Worcestershire Acute Hospitals NHS Trust

Cholestasis in pregnancy

Key Document code:	WAHT-TP- 094	
Key Documents Owner/Lead:	Dr Hillman	Consultant Obstetrician
Approved by:	Maternity Governance Meeting	
Date of Approval:	15th November 2019	
Date of review:	15th November 2022	

Key Amendments

Date	Amendments	Approved by

Cholestasis in pregnancy usually presents in the third trimester. It affects 0.7%of pregnancies (1.2-1.55 in women of Asian origin)

Obstetric cholestasis is a multifactorial condition of pregnancy characterised by intense pruritus in the absence of a skin rash, with abnormal liver function tests (LFTs) and/or raised bile acids, neither of which have an alternative cause and both of which remit following delivery. Pruritus involving the palms and soles of the feet is particularly suggestive.

The clinical importance of obstetric cholestasis lies in the potential fetal risks. These may include spontaneous prematurity, iatrogenic prematurity, fetal distress, passage of meconium and intrauterine death. In a hospital setting the additional risk of stillbirth in association with obstetric cholestasis above that of the general population has not been determined but is likely to be small.

There can also be significant maternal morbidity in association with the intense pruritus and consequent sleep deprivation.

Women who have had previous cholestasis in pregnancy are at a high risk of developing cholestasis in a subsequent pregnancy (45-90%).

The patients covered by this guideline are women presenting with itching primarily on the hands and feet (although it may be generalised) with no rash after 24+0 completed weeks gestation.
It is rare for cholestasis to present under 24/40 but if the symptoms are classical then consider the diagnosis and investigate as appropriate.
NB: Women who have had previous cholestasis of pregnancy do not require routine bloods.
Only investigate if symptoms occur.

For **Diagnosis and Treatment** see the flow chart in Appendix.

Antenatal Fetal Monitoring in Obstetric Cholestasis (OC)
Poor outcome cannot be predicted by biochemical results and delivery decisions should not be based on results alone.

None of the fetal monitoring modalities (CTG/USS/Doppler) are reliable in predicting or preventing fetal death in obstetric cholestasis. Placental insufficiency, IUGR or oligohydramnios are not features of the disease and umbilical artery Doppler assessment of uterine, umbilical or fetal cerebral arteries are not different when compared with other pregnancies.

If fetal movements and fetal growth according to customised growth chart are satisfactory, additional fetal monitoring by CTG/ USS/ Doppler is not recommended in obstetric cholestasis.

Continous fetal heart monitoring is recommended in labour.

Timing of delivery
While it is certain that delivery at 37 weeks of gestation will prevent a stillbirth beyond that gestation, it is not known how high the risk of such a stillbirth might be. The widely adopted practice of offering delivery

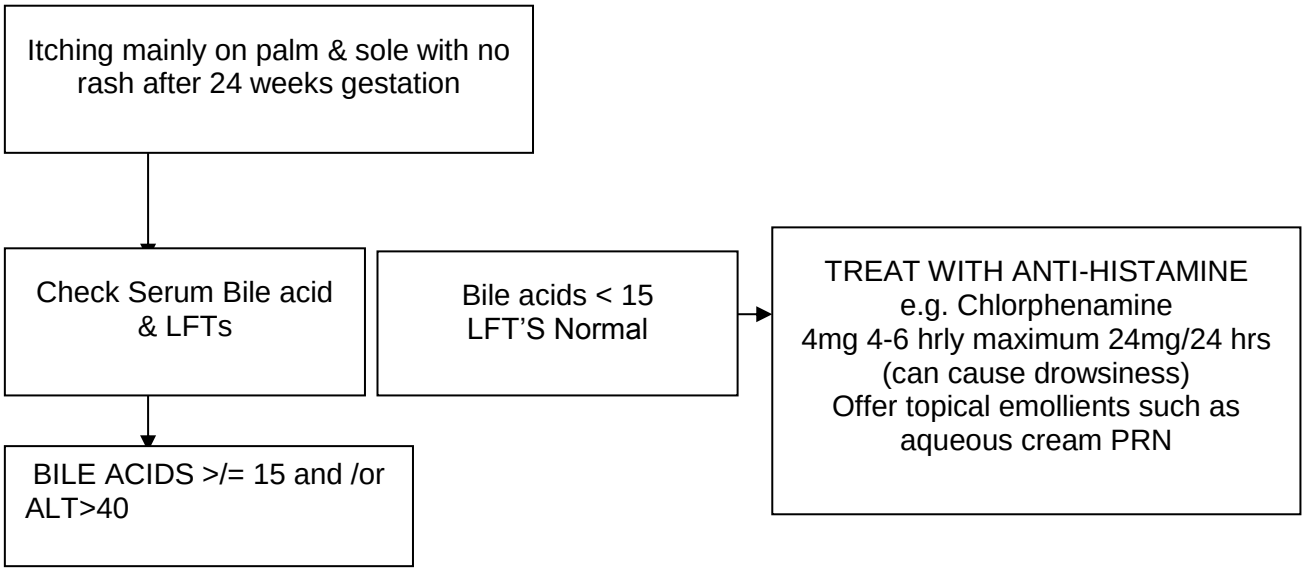
at 37 weeks of gestation, or at diagnosis if this is after 37 weeks of gestation, is not evidence based. Therefore, the iatrogenic consequences of elective delivery must be considered. In general obstetrics, elective early delivery results in increased respiratory morbidity compared with later delivery. The risk of admission to a special care baby unit following an elective caesarean section is 7–11% at 37 weeks of gestation, 6% at 38 weeks of gestation and 1.5% at 39 weeks of gestation. Data in obstetric cholestasis pregnancy suggest that the risks may be similar.

