East Sussex Healthcare
NHS Trust

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FOI REF: 25/688

16th October 2025

FREEDOM OF INFORMATION ACT

I am responding to your request for information under the Freedom of Information Act. The answers to your specific questions are as follows:

- **Please provide a copy of your Trust's current local guideline(s), protocol(s) or policy documents relating to the management of suspected fetal macrosomia/large for gestational age.**

- **If multiple documents exist, i.e, obstetric guidelines, maternity clinical protocols, induction of labour, etc, I would be grateful if all of these relevant documents could also be provided.**

Please find attached the following documents:

- 01182_P

- 423-08-Clinical Guideline for Diabetes Mellitus in Pregnancy

Please note that it is East Sussex Healthcare NHS Trust's FOI policy to only provide names of staff that are grade 8a or above. We have therefore redacted these names from the documents above.

We have also redacted the names of individuals that do not work for the Trust, personal email addresses and the names of any Trust IT Systems and applied the following exemptions:

I can confirm that we hold this information, but it is exempt under section 40(2) of the Freedom of Information Act 2000 – Personal Information of third parties. This is because disclosure of this information would breach the principles of the Data Protection Act.

This is an absolute exemption and there is, therefore, no requirement to consider the public interest.

We are unable to provide the contact details of staff as we consider this information to be exempt from release in accordance with section 44 of the Freedom of Information Act (Prohibition on disclosure) and would refer to the Privacy and Electronic Communications EC Directive Regulations 2003 which provide specific rules on electronic communication services, including marketing (by phone, fax, email or text) and keeping communications services secure. We will not provide any information that could result in the transmission of unsolicited communications which may place an unacceptable risk to our email network and could also have a detrimental impact on patient care and treatment.

The contact number for the Trust are accessible on the Trust website http://www.esht.nhs.uk.

This is an absolute exemption and there is, therefore, no requirement to consider the public interest.

Under Section 1(1)(a) of the Freedom of Information Act (FOIA), the Trust can confirm that it holds information relevant to your request, however, we are unable to disclose it for the reasons explained below.

Historically, we would disclose information relevant to the Trust's IT systems, infrastructure and software as part of our transparency agenda under the terms of the Freedom of Information Act (FOIA). However, in light of the recent cyber-attacks on NHS hospitals and the serious impact these have had on patient services and the loss of patient data, we are having to reconsider this approach. Please see several links to news articles about these recent cyber incidents provided below for your information.

- *NHS England — London » Synnovis Ransomware Cyber-Attack*
- *NHS England confirm patient data stolen in cyber attack - BBC News*
- *Merseyside: Three more hospitals hit by cyber attack - BBC News*

As a result of these attacks, thousands of hospital and GP appointments were disrupted, operations were cancelled, and confidential patient data was stolen which included patient names, dates of birth, NHS numbers and descriptions of blood tests.

When we respond to a Freedom of Information request, we are unable to establish the intent behind the request. Disclosure under the FOIA involves the release of information to the world at large, free from any duty of confidence. Providing information about our systems or security measures to one person is the same as publishing it for everyone. While most people are honest and have no intention of misusing information to cause damage, there are criminals who look for opportunities to exploit system weaknesses for financial gain or to cause disruption.

In the context of the FOIA, the term ''public interest'' does not refer to the private or commercial interests of a requestor; its meaning is for the "public good". The Trust receives a significant number of requests each year regarding our IT systems, infrastructure and cyber security measures. Most of these requests are commercially driven and serve no direct public interest. Information relevant to our IT portfolio is often requested by consultancy companies who then pass on this information to their client

base. Many of these requests are submitted through the FOI portal whatdotheyknow.com who publish our responses, making this information available to an even wider audience.

As a large NHS Trust we hold extensive personal data relevant to our patients and staff, much of which is considered very sensitive. A lot of this information is held electronically on various administration and clinical systems. We have a duty under the Data Protection Act 2018 and the UK GDPR to protect this personal information and take all necessary steps to ensure this data is kept safe. This means not disclosing information that could allow criminals to gain unlawful access to our systems and infrastructure. The Trust can be heavily fined should it be found to have acted in a negligent way which results in a personal data breach. We need to demonstrate that we comply with our legal obligations under data protection and freedom of information legislation, but we must be careful that too much transparency does not result in harm to our patients or staff, or cause disruption to our services.

Moreover, under the Network and Information Systems (NIS) Regulations Act 2018, operators of essential services such as NHS organisations like ours have a legal obligation to protect the security of our networks and information systems in order to safeguard our essential services. By releasing information that could increase the likelihood or severity of a cyber-attack, the Trust would fail to meet its security duties as stated in section 10 of the Network and Information Systems Regulations 2018. Should we not comply with these requirements regulatory action can be taken against the Trust. Further information about the Network and Information Systems (NIS) Regulations Act 2018 can be found here – The Network and Information Systems Regulations 2018: guide for the health sector in England - GOV.UK

Your request asks for specific details regarding our IT Systems which, for the reasons explained above, would be inappropriate to release into the public domain. If disclosed, it is possible that patient data as well as other confidential information would be put at risk. Such disclosure could also impact on the security of our systems and result in serious disruption to the health services we deliver to the local community. Section 31(1)(a) of FOIA provides that information is exempt if its disclosure would, or would be likely to, prejudice (a) the prevention or detection of crime. In this case, disclosure would be likely to prejudice the prevention of crime by enabling or encouraging malicious acts which could compromise the Trust's IT systems and infrastructure. The Trust's capacity to defend itself from such acts relates to the purposes of crime prevention and therefore section 31(a) exemption is applicable in these circumstances. For these reasons, the Trust considers disclosure of the IT Systems to be exempt under section 31(1)(a) [*law enforcement*] of the FOIA and therefore this information is being withheld in its entirety. The full wording of section 31 can be found here: Freedom of Information Act 2000

Section 31 is a *qualified* exemption and therefore we must consider the prejudice or harm that may be caused by disclosure of the information you have requested, as well as apply a public interest test that weighs up the factors in maintaining the exemption against those in favour of disclosure.

In considering the prejudice or harm that disclosure may cause, as explained should the Trust release information into the public domain which draws attention to any weaknesses relevant to the security of our systems or those of a supplier, this information could be exploited by individuals with criminal intent. Increasing the likelihood of criminal activity in this way would be irresponsible and could encourage malicious acts which could

compromise our IT systems or infrastructure, result in the loss of personal data and/or impact on the delivery of our patient services. We consider these concerns particularly relevant and valid considering the increasing number of cyber incidents affecting NHS systems in recent years and the view by government, the ICO and NHS leaders that the threat of cyber incidents to the public sector is real and increasing.

- Organisations must do more to combat the growing threat of cyber attacks | ICO

In the Government's Cyber Security Strategy 2022-2030, the Chancellor of the Duchy of Lancaster and Minister for the Cabinet Office states on page 7:

> *"Government organisations - and the functions and services they deliver - are the cornerstone of our society. It is their significance, however, that makes them an attractive target for an ever-expanding army of adversaries, often with the kind of powerful cyber capabilities which, not so long ago, would have been the sole preserve of nation states. Whether in the pursuit of government data for strategic advantage or in seeking the disruption of public services for financial or political gain, the threat faced by government is very real and present.*
>
> *Government organisations are routinely and relentlessly targeted: of the 777 incidents managed by the National Cyber Security Centre between September 2020 and August 2021, around 40% were aimed at the public sector. This upward trend shows no signs of abating."*

With this in mind, we then considered the public interest test for and against disclosure. It should be noted that the public interest in this context refers to the public good, not what is 'of interest' to the public or the private or commercial interests of the requester. In this case we consider the public interest factors in favour of disclosure are:

- Evidences the Trust's transparency and accountability
- Provides information relevant to the IT systems and applications the Trust uses
- Reassures the public and partners that the Trust procures these systems in line with Procurement legislation
- Reassures the public and partners that the Trust's IT infrastructure and systems are secure

Factors in favour of withholding this information are:

- Public interest in crime prevention
- Public interest in avoiding disruption to our health services
- Public interest in maintaining the integrity and security of the Trust's systems
- Public interest in the Trust avoiding the costs associated with any malicious acts (e.g. recovery, revenue, regulatory fines)

- Public interest in complying with our legal obligations to safeguard the sensitive confidential information we hold

In considering all of these factors, we have concluded that the balance of public interest lies in upholding the exemption and not releasing the information requested. Although disclosure would provide transparency about our software systems and IT infrastructure, this is outweighed by the harm that could be caused by people who wish to use this information to assess any vulnerabilities in our security measures and consequently use this information for unlawful purposes. Cybercrime can not only lead to major service disruption but can also result in significant financial losses. As a publicly funded organisation, we have a duty for ensuring our public funding is protected and spent responsibly. Moreover, as a public body the Trust must demonstrate that it keeps its confidential data and IT infrastructure safe and complies with relevant legislation, but at the same time we must be vigilant that transparency does not provide an opportunity for individuals to act against the Trust. In considering the impact that recent cyber-attacks have had on NHS services, including the cancellation of thousands of patient appointments and procedures as well as the loss of confidential patient data, we consider the overriding public interest lies in withholding this information. The private or commercial interests of a requester should not outweigh the public interest in protecting the integrity of our systems and continuity of our essential patient services. Although we appreciate there may be legitimate intentions behind requesting this information, we must take a cautious approach to requests of this nature and appreciate your understanding in this matter.

It is important to note that the Trust and its commissioning partners are required to follow very specific rules when procuring equipment or services. Information about procurement and tendering can be found on our website – Governing documents, incorporating: Standing Orders, Standing Financial Instructions, Scheme of Delegation.

To contact the Procurement Service, please email - esht.procurement@nhs.net.

If I can be of any further assistance, please do not hesitate to contact me.

Should you be dissatisfied with the Trust's response to your request, you have the right to request an internal review. Please write to the Freedom of Information Department (esh-tr.foi@nhs.net), quoting the above reference, within 40 working days. The Trust is not obliged to accept an internal review after this date.

Should you still be dissatisfied with your FOI request, you have the right of complaint to the Information Commissioner at the following address:

The Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
Cheshire SK9 5AF

Telephone: 0303 123 1113

Yours sincerely

Freedom of Information Department
esh-tr.foi@nhs.net

East Sussex Healthcare NHS Trust

Clinical Guideline for Diabetes Mellitus in Pregnancy

Document ID number	423
Version:	V8
Ratified by:	Medicines Optimisation Group (MOG)
Date ratified:	November 2023
Name of author and title:	[redacted] Senior Diabetes Specialist Nurse [redacted] Diabetes Specialist Nurse [redacted] Diabetes Specialist Nurse Dexter Pascall Consultant Obstetrician Mini Nair Consultant Obstetrician
Date originally written:	October 2004
Date of current version was completed	September 2023
Name of responsible committee/individual:	Chair of the Guideline Implementation Group for Maternity Services
Date issued:	12 January 2024
Review date:	November 2026
Target audience:	All Staff
Compliance with CQC Fundamental Standard	Woman/pregnant person-Centred Care (9) Dignity and Respect (10) Safe Care and Treatment (12)
Compliance with any other external requirements (e.g. Information Governance)	NICE, RCOG
Associated Documents:	Service Specification Continuous Glucose Monitoring and Pregnancy.

Version Control Table

Version number and issue number	Date	Author	Reason for Change	Description of Changes Made
V2 2004122	October 2004	[redacted]	Clinical Update	
V3 2007056	May 2007	Mr Zaidi et al	Clinical Update	
V3.1 2007085	June 2007	Mr Zaidi et al	Clinical Update	
V4 2008036	February 2008	Mr Zaidi et al	Clinical Update	
V5 2009260	November 2009	Dexter Pascall	Clinical Update	
V1.0 2012320	December 2012	Dexter Pascall/ Cathy O'Callaghan	Clinical Update	
V6 2016035	September 2015	Mini Nair, Dexter Pascall [redacted]	Clinical Update	
V6.1 2017080	April 2017	[redacted], Diabetes Specialist Nurse	Inclusion of Information	Appendix C added
V6.2 2017141	June 2017	[redacted] Diabetes Specialist Nurse	Inclusion of Information	Appendix B changed
V6.3	February 2020	Gayle Clarke	Clinical Update	Replacing Syntocinon with Oxytocin
V 7.0	February 2021	Dexter Pascall	Clinical Update	Addition to 6.1.1 on blood glucose and ketone monitoring
V 8.0	September 2023	Dexter Pascall [redacted]	Clinical Update	Updated to new NICE Guidance

Consultation Table

This document has been developed in consultation with the groups and/or individuals in this table:

Name of Individual or group	Title	Date
David Lipscomb	Diabetes and Endocrinology	Sept 2015
Umesh Dashora	Diabetes and Endocrinology	Sept 2015
Sathis Kumar	Diabetes and Endocrinology	Sept 2015
David Till	Diabetes and Endocrinology	Sept 2015
Clinical Directorate Team	Obstetrics and Gynaecology	Sept 2015
Diabetes multidisciplinary team	Diabetes and Endocrinology	Sept 2015
Guideline Implementation Group		Jan 2015
Mini Nair	Obstetrics and Gynaecology	Sept 2015
Dexter Pascall	Obstetrics and Gynaecology	Sept 2015
Women, Children's and sexual health clinical unit	Obstetrics and Gynaecology	Jan 2016
Women, Children's and sexual health clinical unit (Chairs Action)	Nicky Roberts	February 2021
Women and Children's Guideline Implementation group		September 2023
Stephanie Collins Lead Pharmacist for Women's, Children and Sexual Health		September 2023
Women and Children's Governance and Accountability		November 2023
Medicines Optimisation Group (MOG)		November 2023

This information may be made available in alternative languages and formats, such as large print, upon request. Please contact the document author to discuss.

Table of Contents

1. Introduction and Rationale

Diabetes in pregnancy is associated with risks to the women and pregnant women/pregnant people and developing foetus. There are more adverse pregnancy outcomes for women/pregnant people with diabetes and their babies compared to those who do not have diabetes. The prevalence of diabetes is increasing (NICE 2015).

This guideline provides guidance for clinical staff on the care of women and pregnant women/pregnant people during pregnancy who develop gestational diabetes, and those who have pre-existing diabetes.

To reduce the complications to parent and baby the blood glucose needs to be maintained within acceptable limits.

Women and pregnant women/pregnant people with diabetes should have the opportunity to make informed decisions about their care and treatment, in partnership with their health care professionals. It is vital there is a team approach to care between the obstetric and medical diabetes team. Early antenatal referral to joint diabetic/obstetric clinic is recommended.

The core multidisciplinary team consists of an Obstetric Consultant, Diabetes Consultant, Diabetes Specialist Nurse, Diabetes Dietitian, Diabetes Midwife providing holistic pregnancy care planning within a one stop multidisciplinary clinic. There is a pathway for the provision/access to additional support (e.g., asylum support, psychology, mental health) within the integrated service of antenatal care within the department. All documented on the electronic system.

