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Management of Fetal ectopic or irregular fetal heartbeat.

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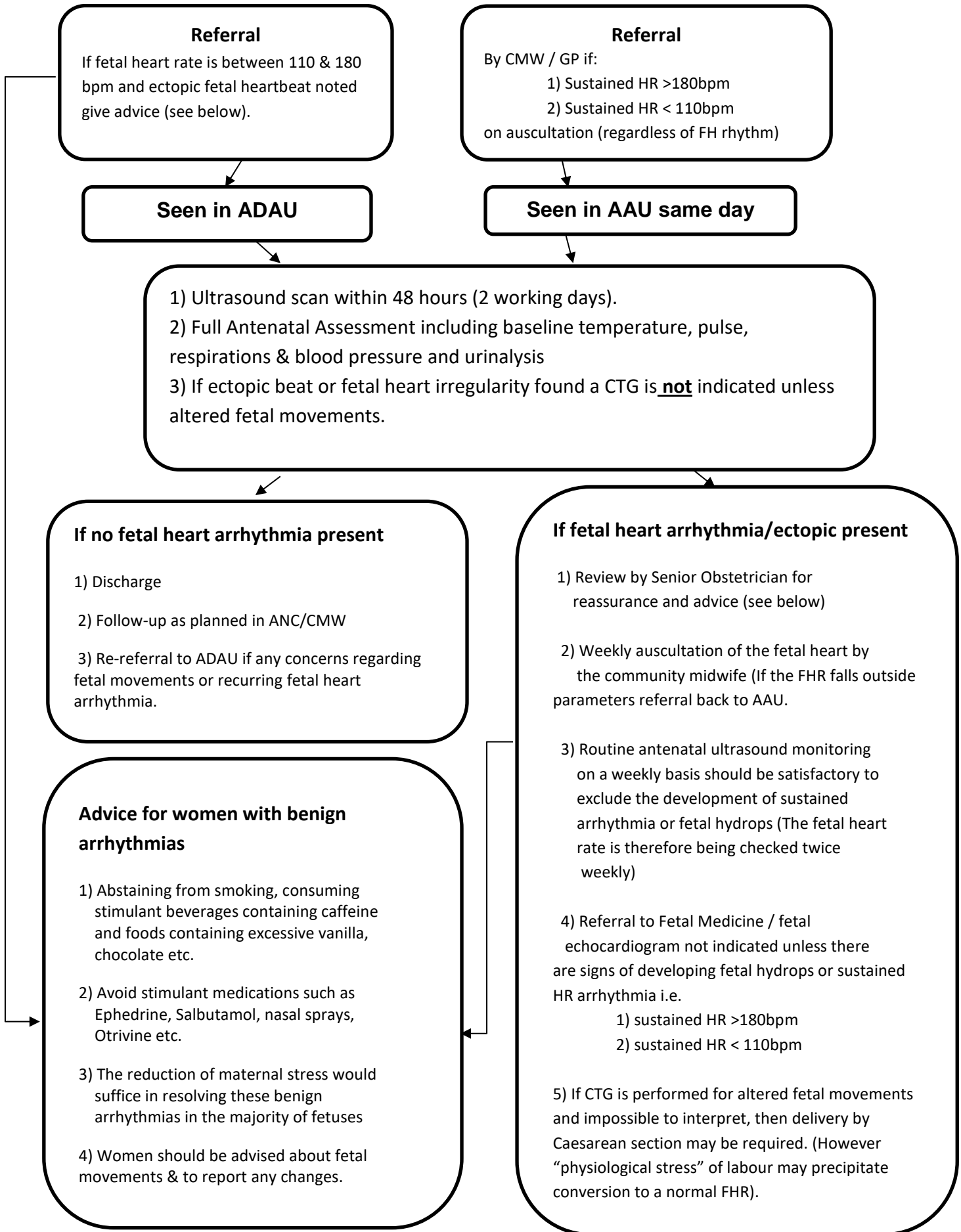
Antenatal Management of Antenatal Fetal Heart Arrhythmia:

Advice from Fetal medicine University Hospital Wales

- “On the basis of ectopic beats or irregular heart rate we would not recommend a routine cardiac referral, but an obstetric heart rate check twice weekly, once by the community midwife and once by antenatal ultrasound monitoring on a weekly basis”.
- Simple reassurance and advice should be given to women.
- Abstain from smoking.
- Avoid Consuming excess amount of calcium containing foods (milk products).
- Avoid Stimulant beverages (Excess caffeine, tea, coffee, hot chocolate, coke, energy drinks) and food (excess vanilla, chocolate etc).
- Avoiding stimulant medications (Ephedrine, Salbutamol, nasal sprays, Otrivine etc.)
- Reduction of maternal stress would suffice in resolving these benign ectopic beats in the majority of cases in fetal life.
- Women should be advised to monitor fetal movements, if concerned inform woman to contact hospital immediately if fetal movement is significantly reduced or altered pattern.
- We would advise that patients with irregular heart rate in their fetus should be simply reassured and weekly obstetric ultrasound be performed, just to make sure that there is no emerging sustained bradycardia (less the 110 bpm) or tachycardia (more than 180 bpm) or development of fetal hydrops.
- In such cases where there is genuine obstetric concern about the wellbeing of the fetus or the mother and, in the case of sustained arrhythmia, we would strongly recommend that the individual consultant should ring the on-call paediatric cardiologist to discuss the best type of action, investigation and recommendation.

Adapted from (Beattie, Uzun & Amin 2017).

Flow Chart for Initial Antenatal Management of Fetal Heart Arrhythmias Detected in Midwifery Led and Consultant Led Antenatal Clinics.



Referral

If fetal heart rate is between 110 & 180 bpm and ectopic fetal heartbeat noted give advice (see below).

Seen in ADAU

Referral

By CMW / GP if:
1) Sustained HR >180bpm
2) Sustained HR < 110bpm on auscultation (regardless of FH rhythm)

Seen in AAU same day

- 1) Ultrasound scan within 48 hours (2 working days).
- 2) Full Antenatal Assessment including baseline temperature, pulse, respirations & blood pressure and urinalysis
- 3) If ectopic beat or fetal heart irregularity found a CTG is **not** indicated unless altered fetal movements.

If no fetal heart arrhythmia present

- 1) Discharge
- 2) Follow-up as planned in ANC/CMW
- 3) Re-referral to ADAU if any concerns regarding fetal movements or recurring fetal heart arrhythmia.

If fetal heart arrhythmia/ectopic present

- 1) Review by Senior Obstetrician for reassurance and advice (see below)
- 2) Weekly auscultation of the fetal heart by the community midwife (If the FHR falls outside parameters referral back to AAU.
- 3) Routine antenatal ultrasound monitoring on a weekly basis should be satisfactory to exclude the development of sustained arrhythmia or fetal hydrops (The fetal heart rate is therefore being checked twice weekly)
- 4) Referral to Fetal Medicine / fetal echocardiogram not indicated unless there are signs of developing fetal hydrops or sustained HR arrhythmia i.e.
 - 1) sustained HR >180bpm
 - 2) sustained HR < 110bpm
- 5) If CTG is performed for altered fetal movements and impossible to interpret, then delivery by Caesarean section may be required. (However "physiological stress" of labour may precipitate conversion to a normal FHR).

Advice for women with benign arrhythmias

- 1) Abstaining from smoking, consuming stimulant beverages containing caffeine and foods containing excessive vanilla, chocolate etc.
- 2) Avoid stimulant medications such as Ephedrine, Salbutamol, nasal sprays, Otrivine etc.
- 3) The reduction of maternal stress would suffice in resolving these benign arrhythmias in the majority of fetuses
- 4) Women should be advised about fetal movements & to report any changes.

Referral

- Not all women with a fetus with an ectopic fetal heartbeat need referral to the fetal medicine consultant.
- This referral to fetal medicine is only necessary if there is a concern with the fetal heartrate or fetal heartrate irregularity. If an ectopic fetal heartbeat is present, weekly scans will need arranging. This is to check for hydrops and check the presence of the ectopic beat and rate.
- If a woman is under midwife led care referral to consultant led care within their geographical boundary is needed next available date.
- ANC appointments are required at least fortnightly, as the interim scans can be arranged and reviewed by the Antenatal Day Assessment Unit. If the woman is consultant led care ensure a follow up appointment is in place within the next week.

