Follow-up of anti-D in pregnancy

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Haematology and Tr

nti-D - risks of misinterpretation in egnancy

mmune anti-D

Passive anti-D I

Immune anti-D wrongly assumed to be passive

Pregnancy not monitored appropriately

Risk of missing opportunity for interventions to limit HDFN

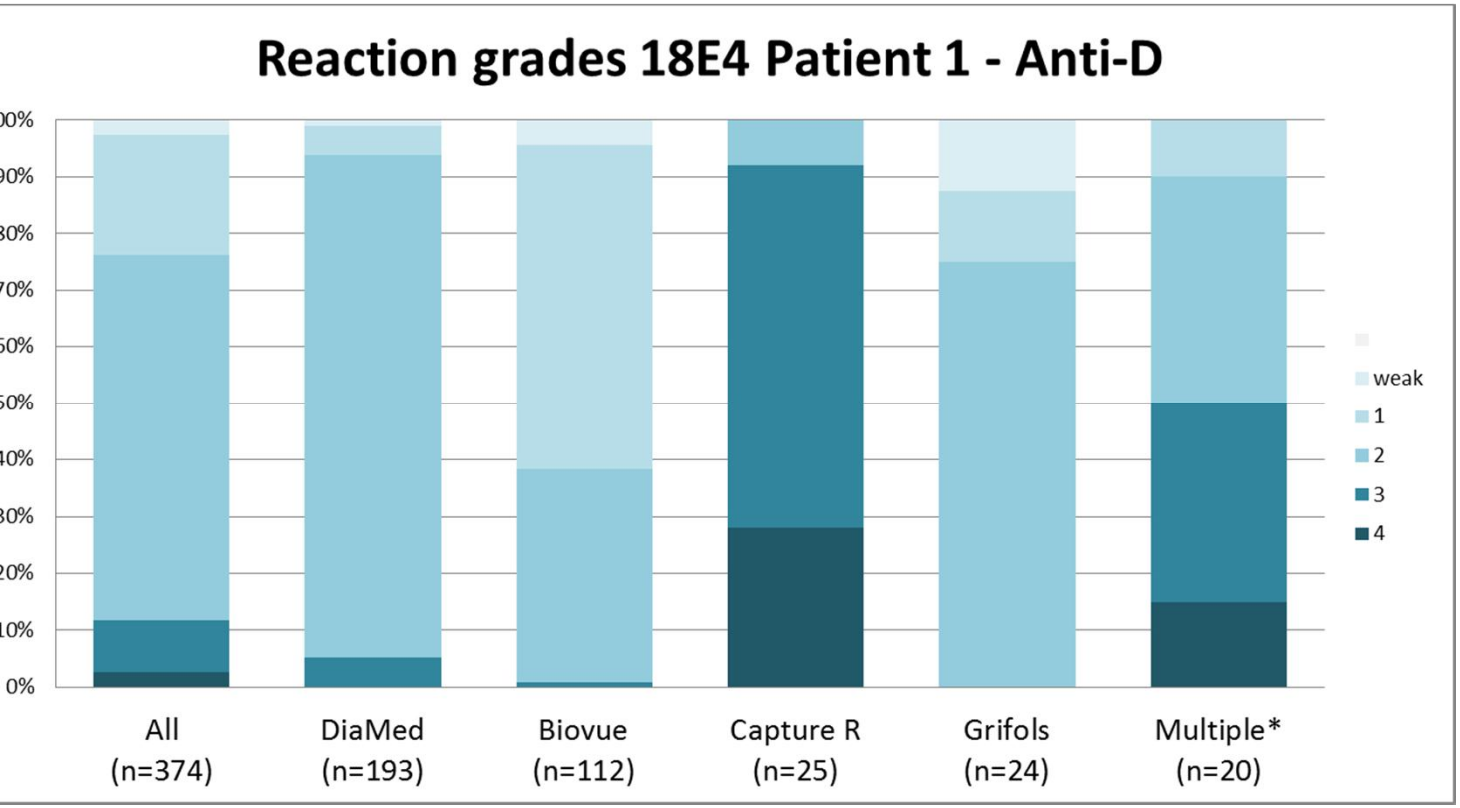
Passive anti-D Ig wrongly assumed to be immune

Anti-D Ig prophylaxis not given

Risk of sensitisation to the D antigen and of HDFN

Serologically indistinguishable

action Strength



*Multiple includes single technologies with <10 users

Dependent on technology, automation or manual interpretation, cells used… etc.