Collaboration within the team is essential in management of this group of Women and pregnant women/pregnant people throughout pregnancy (for convenience obstetric and medical management is differentiated within the guideline).

2. Purpose

This document applies to all staff caring for women/pregnant people within the maternity services at East Sussex Healthcare NHS Trust (ESHT).

3. Definitions

Gestational diabetes mellitus (GDM) - Diabetes diagnosed in pregnancy.

Pre-existing Diabetes - type 1 or type 2 diabetes

OGTT - Oral glucose tolerance test

VRIIII - Variable rate intravenous insulin infusion

SMBG - Self monitoring blood glucose

CBG - Capillary blood glucose

SDP – Single Deepest Pocket

4. Accountabilities

4.1 Midwives and Obstetricians

- To access, read, understand and follow this guidance.
- To use their professional judgement in application of this guideline

4.2 Management

- To ensure the guideline is reviewed as required in line with the Trust and National guidelines
- To ensure the guideline is accessible to all relevant staff
- To monitor audit

5. Process

5.1 Screening for Gestational Diabetes

Recent evidence overwhelmingly demonstrates that treatment of gestational diabetes improves maternal and perinatal morbidity.

Screening within this Trust is based primarily upon the recommendations of the NICE ***(NICE Diabetes in Pregnancy 2015)*** guidelines and findings from local audit of our population.

Women and pregnant women/pregnant people with any of the following pre-pregnancy risk factors at booking should be booked for an OGTT between 26-28 weeks (closer to 28 weeks). This should be arranged at the booking visit when the risk assessment is performed.

- Previous baby weighing 4.5kg or more.
- First degree relative with pre-existing diabetes
- History of polycystic ovarian syndrome
- BMI above 30kg/m^2 at booking
- Family origin with a high prevalence of diabetes (South Asian, Black Caribbean, and Middle Eastern)
- Previous gestational diabetes (see 5.2)

5.2 Previous Gestational Diabetes

An OGTT will be requested at booking by the midwife for all Women and pregnant women/pregnant people who have had a history of GDM in previous pregnancy and should be performed as soon as possible. Routine SMBG should not be offered as an alternative. The request form must clearly state the patient is pregnant as plasma glucose diagnostic values differ for GDM versus diabetes mellitus outside of pregnancy.

If OGTT is normal, a repeat OGTT should be performed between 26-28 weeks gestation unless clinically indicated sooner. A positive result will be communicated to the patient by the diabetes midwife who will also contact the diabetes team. The patient will be seen in the next antenatal diabetes clinic to be arranged by midwife/diabetes team.

5.3 Risk Factors Developing in the Pregnancy

Antenatal polyhydramnios (SDP greater than 8cm), macrosomia (EFW greater than 95th centile on scan) or persistent glycosuria (1+ or more on two or more occasions or 2+ or above on one occasion) are indications for an OGTT.

If these are new findings, at any stage in pregnancy until 36 weeks, even if there was a normal OGTT prior to the occurrence, an OGTT should be arranged.

When risk factors occur later than 28 weeks (third trimester) an urgent OGTT should be performed to exclude, or diagnose, gestational diabetes. The consensus amongst consultants leading the joint obstetric/endocrine clinics is that these Women and pregnant women/pregnant people should have an OGTT as the benefits of the diagnosis far outweigh the risks to the foetus of a lack of diagnosis.

It is important to diagnose, or exclude, gestational diabetes as this may alter the outcome and/or management of the patient in the remainder of the pregnancy.

In exceptional circumstances where OGTT cannot be done (vomiting after glucose or after gastric bypass surgery with dumping syndrome etc.) SMBG can be offered as an option by the consultants in the joint obstetric/ endocrine clinic. The intensity of monitoring and subsequent intervention would depend upon the results and will be agreed in the joint clinic.

Glycosuria
1+ or more on two or more occasions or 2+ or above on one occasion are indications for an OGTT until 36 weeks. Arrange an OGTT as soon as possible regardless of gestation and even if previous OGTT was normal.

Diagnosis in advanced gestation
After 36 weeks of gestation, patients should be referred to the joint obstetric/diabetes clinic and the team will decide whether to do the OGTT or monitoring or both.

Refer urgently to obstetric and diabetes consultants if the OGTT is positive in any of the above situations.

5.4 Modified Oral Glucose Tolerance Test

OGTT's are booked via an appointment system. The member of staff booking the test is responsible to ensure timely review of the results and documentation of these results in the maternity records.

- The woman/pregnant person must fast for 10 hours prior to commencing the test (they can drink water only during this time)
- Fasting Plasma Glucose (FPG) taken at the appointed time.
- 75g glucose drink consumed (Polycal or Rapilose as second option if Polycal not tolerated)
- The Women and pregnant women/pregnant people should not undertake any exercise during the test, should not smoke or consume food or anything other than water between the two blood tests.
- Further blood sample taken after two hours.

If the initial OGTT is invalidated by vomiting, this should be discussed with the diabetes team who will decide on further action, usually to repeat the OGTT with anti-emetics. The laboratory will contact the diabetes team in the event of an invalidated OGTT in pregnancy. If a Women and pregnant women/pregnant person declines an OGTT when it is indicated, they must be counselled thoroughly by the midwife of the possible risks and the obstetric consultant informed.

Diagnostic criteria of diabetes in pregnancy following OGTT (NICE 2015)

- Fasting plasma glucose $\geq$ 5.6 mmol/L

OR/AND

- Two hour plasma glucose $\geq$ 7.8 mmol/L

5.5 Referral to diabetes team

- The diabetes midwives will inform the patient of the diagnosis, inform relevant diabetes team and make appointment in next joint antenatal clinic in appropriate hospital.

6. Antenatal Care

When a diagnosis of GDM is made the diabetes team must be informed as soon as possible. Offer Women and pregnant women/pregnant people with a diagnosis of GDM a review with the joint diabetes and antenatal clinic within one week. Most women/pregnant people will need to be reviewed at a minimum of once every two weeks for CBG control and often weekly towards the end of pregnancy. This plan of care is individualised dependent upon co-existing medical or obstetric conditions.

The pregnant women/pregnant people will be advised of the effect of diabetes on pregnancy and effects of pregnancy on diabetes at their initial visit to the joint clinic.

The pregnant women/pregnant people with pre-existing diabetes or GDM should be offered midwifery care by either core team or the diabetes midwives and should see their midwife regularly during the pregnancy to have access to information and care with regard to pregnancy and childbirth.

Women and pregnant women/pregnant people with pre-existing diabetes with complications secondary to long-term illness e.g. retinopathy and nephropathy are referred to the relevant subspecialty. Management in pregnancy is co-ordinated by MDT discussion and referral to the maternal medicine network as indicated by the agreed regional pathway.

All Women and pregnant women/pregnant people with diabetes should receive dietary advice from a specialist diabetes dietitian (DSD) or a member of the team competent in offering this advice.

All Women and pregnant women/pregnant people are advised on regular exercise – 30 minutes after a meal.

If blood glucose targets are not met with diet and exercise changes within 1 to 2 weeks, offer metformin or insulin as indicated. Note that this is an off-label use. If metformin is contraindicated or unacceptable to the woman/pregnant person, offer insulin.

For Women and pregnant women/pregnant people with gestational diabetes who have a fasting plasma glucose level of 7.0 mmol/l or above at diagnosis, consider immediate treatment with insulin, with or without metformin and diet and exercise changes.

For Women and pregnant women/pregnant people with gestational diabetes who have a fasting plasma glucose level of 6.0 - 6.9 mmol/l and complications of macrosomia or hydramnios consider immediate insulin treatment with or without metformin.

A Women and pregnant women/pregnant people whose diabetes is usually controlled by diet may require metformin and/or insulin by the end of the pregnancy. The dose of insulin will need to be adjusted during pregnancy as insulin requirements increase.

6.1 Medical management - blood glucose and ketone monitoring

The Women and pregnant women/pregnant people will be advised about performing regular routine home blood glucose monitoring and the appropriate training and equipment will be provided. Ongoing supplies are provided on prescription by GP.

CBG should ideally be checked seven times daily, fasting, pre meals, one hour post meals and pre bed and results recorded in a record diary which is reviewed at each clinic visit.
Women and pregnant women/pregnant people with GDM and diet control can have the option of monitoring fasting and post meals only (4 per day). The frequency of CBG monitoring can be reviewed and adjusted throughout pregnancy and as per clinical needs.

CBG targets are:

- 4.0 – 5.2 mmol/l fasting. Fasting glucose levels <4 mmol/l are acceptable for Women and pregnant women/pregnant people treated with diet alone if asymptomatic
- < 7.8 mmol/l at one-hour post-meal
  or < 6.4 mmol/l at two-hours post-meal.

If being monitored as an inpatient, the Women and pregnant women/pregnant people can use their own meter but at least one blood glucose test should be taken daily using the ward blood glucose meter to ensure accuracy. If there is any doubt as to accuracy of either meter, the diabetes team should be notified.

HbA1c will be measured at diagnosis of GDM, to aim to identify women who may have type 2 diabetes. In Type 1 and Type 2 diabetes, HbA1c should be used to monitor glycaemic control every two months (minimum of at booking and beginning of the third trimester).

Women and pregnant women/pregnant people with Type 1 diabetes will have access to a blood ketone meter. All Women and pregnant women/pregnant people with diabetes in pregnancy who are unwell, vomiting and unable to eat, with blood glucose ≥14mmols/l should test for ketones in the blood to exclude diabetic ketoacidosis (DKA). (See section 6.4)

This should be discussed with the diabetes team.

6.1.1. Intermittently scanned Continuous Glucose Monitoring (isCGM) and continuous glucose monitoring (NICE NG3 2020)

All Women and pregnant women/pregnant people with Type 1 diabetes should be offered CGM to help them meet their pregnancy blood glucose targets and improve neonatal outcomes. Intermittently scanned CGM (isCGM, commonly referred to as flash) should be offered as an alternative for those who are unable to use continuous glucose monitoring or express a clear preference for it.

For Women and pregnant women/pregnant people with Type 1 diabetes who are using isCGM or continuous glucose monitoring, a member of the joint diabetes and antenatal care team with expertise in these systems should provide education and support, including out of hours support.

Consider if CGM for Women and pregnant women/pregnant people who are on insulin therapy but do not have type 1 diabetes, if:

- they have problematic severe hypoglycaemia (with or without impaired awareness of hypoglycaemia)

or

- they have unstable blood glucose levels that are causing concern despite efforts to optimise glycaemic control.

There should be clear documentation on the patient's notes of the rationale for offering these devices and the woman's decision.

Funding for CGM is for a year and for isCGM stops after pregnancy. This should be clearly documented.

Women with Type 2 diabetes have an objective record of their monitoring within their hospital records. They are offered alternatives e,g CGm if they are unable to obtain control as mentioned above.

6.2 Medical Screening
Retinal assessment

Offer **Women and pregnant women/pregnant people** with pre-existing diabetes retinal assessment by digital imaging with mydriasis using tropicamide (unless they have had a retinal assessment in the last 3 months).

If they have diabetic retinopathy, offer an additional retinal assessment at 16 to 20 weeks, offer another retinal assessment at 28 weeks.

Diabetic retinopathy should not be considered a contraindication to rapid optimisation of blood glucose control in women/pregnant people who present with a high HbA1c in early pregnancy.

Diabetic retinopathy should not be considered a contraindication to vaginal birth**.**

Renal assessment
Arrange a renal assessment at first contact during the pregnancy for Women and pregnant women/pregnant people with pre-existing diabetes, if they have not had 1 in the last 3 months.
Consider referring pregnant women/pregnant people with diabetes to a nephrologist if:

- their serum creatinine is 120 micromol/litre or more or
- the urinary albumin: creatinine ratio is greater than 30 mg/mmol or
- total protein excretion exceeds 0.5 g/day.

Do not use eGFR to measure kidney function in Women and pregnant women/pregnant people.

Consider thromboprophylaxis for pregnant women with nephrotic range proteinuria above 5 g/day (albumin: creatinine ratio greater than 220 mg/mmol).

A thyroid blood test (TSH) should be performed on booking and 3 months postpartum for women with pre-existing diabetes.

6.3 Antenatal Hypoglycaemia
The risk of hypoglycaemia increases during pregnancy particularly in the first trimester. Women and pregnant women/pregnant people should be advised of the increased maternal morbidity and mortality associated with hypoglycaemia. Risk factors for antenatal hypoglycaemia include:

- Intensive glycaemic control
- Pregnancy-related loss of counter-regulatory hormones
- Nausea and vomiting

Women and pregnant women/pregnant people with pre-existing diabetes may have an altered perception of hypoglycaemia also known as hypoglycaemia unawareness.

Advise on the risks of hypoglycaemia and hypoglycaemia unawareness, especially in the first trimester.

Advise Women and pregnant women/pregnant people with insulin-treated diabetes to always have a fast-acting form of glucose available (for example, dextrose tablets or glucose-containing drinks)

Provide glucagon to Women and pregnant women/pregnant people with type 1 diabetes, for use if needed. Explain to the woman/pregnant person and their partner or other family members how to use it.

6.4 Ketoacidosis
Rapid diagnosis and management are required for ketoacidosis. These Women and pregnant women/pregnant people will require high dependency care with both specialist diabetic and obstetric input.

Any Women and pregnant women/pregnant people with diabetes admitted unwell in any way, vomiting, unable to eat or with blood glucose >14 mmol/L should be monitored for ketoacidosis. This involves urine or blood ketones level, urea and electrolyte measurement, venous blood gases and blood glucose. Blood ketone testing strips are available on the Delivery Suite. The frequency of monitoring will be determined by the Diabetologist, or a member of the diabetes team, who should be informed immediately (if available) or the Medical team on call. The team is required to attend the patient for a full assessment.

Ketonuria should be tested for at each antenatal visit for Women and pregnant women/pregnant people with pre-existing and gestational diabetes.

Ketoacidosis can develop at normal blood glucose levels in pregnancy.

There is an increased risk of ketoacidosis in Women and pregnant women/pregnant people using Continuous Subcutaneous Insulin Infusion (CSII or insulin pump therapy).

If diagnosed, use the local diabetic ketoacidosis policy on Intranet, under Diabetes,
Clinical Guideline for the management of diabetic ketoacidosis (DKA) and hyperosmolar hyperglycaemic state (HHS)

6.5 Obstetric Management
Women and pregnant women/pregnant people with pre-existing diabetes should be referred to the joint diabetic clinic as early as possible in pregnancy and have a viability scan between 7-9 weeks. They should also be on folic acid 5 mg daily for up to 12 weeks gestation.

Women and pregnant women/pregnant people with pre-existing diabetes are at greater risk of developing pre-eclampsia and should be advised to take aspirin 150mg once a day commencing at 12 weeks to prevent its occurrence. They should be advised of the increased risk of miscarriage and foetal abnormality.

