

TheAHSNNetwork NHS Improvement



**Pregnancy with Autoimmune disease and
obstetric cholestasis**
Dr. Samantha Chessell & Ms. P Thampi
Milton Keynes Hospital

Oxford
**Patient
Safety
Collaborative**

NHS
Thames Valley
Strategic Clinical Network

NHS
Milton Keynes
University Hospital
NHS Foundation Trust

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Background


- 39 year old female
- Primiparous
- Consultant-led care

<p>Medical History</p> <ul style="list-style-type: none"> • Systemic Lupus Erythematosus (SLE) • Osteoporosis (lower back) • Raynaud's disease • Fibromyalgia syndrome • Hypertensive • Depression • Laser treatment of cervix for abnormal cells • Left knee replacement 	<p>Medication</p> <ul style="list-style-type: none"> • Hydroxychloroquine • Prednisolone • Azathioprine • Amitriptyline • Sertraline • Nifedipine • Dalteparin • Ranitidine • Tramadol • Co-codamol
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Chronology of events

9+1/40

- Routing Booking appointment with community midwife.
- Referred for Consultant led care

12+4 /40




- Routine dating scan in Ultrasound department.


15+4/40

- Routine Community Midwife Appointment

18+1/40

- Self referral to Labour ward with Abdominal cramps, no vaginal bleeding.
- BP 164/84, 157/87, 144/76
- FH: 160bpm
- Plan: Home, Fragmin, Aspirin 75mg & referral to Maternal Medicine clinic

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20+0/40




- Routine Anomaly scan in ultrasound department. All ok.


20+1/40

- Antenatal Clinic
- Medical history, medications, fetal movements, growth scans & bloods discussed.
- Obs & urine: NAD
- Plan:
 - Rheumatology review
 - Paediatric alert
 - Anti RO/LA antibodies – if positive for fetal echo
 - BP check every 2 weeks until 32 weeks then weekly.
 - Serial scans at 30, 34 and 38 weeks
 - Anaesthetic referral
 - ANC in 2 weeks

22+1/40

- ANC (Registrar)
- Medical history, medications, fetal movements, growth scans & bloods discussed.

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23+6/40




- Routine Growth and Doppler scan
 - EFW 50th centile, Liquor normal, placenta anterior not low, breech, doppler EDF positive.


25+4/40

- Routine community midwife appt
- FM felt
- Referral to IAPT (Improving Access to Psychological Therapies) as feeling low

25+5/40

- ANC (Registrar)
- Medical history, medications, fetal movements, growth scans & bloods discussed.
- Obs NAD, Urine leu ++ (MSU sent), Bloods NAD, OGTT normal
- Plan:
 - Weekly BP check
 - ANC & USS at 30 weeks

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27/40




- Self referral to ADAU: 1st episode no fetal movements for one day
- Bp 139/73, Pulse: 120bpm, MSU: ++ Leucocytes, FH 158bpm
- Growth scan: EFW 1158g (90th centile). Liquor normal, placenta anterior not low, transverse, EDF positive


28+4/40

- Routine CMW appt
- Bp 130/64, MSU: NAD, FM felt

29+5/40

- ANC
- Medical history, medications, fetal movements, growth scans & bloods discussed
- Bp 150/80, repeated 130/76
- Anti RO and LA - both Negative
- Plan:
 - Bp twice weekly with CMW/GP, if Bp high to increase Nifedipine to 10mgs BD.
 - Rheumatology advised elective caesarean

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32+5/40

- Routine growth scan & Doppler
 - 90th centile, Liquor normal, placenta anterior not low, cephalic, EDF positive

33/40

- Self referral to ADAU: itching & generally unwell.
- Bp 144/74. Pulse 114bpm, MSU: Leu trace
- FH: 128bpm, CTG: DR met.
- *Bloods: Bile acid: 126.7, ALT: 23, Gamma GT: 75*
- Obstetric cholestasis diagnosed
- Plan:
 - Bp profile (stable, sent home)
 - Liver scan
 - Vitamin K (from 34 weeks)
 - UCDA
 - Piriton

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33+4/40

- ADAU for bloods & CTG
- Also reports abdominal pain for 1/52
- Bp: 143/83, MSU: Leu trace
- FH 126bpm, CTG DR criteria met
- R/V by ST2: nil concerns
- Plan:
 - Chase bloods: *Bile Acids: 230.5, ALT: 27, GGT: 59*

33+5/40

- ANC (Consultant) - Medical history, medications, fetal movements, growth scans & bloods discussed
- Plan:
 - Urgent liver scan
 - Autoimmune screen
 - IOL 05/04/18 at 37 weeks
 - Increase UDCA
 - ADAU twice weekly – for bloods, CTG
 - Steroids (in case of early delivery)
 - ANC in one week
 - Advised 'strictly come to hospital if reduced fetal movements'.