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ANSFUSION
DICINE
Official Journal of
the British Blood Transfusion Society
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usion Medicine | GUIDELINES

eline for blood grouping and red cell antibody testing in nancy

Qureshi, H[2] Massey, E[3] Needs, M[4] Byrne, G[5] Daniels, G[6] Allard S[7] & British Committee for Standards in Haematology

- **Decisions made based on clinical history and IU/mL anti-D present as determined by CFA quantitation *or* *a technique validated using large numbers of samples of known concentration , giving a result expressed in or easily converted to IU /mL anti-D***

Questionnaire with 18E7 ï July 2018

BSH guidelines being followed?

Alternative strategies?

Reasons?

Approach to G+S requests in pregnancy?

150 responses, with 127 suitable for analysis

- Å113 UK
- Å14 RoI

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Anti-D detected before 28 weeks

anti-D is detected in pregnancy *before* *28 weeks*, would an initial anti-D quantification by Continuous
w Analysis (CFA) be undertaken?

Yes, always	51 (40%)	Includes 7 refer to blood services
Sometimes; only if there is no evidence of anti-D Ig being administered in this pregnancy	59	
Sometimes; decision to quantify is made based on reaction strength	5	
Sometimes; decision to quantify is made based on a titration result	3	One has validated titration method
No	3	
Other (please specify)	5	History and antibo strength (2 semi-qu
	1	Quant unless SCR days before anti-D

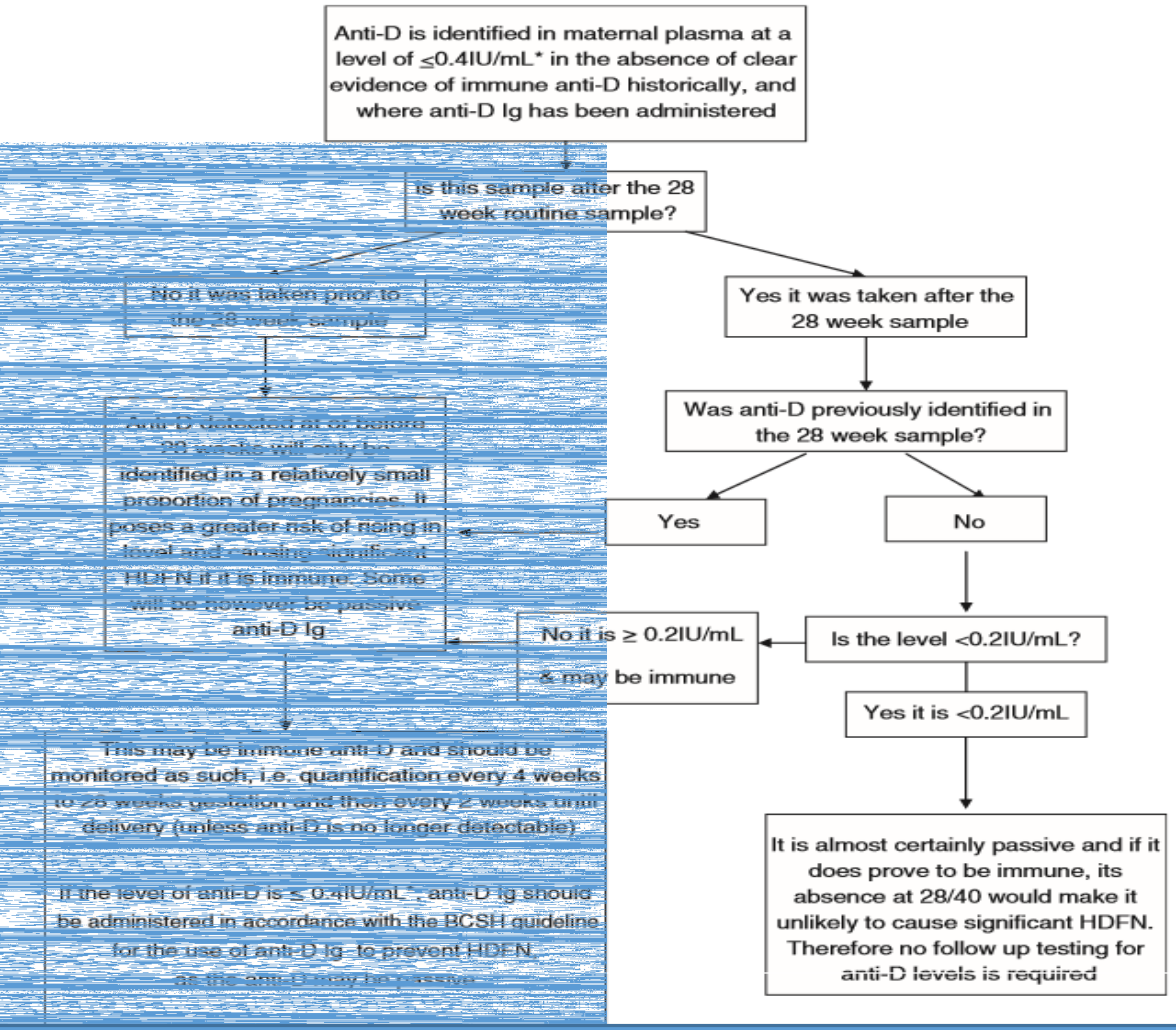
action strength or titration result is used in decision making regarding follow-up of anti-D
ancy, has this testing been validated for this purpose?

