

Non-Haemolytic Reactions

What is the role of Antibody Tests?

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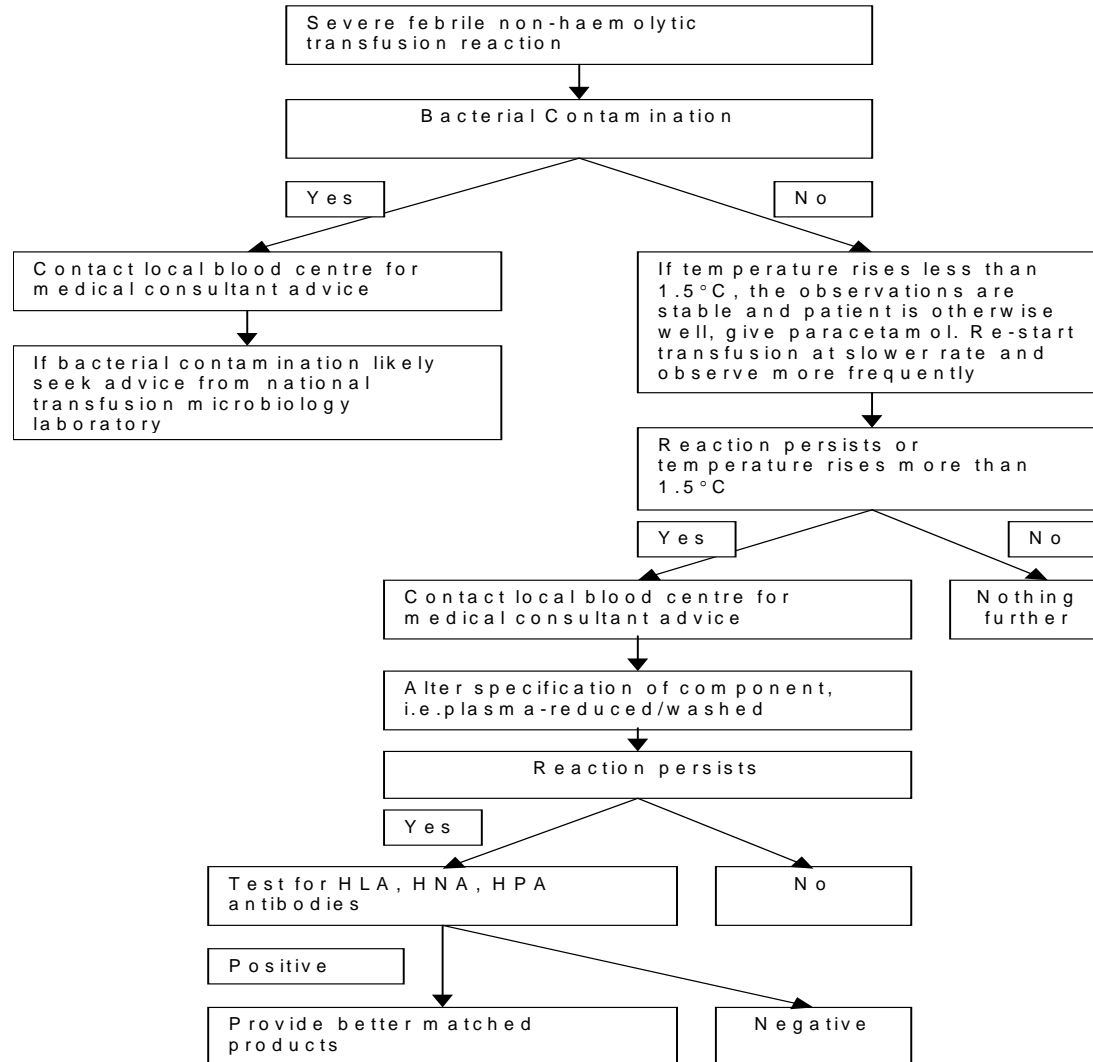
NHS Blood and Transplant

20th November 2007

Background

- Requests for granulocyte, HLA and platelet antibody testing are received following SFNHTR.
- Reactions ameliorated with plasma-reduced blood components in some.
- If not, guidance available for further investigation and management

Algorithm for investigations of severe non-haemolytic transfusion reactions **Blood and Transplant**



Aims

- Were guidelines being followed?
- Were results impacting on clinical practice?