All Women and pregnant women/pregnant people with diabetes should be advised of the increased risk of macrosomia, shoulder dystocia, polyhydramnios, preterm rupture of membranes and preterm labour.

Ultrasound scans (USS):

- 12 weeks dating and nuchal translucency.
- 20 weeks anomaly and cardiac scan (inclusive of four chamber view and outflow tracts) performed by foetal medicine consultant or accredited deputy.
- Monthly growth scans from 28 weeks or more frequently if required.

The presence of persistent antenatal obstetric or medical complications will indicate the need for increased monitoring of foetal well-being (Doppler +/- CTG) from 34 weeks.

Women and pregnant women/pregnant people with GDM who have USS detected macrosomia and are solely on a dietary management should be reviewed with a view to commencing insulin.

Women and pregnant women/pregnant people with pre-existing diabetes who have an HbA1c >48 mpl/nmol have increased surveillance in the form of frequency of diabetes team and obstetric consultant face to face review.

The antenatal diabetes team (obstetric and medical) should be informed of any antenatal or intrapartum admission.

Multidisciplinary assessment is necessary in Women and pregnant women/pregnant people with markedly reducing insulin requirements (guidance of >25% decrease) and/or reduced foetal movements at term.

6.6 Timing of Delivery
Women and pregnant women/pregnant people with type 1 or type 2 diabetes will aim for delivery between 37 - 38+6 weeks gestation. This will be assessed based on their obstetric progress, development of complications and HbA1c level (threshold of 48 mmol/nmol) and glucose control.

Women and pregnant women/pregnant people with uncomplicated, well controlled, GDM can await spontaneous labour until 40+6 days.
In the presence of maternal or fetal complications or other co-morbidities earlier delivery will be discussed as clinically indicated.

6.7 Steroids in Pregnancy

Administration of antenatal steroids for foetal lung maturity is advised for all Women and pregnant women/pregnant people at risk of preterm birth up to 34 weeks. Steroids can be prescribed for prematurity if appropriate in Women and pregnant women/pregnant people with diabetes.

The diabetes team will provide an individualised plan prior to the first dose of glucocorticoid being administered. If this is an out of hours emergency, the responsible obstetric consultant will contact the diabetes consultant. All Women and pregnant women/pregnant people with GDM or pre-existing diabetes, regardless of the form of treatment, must be referred.
NICE recommends; For women with insulin-treated diabetes who are taking steroids for fetal lung maturation, give additional insulin according to an agreed protocol and monitor the woman closely.

Recent national consensus is that this can be managed as an outpatient in selected cases agreed by the diabetologist. Insulin requirements will be increased prior to the first administration of steroids, home monitoring of CBG and a threshold agreed for inpatient management.

Administration of steroids may result in a deterioration of glycaemic control for 2 to 3 days. This should be anticipated and actively managed:

- **Hourly CBG's, and 4-6 hourly U&E's, are necessary if tocolysis is required**.
- Check U&Es prior to starting VRIII to monitor fluid balance and electrolyte abnormalities. Repeat 24 hourly.
- With the first dose of steroids, start intravenous insulin infusion (VRIII) (50 units human soluble Actrapid® insulin made up to 50 ml with 0.9% NaCl). Use the scale in the prescription chart (Appendix B). Continuous intravenous insulin may be needed until 24 hours after the administration of the second dose of steroids.
- Basal insulin needs to be continued as usual. We recommend that mealtime insulin should be stopped even if the patient is eating and drinking to keep the insulin regimen simple.
- Target CBG 4-7.7 mmol/L pre- and post-meal.
- Check CBG level hourly.
- We recommend 0.9% NaCl with 5% glucose and 0.15% KCl (20 mmol/L) as the substrate fluid with IV insulin to avoid hypoglycaemia, hyponatraemia and hypokalaemia. The 500ml bag which contains 10mmol is equivalent. The rate of substrate infusion should take into account the volume status but generally 50 ml/hr would be reasonable. Please see the prescription chart (Appendix B) for more details. Additional intravenous fluids may be needed if the patient is not eating or drinking reliably. Fluids, particularly dextrose containing fluids, may have to be restricted in patients who are at risk of, or already have, hyponatraemia.

INTRAPARTUM

7. Obstetrics

Women and pregnant women/pregnant people ***should be cared for in an acute consultant led obstetric unit.***

The Women and pregnant women/pregnant people should be invited to the Delivery Suite early in labour, once contractions are regular.

Continuous electronic foetal monitoring is recommended throughout labour with the use of foetal blood sampling if indicated.

NICE recommends:
Offer continuous CTG monitoring for Women and pregnant women/pregnant people in labour who have pre-existing diabetes (type 1 or type 2) and gestational diabetes requiring medication. [2014, amended 2022]

Also, consider continuous CTG monitoring if, based on clinical assessment and multidisciplinary review, there are concerns about other antenatal factors not listed above that may lead to fetal compromise. [2022]

IF GDM has been controlled with only dietary changes, continuous CTG monitoring is not mandatory.

Women and pregnant women/pregnant people can be allowed to eat their normal diet and fluids similar to Women and pregnant women/pregnant people without diabetes. Any restrictions are based on obstetric concerns.

Epidural can be safely performed. The benefits, risks and alternative forms of analgesia should be explained to the Women and pregnant women/pregnant people in the usual way and the discussion documented.

Obstetrician should be aware of the increased risk of shoulder dystocia in pregnancies complicated by diabetes.

Medical

Women and pregnant women/pregnant people with diabetes in pregnancy should have an individualised care plan for labour/elective caesarean section documented in the pregnancy notes on [redacted] by 36 weeks. This will include instructions concerning their insulin requirements during labour and timing of altering or discontinuing the regime postpartum. A standing order for glucagon can also be prescribed at this point.

VRIII for use in labour will be prescribed by a member of the diabetes team during antenatal clinic and given to the Women and pregnant women/pregnant people. A copy can be scanned to [redacted]. If this is not available on admission for delivery, the obstetric team will prescribe algorithm 1 and contact the diabetes team as soon as possible to review.

All Women and pregnant women/pregnant people with diabetes, regardless of treatment, require hourly CBG monitoring in active labour. If two consecutive readings of CBG are more than 7 mmol/L, VRIII is commenced.

CBG's should be maintained between 5-8mmol/l to avoid maternal hyperglycaemia and neonatal hypoglycaemia.

7.1 Women and pregnant women/pregnant people with Gestational Diabetes on Diet Control Only

Maintain good hydration with dextrose/saline drip if prolonged labour (>6 hrs) or poor urine output (<30ml/hr on average).

Perform hourly CBG when the Woman and pregnant women/pregnant person is in active labour.

If two consecutive readings of CBG are more than 8 mmol/L, commence VRIII as prescribed.

No change of management needed for emergency Caesarean Section.

7.2 Variable Rate Intravenous Insulin Infusion (VRIII) - Insulin and Dextrose Regimen (Intrapartum)

Every Women and pregnant women/pregnant people will have had insulin and fluid prescribed on the maternity IV insulin prescription and fluid protocol (see appendix B)

Basal or background insulin should be continued in conjunction with VRIII.
Women and pregnant women/pregnant people on insulin pumps will have an individualised care plan (see section 7.3).

7.3 Insulin Pumps

All Women and pregnant women/pregnant people with type 1 diabetes managed with continuous subcutaneous insulin infusion (CSII) will have a Women and pregnant women/pregnant people personalised care plan agreed with the diabetes team. This will be discussed in a multi-disciplinary setting. If the Woman and pregnant women/pregnant person is unwell and/or unable to self-manage, the pump will be discontinued and VRIIII used. Pre pregnancy basal rates should be recorded to aid transition in the postpartum period. If the pump is removed, please ensure that it is stored safely. These Women and pregnant women/pregnant people will have no basal insulin on board, so VRIIII needs to be commenced. Discuss with diabetes team if available.

7.4 Intrapartum Hypoglycaemia Whilst on VRIII

Blood glucose below 4mmol/l when the Woman and pregnant women/pregnant person is conscious and able to swallow:

See ESHT - ***Clinical Guideline for the Diagnosis and Management of Hypoglycaemia for in-patients with Diabetes***

VRIII should be stopped temporarily, treated with 15 – 20 g glucose and CBG rechecked after ten minutes. This can be repeated if CBG remains less than 4mmol/l.

Restart VRIII once CBG is >4 mmol/L

Hypoglycaemia with loss of consciousness:

- Stop VRIII temporarily.
- IV Glucose 20% (100ml) to run over 15 minutes.
- Call the Doctor to review urgently on 2222. Obstetric Emergency
- Recheck CBG after ten minutes.

Restart VRIII once CBG is >4 mmol/L at a lower algorithm if possible (e.g. algorithm 2 reduce to algorithm 1). **See *Clinical Guideline for the Diagnosis and Management of Hypoglycaemia for in-patients with Diabetes***

The Women and pregnant women/pregnant people **must** be reviewed by the diabetes team as soon as possible and obstetrician informed.

7.5 Elective Lower Segment Caesarean Section (LSCS)

The Anaesthetist should see the Women and pregnant women/pregnant people prior to surgery in keeping with the routine practice for LSCS.

The aim should be for the Woman and pregnant women/pregnant person to be first on the operation list in the morning if possible.

Women and pregnant women/pregnant people should take their usual basal insulin (usually Insulatard®/Lantus®/Levemir®). Any dose adjustment will have been agreed with the diabetes team prior to admission.

Rapid acting subcutaneous insulin will be omitted prior to fasting for an elective procedure.

All Women and pregnant women/pregnant people with diabetes should measure their CBG on arrival to the ward that morning and again before leaving the ward for theatre. VRIII will be commenced if CBG is >8 mmol/L.

For Women and pregnant women/pregnant people with **type 1 diabetes:** start VRIII on admission for LSCS.

Spontaneous labour
VRIII will be commenced if CBG is >8 mmol/L for women with GDM once in established labour.

Monitor CBG hourly until baby is born and oral intake is resumed.

For Women and pregnant women/pregnant people with **type 1 diabetes:** start VRIII from the onset of established labour OR on admission for LSCS.

Use antacid prophylaxis.

Consider thromboprophylaxis according to ESHT ***Thromboprophylaxis and Treatment of Venous Thromboembolism in Maternity - Clinical Guideline*** and ***Clinical Guideline for Anticoagulant Use in Adults***

7.6 Induction of Labour
Normal subcutaneous insulin should be given prior to prostaglandin induction.

Continue pregnancy insulin and diet until in established labour i.e. 4cm dilated or Artificial Rupture of Membrane (ARM) and Oxytocin commenced.

Check CBG hourly and commence VRIII if necessary.

8. Postpartum
The diabetes team will aim to review all Women and pregnant women/pregnant people with diabetes prior to discharge. This should not necessarily delay the discharge.

Women and pregnant women/pregnant people **with Gestational Diabetes**:

- Stop insulin and dextrose infusion IMMEDIATELY upon completion of the third stage. All Women and pregnant women/pregnant people to monitor CBGs pre- and one hour post-meals for 24 hours post-delivery. The woman/pregnant person can do this themselves, if able, and the results need to be recorded on the reverse side of the VRIIII prescription chart.

- We expect to see CBG levels below 7.0mmol before meals and below 11.1mmol two hours post-meals in line with the general population. The Women and pregnant women/pregnant people will be informed about this prior to delivery.

- If results are above target please inform the diabetes team on their ward rounds or via online referral. If the Woman and pregnant women/pregnant person is admitted over the weekend please inform the team on the next working weekday morning.

This monitoring is to identify Women and pregnant women/pregnant people with pre-existing diabetes but we would expect this has already been discussed during the pregnancy.

Women and pregnant women/pregnant people **with Pre-existing type 1 and type 2 diabetes:**

- If type 1 diabetes: to continue with basal insulin but plan should be in place with Women and pregnant women/pregnant people to return to pre-pregnancy dose. Follow VRIII prescription i.e. reduce the insulin rate by 50% or to the pre-agreed insulin dose in the chart after the placenta is delivered.

- Resume rapid acting subcutaneous insulin regimen as soon as possible (at pre-pregnancy doses), preferably at the next mealtime. Stop VRIII 30 minutes after rapid acting subcutaneous insulin injection. Pre-pregnancy or alternative insulin doses will have been discussed with the Women and pregnant women/pregnant people and prescribed prior to delivery. If not available, refer immediately to the diabetes team.

- Women and pregnant women/pregnant people with type 2 diabetes may resume pre pregnancy oral medication instead of insulin. Only Metformin is presently advised if **breastfeeding.** If not planning to breastfeed then all oral agents can be restarted. This will be in the care plan and prescribed prior to delivery.

- CBG's should be performed pre and two hours post-meal for a further 24 hours. Following caesarean section, this should continue for up to 48 hours unless normal in first 24 hrs. CBG targets are those of pre pregnancy i.e. < 7 mmol/L pre-meals and <11.1 mmol/L post-meals. This information must be recorded on the blood glucose chart on reverse side of the VRIII prescription chart.

- Scan the completed VRIII onto [redacted] upon completion/discharge

8.1 Neonate
The babies of Women and pregnant women/pregnant people with pre-existing or GDM should be monitored closely after birth using the paediatric guidance on caring for babies of a parent with diabetes with close liaison with the Paediatric team. Please see ***Clinical Guideline for the Prevention, Identification and Management of Hypoglycaemia of the Newborn***

8.2 Follow Up
Women and pregnant women/pregnant people who were diagnosed with GDM and whose blood glucose levels returned to normal after the birth should be encouraged to follow healthy lifestyle advice (including weight control, diet and exercise).

13 weeks postpartum the Diabetes Team will offer a fasting HbA1c test. The "Healthy Lifestyle Post-Gestational Diabetes" leaflet will be sent out with a blood form for HbA1c.

Do not routinely offer a 75-g 2-hour OGTT.

If HbA1c level is between 39 mmol/mol and 47 mmol/mol (5.7% and 6.4%) advise the woman/pregnant person that they are at high risk of developing type 2 diabetes.

If HbA1c level is 48 mmol/mol (6.5%) or above advise the woman/pregnant person that they have type 2 diabetes and refer them for further care.

Referral into the NHS Diabetes Prevention Programme should be requested by the GP.

The GP should offer annual HbA1c test to Women and pregnant women/pregnant people with a history of gestational diabetes who have a negative postnatal test for diabetes.

Women with pre-existing diabetes should have ongoing diabetes care with their usual care provider (GP or specialist team). This will have been discussed with the women in antenatal clinic prior to delivery.

8.3 Contraception
Women may be offered all forms of contraception.

Preconception care and pregnancy planning is paramount for women with diabetes.

