Surveillance, Assessment and Referral for suspected Small for Gestational Age (SGA) Fetus

Developed in line with the principles of
Gap and Grow and RCOG Green Top Guideline 31 (January 2014)

Specialty:	Obstetrics
Date Approved:	19th January 2018
Approved by:	Antenatal Forum
Date for Review:	19th January 2021

1. Background and Introduction

Fetal growth restriction is associated with stillbirth, neonatal death and perinatal morbidity. Confidential Enquiries have demonstrated that most stillbirths due to fetal growth restriction are potentially avoidable. A recent analysis based on the West Midlands database has underlined the impact that fetal growth restriction has on stillbirth rates, and the significant reduction which can be achieved through antenatal detection of pregnancies at risk.

Customised assessment of birthweight and fetal growth has been recommended by the RCOG since 2002 and is re-emphasised in the 2013 revision of the Green Top Guideline. The growth trend on serial measurement is of most value in predicting poor fetal outcome.

2. Scope

This guideline is relevant to all healthcare professionals involved in the care of pregnant women including Midwives, Obstetricians and Sonographers.

This guideline addresses:

- Production and use of a customised growth chart
- Risk assessment for women who may be offered serial growth scans
- When and how to measure symphisis fundal height (SFH), using a standardised technique
- When to refer for a growth scan
- How to document a growth scan on the customised growth chart using a standardised technique
- Referral and management as appropriate following a growth scan.

The guideline does not cover management when growth restriction is diagnosed. The plan of care following a diagnosis of SGA will be individualised by the named Consultant. The plan of care will follow the principles of the RCOG Green Top Guideline 31 (2013) available from the RGOG website.*

3. Objectives

- To ensure screening for SGA fetus through standardised SFH measurements of low risk women.
- To ensure that serial SFH measurements are plotted correctly on the customised growth chart
- To provide a referral pathway where SFH measurement indicates static or reducing measurement
- To provide growth scan within three working days where SFH measurement indicates static or reducing measurement
- To ensure fetal surveillance through serial growth scans for women with identified risk for IUGR in pregnancy
- To ensure growth scans are plotted correctly on the customised growth chart
- To provide a referral pathway for on going management of care where a growth scan identifies a problem

4. Customised Growth Charts

Each woman will have a customised growth chart produced following the dating USS by antenatal clinic staff. The EDD entered into the software will be calculated from the dating USS. The chart will show the 10th, 50th and 90th centile lines. The chart will take into account the height, weight, ethnicity and parity of the woman. Birthweights of previous children are recorded on the chart, but do not affect the centiles produced. The previous birthweights will display in the top left corner of the chart and will highlight previous SGA babies. The Chart will be fixed securely in the woman's hand held notes immediately behind the All Wales Maternity Record.

- SFH measurement will be undertaken during clinical examination and plotted using a **x**
- Estimated Fetal Weight (EFW) following an ultrasound scan (USS) will be plotted using **0**

The charts are very easy to produce and can be generated at any time during pregnancy. It is recommended the chart is printed on yellow paper. [†] These are available online at grow@perinatal.org.uk.

[†] Recommendation from OCRIM meeting January 2018

5. Serial Growth Scans

The offer of serial growth scans should be made to women with the following risk factors[‡];

- BMI =>35
- Multiple pregnancy
- Large uterine fibroid
- Previous Stillbirth
- Previous SGA baby
- Previous term baby (>37/40) weighing =< 2499g
- Chronic maternal disease; diabetes, hypertension, renal disease
- Maternal smoking =>11 cigarettes per day
- Substance misuse
- Maternal age =>40 (Primip)
- Antiphopholipid syndrome (APLS)

The use of SFH measurement is not recommended for women with identified risk factors.

The following risks may develop in pregnancy and indicate the offer of serial growth scans;

- Fetal anomaly (including echogenic bowel)
- Pre-eclampsia
- Oligohydramnios
- Polyhydramnios
- Recurrent unexplained ante partum haemorrhage (APH)

It is recommended that serial growth USS scans are completed every three weeks however scans may be less frequent or more frequent if clinically indicated by the obstetric team. USS scans should continue until the end of prgnancy

[‡] In some circumstances women who consent to serial growth scans may have a plan of care for monitoring by a midwife in the Consultant ANC or ADAU

6. When and how to measure the SFH

Women who have a recognised low risk pregnancy (in relation to developing SGA fetus) should have serial SFH measurement undertaken as a primary screen for fetal wellbeing.

