Where O' Where could the missing antibodies be?

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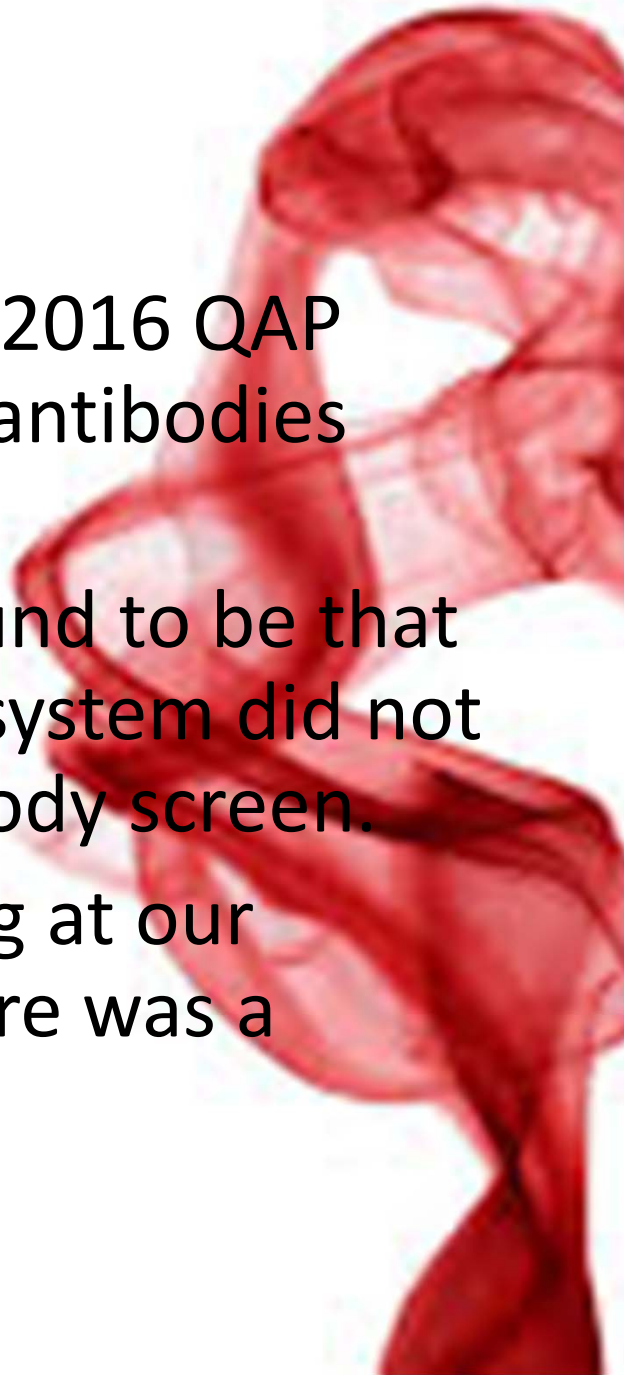
Outline

- In the October 2015 and March 2016 QAP surveys 2 incidences of missing antibodies occurred.
- The underlying problem was found to be that our automated Ortho AutoVue system did not pick these up in the initial antibody screen.
- Investigations began into looking at our screening cells and whether there was a better way.



Background

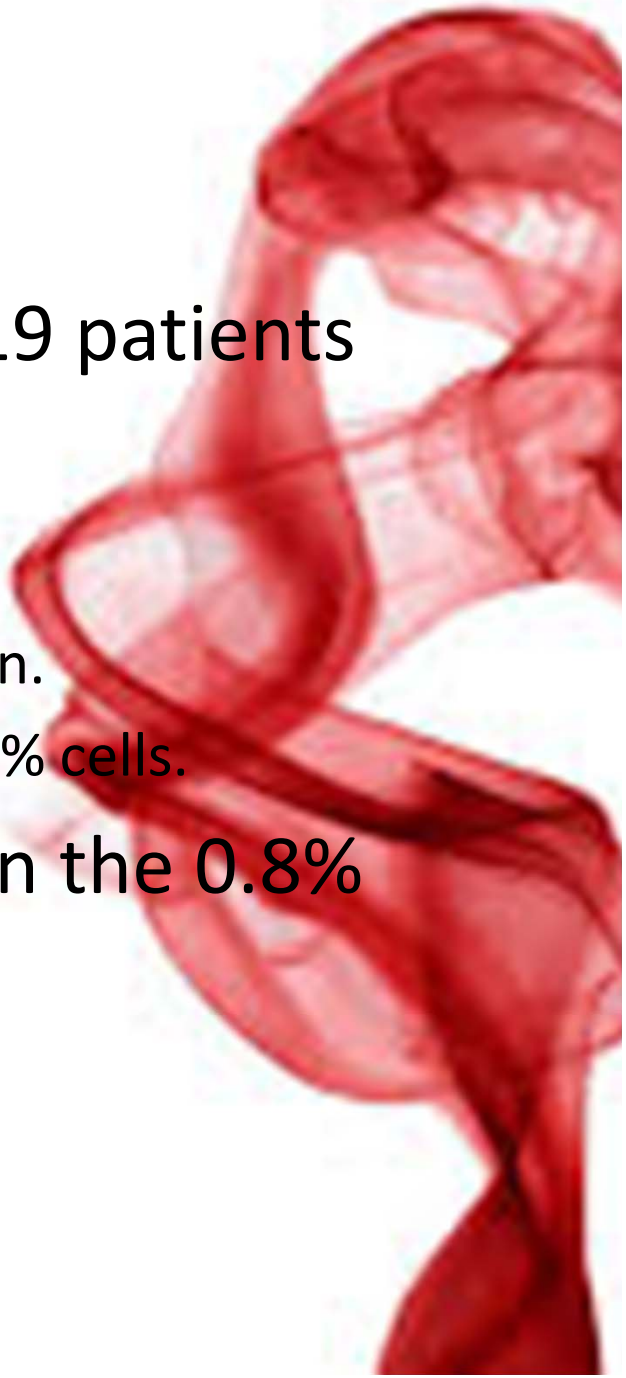
- At installation of our AutoVue, CSL was the chosen supplier of reagents.
- From then until this year 3% screening cells were used for both our automated and manual techniques.
- 0.8% screening cells also by CSL were the logical 1st choice to investigate.