8.4 Special Considerations
When using this guideline refer to:

- Patient information leaflet - How to reduce your risk of gestational diabetes.
- Patient information leaflet - Healthy eating with gestational diabetes

- ESHT Guideline - Induction and Augmentation of Labour

- ESHT Guideline - Clinical Guideline for the Prevention, Identification and Management of Hypoglycaemia of the Newborn
- ESHT Guideline – Diagnosis and management of hypoglycaemia for in-patients with diabetes
- ESHT document - Intravenous Insulin Prescription and fluid protocol pregnancy and labour
- ESHT document- Intravenous Insulin Prescription and Fluid Protocol for management of steroid hyperglycaemia during pregnancy
- ESHT document- Healthy Lifestyle post gestational diabetes

9. Evidence Base/References

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10. Monitoring Arrangements

Document Monitoring Table

Element to be Monitored	Lead	Tool for Monitoring	Frequency	Responsible Individual/Group/ Committee for review of results/report	Responsible individual/ group/ committee for acting on recommendations/action plan	Responsible individual/group/ committee for ensuring action plan/lessons learnt are Implemented
Elements of SBL 1.6 compliance	Clinical Governance Manager Lead Consultant Obstetrician audit lead	Audit	Annually	Obstetrics and Gynaecology audit meetings and any other appropriate meetings	DOM, HOM, Deputy HOM Midwifery matrons Clinical unit Obstetrics lead	Consultant Obstetrician Audit lead

Appendix A: EHIA Form

Equality and Health Inequalities Impact Assessment (EHIA) template

Undertaking EHIA helps us to make sure that our services and polices do not inadvertently benefit some groups more than others, ensuring that we meet everyone's needs, and our legal and professional duties.

This is important because:

- Assessing the potential for services and policies to impact differently on some groups compared with others is a legal requirement.
- People who find it harder to access healthcare services are more likely to present later when their disease may be more progressed, have poorer outcomes from treatment, and need more services than other groups who have better access.

The Equality Act 2010 legally protects people from discrimination in the workplace and in wider society. It is against the law to discriminate against anyone because of:

- age
- gender reassignment
- being married or in a civil partnership
- being pregnant or on maternity leave
- disability
- race including colour, nationality, ethnic or national origin
- religion or belief
- sex
- sexual orientation.

These are called 'protected characteristics'. The Act requires that public sector organisations meet specific equality duties in respect of these protected characteristics. This is known as the public sector equality duty.

Public Sector Equality Duty

Public bodies have to consider all individuals when carrying out their day-to-day work – in shaping policy, in delivering services and in relation to their own employees.

Public bodies must have due regard to the need to:

- eliminate discrimination
- advance equality of opportunity
- foster good relations.

Armed Forces Covenant Duty

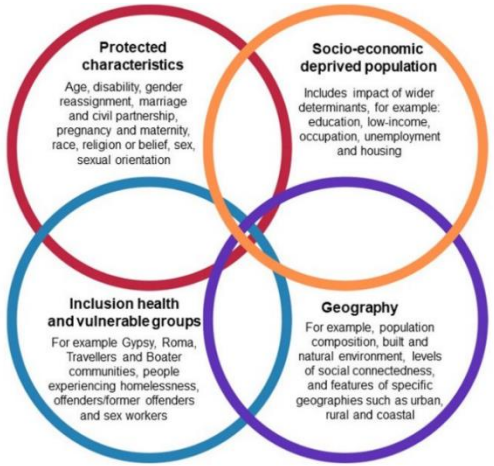
The new Covenant Duty raises awareness of how Service life can impact on the Armed Forces community, and how disadvantages can arise due to Service when members of that community seek to access key local services. The Duty requires organisations to pay due regard to the Covenant principles when exercising functions in healthcare. “Due regard” means that we need to consciously consider the unique obligations and sacrifices made by the Armed Forces; that it is desirable to remove disadvantages faced by the Armed Forces community; and that special provision may be justified in some circumstances.

Health Inequalities Duties- Equity for all
In addition to our legal duties in relation to Protected Characteristics, the Health and Social Care Act and other legislation, NHS Planning Guidance and sector specific recommendations require the NHS to have regard to the need to address health inequalities (or differences in access to or outcomes from healthcare) and take specific action to address them.

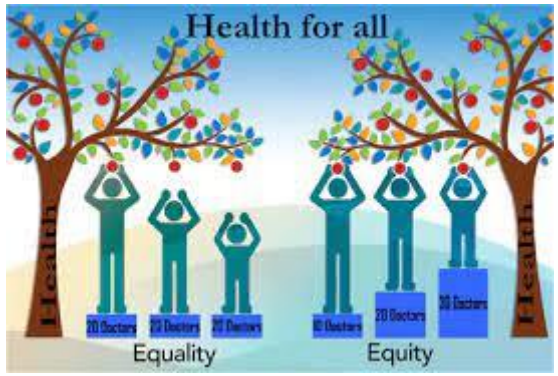
Figure 1 shows the different population groups, factors associated with where we live, or our individual circumstances, which separately, or when combined, influence access to and outcomes from health care.

Getting equal outcomes may require different inputs (or services). In completing an EHIA its important to think about whether a one size fits all approach will generate the same good outcomes for everyone, or whether we might need to make some tweaks or adjustments to enable everyone to benefit equally. The health tree diagram shows that unless we think about the needs of different people, equal services might generate unequal outcomes.

Factors associated with poorer health outcomes (PHE 2021)[1]



The Health Tree[1]



The following principles, drawn from case law, explain what we must do to fulfil our duties under the Equality Act:

- **Knowledge:** everyone working for the Trust must be aware of our equality duties and apply them appropriately in their work.
- **Timeliness:** the duty applies at the time of considering policy options and/or before a final decision is taken – not afterwards.

[1] https://www.researchgate.net/figure/Equality-and-equity-of-medical-resources-distribution_fig2_323266914

- **Real Consideration:** the duty must be an integral and rigorous part of your decision-making and influence the process.
- **Sufficient Information:** you must assess what information you have and what is needed to give proper consideration.
- **No delegation:** the Trust is responsible for ensuring that any contracted services which provide services on our behalf can comply with the duty, are required in contracts to comply with it, and do comply in practice. It is a duty that cannot be delegated.
- **Review:** the equality duty is a continuing duty. It applies when a policy/process is developed/agreed, and when it is implemented/reviewed.
- **Proper Record Keeping:** to show that we have fulfilled our duties we must keep records of the process and the impacts identified.

NB: Filling out this EHIA in itself does not meet the requirements of the equality and health inequalities duties. All the requirements above must be fulfilled or the EHIA (and any decision based on it) may be open to challenge. Properly used, an EHIA can be a tool to help us comply with our equality and health inequalities duty and as a record that to demonstrate that we have done so. It is advised that you complete the short EHIA training session on MyLearn before completing this EHIA.

SECTION A ADMINISTRATIVE INFORMATION

This form is a central part of how the Trust makes sure and can demonstrate to others that we are meeting our legal duties; and how we can assure ourselves that all patients will get the best outcome for them from our services.

	Clinical Guideline for Diabetes Mellitus in Pregnancy		
Main aims and intended outcomes of the function/policy/service and summary of the changes you are making (if existing policy/service):	Diabetes in pregnancy is associated with risks to the women and pregnant women/pregnant people and developing foetus. There are more adverse pregnancy outcomes for women/pregnant people with diabetes and their babies compared to those who do not have diabetes. The prevalence of diabetes is increasing (NICE 2015).		
How will the function/policy/service change be put into practice?	already in practice		
Who will be affected/benefit from the policy?	Staff caring for women and pregnant people with Diabetes		
State type of policy/service	Policy	Service	Guideline ✓
	Business Case	Function	Existing

Is an EHIA required? NB :Most policies/functions will require an EA with few exceptions such as routine procedures	Yes ✓	
	No (If no state reasons)	
Accountable Director: (Job Title)	Consultant Obstetrician	
Assessment Carried out by:	Name: Dexter Pascall	
Contact Details:	[redacted]	
Date Completed:	13.3.24	

SECTION B ANALYSIS AND EVIDENCE

Analysis of the potential impact – Equality and Health Inequalities Duties
For this section you will need to think about all the different groups of people who are more likely to experience poorer access or have poorer outcomes from health and care services. For each group please describe in the first column the potential impact you have identified, in the second column explain how you have arrived at this conclusion and what information you used to identify the potential impact, and in the third column say what you are going to do to prevent it from happening, or which elements of a service or policy specifically address the potential impact. Key things to remember.

- Everyone has protected characteristics but some groups who share one or more protected characteristics may be more likely to have poorer outcomes or access compared with others – and it is this potential that the EHIA process seeks to identify and address.
- The information included here should be proportionate to the type and size of the policy/service/change.
- An update to a policy should demonstrate that you have considered the potential for the policy to impact differently on different groups and taken steps to address that.
- A minor policy update is likely to need to be much less comprehensive than an EHIA for a major service change.
- You will need to know information about who uses or could use your service/policy will apply to (the population). You can use information about current patients or staff, and about the general population the Trust serves.

3. PROTECTED CHARACTERISTICS - Main potential positive or negative impact of the proposal for protected characteristic groups summarised
Please write in the box below a brief summary of the main potential impact (positive or negative) Please state **N/A if your proposal will not impact adversely or positively on the protected characteristic groups listed below, but make sure you include information on how you know there will be no impact.**

N/A

Protected characteristic groups	Summary explanation of the *potential* positive or adverse impact of your proposal	How do you know this? (include here a brief explanation of what information you have used to identify potential adverse impact e.g. NICE guidance, local data, evidence reviews, stakeholder or patient feedback	Action that will be taken to address the potential for negative impact.
Age: older people; middle years; early years; children and young people.	N/A		
Disability: physical, sensory and learning impairment; mental health condition; long-term conditions.	N/A		
Gender Reassignment and/or people who identify as Transgender	N/A		
Marriage & Civil Partnership: people married or in a civil partnership.	N/A		
Pregnancy and Maternity: before and after childbirth and who are breastfeeding.	This guideline provides guidance for clinical staff on care of women/pregnant people who develop diabetes during pregnancy (GDM) and those who have pre-existing diabetes. It aims to reduce the complications to mother and baby CBG require		

Protected characteristic groups	Summary explanation of the *potential* positive or adverse impact of your proposal	How do you know this? (include here a brief explanation of what information you have used to identify potential adverse impact e.g. NICE guidance, local data, evidence reviews, stakeholder or patient feedback	Action that will be taken to address the potential for negative impact.
	to be maintained within acceptable limits and is all inclusive.		
Race:	N/A		
Religion and belief: people with different religions/faiths or beliefs, or none.	N/A		
Sex:	N/A		
Sexual orientation	N/A		
Veterans/Armed Forces Communities	N/A		

4. HEALTH INEQUALITIES -Potential positive or adverse impact for people who experience health inequalities summarised

Please briefly summarise the main potential impact (positive or negative) on people at particular risk of health inequalities (as listed below). **If the policy/procedure is unrelated to patients, this sections does not require completion.**

Please state none if you have assessed that there is not an impact, but please make sure you complete the 'how do you know this' column to demonstrate that you have considered the potential for impact**. If you identify the potential for impact for one or more of these groups please complete the full assessment in Appendix A**

Groups who face health inequalities[2]	**Summary explanation of the potential positive or adverse impact of your proposal**	**How do you know this? (include here a brief explanation of what information you have used to identify potential adverse impact e.g. NICE guidance, local data, evidence reviews, stakeholder or patient feedback**	**Action that will be taken to address the potential for negative impact.**
This includes all groups of people who may have poorer access to or outcomes from healthcare services. It includes: People who have experienced the care system; carers; homeless people; people involved in the criminal justice system; people who experience substance misuse or addiction; people who experience income or other deprivation; people with poor health literacy; people living in rural areas with limited access to services; refugees or asylum seekers; people in or who have been in the armed force; other groups who you identify as potentially having poorer access and outcomes.	N/A		

Groups who face health inequalities[2]	Summary explanation of the potential positive or adverse impact of your proposal	How do you know this? (include here a brief explanation of what information you have used to identify potential adverse impact e.g. NICE guidance, local data, evidence reviews, stakeholder or patient feedback	Action that will be taken to address the potential for negative impact.

SECTION C ENGAGEMENT

5. Engagement and consultation

a. Talking to patients, families and local communities can be a rich source of information to inform health care services. If you are making substantial changes it's likely that you'll have to undertake specific engagement with patients. For smaller changes and policies your may have undertaken some engagement with patient groups, gained insight from routine sources e.g. patient surveys, PALS or Complaints information or information from Healthwatch, you may also have looked at relevant engagement that others have undertaken in the Trust, or locally
Have any engagement or consultative activities been undertaken that considered how to address equalities issues or reduce health inequalities? Please place an x in the appropriate box below.

Yes	No
x	

b. If yes, please ensure all stakeholders are listed in the consultation table at the beginning of the policy.

SECTION D SUMMARY OF FINDINGS

Reflecting on all of the information included in your review-

6. EQUALITY DUTIES: Is your assessment that your proposal will support compliance with the Public Sector Equality Duty?
Please **add an x** to the relevant box below.

	Tackling discrimination	Advancing equality of opportunity	Fostering good relations
The proposal will support?			
The proposal may support?			
Uncertain whether the proposal will support?			

7. HEALTH INEQUALITIES: Is your assessment that your proposal will support reducing health inequalities faced by patients? Please add an x to the relevant box below.

	Reducing inequalities in access to health care	Reducing inequalities in health outcomes
The proposal will support?		
The proposal may support?		
Uncertain if the proposal will support?		