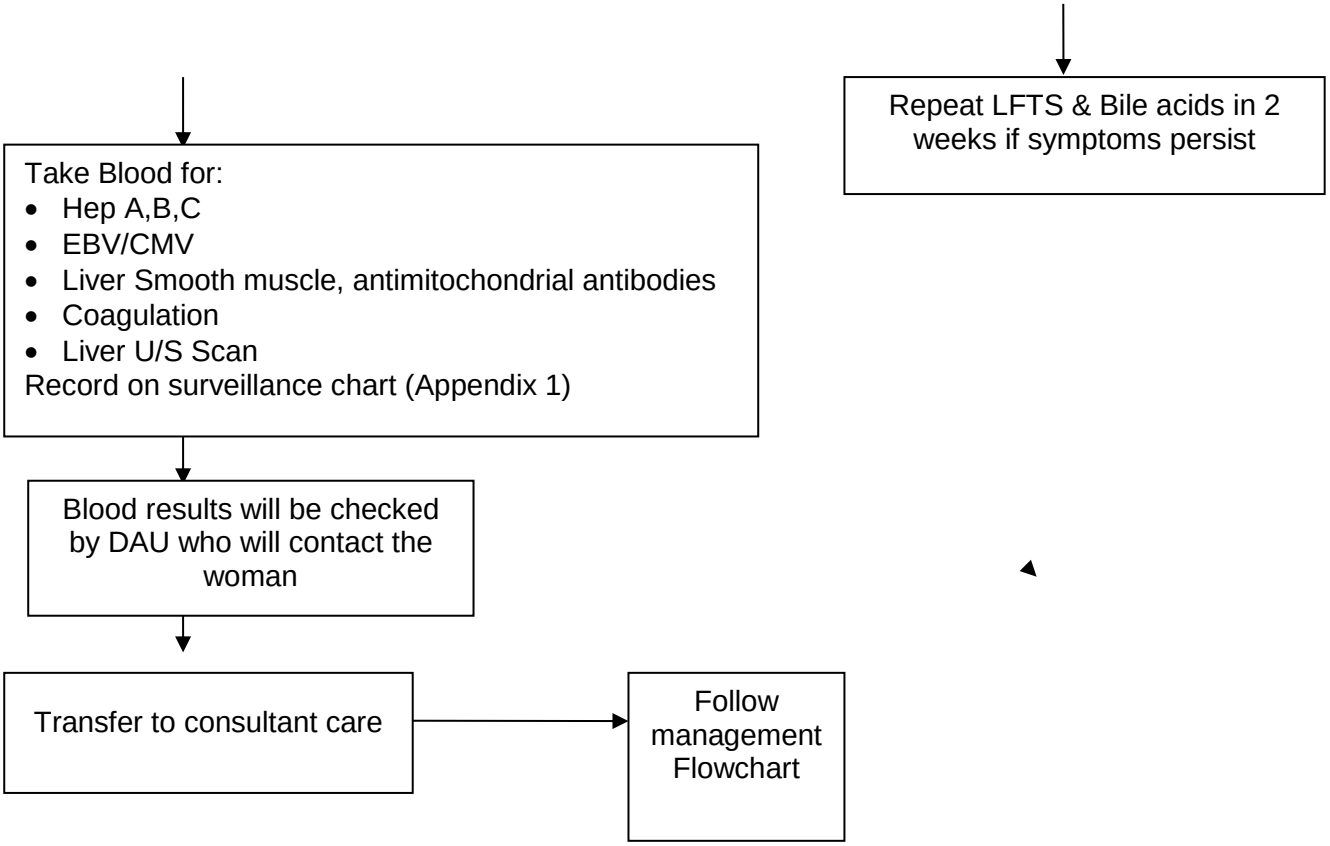
Women with OC who have severe/ worsening biochemical abnormality (transaminases – ALT and bile acids) a discussion should take place with women regarding induction of labour after 37+0 weeks of gestation. Women should be informed of the increased risk of maternal & perinatal morbidity from early intervention at 37+0 weeks of gestation, however the case for intervention after 37+0 weeks of gestation may be stronger in those with more severe biochemical abnormalities.