How to measure

1. The fundal height measurement should be performed with the mother in a semi-recumbent position, with an empty bladder and the uterus relaxed.
2. The clinician uses both hands to perform an abdominal palpation, identifies the highest point of the fundus then leaves one hand on the fundus.
3. A non-elastic tape-measure, starting at zero, is placed on the fundus at the highest point (which may or may not be in the midline). The tape measure should then be drawn down to the top of the symphysis pubis (in the midline) and the number read in whole centimetres.
4. To reduce the possibility of bias, the tape measure should be used with the metric side hidden, and the measurement should be taken once only. The result should be documented in centimetres on the customised growth chart (value plotted **X**), and in the hand held record. The method for measuring SFH is described on the customised growth chart to support standardised practice.
5. SFH measurement should commence from =>26 weeks gestation until birth.
6. There should be at least two weeks between SFH measurements.

7. When to refer for a growth scan following a SFH measurement

Indications for a growth scan are:

- Any SFH measurement below 10th centile
- Static measurement: no increase in sequential measurements
- Slow measurement: curve crossing centiles

A scan must be organised via the Day Assessment Units. The appointment for a scan should be as soon as possible and within 3 working days.

SFH measuring above the 90th centile, or following a velocity curve above the 90th centile is not an indication for referral for a growth scan.

If a midwife or junior obstetrician has a concern in relation to increased SFH measurement (including a suscpision of polyhydramnios), senior obstetric advice may be sought to consider a referral to a Consultant antenatal clinic).

ADAU Singleton: 01792 285214

ADAU Princess of Wales: 01656 752562

ANC Neath & Port Talbot: 01639 862118

If a scan cannot be performed within three working days in any unit, a datix should be completed and the manager on call informed.

8. Outcome of referral for a growth scan

Following an USS the ultrasonographer will plot the EFW on the customised growth chart using **O** .

- If the USS performed plots between the 10th and 90th centile, and the liquor volume is normal the woman will be asked to attend her next antenatal clinic appointment as planned
- If USS performed is a subsequent referral, the EFW plots between the 10th and 90th centile, following the centile curve, with normal liquor volume, the woman will be asked to attend her next antenatal clinic appointment as planned
- If USS performed is a subsequent referral and the EFW plots as static measurement or below the previous centile curve refer for obstetric review (not telephone), for management plan which must include USS in two weeks within Consultant ANC.
- If USS performed is first or subsequent and the EFW plots below the 10th centile with normal liquor volume and doppler refer for obstetric review (not telephone), for management plan which must include USS in two weeks within Consultant ANC.
- If USS performed and the EFW plots below the 10th centile with reduced growth velocity (subsequent scan), oligohydramnios and/or abnormal Doppler immediate senior obstetric review must be undertaken. Plan of care must be agreed by named or on call consultant. In this scenario the Consultant will require the ultrasonographer to provide fetal measurements including Abdominal Circumference (AC), head circumference (HC) and Femur length (FL)

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Directorate of Women & Child Health

Checklist

Title of Guideline:	Assessment of Fetal Growth
Name(s) of Author:	Antenatal Forum
Chair of Group or Committee supporting submission:	Chair: Antenatal Forum
Issue / Version No:	2
Date approved by Group:	19/01/2018
Next Review / Guideline Expiry:	19/01/2021
Details of persons included in consultation process:	ABMU consultants GROW working party Antenatal Forum Midwifery managers
Brief outline giving reasons for document being submitted for ratification	For full implementation of Gap/Grow in line with Welsh Government Directive
Name of Pharmacist (mandatory if drugs involved):	n/a
Please list any policies/guidelines this document will supercede:	1 – Assessment of Fetal Growth – Sept 2015 2 – Detection of Management of Small for Gestational Age (SGA) and Intra Uterine Growth Restriction (IUGR) – Jan 2012 3 – Guidelines for Management of women with a previous Intra Uterine Growth Restriction - Jan 2012
Keywords linked to document:	Fetal, Growth, IUGR, SGA, Restriction, Uterine
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