8. Outstanding key issues/questions that may require further consultation, research or additional evidence. Please list your top 3 in order of priority or state N/A

Key issue or question to be answered		Type of consultation, research or other evidence that would address the issue and/or answer the question
1	N/A	
2	N/A	
3	N/A	

9. EHIA sign-off: (this section must be signed)

Person completing the EHIA:	Dexter Pascall	**Date: 13.3.24**
Line Manager of person completing:		**Date:**

Appendix A

Breakdown of Groups who are more likely to experience health inequalities:

Groups who face health inequalities[3]	**Summary explanation of the potential positive or adverse impact of your proposal**	**How do you know this? (include here a brief explanation of what information you have used to identify potential adverse impact e.g. NICE guidance, local data, evidence reviews, stakeholder or patient feedback**	**Action that will be taken to address the potential for negative impact.**
Looked after children and young people	N/A		
Carers of patients	N/A		
Homeless people. People on the street; staying temporarily with friends /family; in hostels or B&Bs.	N/A		
People involved in the criminal justice system: offenders in prison/on probation, ex-offenders.	N/A		
People with addictions and/or substance misuse	N/A		

Groups who face health inequalities[3]	Summary explanation of the potential positive or adverse impact of your proposal	How do you know this? (include here a brief explanation of what information you have used to identify potential adverse impact e.g. NICE guidance, local data, evidence reviews, stakeholder or patient feedback	Action that will be taken to address the potential for negative impact.
issues			
People or families on a low income	N/A		
People with poor literacy or health Literacy: (e.g. poor understanding of health services poor language skills).	N/A		
People living in deprived areas	N/A		
People living in remote, rural and island locations	N/A		
Refugees, asylum seekers or those experiencing modern slavery	N/A		
People who have served in the Armed Forces	N/A		

Appendix B: Intravenous Insulin Prescription and Fluid Protocol PREGNANCY AND LABOUR ONLY

East Sussex Healthcare NHS Trust

Ward	Consultant	Admission Date

Intravenous Insulin Prescription and Fluid Protocol PREGNANCY AND LABOUR ONLY

For use during pregnancy and labour for **ALL** patients receiving Variable Rate Intravenous Insulin Infusion (VRIII)
NEVER use an IV syringe to draw up insulin
ALWAYS draw up insulin using an insulin syringe
ALWAYS continue subcutaneous basal insulin

Patient Details
Please attach addressograph label

Surname	First Name
Hospital Number	NHS Number
Address	Date of Birth / Age

	Dosing Algorithm		
Algorithm ➡	1	2	3
CBG Levels (mmol/L) ⬇	Infusion Rate (Units/hr = ml/hr)		
<4	**STOP INSULIN FOR 20 MINUTES** Treat hypo as below (recheck CBG in 10 minutes)		
4.0 - 5.5	**0.2**	**0.5**	**1.0**
5.6 - 7.0	**0.5**	**1.0**	**2.0**
7.1 - 8.5	**1.0**	**1.5**	**3.0**
8.6 - 11.0	**1.5**	**2.0**	**4.0**
11.1 - 14.0	**2.0**	**2.5**	**5.0**
14.1 - 17.0	**2.5**	**3.0**	**6.0**
17.1 - 20.0	**3.0**	**4.0**	**7.0**
>20.1	**4.0**	**6.0**	**8.0**
Signed			
Print Name			
Date			

Algorithm Guide

- **ALL** women with diabetes should have Capillary Blood Glucose (CBG) testing hourly in established labour or at least once on admission for induction of labour or elective C-Section
- Start VRIII and Fluids if two consecutive CBGs > target (see below) or at the start of established labour if the woman has type 1 diabetes

Algorithm 1 Most women will start here

Algorithm 2 Use this algorithm for women who are likely to require more insulin (On steroids, on >80 units of insulin during pregnancy) or those not achieving target on algorithm 1

Algorithm 3 Use this for women who are not achieving target on algorithm 2

No patient starts here without diabetes or medical review

If the woman is not achieving targets with these algorithms, contact the diabetes team (out of hours: Medical SpR on call)

Target CBG Levels 4-7 mmol/l

Check CBG every hour whilst on IV insulin

Move Up if the CBG is> 7 mmol/l and has not reduced in 1 hour
Move Down (when using higher algorithms) if CBG is < 4mmol/L

Insulin (approved name)	Dose	Volume	Route	Prescriber's Signature	Date
Human Actrapid®	**50 UNITS**	**Made up to 50ml with SODIUM CHLORIDE 0.9% (1 UNIT per ml)**	**IV**		

SYRINGE PREPARATION

Prepared & administered by	Date	Time start-ed	Time stopped

INTRAVENOUS SUBSTRATE FLUID

Date	Intravenous Fluid and Rate	Alternative Rate	Prescriber's Signature	Nurse's Signature
	500 mls 0.9% NaCl + 5% Dextrose with 10 mmol KCl (0.15%) to run at 50 mls/hr	_____ mls/hr		
	500 mls 0.9% NaCl + 5% Dextrose with 10 mmol KCl (0.15%) to run at 50 mls/hr	_____ mls/hr		

HYPOGLYCAEMIA MANAGEMENT

Date	Preparation	Volume	Route	Duration	Prescriber's Signature	Nurse's Signature	Time given
	20% Dextrose	100 mls	IV	15 mins			
	20% Dextrose	100 mls	IV	15 mins			

GESTATIONAL DIABETES: STOP VRIII and IV Substrate Fluid regime once placenta is delivered

CAPILLARY BLOOD GLUCOSE MONITORING (hourly after starting infusion)

Date:	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00
CBG												
Insulin Rate												
Blood Ketones												
Initials												
Date:	13::00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
CBG												
Insulin Rate												
Blood Ketones												
Initials												

TYPE 1 DM AND INSULIN TREATED TYPE 2 DM: Reduce the rate of VRIII by HALF once placenta is delivered
Contact diabetes team to review ongoing insulin requirements

Maintain IV infusion for 30 minutes after re-starting original insulin regime—IV insulin has a 5 minute half life

Version 1 EC/UD 10/2017

East Sussex Healthcare NHS
NHS Trust

Ward	Consultant	Admission Date

DIABETES CARE PLANNING DOCUMENT

For use to communicate care plans for **ALL** patients with diabetes during and after pregnancy
Please complete **ALL** required information
To be completed by the Diabetes Team

Patient Details
Please attach addressograph label

Surname	First Name
Hospital Number	NHS Number
Address	Date of Birth / Age

ANTENATAL INFORMATION

TYPE OF DIABETES

[ ]Type 1 DM	[ ]Type 2 DM	[ ]Gestational DM		
Age at diagnosis	Age at diagnosis	Diagnosed:	[ ]OGTT: Date:	[ ]OGTT: Date:
		____ weeks	Fasting: mmol/L	Fasting: mmol/L
			2 hours: mmol/L	2 hours: mmol/L

PRE-PREGNANCY DIABETES MEDICATIONS (FOR TYPE 1 OR TYPE 2 DM)

Medication	Dose	Time

HbA1c Record

Baseline	Date:	Value: mmol/mol
Additional HbA1c	Date:	Value: mmol/mol
Notes:	Date:	Value: mmol/mol
	Date:	Value: mmol/mol
	Date:	Value: mmol/mol
	Date:	Value: mmol/mol

COMPLICATIONS DEVELOPED OR EXACERBATED BY PREGNANCY

DELIVERY DATES

Expected Date of Delivery	Date for IOL	Date for C– Section

POST NATAL PLAN

PROPOSED POST-PREGNANCY DIABETES MEDICATIONS (FOR TYPE 1 OR TYPE 2 DM)

Medication	Dose	Time

DISCUSSED WITH PATIENT:

Issues:	Yes	No	Date Discussed
Contraception/plans for further pregnancy			
Arrangement for ongoing diabetes care			
OGTT arrangement			
Lifestyle modifications			
Completed by:	Sig:		

POST NATAL CBG MONITORING
FOR up to 24 HOURS POST DELIVERY
TARGETS: PRE-MEALS <7 mmol/L; POST-MEAL <11 mmol/L

Date	Pre-breakfast	1 hr after breakfast	Pre-lunch	1 hr after lunch	Pre-evening meal	1 hr after evening meal	Pre-bed

MATERNAL OUTCOMES

Delivery	Tick that applies	Complications	Tick that applies
Normal		Pre-ecclampsia	
Assisted/forceps		Inadequately controlled glycaemia	
C-Section		Post-delivery hypos	

POST NATAL OUTCOMES (tick that applies)

Stillbirth		Neonatal jaundice	
Baby weight over 4 kg		Hypocalcaemia	
Neonatal hypoglycaemia		Hypomagnesemia	
Admission to NICU		RDS	
Shoulder dystocia		Birth defects	

Appendix C: For Management of steroid hyperglycaemia during pregnancy

For use for ALL patients receiving Variable Rate Intravenous Insulin Infusion (VRIII) for the management of steroid hyperglycaemia during pregnancy
NEVER use an IV syringe to draw up insulin
ALWAYS draw up insulin using an insulin syringe
ALWAYS continue subcutaneous intermediate* or basal insulin**
*Intermediate: Insulatard®, Humulin I®, Insuman Basal®
**Basal: Lantus® (glargine), Levemir® (detemir), Tresiba® (degludec), Toujeo®
Hold off rapid or short acting insulin whilst on VRIII
Prescriber: All prescriptions for insulin and fluids must be signed
Nurse: All entries must be signed

Ward	**Consultant**	Admission Date:
		Discharge Date:
Surname		First Name
Hospital Number		Date of Birth / Age
NHS Number		
Address		

	DOSING ALGORITHM (Please see the guide below)		
Algorithm →	**1**	**2**	**3**
	For most women	For women not controlled on algorithm 1 or needing >80 units/day of insulin	For women not controlled on algorithm 2 (after specialist advice)
CBG Levels (mmol/L)↓	Infusion Rate (units/hr = ml/hr)		
<4	STOP INSULIN FOR 20 MINUTES Treat hypo as per guideline (re-check CBG in 10 minutes)		
4.0 – 5.5	0.2	0.5	1.0
5.6 – 7.0	0.5	1.0	2.0
7.1 – 8.5	1.0	1.5	3.0
8.6 -11.0	1.5	2.0	4.0
11.1 – 14.0	2.0	2.5	5.0
14.1 – 17.0	2.5	3.0	6.0
17.1 – 20.0	3.0	4.0	7.0
>20.1	4.0	6.0	8.0
Signed			
Print Name			
Date			

ALGORITHM GUIDE

ENTRY CRITERIA:
Start VRIII and fluids with the first dose of steroids and continue for up to 24 hours after the last dose of steroids

- **ALL** women with diabetes should have Capillary Blood Glucose (CBG) testing hourly whilst on VRIII for the management of steroid hyperglycaemia during pregnancy

Algorithm 1 Most women will start here
Algorithm 2 Use this algorithm for women who are likely to require more insulin (on >80 units during pregnancy; or those not achieving target on algorithm 1)
Algorithm 3 Use this for women who are not achieving target on algorithm 2 (no patient starts here without diabetes or medical review)

If the woman is not achieving targets with these algorithms, contact the diabetes team (out of hours: Medical SpR on call)

Target CBG level = 4 – 7.8 mmol/L

Check CBG every hour whilst on VRIII

Move to the higher algorithm if the CBG is > target and is not dropping over two consecutive hours

Move to the lower algorithm if CBG falls below 4 mmol/L or is dropping too fast

Drug (approved name)	Dose	Volume	Route	Prescriber's Signature	Prescriber Print name	Date
Human Actrapid	50 UNITS	Made up to 50ml with NaCl 0.9% (1 UNIT per ml)	IV			

SYRINGE PREPARATION

Prepared and administered by	**Date**	**Time started**	**Time stopped**

INTRAVENOUS SUBSTRATE FLUID PRESCRIPTION

Date	**Intravenous Fluid and Rate**	**Alternative Rate**	**Prescriber's Signature**	**Nurse's Signature**
	500 ml 0.9% NaCl + 5% Dextrose with 10 mmol KCl (0.15%) to run at 50 mls/hr			
	500 ml 0.9% NaCl + 5% Dextrose with 10 mmol KCl (0.15%) to run at 50 mls/hr			

PRESCRIPTION OF INTRAVENOUS MANAGEMENT OF HYPOGLYCAEMIA

Date	Time	Preparation	Volume	Route	Duration	Prescriber's Signature	Print Name	Given by:	Time given
		20% Dextrose	**100 mls**	**IV**	**15 mins**				

Patients with type 1 DM on insulin pumps should be referred to the Diabetes Specialist Team

Maintain IV insulin infusion for 30 minutes after re-starting original insulin regime – IV insulin has a 5 minute half-life

EXIT CRITERIA

STOP VRII after 24 hours following the last dose of steroids

INTRAVENOUS INSULIN, CBG AND KETONES MONITORING RECORD SHEET

Guide:
Only use for patients on intravenous insulin regimen. Use different chart for patients on subcutaneous insulin.
Make sure the patient's hands are clean.
Check CBG hourly for further 24 hours after the last dose of steroid OR as per advice form the Diabetes Team.

ADDRESSOGRAPH LABEL

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00
CBG												
Insulin rate												
Blood ketones												
Initials												
Date	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
CBG												
Insulin rate												
Blood ketones												
Initials												

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00
CBG												
Insulin rate												
Blood ketones												
Initials												
Date	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
CBG												
Insulin rate												
Blood ketones												
Initials												

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00
CBG												
Insulin rate												
Blood ketones												
Initials												
Date	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
CBG												
Insulin rate												
Blood ketones												
Initials												

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00
CBG												
Insulin rate												
Blood ketones												
Initials												
Date	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
CBG												
Insulin rate												
Blood ketones												
Initials												

Date	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00
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Date	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
CBG												
Insulin rate												
Blood ketones												
Initials												

East Sussex Healthcare NHS Trust

Clinical Guidelines for Obstetric Ultrasound in the Third Trimester and SGA management

Document ID number:	1182
Version:	V3.2
Ratified by:	Women's Health, Reproductive and Sexual Health Services Clinical Unit Business Meeting
Date ratified:	February 2022
Name of author and title:	Nicky Roberts, Dexter Pascall – Consultant Obstetricians
Date Originally Written:	October 2011
Date of current version was completed:	November 2021
Name of responsible committee/individual:	Chair of the Guideline Implementation Group for Maternity Services
Date issued:	25 March 2022
Review date:	February 2025
Target audience:	All Staff
Compliance with CQC Fundamental Standards of care	Regulation 9 Person centred Care Regulation 10 Dignity and Respect Regulation 11 Need for Consent Regulation 12 Safe Care and Treatment Regulation 15 Premises and Equipment
Compliance with any other external requirements (e.g. Information Governance)	N/A
Associated Documents:	Clinical Guidelines for First Trimester Ultrasound and Down's syndrome Screening Clinical Guidance for Second Trimester Obstetric Ultrasound Policy for the use of Chaperones in the Trust

Did you print this yourself?
Please be advised the Trust discourages retention of hard copies of the procedural document and can only guarantee that the procedural document on the Trust website is the most up to date version

Version Control Table

Version number and issue number	Date	Author	Reason for Change	Description of Changes Made
V1 2011266 (8.26 Guidelines for Obstetric Ultrasound in the Third Trimester)	October 2011	[redacted],	New Guideline	
V1.0 2015179	September 2015	Dexter Pascall and Nicky Roberts	Review	Changes to USS with raised BMI
V2.0 2018291	October 2017	Nicky Roberts	Clinical Review,	no changes at this time
V2.1	March 2021	Dexter Pascall	Clinical Review	SBL algorithm
V3	November 2021	Mini Nair, Dexter Pascall	Clinical Review	SGA Management
V3.1	September 2023	[redacted]	update	SBL alignment
V3.2	May	[redacted]	update	IVF added for scans and Appendix A update

Consultation Table

This document has been developed in consultation with the groups and/or individuals in this table:

Name of Individual or group	Title	Date
Sarah Gledhill,	Manager Obstetric Ultrasound Service	May 2011
Guideline implementation Group	Obstetrics and Gynaecology	May 2011
Women's Health Strategic Business Unit Operational meeting	Obstetrics and Gynaecology	May 2011
Guideline implementation Group	Obstetrics and Gynaecology	July 2014
Women's Health, Reproductive and Sexual Health Services Clinical Unit Business Meeting	Obstetrics and Gynaecology	Sept 2014
Women and Children's Guideline implementation Group		December 2017
Women and Children's governance and accountability		May 2018
USS lead		November 2017
USS lead		April 2021
Midwifery Sonographers		April 2021
Women and Children's Guideline implementation Group		November 2021
Women and Children's governance and accountability		February 2022

This information may be made available in alternative languages and formats, such as large print, upon request. Please contact the document author to discuss.