45 answers from labs that do not always send for CFA, suggesting many more use reaction strength / titration in decision making…

Only 7/45 stated that they had validated the method

- Å 3 vs. NIBSC reference preparation
- Å 1 MSc project to compare reaction 1:8 dilution vs. R_1R_1 cells to quant (<0.13)
- Å 1 review of collective data (reference centre)
- Å 1 parallel testing vs. IU quant results
- Å 1 'reaction strength in IAT panel'

Anti-D detected before 28 weeks



- Anti-D detected before28 weeks quantified and followed up as immune anti-D until no longer detectable
- If immune anti-D, there is a high risk that it could reach dangerous levels in this pregnancy

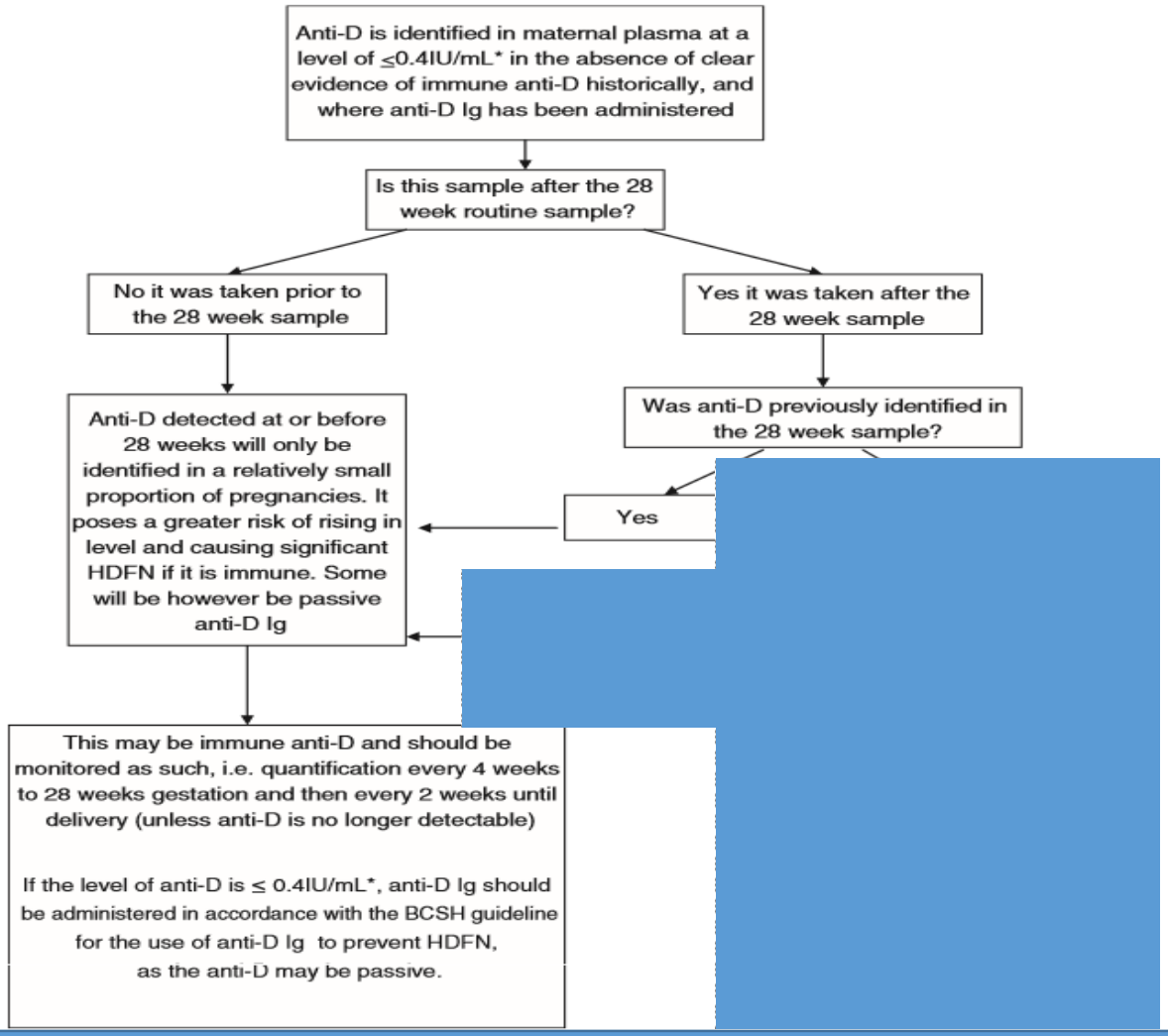
92% followed up as per guidelines ….?once initial decision made that anti-D might be immune

