

Management of Gestational Diabetes during Covid-19

The antenatal management of women with gestational diabetes (GDM) requires modification to reflect the current challenges and pressures on healthcare caused by the Covid-19 pandemic. The proposed changes are both to reduce the risk of infection to both women themselves and members of staff, and in response to limited resources.

General advice

Reduce the number of routine face to face antenatal appointments.

Minimise the number of hospital appointments e.g. timing obstetric scans/bloods together with obstetric review.

Offer women alternatives to hospital appointments e.g. telephone consultations and community reviews.

Specific recommendations during the Covid period for women with GDM

The oral glucose tolerance test (GTT) is no longer being performed to screen/diagnose gestational diabetes.

All women at risk of developing GDM are identified at booking and have bloods tests for HbA1c and random blood glucose (RBG). Those who test positive are referred to the GDM pathway, and those who are negative are re-tested at 28 wks.

Women with a history of GDM in a previous pregnancy are automatically referred to the GDM pathway.

Patient education group sessions have been suspended. These are replaced by online training on GDM education and self-glucose monitoring.

All women need to be aware of the importance of self-glucose monitoring and have a responsibility to inform the diabetic specialist midwife if values become out of range. They should NOT contact their community midwife.

Symphysis-fundal height measurements at 28wk and 32wk are plotted on the women's personalised GROW charts. Any concerns are referred for an urgent growth scan as per local guidance e.g. suspected small for gestational age or polyhydramnios.

All women will have a 36wk growth scan and obstetric review to plan delivery. Timing of delivery and mode of delivery remain unchanged.

Additional growth scans may be required depending on co-morbidities and obstetric risk factors.

Postnatally, women are recommended to have screening for Type 2 diabetes after 3-6 months.

Screening for Gestational Diabetes

All women need to be risk assessed for developing GDM at their booking appointment using the amended “Screening For Gestational Diabetes” form (Appendix 1).

Any woman fulfilling the criteria for GDM screening will need a HbA1c and random blood glucose. This is taken together with their booking bloods and requested through ICE, and is part of the antenatal booking bloods profile (see below diagrams).

The screenshot shows the ICE system interface. On the left is a navigation menu with options: Patient Search, Discharge, Reporting, Requesting, New Request, View Requests By Patient, View Requests By Location, and Service Provider List. The main area displays the 'Antenatal Booking bloods' profile, which is divided into three columns: Labour Ward, Out-patient, and In-patient. The Labour Ward column includes Pre-eclampsia/Tenaxia and Stillbirth. The Out-patient column includes Antenatal Booking bloods, Thrombophilia - Miscarriage, Viral Screen, Identity Baseline, Obstetric hep B, 1st line Test Panel Obstetric Cholestasis, 2nd line Test Panel Obstetric Cholestasis, and 28 Week Bloods. The In-patient column includes Infectious Screen and Viral Screen. A 'Set as Default Panel' button is located at the bottom left of the main area.