Table of Contents

1. Introduction

There are occasions when obstetricians review women with certain conditions in pregnancy that requires further monitoring of the baby via ultrasound scan. This can be done for a number of reasons for example: health and wellbeing, liquor volume, growth, Doppler flow studies, multiple pregnancies and presentation. By having additional scans this can provide reassurance to the parents and to the obstetric and midwifery team caring for them and their baby provide valuable information for informed choice and decision making with issues such as place of birth and timing of birth. Evidence based information has been gathered to provide recommendations to ESHT staff on when to perform additional ultrasound scans

2. Rationale

As mentioned above, information from additional scans can provide valuable information for timing and place and even mode of birth when certain conditions of pregnancy are identified.

3. Scope

To support all Midwifery, medical and Ultrasound staff in the management of women with the conditions discussed in this guidance.

These guidelines considers that staff take steps to ensure the patient has an understanding, even if English is not their first language or assessment of mental capacity may be indicated

4. Definitions

Amniotic Fluid

Fluid around the baby

5. Accountabilities

5.1. Midwives, Sonographers and Obstetricians

- To access, read, understand and follow this guidance
- To use their professional judgement in application of this guideline

5.2. Management

- To ensure the guideline is reviewed as required in line with the Trust and National guidance
- To ensure the guideline is accessible to all relevant staff
- To monitor the audit process

6. Process

6.1. Third trimester scan requests

A request form with the relevant clinical details needs to be completed.
A qualified obstetric Sonographer should triage the referrals.
If there is any doubt as to the appropriateness of the request, then the Sonographer should indicate this clearly and return to the woman's obstetric team.
The name and signature of the Sonographer who reviewed the form should be clear.
The returned form with request for additional information should be returned to the DAU ward clerk.
The DAU Midwife/Doctor can then address any concerns and/or escalate as required.

The aim of the scan is to assess:

- Fetal heart movement
- Amniotic fluid volume
- Fetal growth
- Presentation

When indicated

- Placental location
- Fetal wellbeing -dopplers

Measurements taken in third trimester:

- Head Circumference (HC)
- Abdominal Circumference (AC)
- Femur length (FL)
- Single Deepest Pool (SDP) of amniotic fluid
- Dopplers (if required)
- Estimated Fetal Weight (EFW) – (There may **be an error of +/- 10-15%).**
  When indicated
- Renal tract
- Stomach

All measurements are entered into Viewpoint, interval growth should be assessed where possible (F7 allows previous measurements to be seen)

6.2. Abnormalities of Amniotic Fluid Volume

6.2.1. Assessment of Amniotic Fluid Volume

- Single deepest vertical pool measurement to be taken.
- Document in report.
- Normal range: 2 cm to 8 cm.

6.2.2. Oligohydramnios (See Appendix B)

Oligohydramnios is defined by a Single deepest vertical pool measurement of <2.0 cm
Fetal measurements should be checked for FGR and UA Doppler performed, if uteroplacenal insufficiency is suspected. The fetal renal tract should be checked for abnormalities.

If oligohydramnios is detected refer to DAU for a medical assessment.

Oligohydramnios is associated with an increased risk of perinatal morbidity and mortality. This is particularly so in cases diagnosed before 28 weeks when the mortality for severe oligohydramnios has been reported to be extremely high. This is contributed to by underlying fetal pathology but also by pulmonary hypoplasia developing secondary to lack of amniotic fluid. However, outcome is variable and oligohydramnios occurring for the first time in the third trimester with a normally grown baby is usually associated with a good prognosis.

A careful history should be taken about ruptured membranes. It is also associated with uteroplacental insufficiency, and renal tract abnormalities.

6.2.3. Pulmonary Hypoplasia and Oligohydramnios

This is a risk particularly with severe oligohydramnios present prior to 24 weeks as this is a crucial period for lung maturation. The risk of death due to pulmonary hypoplasia in live born infants following premature rupture of membranes (PROM) prior to 20 weeks is 51%. With PROM between 20 and 24 weeks the figure is 22% and with PROM from 25 weeks the figure is 17% (Carroll SG 1996)

6.2.4. Polyhydramnios (See Appendix C for flow chart)

Polyhydramnios is defined by a deepest vertical pool measurement of >8cm.
If the deepest pool is greater that 11cm it is termed moderate, and if more than 15cm, severe polyhydramnios.

Polyhydramnios is also associated with increased perinatal morbidity and mortality and around 20% of cases are associated with an underlying fetal anomaly. The fetus should be checked carefully for anomalies (e.g. gastrointestinal obstruction, mass lesion in the chest, brain abnormality causing inability to swallow, arthrogryposis, chromosomal abnormality).

If detected the woman should be referred to the DAU – See Appendix F

Following medical review:
A viral screen for parvovirus should be performed
A glucose tolerance test should be performed. If the woman is more than 37 weeks gestation discuss with the diabetic team prior to performing the test.

6.3 Indications for fetal growth assessment

Indication/ referral (action on measurements)/ surveillance/Delivery

- Symphysis Fundal Height Discrepancy (SFHD)
- Slowing or Static growth

NICE recommends measuring the symphysis fundal height from 24 weeks. Perinatal institute recommends a time interval of at least two weeks between measurements.

An USS is indicated if measurement is static, slowing growth as per growth calculator Laravel (perinatal.org.uk), or a ≥3cm SFH discrepancy from the gestation in week as per ESHT Clinical Guideline for the Measurement of Symphysis Fundal Height (SFH) 00620_P.pdf (esht.nhs.uk). Scan request indication must be documented as follows to avoid delays in processing:

Indication	Documentation on request form and additional info
First plot below 10th centile	As indication
STATIC growth	As indication no measurements required
Slowing growth as per growth calculator	As indication, no measurements required however, the growth calculator MUST be used and there must be at least 2 weeks between measurements. www.growthrate2.perinatal.org.uk
SFH ≥ 3cm or more *difference (plus measurements)*	The measurement and week must be included e.g. 33cm at 30 weeks
RFM persisting 1st episode	As indication – (these are first episode with no reassurance)
RFM no cCTG	As indication – (any episode in which a cCTG analysis has not been performed)
RFM recurrent episode	As indication - (second or subsequent episode)

Recurrent APH Undiagnosed abdominal pain	As indication plus consultant request. (These are at consultant discretion - either the consultant should complete the form or consultant request should be clearly indicated on the form)

The scan should be performed within the following time frame;

- Within 72 hours if static growth
- within 1 week if small for dates
- within 2 week if large for dates

If USS is not possible within the time frame for SFD a DAU appointment should be arranged for computerised CTG in the interim.

6.3.1 Serial growth scans

The indications for these scans are based on the following groups of factors in the SBLV2 initiative (see Appendix A)

- Pre-existing medical conditions
- Previous obstetric history
- Biochemical -from screening tests
- Fetal anomaly
- Inaccurate SFH measurement

These serial scans are usually performed at 4 weekly intervals for high and moderate risk women based on the Saving babies Lives algorithm (see algorithm Appendix A) . Scans for fetal growth are performed a minimum of 14 days apart.

Please note that the timing of serial scans are now at a minimum four week intervals from 30 or 34 weeks as indicated by the algorithm

Additional obstetric indications:

Obstetric Cholestasis	**Scan every four weeks following diagnosis**
Fetal indications	
• Twins – Dichorionic	**Serial USS at 28,32 & 36 weeks**
• Twins – Monochorionic	**Serial USS fortnightly from 16 weeks -** level of staff determined by Fetal medicine consultant
• Diabetes	**Serial USS at 28,32 & 36 weeks**
• IVF	**Serial USS 34 and 38 weeks**
• Unstable lie	**Scan after 36 weeks**
• Breech presentation	**USS 36 weeks check growth, type of breech and fetal attitude. Refer to DAU**
• Recurrent APH • Undiagnosed abdominal pain • *Reduced fetal movement (As per guideline)I*	**Consultant discretion**

• *Maternal antibodies (refer to lFetal medicine consultant)*	
Any scans outside of these guidelines need to be requested by a Consultant Obstetrician	

6.3.2 Action on measurements

If the AC and HC are between the 10th and 95th centiles and the L.V. is normal then, no further scans need to be booked and the women returns to routine AN care.

If on USS assessment the AC and /or EFW is more than the 95th centile a GTT should be performed

- When the AC or EFW is below the 3rd centile (FGR), or has not changed for 2 weeks, proceed to perform umbilical Doppler.
- Refer the patient to DAU for further assessment. (as stated in 6.4.1)

If the growth rate is reduced i.e. crossing centiles (>50 centiles in 4 weeks) but still above the 10th centile, perform Doppler study. Arrange rescan and a consultant clinic appointment in 2 weeks.

If the estimate fetal weight (EFW) <10th centile and/or the AC measurement fails to show linear growth, refer to DU for further assessment

If the A.C. and H.C. growth are below the 10th centile (symmetrical SGA/I.U.G.R.) or only the A.C. is below the 10th centile (asymmetrical SGA/I.U.G.R.) then do a full fetal assessment to include Doppler and Liquor Volume. Arrange rescan and ANC in two weeks. Refer to DAU

See Appendix F Action on Measurements Referral Pathways

6.4 Small for Gestational Age (SGA) / Fetal Growth Restriction (FGR)

6.4.1 Diagnosis (For Flow chats see Appendix D)

Small for gestational age (SGA) Fetuses between 3rd – 10th centile will often be constitutionally small and therefore not at increased risk of stillbirth. Care of such fetuses should be individualised and the risk assessment should include Doppler investigations, the presence of any other high risk features for example, recurrent reduced fetal movements, and the mother's wishes. In the absence of any high risk features, delivery or the initiation of induction of labour should be offered at 39+0 weeks (NHS England SBLV2 2019).

Fetal growth restriction (FGR) is diagnosed with a value of less than 3rd centile. These babies have an increased risk of stillbirth. When detected these babies should be offered delivery from 37 weeks (NHS England SBLV2 2019).

If detected the woman should be referred to the DAU

With early onset FGR <32 weeks, exclude fetal abnormalities, which may be present in up to 10-15%. Karyotyping offered in early onset growth restriction, especially when associated with structural anomalies (up to 25-30% risk of aneuploidy). If no structural abnormalities and low-risk combined screening, risk for aneuploidy will be much lower.

These women should be referred to the fetal medicine consultant, Miss N J Roberts for further review

6.4.2 Assessment of Fetal Wellbeing

Surveillance
A variety of tests are available for surveillance of the SGA fetus, including cardiotocography, Doppler and ultrasound to assess biophysical activity. The purpose of surveillance is to predict fetal acidaemia thereby allowing timely delivery prior to irreversible end–organ damage and in–utero death.

Umbilical Artery Doppler
Umbilical artery Doppler should be the primary surveillance tool in the SGA fetus and has been shown in randomised controlled trials to reduce perinatal mortality in high risk pregnancies. Umbilical artery Doppler is only performed > 28weeks and is not reassuring after 36 weeks gestation

It has not been shown to be useful in screening the general population and therefore should only be used in cases where there are complications.

The UA waveform is assessed using the pulsatility index (PI) and by noting present/ absent/reversed end diastolic flow (EDF). Absent EDF can be present for many weeks before fetal death. Reversed EDF is thought to usually be a pre-terminal sign heralding death within a few days.

Who should have umbilical artery Dopplers?
- Growth scan for SFD or reduced fetal movements.
- Small for gestational age if the AC is below the 10th percentile, crossed centiles/ slowing
- Oligohydramnios – SDP less then 2cm.
- Static growth / Serial scans with crossing percentiles (>50 centiles in 4 weeks)

When umbilical artery Doppler flow indices are normal it is reasonable to repeat surveillance every 14 days. In FGR, (AC or EFW <3rd centile) more frequent measurements may be indicated.
In high risk patients (e.g. SLE/APS) Umbilical Artery Doppler may be performed routinely with the serial growth scans.

All abnormal UA Dopplers should be referred to DAU for further assessment – MUST be discussed with a consultant.
When umbilical artery Doppler flow indices are abnormal (pulsatility or resistance index > +2 SDs above mean for gestational age) and delivery is not indicated, repeat surveillance twice weekly in fetuses with end–diastolic velocities present and daily in fetuses with absent/reversed end–diastolic frequencies.

CTG & Amniotic Fluid Volume
CTG and amniotic fluid volume assessment should not be used in isolation as a form of surveillance in SGA fetuses.

Biophysical profile
Biophysical profile should not be used for fetal surveillance in preterm SGA fetuses.

Middle Cerebral Artery (MCA) Doppler

In the term SGA fetus with normal umbilical artery Doppler, an abnormal middle cerebral artery Doppler (PI < 5th centile) has moderate predictive value for acidosis at birth and should be used to time delivery.

After 34 weeks providers with capacity may wish to use assessment of Middle Cerebral Artery (MCA) Doppler pulsatility indices (PI) to help identify and act upon potential fetal compromise in later pregnancy.

Ductus Venosus (DV) Doppler

Ductus venosus Doppler should be used for surveillance in the preterm SGA fetus with abnormal umbilical artery Doppler by consultant and used to time delivery.

Interventions

Women with a SGA fetus between 24+0 and 35+6 weeks of gestation, where delivery is being considered, should receive a single course of antenatal corticosteroids.

Timing delivery

A senior obstetrician should be involved in determining the timing and mode of birth for all SGA pregnancies.

If delivery is being considered in a woman with SGA, Special Care Baby Unit (SCBU) should be informed.

FGR identified prior to 34+0 weeks must have an agreed pathway for management which includes network fetal medicine input (for example, through referral or case discussion by phone).

The SCBU at Conquest Hospital does not accept babies less than 31 weeks of gestation or less than 32 weeks with SGA. Therefore it is important to make decisions regarding delivery in a timely fashion to allow for in utero transfer if necessary.

SGA - Fetuses between 3rd – 10th centile will often be constitutionally small and therefore not at increased risk of stillbirth. Care of such fetuses should be individualised and the risk assessment should include Doppler investigations, the presence of any other high risk features for example, recurrent reduced fetal movements, and the mother's wishes.

1. In the absence of any high risk features, delivery or the initiation of induction of labour should be offered at 39+0 weeks, birth should be achieved by 39+6
2. If high risk features or abnormal investigations are present earlier delivery will be indicated.