Methods

- Retrospective analysis of 2 yrs requests
- Proforma devised - steps in algorithm
- Additional information
 - Medical condition
 - Referring department
 - Referring hospital
 - NHSBT region the request was from

Methods

- Subsequent paper and electronic searches
 - Request forms
 - Results of tests
 - Issue of antigen-negative products

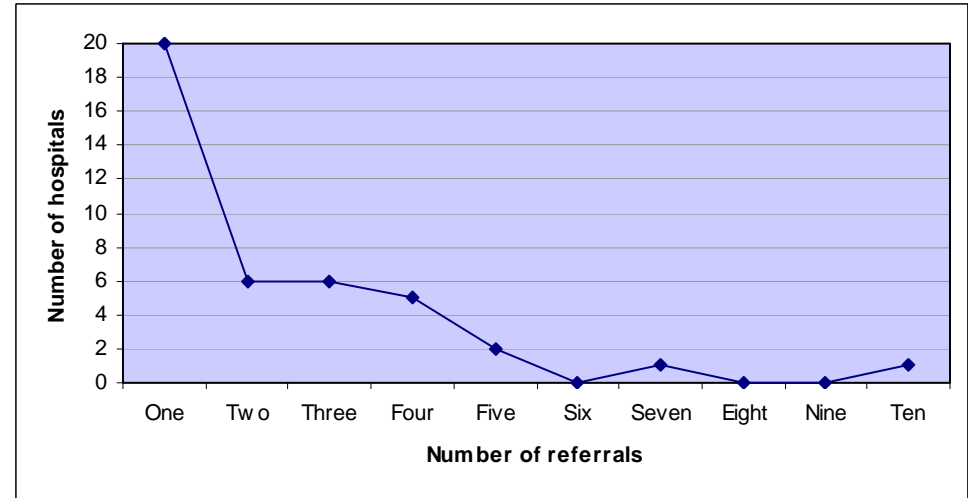
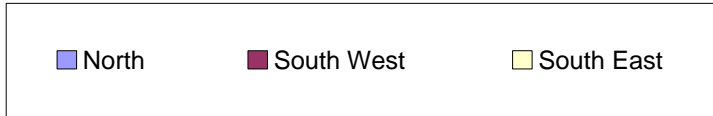
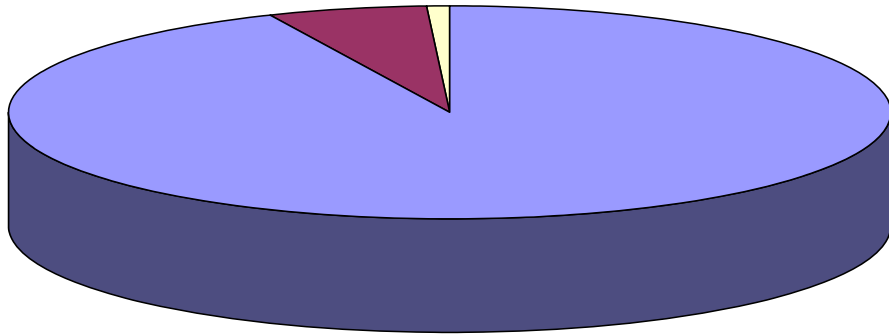
Results

- 104 requests for analysis (one a week)
- In only 7/104 (6.7%) tests lead to subsequent issue of matched products
 - 8 specified fever exceeding the threshold
 - 2 mentioned paracetamol usage; 3 persistence on stopping transfusion
 - 6 documented discussion with an NHSBT Consultant
 - 2 stated consideration of bacterial contamination (BC)
 - No request forms stated result of trial plasma-reduced products

Results

- Department
 - 50% Haematology directly
 - 20% Blood bank (?department referring)
 - 30% Others (Paeds, O&G, ITU etc)

Referring Region



Results

	Number of Requests
Positive screens for HLA-antibodies	49
HLA-matched products issued	7
Granulocyte-specific antibodies detected	5
HNA-matched products issued	0
Positive platelet immunofluorescence tests	7
HPA-matched products issued	0

Conclusions

- Little evidence guidance is being followed in the majority of cases
- In only 7 cases (from 104) did test results lead to issue of matched products - the tests impact on the care of very few

Recommendations

- Define “Severe”
 - Life-threatening hypotension or 20mmHg from baseline, and/or hypoxia requiring oxygen support not fulfilling diagnostic criteria for other transfusion complications.
- All suspected cases discussed with NHSBT Consultant before work begun
 - Bacterial contamination
 - Trial of washed products

Recommendations

- Sequential testing for antibodies
 - HLA & HPA then HNA
 - Takes account of frequency of positive findings which alter practice and ability to match products
- Reaudit