Confirmatory Samples of Pre-Transfusion Compatibility Testing: 
Analysis of the Time Gap between Confirmatory Samples
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Introduction
• A key recommendation of BSH guidelines for pre-transfusion compatibility procedures states, “Unless secure electronic patient identification systems are in place, a second sample should be requested for confirmation of the ABO group of a first time patient prior to transfusion”
• However, practice of taking two pre-transfusion samples in the same phlebotomy episode and labelling one with a different time is common practice which negates the recommendation.
• Some of these results in an incorrect transfusion and unnecessary & inappropriate duplicate sample testing contributing to increased healthcare costs.

Materials & Methods
• A two-week retrospective review to identify all duplicate pre-transfusion compatibility tests performed during 24 hours.
• Duplicative testing was classified as appropriate or inappropriate by availability of historical blood group.
• Time gap and the phlebotomy episode were analysed.

Results

<table>
<thead>
<tr>
<th>Type of phlebotomist</th>
<th>Time gap between confirmatory sample</th>
<th>Type of person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Different person</td>
<td>30min-2h (27) 13%</td>
<td>High Risk</td>
</tr>
<tr>
<td>Same person</td>
<td>30min-2h (25) 14%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt;2hours (2) 1%</td>
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</tbody>
</table>

Comparison between person and timing of sample collection:

- Out of all the duplicates 54.9% of patient’s confirmatory samples were taken within a very short period (30min) while 84.6% were taken within 2hours. Significantly, 41% of samples were taken by the same person within a short period(30min).
- Out of all the duplicates, number of confirmatory samples taken after 2hours by a different person (85%) is significantly higher than by the same person (15%).

Conclusion
• To prevent errors due to duplicate sampling, two sampling episodes must be separated in time and ideally each taken by a different person.
• This review suggest that a time gap of more than 2hours for the confirmatory sample encourages the second sample to be taken by a different person and this does not impede the delivery of urgent blood or components.

References
Milkins C et al