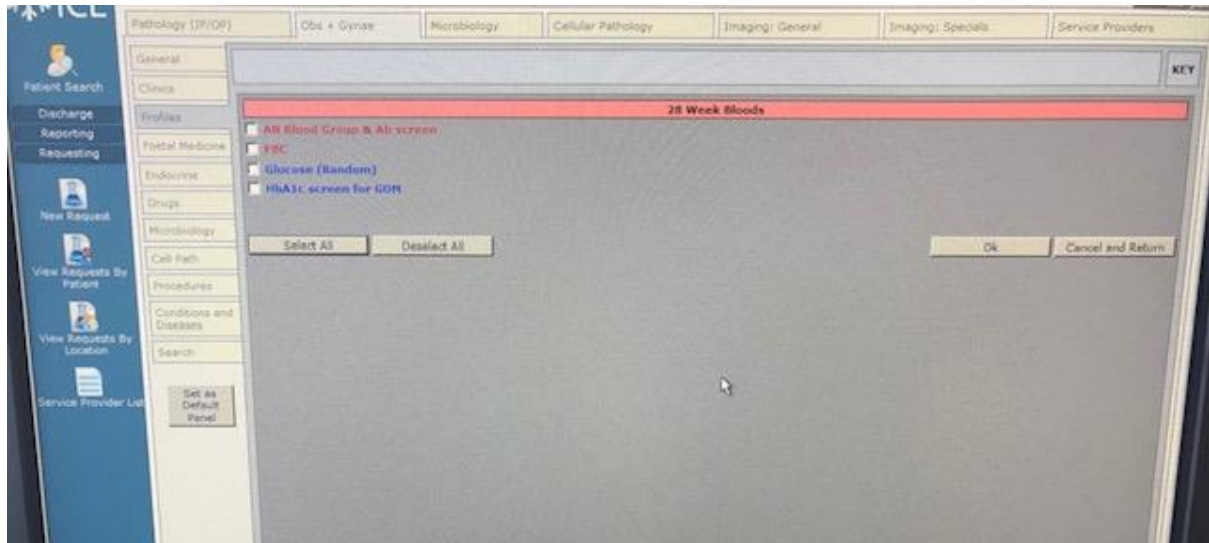
The screenshot shows the ICE system interface with the 'Antenatal Booking bloods' form open. The form has a red header and a list of checkboxes for various tests: Antenatal Booking Blood Serology, Antenatal Hb screening, FBC, All Blood Group & Ab screen, Family Origin Questionnaire, Declined Tests, Urine M C & S, HbA1c screen for GDM, and Glucose (Random). Below the list are 'Select All' and 'Deselect All' buttons. At the bottom right are 'Ok' and 'Cancel and Return' buttons. The left navigation menu is the same as in the previous screenshot.

It is crucial to ensure the correct gestation is filled in whenever blood is taken to screen for GDM as the normal reference ranges for HbA1c vary throughout the pregnancy.

HbA1c is tested from an EDTA bottle. Therefore, for women having their standard booking bloods and requiring screening for GDM they need TWO standard EDTA samples PLUS the usual larger EDTA for the antenatal group and screen taken.

Once blood is taken, the relevant paper slip from the screening form needs to be completed and posted in the “GDM screening” Box in Maternity Reception. The rest of the screening form needs to be filed in the patient’s handheld notes.

If the result is normal, then the woman needs to be re-tested at 28wks by HbA1c and RBG. This is ordered through ICE "Obs & Gynae Profiles → 28 wk GDM screening bloods" (see diagram).



Likewise, the relevant paper slip from the GDM screening form needs to be completed and dropped to Maternity Reception.

All patients who undergo GDM screening will have their results followed up by midwife Sally Jacobs and/or the Diabetic Specialist Midwife. This will be safety netted by automated electronic alerts from Pathology.

If clinical suspicion of GDM arises during pregnancy i.e. heavy glycosuria (2+ or above), overt symptoms of diabetes or ultrasound features (large for gestational age /polyhydramnios) the patient should be tested by HbA1c and RBG. If they have already had a negative test at 28 weeks then refer the woman to the Diabetic Specialist midwife to start blood glucose monitoring.

Women who have had GDM in a previous pregnancy should be automatically referred onto the pathway and do **not** require testing.

HbA1c Covid-19 infection does not increase the risk of developing gestational diabetes.

Diagnosis of Gestational Diabetes

The reference ranges for HbA1c and RBG vary depending on gestation. The criteria for diagnosing GDM will be displayed on the ICE result page for ease of reference.

At booking

- Women with HbA1c ≥ 48 mmol/mol or RBG ≥ 11.1 mmol/L should be managed as having type 2 diabetes
- Women with HbA1c 41-47 mmol/mol, or RBG 9-11 mmol/L should be managed as having GDM

After 24 weeks

Women with either HbA1c ≥ 39 mmol/mol or RBG ≥ 9 mmol/l will be diagnosed to have GDM

All positive results will be followed up by the Diabetic Specialist Midwife. Women will be contacted within 5 working days and asked to come into Antenatal Clinic to collect a starter kit. This includes a glucose meter and information about online patient education/training.

