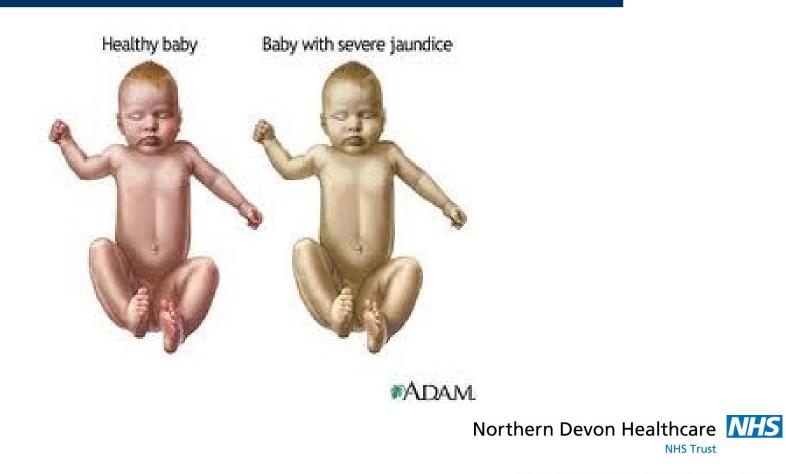
#### Lab Matters 08.07.2015

Mrs Maggi Webb Blood Transfusion Manager North Devon District Hospital



**NHS Trust** 





- BCSH guidelines 2006
- ABO and D typing
- Red cell antibody screening/identification
  Screening cells C,c,D,E,e,K,k,Fy<sup>a</sup>,Fy<sup>b</sup>,Jk<sup>a</sup>,Jk<sup>b</sup>,M,N,S,s,Le<sup>a</sup>
  Homozygous expression of Rh, Fy, Jk, S antigens
- Follow up tests
- Main recommendations



- Sample labelling
- ABO and D grouping
- Antibody screens
- Timing of tests

(early in pregnancy and again at 28/40)

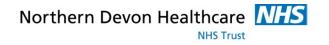
- Labs to keep records of anti-D administration
- FMU referrals



- Antibody card
- Post delivery testing of babies
- Regular audit of practice



- Clinically significant antibodies (IgG)
- Anti-D
- Anti-c
- Anti-K
- Anti-C
- Anti-E
- Anti-Fy<sup>a</sup>
- Anti-Jk<sup>a</sup>
- Other antibodies



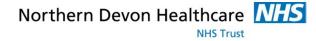
- Anti-D+C specificity
- Possible anti-G

demonstrated by disproportionately high titres of anti-C

 ALWAYS refer to reference lab as patients with anti-G are still eligible for RAADP and post delivery anti-D Ig



- Anti-D quantification (NIBSC 2003)
- Differentiation between immune and prophylactic anti-D
- Test every 4 weeks to 28/40 then
- Test every 2 weeks to delivery
  - <4iu/ml HDN unlikely 4-15iu/ml Moderate risk of HDN >15iu/ml High risk of hydrops fetalis



• Techniques

CAT Capture

Tube

- Paternal Testing
- Fetal genotyping
- Referral to NHSBT



- Anti-c quantification (NIBSC 2003)
- Test every 4 weeks to 28/40 then
- Test every 2 weeks to delivery
  - <7.5iu/ml Continue to monitor 7.5-20iu/ml Risk of moderate HDN >20iu/ml Risk of severe HDN



- Anti-K titration
- Anti-K often present as a result of previous transfusion
- If paternal sample K Negative
- Severity not correlated with antibody titre
- Affected pregnancies usually titre of 32 +



- Other antibodies
- Many other specificities
- Repeat testing at 28/40
- No further testing recommended
- Medical decision regarding women with hx of HDN



#### Prophylactic anti-D

- Routine ante-natal Anti-D prophylaxis (RAADP)
- 1500iu at 28/40 gestation

OR

• 500iu at 28/40 and again at 34/40

- Any sensitising event after 12/40 gestation regardless of whether RAADP has been given or is due to be given
- <12 weeks no anti-D is required unless surgical intervention
- Between 12-20 weeks give 250iu
- >20 weeks perform Kleihauer (or flow) and give at least 500iu

#### A CAUTIONARY TALE



- Result at booking
- PAD issued for 28/40
- Result at 28/40
- rr test
- Delivery
- Changes made



- Always check with midwives
- rr screening cells
- BMS band 6 or above to check results
- General paranoia