Anti-D first detected after 28 weeks

If anti-D is first detected in pregnancy *after* *28 weeks (excluding immediately before delivery)*, would a
itial anti-D quantification by CFA be undertaken?

Yes always	37 (29%)	Includes 5 refer t blood services
Sometimes; only if there is no evidence of anti-D Ig being administered in this pregnancy	65	
Sometimes; decision to quantify made based on reaction strength	6	
Sometimes; decision to quantify made based on a titration result	2	
No	3	
Other (please specify)	12	History and antib strength (2 semi-q
	2	Timing of anti-D

Anti-D first detected at or after 28 weeks



- Anti-D detected after 28 weeks quantified and decision made on res in IU/mL
- Anti-D detected immediately prior t delivery, e.g. in G+S samples for C section – no need to quantify, but monitor the baby
- Lower, but still significant risk of an immune anti-D reaching a dangerou level in this pregnancy

85% followed up as per guidelines…. ? once initial decision made that anti-D might be immune

Summary of free text comments (52)

Case by case assessment

Consider both history and reaction strength

Decision making based on 2+ reaction

Look at in-house results for a relative increase in titre

TAT for quant results – almost up to next sample if following guidelines

Reliance on blood services for decision making

Guidelines confusing

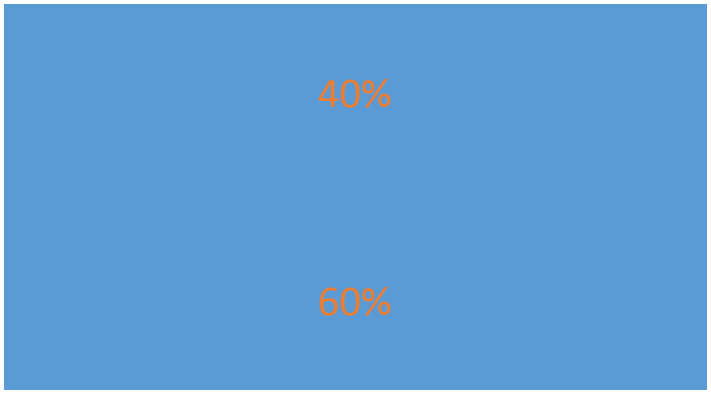
Guidelines helpful

Follow BSH guidelines (but it's costing us a fortune!)

G+S requests after 28 weeks

6. Approximately what proportion of samples for group and antibody screen received from D negative women (after RAADP has been administered at 28 weeks) would you consider to be clinically necessary?

<10%	32
10-25%	12
26-50%	6
51-75%	12
76-100%	47



7. Do you test all samples received for group and antibody screen?

Yes	105
No (please give brief details of policy)	13

Group and antibody screen will only be performed if specifically requested.
If samples are sent as per guidelines these are usually sent straight to the BTS
Only if they fit clinical criteria and sample timing guidelines
Samples for Quantification or Titration in addition to Booking and 28 weeks are ser
At 28 weeks and after we only perform an antibody screen.
All grouped but screen only performed if blood may be required on pt
if patient already has a valid group & save taken on the same day
test G+S if requested, but not if only FMH asked for
not same day duplicates excluding first 2 samples
sometimes refer straight to NHSBT if for titre or quantification.
If RAADP received and patient has no PSE's antibody screen is not performed at delivery
only if requested

Conclusions

- Guideline in place to prevent sensitisation
- Not always being followed with respect to initial testing by CFA
- Validated alternative methods, e.g. titre score would be useful
- Issues with complexity, workload, cost, inconvenience for patients
- ? Lots of unnecessary G+S samples received after 28 weeks
- Guidelines are being reviewed… BSH and RCOG together
- Will focus on clinical risks and take all lab comments into account