All women will have a face to face appointment in Antenatal Clinic within 2 weeks of diagnosis.

Women with Previous Gestational Diabetes

Women who had gestational diabetes in a previous pregnancy are automatically referred onto the GDM pathway and do not require screening. This is done by emailing rosa.trepiccione@ldh.nhs.uk.

Blood needs to be taken for HbA1c together with their booking bloods. This is requested through ICE and found under the antenatal booking bloods profile.

Women will be contacted by one of the diabetic specialist midwives between 12 and 14 weeks gestation, and asked to start blood glucose monitoring.

Women with Bariatric Surgery

Women who have had bariatric surgery (gastric band/sleeve) are not suitable for GTT because of potential side effects e.g. dumping effect. However, they would be suitable for this amended way of screening.

Women who have had bariatric surgery will need to be screened for GDM at booking, and again at 28 weeks if normal. This will be done by HbA1c and RBG.

Regardless of their GDM status these women need to remain under consultant-led care and have an obstetric growth scan at 36 weeks.

References

Coronavirus infection and pregnancy (RCOG)

Guidance for maternal medicine services in the evolving coronavirus pandemic (RCOG)

Antenatal Care Pathway for Previous GDM Patients

Gestation	Routine Care	Covid-19 Care
Booking	Start blood glucose monitoring from 12-14 weeks	Midwife telephone consultation HbA1c with booking bloods
16-20 wk	Obstetric review in ANC and plan on-going management Review blood glucose diary Anomaly scan	Dietician telephone consultation
25wks		Community midwife phone consultation
28 wks	Obstetric review in ANC Review blood glucose diary Routine 28wk bloods	Symphysis fundal height measurement
32 wks	Obstetric review in ANC Review blood glucose diary	Symphysis fundal height measurement
36 wks	Obstetric review in ANC and plan delivery Fetal growth scan	HbA1 3-6 months postpartum
38 wks	Community midwife appointment	

Antenatal Care Pathway for GDM Patients

Gestation	Routine Care	Modified Care due to Covid-19
Booking		Midwife telephone consultation HbA1c and fasting glucose if risk factors for developing GDM Online patient education
16-20 wk	Obstetric review in ANC and plan on-going management Review blood glucose diary Anomaly scan	Dietician telephone consultation
25wks		Community midwife phone consultation
28 wks	Obstetric review in ANC Review blood glucose diary Routine 28wk bloods	Symphysis fundal height measurement Repeat screening for GDM if previously negative at booking and review in ANC within 2 weeks of positive result
32 wks	Obstetric review in ANC Review blood glucose diary	Symphysis fundal height measurement
36 wks	Obstetric review in ANC and plan delivery Fetal growth scan	HbA1 3-6 months postpartum
38 wks	Community midwife appointment	

COMPLETE AND FILE IN GREEN HANDHELD NOTES

Addressograph

SCREENING FOR GESTATIONAL DIABETES DURING COVID

REQUIRED/ NOT REQUIRED (pls circle)

Previous Gestational Diabetes

Refer straight to Rosa via email rosa.trepiccione@ldh.nhs.uk

Name of midwife

Signature

Date

Risk Factors for Gestational Diabetes (undertaken at Booking)

- Booking BMI >30
- First degree relative with diabetes
- Ethnicity (South Asian, Black Caribbean, Middle Eastern)
- Previous baby > 4.5kg
- History of gastric/bariatric surgery

If patient has any of the above risk factors they will need screening at booking AND again at 28 weeks by HbA1c and random blood glucose

Tear off the below slips when the blood is taken and post in GDM screening Box in Maternity Reception.

Name of midwife

Signature

GDM screening at 28 Weeks (if negative at booking)

HbA1c and random blood glucose taken on _____

Patient contact number _____

Name of midwife

Addressograph

GDM screening at Booking

HbA1c and random blood glucose taken on _____

Patient contact number _____

Name of midwife

Addressograph