Alloantibodies and pregnancy
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- BCSH guidelines 2006
- ABO and D typing
- Red cell antibody screening/identification
  - Screening cells C,c,D,E,e,K,k,Fya,Fyb,Jka,Jkb,M,N,S,s,Lea
  - Homozygous expression of Rh, Fy, Jk, S antigens
- Follow up tests
- Main recommendations
Alloantibodies and pregnancy

- 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
Alloantibodies and pregnancy

- Antibody card
- Post delivery testing of babies
- Regular audit of practice
Alloantibodies and pregnancy

- Clinically significant antibodies (IgG)
  - Anti-D
  - Anti-c
  - Anti-K
  - Anti-C
  - Anti-E
  - Anti-Fy\textsuperscript{a}
  - Anti-Jk\textsuperscript{a}
  - Other antibodies
Alloantibodies and pregnancy

- 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
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- 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
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- Techniques
  - CAT
  - Capture
  - Tube
- Paternal Testing
- Fetal genotyping
- Referral to NHSBT
Alloantibodies and pregnancy

- 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
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- 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 +
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- Other antibodies
- Many other specificities
- Repeat testing at 28/40
- No further testing recommended
- Medical decision regarding women with hx of HDN
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Prophylactic anti-D
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- Routine ante-natal Anti-D prophylaxis (RAADP)
- 1500iu at 28/40 gestation
  OR
- 500iu at 28/40 and again at 34/40
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- 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
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A CAUTIONARY TALE
Alloantibodies and pregnancy

- Result at booking
- PAD issued for 28/40
- Result at 28/40
- rr test
- Delivery
- Changes made
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- Always check with midwives
- rr screening cells
- BMS band 6 or above to check results
- General paranoia