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33+5/40




- ADAU for CTG & 1st dose of steroids
- Obs stable, FH 142bpm, CTG DR criteria met, FM felt
- Anti-RO & Anti-LA negative


33+6/40

- ADAU for 2nd dose of steroid

34+1/40

- ADAU for bloods & CTG
- Obs NAD
- FH: 133bpm, CTG DR criteria
- History, growth scans, bloods and risk of still birth discussed, feels well
- Bloods: *Bile acids: 463, ALT: 41, GGT: 71*
- Plan:
 - Alternate day Bp check and urine check and CTG
 - Add Vitamin K 10mg PO
 - Consultant discussion with Oxford about Bile acids and patient's condition. Plan to possibly commence Rifampicin & may need to bring the delivery to 36 weeks if bile acids worsen.

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34+2/40




- Liver scan review NAD
- *Bloods: Bile acids: 391, ALT: 41, GGT: 75, clotting: normal*
- FM normal
- Plan:
 - Twice weekly bloods


34+3/40

- ADAU
- Bp urine – all ok, FM felt, CTG DR criteria met

34+5/40


- ADAU
- Obs ok
- FH: 140bpm, CTG DR Criteria met
- Discussed care via telephone with Consultant
- Bloods: *Bile acids: 279, ALT: 38, GGT: 71*
- Plan:
 - ADAU alternate days & weekly OC bloods

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CUMULATIVE REPORT



POG	BILE ACIDS	ALT	MGMT
33	126.7	23	Liver scan, UDCA & piriton
33+4	230.5	27	Twice weekly ADAU (CTG/BP/OC bloods/urine), Increase UDCA, steroids, IOL booked for 37 weeks
34+1	463	41	D/W Tertiary unit, ADAU alternate days, add Vit K
34+2	391	41	ADAU alternate days + twice weekly bloods
34+5	279	38	ADAU alternate days & twice weekly OC bloods


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The event

34+6/40




- ADAU: self referral reporting 2nd episode reduced fetal movements since 20:00 the previous night (16 hours total)
- Midwife unable to auscultate FH, requested Registrar attendance
- Scan by Registrar and consultant confirmed Intrauterine Death
- Bereavement Midwife informed
- Following long discussion, plan for vaginal delivery
- Misoprostol to induce the labour
- SVD of female infant with no signs of life. RIP.
- Thick meconium noted
- Birthweight: 2430g – plotted on the 45th centile


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Initial findings

- High risk patient – commenced Aspirin and Fragmin
- Risk assessment at booking referred for Consultant Led Care
- Shared care - Rheumatologist and Obstetrician
- All bloods taken regularly and reviewed in a timely manner
- Obstetric Cholestasis guideline followed
- Weekly ADAU for CTG and bloods
- Risks of pregnancy explained
- Method of delivery discussed
- Discussion with Oxford Maternal Medicine Consultant
- Postmortem findings – no cause identified

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Discussion


What went well?

- Appropriate Antenatal Care in each trimester
- Joint Care - Maternal medicine Obstetrician and Rheumatologist
- Timely diagnosis and management of Obstetric Cholestasis as per guidelines
- Discussion with tertiary centre as bile acids started to rise in spite of treatment

What went poorly?

- Mixed Connective tissue disorder in pregnancy is not common
- Rise in bile acids in spite of treatment
- Should we have referred earlier to Tertiary centre?

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Management of Future pregnancy

- Should delivery have been contemplated at 34 weeks?
- Should we have commenced rifampicin?
- Should there have been joint care with the tertiary centre?

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Dr. Samantha Chessell
Samantha.Chessell@mkuh.nhs.uk