b3.1.9.p](http://www.kemh.health.wa.gov.au/development/manuals/O&G_guidelines/sectionb/3/b3.1.9.pdf)

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Process for the Management of GDM in Team Obstetric Clinics

- Women diagnosed with GDM are referred to the Diabetes in Pregnancy Service.
- Referrals to the diabetes service should be FAXED on 2164. All appointments **MUST** be made via the diabetes service on ext 2163 / 2168.
- Women are contacted by the diabetes educator and invited to attend a 2 hour education session followed by a review session within 1 – 2 weeks. Both these sessions are held with a diabetes midwife/ educator and dietitian working together. Women are taught to self blood glucose monitor at home, and keep a record of their blood glucose levels and food intake.
- A sticker is placed on the MR004 advising that the woman has GDM, reminding health care professionals to review BGL's records at hospital visits and includes recommended blood glucose goals.
- **The responsibility for reviewing blood glucose levels during routine antenatal clinic visits will remain with the health professional undertaking the antenatal check.**

Current ADIPS recommended goals for self blood glucose monitoring are:

- Fasting <5.5mmol/L
- Two hours post-prandial <7.0mmol/L

Recommended Frequency of Testing

- Four times per day (fasting and 2-hrs after each meal) on two or three days of the week.
- Additional testing may be requested and the frequency of testing is increased when women commence on insulin.

Sub-optimal Blood Glucose levels

- BGL's are considered suboptimal if:
 - Fasting > 5.4 mmol/L on two successive occasions in the previous week and / or 2 hour post prandial levels >6.9mmol/L on 2 or more meals in a day or two readings for a particular meal time within a week.

Management of Women with Sub-optimal BGL's

- If BGL's are sub-optimal contact the Dietitian on pager 3348. The dietitian will attend the ANC and review the woman's BGLS's to establish whether any additional dietary modification can be made.
- The dietitian will liaise directly with the obstetric medicine physician/ registrar and/ or diabetes educator to consider treatment options.
- All women on insulin are invited to participate in the Diabetes Service 'Insulin Adjustment Program' (ambulatory stabilization program) the aim of which is to help women achieve good diabetes control by providing education, support and assistance in managing their diabetes including insulin adjustment.
- Women are encouraged to take responsibility for making contact with the diabetes educators.
- After insulin is commenced the frequency of antenatal visits may need to be increased.
- ***When a woman is on insulin, review of blood glucose levels and insulin adjustment should be managed by a doctor, credentialed diabetes educator (page 3309) or the obstetric medicine physician/ registrar (page 3369)***

Insulin Planning for Birth and Postpartum

- Most women with GDM requiring insulin will not require an insulin infusion during labour or birth or during an elective Caesarean section.
- The guidelines for monitoring BGL's during labour apply and an insulin infusion should be commenced if the BGL's >7mmol/L.
See guidelines for further information.
http://www.kemh.health.wa.gov.au/development/manuals/O&G_guidelines/sectionb/3/b3.1.13.pdf
- If women are taking evening intermediate acting insulin e.g. protophane, the dose prior to the planned date of delivery is usually reduced by 50%
- The "Insulin Planning for Birth and Postpartum" sticker will be placed on the MR004 by the Diabetes Service when the woman commences insulin.
- Women admitted for IOL requiring cervical priming should be admitted during the late afternoon / evening and receive her normal pre-evening meal insulin and half the intermediate acting dose whilst in hospital.
- Women admitted in the morning for **IOL by ARM/ Syntocinon** should be advised to take half the night time dose of insulin at home and take her normal insulin should she have breakfast in the morning.
- Women admitted in the morning for **planned elective Caesarean Section** should have half the night time insulin. A special note should be made when booking the Caesarean Section that the woman has GDM, on insulin, and should have an early slot on the elective Caesarean Section list.

- All women with GDM on insulin will cease insulin either prior to labour or at the time of the birth if an insulin infusion was required.
- To ensure BGL's have returned to normal a 4 x point profile is done on day 2.
- A diabetes educator and medical registrar will review blood glucose levels and determine if further medication is required to manage blood glucose levels.
- All women return to their GP for follow-up OGTT and further management.
- Women who may need additional support and contact with the Diabetes Service include:
 - Obese women – where optimal glucose control is more difficult achieve
 - Women who test infrequently – or forget their record books or meters to review.
- If a woman forgets to bring her book for review contact the Diabetes educator (pager 3309).
- If the woman has her BG meter with her it may be possible to download results. The educator will also organise appropriate review of the women's glucose levels, usually over the telephone.

Women commenced on insulin or where adjustments to insulin regimes have been made.

- Women on insulin during pregnancy participate in the Insulin Adjustment Program to encourage regular contact with the diabetes educators.
- Where blood glucose levels are difficult to control, the patient may be referred back to the diabetes service for management.