When to stop surveillance:

Surveillance of an ectopic or irregular fetal heartbeat can stop once there is one ultrasound scan where the ectopic fetal heartbeat is **no longer found**. The community midwife should auscultate the week after and if no longer heard return to normal surveillance of the pregnancy. If the ectopic fetal heartbeat or irregularity is heard again refer back to the flow chart.

Footnote from Dr Uzun:

It is recommend to also read the AHA Scientific Statement (2014): Diagnosis and Treatment of Fetal Cardiac Disease. Available online at:
<http://circ.ahajournals.org/content/early/2014/04/23/01.cir.0000437597.44550.5d>

Information

Ectopic or Irregular fetal Heartbeat

We have scanned your baby's heart and found that there is no abnormality of the structure or function of the heart.

What is an irregular fetal heartbeat?

Occasionally when your midwife listens to your baby's heartbeat she may hear an irregular beat or rhythm. This is commonly caused by extra beats. These beats are called ectopic beats, which are of no significance to your baby and are caused by the hearts immaturity.

Why do they occur?

A small area of baby's heart sends out electrical impulses, which regulate a normal heart rate. These impulses spread throughout the heart muscle and cause it to contract in a regular rhythm. However, sometimes another area of the heart sends out an extra electrical impulse, which will cause an extra heartbeat. The heart then rests while the heart muscle gets back to a normal rhythm. This can make your baby's heart sound irregular. An irregular heartbeat is not associated with any abnormalities in the way a baby's heart is formed. We would expect it to settle as pregnancy progresses, but it occasionally persists until birth.

What will happen during my pregnancy?

Your midwife will listen to your baby's heart rate when you attend for your antenatal appointments. You will also be scanned weekly whilst the ectopic beat or irregularity is noted. It is very rare but occasionally your baby's heartbeat may develop a continuous fast rhythm. This is called tachycardia*.

Cutting down on your intake of tea, coffee and Cola/energy drinks is advisable. The caffeine content in these drinks can stimulate the electrical activity of the baby's heart. You can also reduce your intake of chocolate and vanilla. Some medications can contribute to the heartbeat such as salbutamol for asthma. We also advise you avoid undue stress and smoking.



What will happen when baby is born?

This is usually a condition that has no significance for baby in future life. The paediatrician will listen to your baby's heartbeat before you are discharged from hospital and perform further tests if necessary. *If your baby's heart beat remains at a fast rhythm for a long period of time it could rarely damage baby's heart or other organs. Your obstetrician may recommend a referral to a fetal medicine specialist if this occurs.

What else do I need to do?

You will be advised to keep an eye on the pattern of your baby's movements and if you are concerned to contact the hospital. Also, please refer to our fetal movement leaflet.

Contact us:-

Any concerns call;

Antenatal Day Assessment Unit (Mon-Fri) 08.30am-6pm (01792) 285214

Antenatal Assessment Unit (24 hours) (01792) 286111

Maternity Services

Checklist for Clinical Guidelines being Submitted for Approval

Title of Guideline:	Management of Ectopic or irregular fetal heartbeat.
Name(s) of Author:	Jayne Bowden
Chair of Group or Committee approving submission:	Antenatal Forum
Brief outline giving reasons for document being submitted for ratification	Policy for the care and referral of women with a fetus that has a fetal ectopic or irregular heartbeat. Including information leaflet.
Details of persons included in consultation process:	Mr M Moselhi (Fetal Medicine consultant) Ms Louise-Emma Shaw Antenatal forum
Name of Pharmacist (mandatory if drugs involved):	
Issue / Version No:	
Please list any policies/guidelines this document will supercede:	Management of Ectopic Fetal Heart Beats or Irregular Fetal Heart Rate 21/05/2014.
Date approved by Group:	
Next Review / Guideline Expiry:	
Please indicate key words you wish to be linked to document	Ectopic heartbeat, fetal arrhythmia, fetal tachycardia, fetal bradycardia.
File Name: Used to locate where file is stores on hard drive	