FGR - Accepting the proviso that all management decisions should be agreed with the mother in the cases of fetuses <3rd centile and with no other concerning features, initiation of labour and/or delivery should occur at 37+0 weeks and no later than 37+6 weeks gestation. Delivery <37+0 weeks can be considered if there are additional concerning features, but these risks must be balanced against the increased risks to the infant of delivery at earlier gestations[30].

1. FGR fetus with normal Umbilical artery Doppler

- Delivery should be considered by 37 weeks with the involvement of a senior clinician.
- Recommend delivery by 37 weeks if MCA Doppler abnormal (PI < 5th centile).
- Consider delivery > 34 weeks if growth is static over 3 weeks.

- Recommend steroids if delivery is by CS (as per RCOG guidance)

2. FGR fetus with an abnormal umbilical artery Doppler, detected AFTER 32 weeks of gestation

- delivery no later than 37 weeks of gestation is recommended.
- Consider delivery > 34 weeks if static growth over 3 weeks.
- Consider steroids if delivery by CS

3. FGR fetus with an abnormal umbilical artery Doppler, detected BEFORE 32 weeks of gestation

- Delivery when DV Doppler becomes abnormal or UV pulsations appear, provided the fetus is considered viable and after completion of steroids.
- Even when venous Doppler is normal, delivery is recommended by 32 weeks of gestation and should be considered between 30–32 weeks of gestation.

For women who decline induction of labour or delivery after 39+0 weeks, counselling must include a discussion regarding evidence that there is no increase in risk for the baby or for the mother from delivery/induction at this gestation and that there is no evidence to determine how fetuses with SGA/FGR should be monitored if pregnancy continues

Mode of delivery

In the FGR fetus with umbilical artery AREDV, delivery by caesarean section is recommended.
In the FGR fetus with normal umbilical artery Doppler or with abnormal umbilical artery PI but end–diastolic velocities present, induction of labour can be offered but rates of emergency caesarean section are increased and continuous fetal heart rate monitoring is recommended from the onset of uterine contractions.
Early admission is recommended in women in spontaneous labour with a SGA fetus in order to instigate continuous fetal heart rate monitoring.

6.5 Presentation scanning

If presentation is thought to be abnormal at the 36 week check the woman should be referred to DAU for USS assessment by the doctor on call.

If breech/transverse is confirmed the woman should be counselled about her options. If a woman with a breech presentation wishes an ECV, arrange department scan and date for procedure directly with the consultant performing the procedure. ***See Clinical Guideline for Breech Presentation including External Cephalic Version (ECV)***

6.6 Placental Location

If the placenta is thought to be low lying (less than 20 mm from the internal os) or praevia (covering the os) at the routine fetal anomaly scan, a follow-up ultrasound examination including a TVS is recommended at 32 weeks of gestation to diagnose persistent low-lying placenta and/or placenta praevia

Transvaginal USS is only contra-indicated in placenta praevia when there is heavy or active bleeding.
Any woman / pregnant person having a trans-vaginal scan by male Obstetrician / Sonographer will have a chaperone present for the procedure, please follow the ESHT Policy for the use of Chaperones in the Trust.

At 32 weeks –

- If the leading edge is > 2cm from os, the placenta is deemed NOT LOW
- If the leading edge is = 2cm from the os the placenta should be reported as LOW and rescan at 36/40.
- If the leading edge is < 2cms from the os, refer the women to her Consultant obstetrician in ANC to discuss the management of their pregnancy.

At 36 weeks –
If the leading edge is >2cm from the internal os, report as not low-lying

If at 36 weeks the leading edge is ≤2cm from the os, refer to Day Assessment Unit (DAU) or consultant clinic. The patient should be advised to attend DAU if an Antepartum haemorrhage (APH) occurs in the interim.
A provisional date for LSCS should be arranged
The woman should be advised that an option is to repeat the scan by the lead consultants for ultrasound scanning at 38-39 weeks as movement is still possible in the latter weeks.

6.7 Antepartum haemorrhage

One scan will be performed to assess the cause for APH and state placental position. Placental abruption is a clinical diagnosis and not an Ultrasound diagnosis, as the cause for bleeding may remain unseen on scan.

Fibroids

If the fibroids are high and do not involve the cervix, no rescan is required. If the fibroids are low (within 5cm from the cervix at 20 weeks is of significance) or involve the cervix, a rescan should be booked at approximately 36 weeks. Serial scans should not be performed for degenerating fibroids.

Interpreter

Any woman who does not speak fluent English should be accompanied by an interpreter. Children less than 16 years of age are not acceptable as interpreters. A telephone interpreter should be used if there is no appropriate interpreter is not available.

7 Evidence Base/References

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Source: PubMed

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Clinical Application of Ultrasonic Fetal Measurements (1990). BMUS Fetal Measurements Working Party Report. BIR: London.

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Papageorghiou AT, Yu CK, Nicolaides KH. The role of uterine artery Doppler in predicting adverse pregnancy outcomeBest Practice Research Clinical Obstetrics Gynaecology. 2004 Jun;18(3):383-96.

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8 Monitoring Arrangements

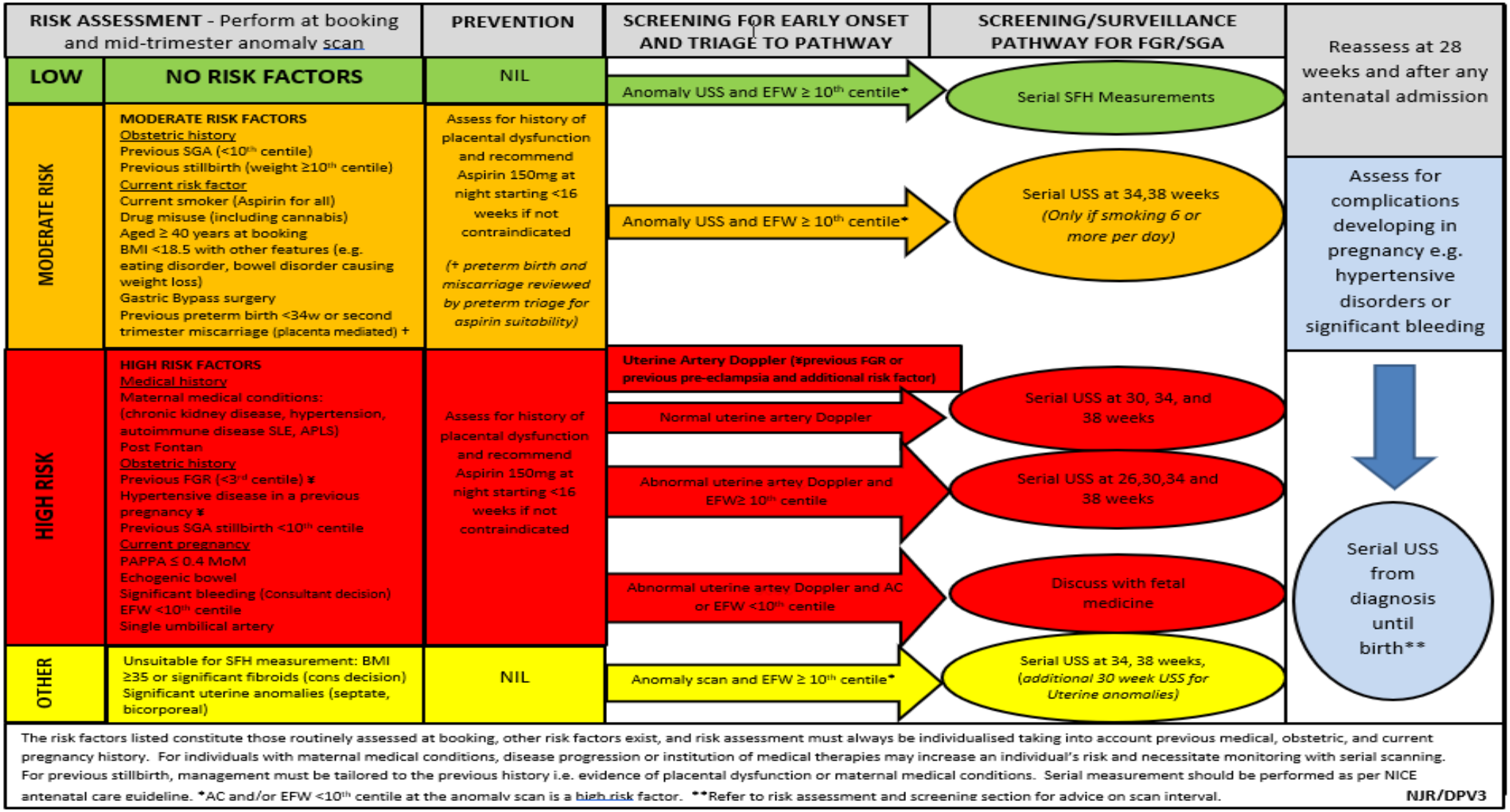
Document Monitoring Table

Element to be Monitored	Lead	Tool for Monitoring	Frequency	Responsible Individual/Group/ Committee for review of results/report	Responsible individual/ group/ committee for acting on recommendations/action plan	Responsible individual/group/ committee for ensuring action plan/lessons learnt are Implemented
Failure to undertake any recommended USS according to this guidance	Clinical Unit Lead	[redacted]	As required	Labour ward forum and local steering screening group	Clinical Unit lead, Ultrasound department lead, Antenatal screening specialist midwife	Clinical Unit lead, Ultrasound department lead, Antenatal screening specialist midwife, service manager Matron's, PDM

9 Equality and Human Rights Statement

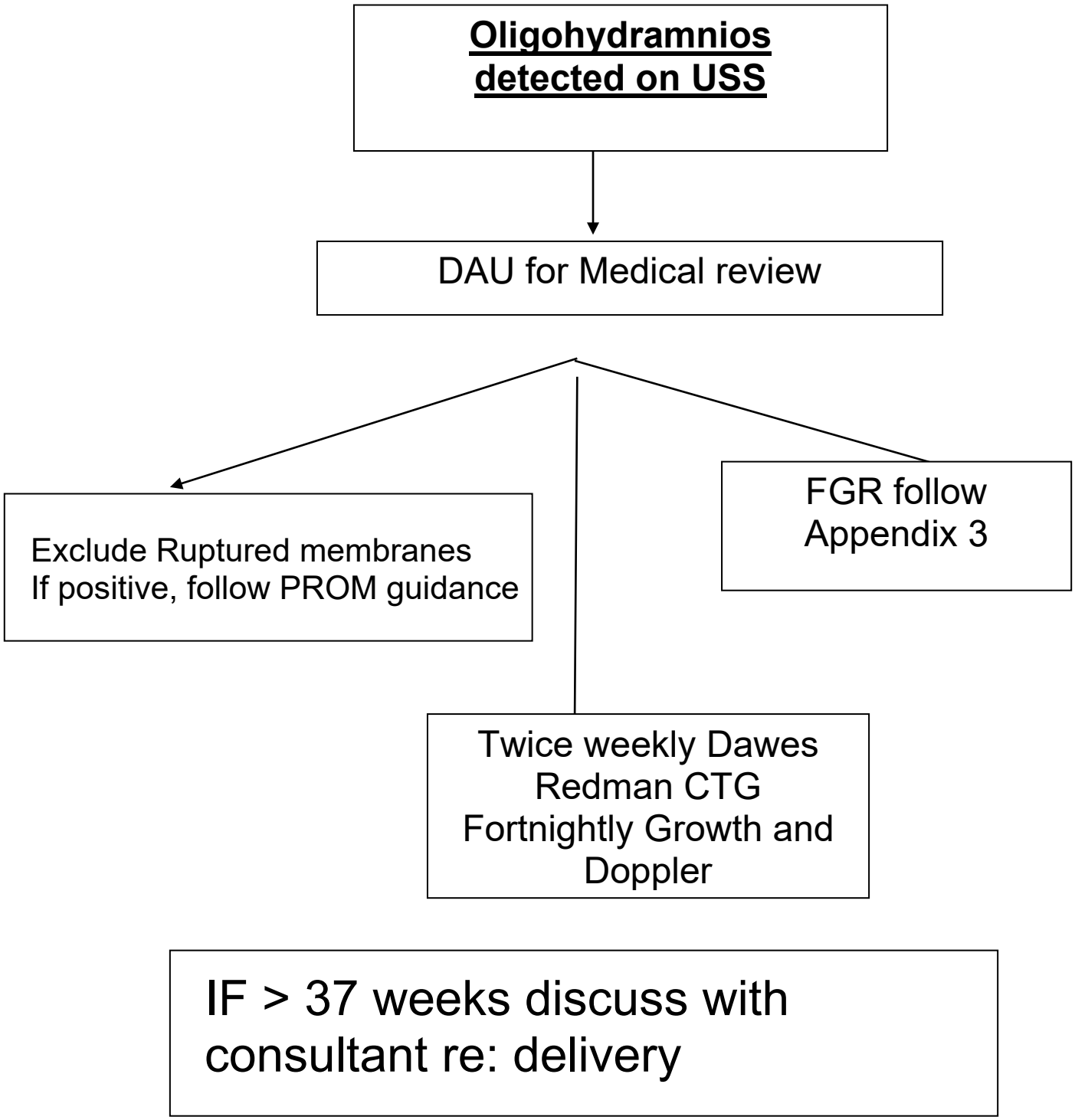
An Equality and Human Rights Form has been completed for this document. Please see Appendix F