In women with OC with stable biochemistry and symptoms IOL by 39 weeks should be considered.

MANAGEMENT OF CHOLESTASIS IN PREGNANCY – INVESTIGATION

PRESENTING SYMPTOMS





MANAGEMENT OF CHOLESTASIS IN PREGNANCY

MANAGEMENT FROM 24 WEEKS

Monitor platelets, bile acids and LFT'S weekly and record on surveillance chart (Appendix 1)

Only if LFT's, bile acids or platelets are deranged then perform coagulation studies.

Inform the consultant who should discuss further management / IOL with the woman

Continuous electronic fetal monitoring during induction / labour

Active management of third stage

TREATMENT

Treat the symptoms

Aqueous cream PRN chlorpheniramine 4mg 4-6 hrly

Start oral Vitamin K 10mg/day (Prescribe as Menadiol from 32 wks if Prothrombin time is prolonged)

If prothrombin time is normal then only prescribe Vitamin K after careful counselling

If symptoms severe consider Ursodeoxycholic Acid (UDCA) 450 mg bd. Dose may be increased to max of 1g bd after discussion with consultant.

(Haematology for platelets, Biochemistry for bile acids and LFT's)

Postnatal

LFT may take 10 days to return to normal post delivery and therefore should not be checked prior to this. Confirmation of the diagnosis relies on the postnatal resolution of symptoms and abnormal biochemistry. Postnatal review should therefore include checking LFT's no earlier than10/7 postnatal and informing the woman of the high recurrence rate in subsequent pregnancies (45-90%).

Women with a history of cholestasis should be advised to avoid the use of oestrogen containing contraception.
If biochemistry remains abnormal, a gastroenterology referral should be made.

APPENDIX 1

Worcestershire NHS
Acute Hospitals NHS Trust

Maternity Day Assessment Unit
Obstetric Cholestasis Surveillance

Bile Acids 15 and above ± alt > 40

Patient details sticker

Blood for	Treatment Used	Treatment Used
▪ Hep A☐ B☐ C☐ ▪ EBV/CMV ☐ ▪ Liver smooth muscle Antimitochondrial /Ab S	Aqueous cream ☐ Chlorphenamine 4 mgs ☐	Ursodeoxycholic acid 450mgs BD (UDCA) ☐ Oral Vit K 10 mg/day (menadiol) from 32 wks ☐ If prothrombin time prolonged
▪ Liver U/S scan		

Liver Profiles							
Date							Non-pregnant values
T Protein							60-85 g/l
Albumin							35-55 g/l
Globulin							18-36 g/l
Bilirubin							2-17 umol/l
Alk. Phos							30-130 IU/l
GGT							0-30 U/l
ALT							>30 U/l
Bile acids							0-14 umol/l
Platelets							
Coagulation studies							
Prothrombin time							

Women who have had confirmed raised bile acids should have their LFT's checked at 6 weeks by GP and referral to physician if they remain raised.

Women should be advised to avoid oestrogen containing contraception.
Woman informed □