Investigation

- Routine blood bank samples were screened using both the 3% cells and the 0.8% cells.
- This was done Monday-Friday, 9am-5pm over a 3 week period in June/July 2016.
- This approached led to the comparison of 550 samples.

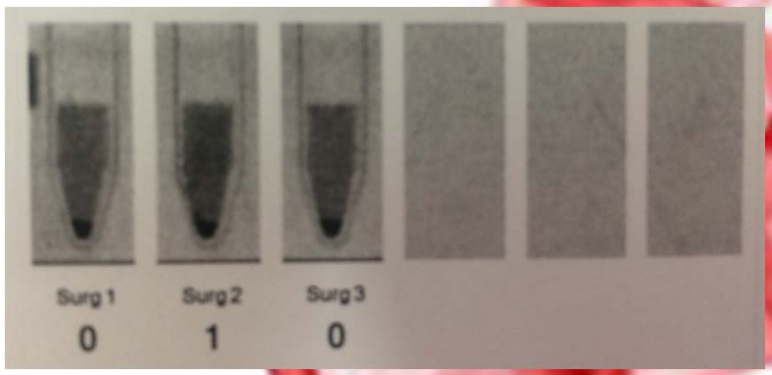
Results

- Of the 550 samples compared, 19 patients had a positive antibody screen.
- Of these:
  - 3 samples the same strength reaction.
  - 16 gave stronger reactions in the 0.8% cells.
- No antibodies were only found in the 0.8% cells.



Results

•Here we have an elderly lady with an Anti D. In this first image we can see that only the R2R2 cells have detected its presence.

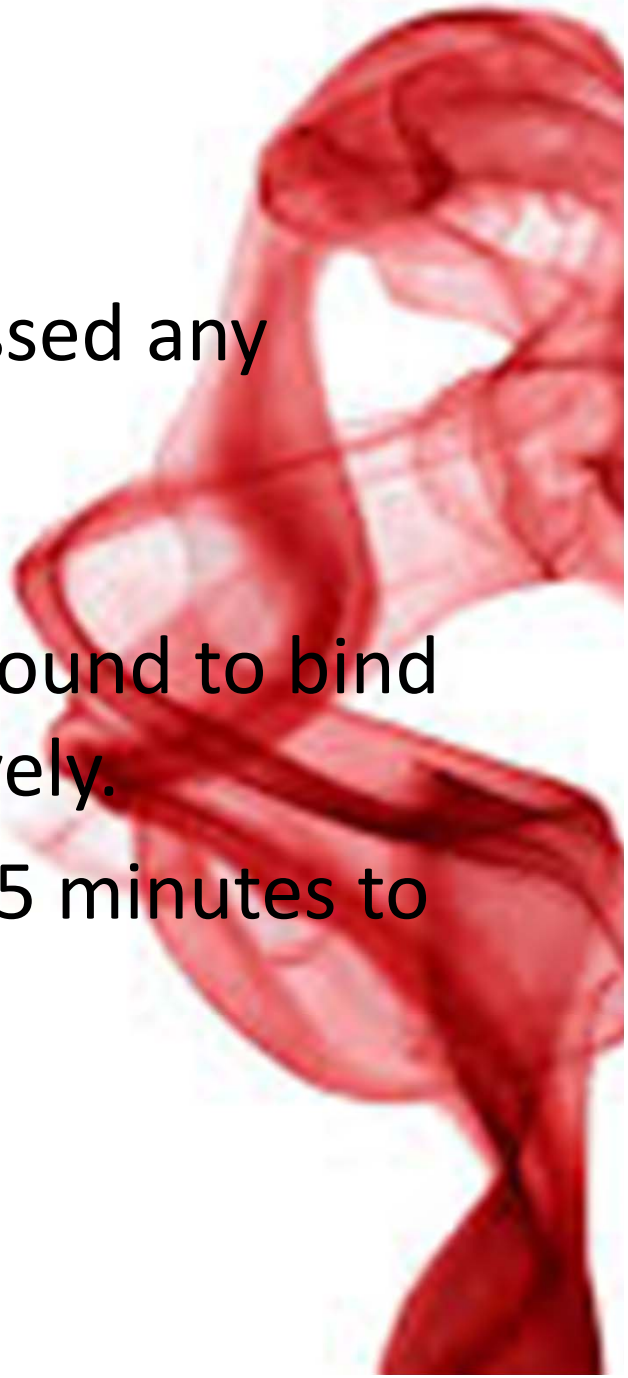


•And here in the 0.8% cells it becomes apparent in both the R1R1 cells as well as the R2R2 cells.

•This is indicative of the results that were achieved throughout this investigation.

Discussion Points

- Neither the 3% or 0.8% cells missed any antibodies.
  - **However**
- The 0.8% cells were frequently found to bind weaker antibodies more effectively.
- Screening using 0.8% cells adds 5 minutes to our current procedure.



Summary

- In August 2016, after method validation RHH changed to 0.8% screening cells.
- To date there have been no incidences of the extra time being of significance in patient care.