Appendix A – RCOG / Saving Babies Lives - Algorithm

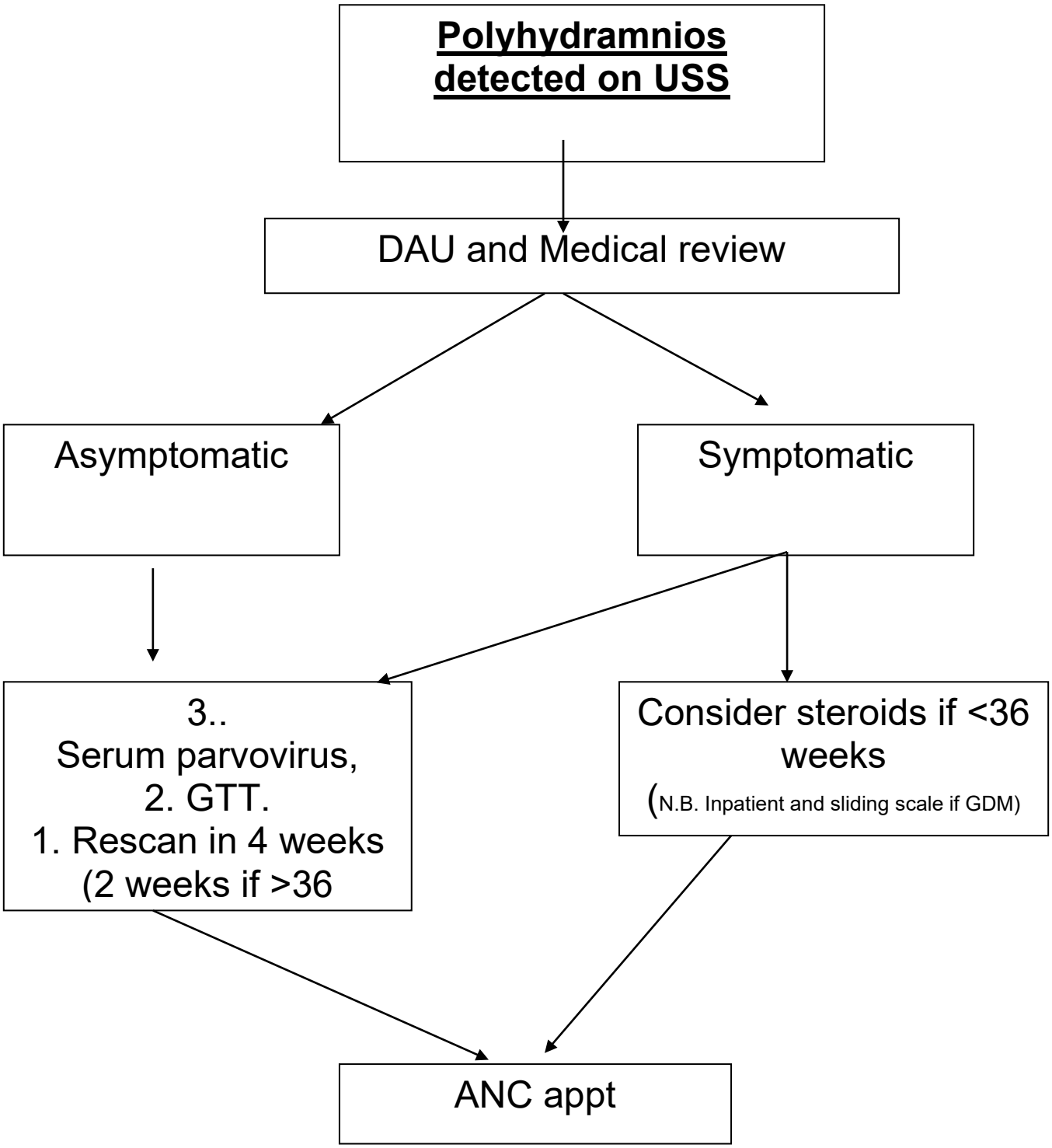


The risk factors listed constitute those routinely assessed at booking, other risk factors exist, and risk assessment must always be individualised taking into account previous medical, obstetric, and current pregnancy history. For individuals with maternal medical conditions, disease progression or institution of medical therapies may increase an individual's risk and necessitate monitoring with serial scanning. For previous stillbirth, management must be tailored to the previous history i.e. evidence of placental dysfunction or maternal medical conditions. Serial measurement should be performed as per NICE antenatal care guideline. *AC and/or EFW <10th centile at the anomaly scan is a high risk factor. **Refer to risk assessment and screening section for advice on scan interval. NJR/DPV3

Appendix B – Management of Oligohydramnious Flowchart

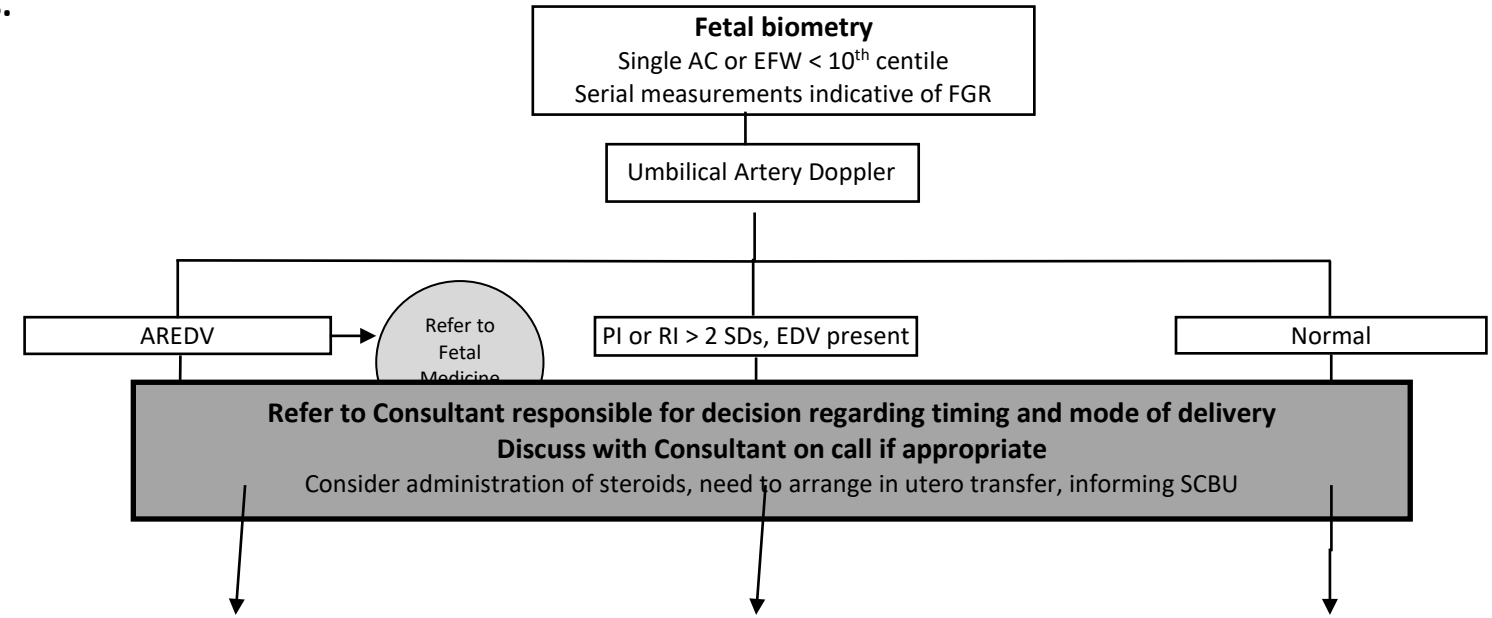


Appendix C – Management of Polyhydramnios Flowchart



Appendix D – SGA/FGR Flowchart

Management of Small-for-Gestational-Age (SGA)/Fetal Growth restriction (FGR) ,>34 weeks.



1. Weekly measurement of fetal size is valuable in predicting birthweight and determining size for gestational age
2. If two AC/EFW measurements are used to estimate growth, they should be at least 3 weeks apart
3. ~~Refer to Miss Roberts for repeat USS~~ in cases of AREDV

Abbreviations: AC, abdominal circumference; EFW, estimated fetal weight; PI, pulsatility index; RI, resistance index; UA, umbilical artery; MCA, middle cerebral artery; DV ducts venosus; SD, standard deviation; AREDV., Absent/reversed endiastlic velocities; SFH, symphysis–fundal height; FGR, fetal growth restriction; EDV, end–diastolic velocities.

Appendix E

Action on Measurements Referral Pathways

Measurement Findings	Action						
	UA Doppler	MCA Doppler	ANC	DAU	Rescan (weeks)	Midwife Sonographer Action	General Sonographer Action
All between 10th and 95th centile, liquor volume normal	X (Unless indication RFM)	X	X	X	X	No further scan required. If receiving serial scans these should continue.	
HC <10th centile	√	X	√	X	4	ANC and rescan in 4 weeks *	
AC <10th centile	√	√	√	√	2	Follow RCOG and trust SBL pathway DAU and rescan in 2 weeks	
FL <10th centile only	√	X	√	X	2	Arrange rescan and ANC within two weeks. If <5th centile Referral to screening team	
EFW < 10th centile or Static growth	√	√	√	√	2	Complete UA Doppler and MCA Doppler. DAU for review and plan.	
Reduced growth Centile decrease ≥ 50 centiles in 4 weeks	√	√	√	X	2	Perform Doppler study and request ANC in 2 weeks	
HC >95th centile	X	X	√	X	4	ANC and rescan in 4 weeks	
AC >95th centile	X	X	If ANC planned within a week –	1st diagnosis or >39weeks	4	Arrange a GTT if not performed within the last 6 weeks.	If no ANC within a week – DAU

			and previously diagnosed	and no ANC			
FL >95th centile	X	X	X	X	X	No action if all else is normal.	
Polyhydramnios	√	X	Continue with ANC or book ANC within the next 2 weeks if previously diagnosed	DAU if new diagnosis or >36 weeks gestation	4 if <36 weeks or 2 if ≥36 weeks	DP >8cm.GTT required If >36 weeks , DAU to speak to Diabetes team.	DAU
Oligohydramnios	√	√	√	√	2	DAU (for Consultant review if additional risk factors)	

To organise an ANC appointment please email esht.maternityliaisonwardclerkteam@nhs.net

DAU phone numbers – [redacted]

DAU [redacted]

Appendix F – EIA Form

Appendix B, Equality Impact assessment Form

1. Cover Sheet

Strategy, policy or service name	**Clinical Guidelines for Obstetric Ultrasound in the Third Trimester and SGA management**
Date of completion	February 2022
Name of the person(s) completing this form	Gayle Clarke
Brief description of the aims of the Strategy/ Policy/ Service	**Managing 3rd trimester scanning in pregnancy and IUGR, and SGA detection and Management**
Which Department owns the strategy/ policy/ function	Women and Children's
Version number	V 3.1
Pre Equality analysis considerations	
Who will be affected by this work? **E.g. staff, patients, service users, partner organisations etc.**	**Patients and families, staff**
Review date	February 2025
If negative impacts have been identified that you need support mitigating please escalate to the appropriate leader in your directorate and contact the EDHR team for further discussion.	To whom has this been escalated? Name: Date:
Have you sent the final copy to the EDHR Team?	

2. EIA Analysis

<table>
<tr><td></td><td>☺ 😐 ☹</td><td>Evidence:</td></tr>
<tr><td>Will the proposal impact the safety of patients', carers' visitors and/or staff?

Safe: Protected from abuse and avoidable harm.</td><td>Choose:
Positive
Neutral
Negative</td><td>This Guideline advices that staff to follow national and local guidance to ensure the safety of all infants during labour and birth by identifying and monitoring any pregnancy that is at risk for situations such as SGA, FGR, etc</td></tr>
<tr><td>Equality Consideration
Highlight the protected characteristic impact or social economic impact (e.g. homelessness, poverty, income or education)</td><td></td><td>
<table>
<tr><td>Race</td><td>Gender</td><td>Sexual orientation</td><td>Age</td><td>Disability & carers</td></tr>
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<tr><td>Is the proposal of change effective?

Effective: Peoples care, treatment and support achieves good outcomes, That staff are enabled to work in an inclusive environment. That the changes are made on the best available evidence for all involved with due regards across all 9 protected Characteristics</td><td>Choose:
Positive
Neutral
Negative</td><td>This Guideline advices that staff to follow national and local guidance to ensure the safety of all infants during labour and birth by identifying and monitoring any pregnancy that is at risk for situations such as SGA, FGR, etc and is all inclusive.</td></tr>
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<tr><td>What impact will this have on people receiving a positive experience of care?</td><td>Choose:
Positive
Neutral
Negative</td><td>This Guideline advices that staff to follow national and local guidance to ensure the safety of all infants during labour and birth by identifying and monitoring any pregnancy that is at risk for situations such as SGA, FGR, etc and is all inclusive.</td></tr>
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<tr><td>Does the proposal impact on the responsiveness to people's needs?</td><td>Choose:
Positive
Neutral
Negative</td><td>This Guideline advices that staff to follow national and local guidance to ensure the safety of all infants during labour and birth by identifying and monitoring any pregnancy that is at risk for situations such as SGA, FGR, etc and is all inclusive.</td></tr>
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<tr><td>What considerations have been put in place to consider the organisations approach on improving equality and diversity in the workforce and leadership?</td><td>Choose:
Positive
Neutral
Negative</td><td>This Guideline advices that staff to follow national and local guidance to ensure the safety of all infants during labour and birth by identifying and monitoring any pregnancy that is at risk for situations such as SGA, FGR, etc and is all inclusive.</td></tr>
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<tr><td colspan="3">Access
Could the proposal impact positively or negatively on any of the following:</td></tr>
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<tr><td>• Patient Choice</td><td>Choose:
Positive
Neutral
Negative</td><td>This Guideline advices that staff to follow national and local guidance to ensure the safety of all infants during labour and birth by identifying and monitoring any pregnancy that is at risk for situations such as SGA, FGR, etc and is all inclusive.</td></tr>
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<tr><td>• Integration</td><td>Choose:
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Negative</td><td>This Guideline advices that staff to follow national and local guidance to ensure the safety of all infants during labour and birth by identifying and monitoring any pregnancy that is at risk for situations such as SGA, FGR, etc and is all inclusive.</td></tr>
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<tr><td>Engagement and Involvement
How have you made sure that the views of stakeholders, including people likely to face exclusion have been influential in the development of the strategy / policy / service:</td><td>Choose:
Positive
Neutral
Negative</td><td>This guideline was approved via MDT process</td></tr>
<tr><td>Equality Consideration
Highlight the protected characteristic impact or social economic impact (e.g. homelessness, poverty, income or education)</td><td></td><td>
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Duty of Equality Use the space below to provide more detail where you have identified how your proposal of change will impact.	Choose: Positive Neutral Negative	
Characteristic	**Rating** ☺ ☹ 😐	**Description**
Race	Choose: Positive Neutral Negative	N/A
Age	Choose: Positive Neutral Negative	N/A
Disability and Carers	Choose: Positive Neutral Negative	N/A
Religion or belief	Choose: Positive Neutral Negative	N/A
Sex	Choose: Positive Neutral Negative	N/A
Sexual orientation	Choose: Positive Neutral Negative	N/A

Gender re-assignment	Choose: Positive Neutral Negative	N/A
Pregnancy and maternity	Choose: Positive Neutral Negative	This Guideline advices that staff to follow national and local guidance to ensure the safety of all infants during labour and birth by identifying and monitoring any pregnancy that is at risk for situations such as SGA, FGR, etc and is all inclusive.
Marriage and civil partnership	Choose: Positive Neutral Negative	N/A
Human Rights Please look at the table below to consider if your proposal of change may potentially conflict with the Human Right Act 1998		

A2	Right to life	**N**
A3	Prohibition of torture, inhuman or degrading treatment	**N**
A4	Prohibition of slavery and forced labour	**N**
A5	Right to liberty and security	**N**
A6 &7	Rights to a fair trial; and no punishment without law	**N**
A8	Right to respect for private and family life, home and correspondence	**N**
A9	Freedom of thought, conscience and religion	**N**
A10	Freedom of expression	**N**
A11	Freedom of assembly and association	**N**
A12	Right to marry and found a family	**N**
Protocols		
P1.A1	Protection of property	**N**
P1.A2	Right to education	**N**
P1.A3	Right to free elections	**N**