

# Newcastle RCI Survey of out of hours practice

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2014-2015





## Reason for study

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- Is the service any good?



# Aims

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- Determine indications for referral
- Determine times blood referred
- Identify timescale in which blood was required
- Are we dealing with requests in a timely manner?
- How quickly is blood used?
- Are there different referral/usage patterns according to urgency?
- Appropriateness not assessed



## Methods

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- “All” urgent or out of hours RCI referrals included
- Intended for 6 months
- Paper form completed by RCI, with final outcome collected by RTC administrator



|   |   |                                       |      |     |     |    |
|---|---|---------------------------------------|------|-----|-----|----|
| Patient details   | NHSBT number:                                     |                                       |      |     |     |    |
|   | Hospital number:                                  |                                       |      |     |     |    |
|   | Patient Age:                                      |                                       |      |     |     |    |
|   | Previously known to RCI:                          |                                       | Y    | N   |     |    |
|   | Hospital name:                                    |                                       |      |     |     |    |
| Request details   | Reason for RCI referral:                          |                                       |      |     |     |    |
|   | Diagnosis:  |                                       |      |     |     |    |
|   | Hb (g/L):   |                                       |      |     |     |    |
|   | Is the patient bleeding:                          |                                       | Y    | N   |     |    |
|   | Is a crossmatch required:                         |                                       | Y    | N   |     |    |
|   | How many units:                                   |                                       |      |     |     |    |
|   | Any special requirements?                         |                                       |      |     |     |    |
|   | Was advice from NHSBT consultant sought:          |                                       | Y    | N   |     |    |
|   | If yes, outcome of advice:                        |                                       |      |     |     |    |
| Timing  | Date blood taken:                                 |                                       |      |     |     |    |
|   | Time blood taken:                                 |                                       |      |     |     |    |
|   | Time blood arrived at local lab:                  |                                       |      |     |     |    |
|   | Time referred to RCI:                             |                                       |      |     |     |    |
|   | Urgency:  |                                       | ASAP | 1-4 | 4-8 | >8 |
|   | Time left local hospital:                         |                                       |      |     |     |    |
|   | Transport mechanism:                              |                                       |      |     |     |    |
|   | Time arrived at RCI:                              |                                       |      |     |     |    |
|   | Time RCI investigations started:                  |                                       |      |     |     |    |
|   | Time RCI result given to requestor:               |                                       |      |     |     |    |
|   | Time blood left issues (if applicable):           |                                       |      |     |     |    |
|   | Transport mechanism:                              |                                       |      |     |     |    |
|   | Total time work took:                             |                                       |      |     |     |    |
|   | Transfusion                                       | Was blood transfused (if applicable): |      | Y   | N   |    |
| Number of units transfused:   |   |                                       |      |     |     |    |
| If blood not transfused or less than the number of units requested transfused state reason: |   |                                       |      |     |     |    |
| Time blood transfused (if applicable):  |   |                                       |      |     |     |    |
| Investigatio  | Investigation needed and summary of RCI findings: |                                       |      |     |     |    |
|   | Genotype required:                                |                                       | Y    | N   |     |    |
|   | Can local lab access results via Sp-ICE:          |                                       | Y    | N   |     |    |



## Methods

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- “All” urgent or out of hours RCI referrals included
- Intended for 6 months
- Paper form completed by RCI, with final outcome collected by RTC administrator
- Started in May 2015, to run for 6 months
- Not all calls recorded
- Completed end Feb 2015



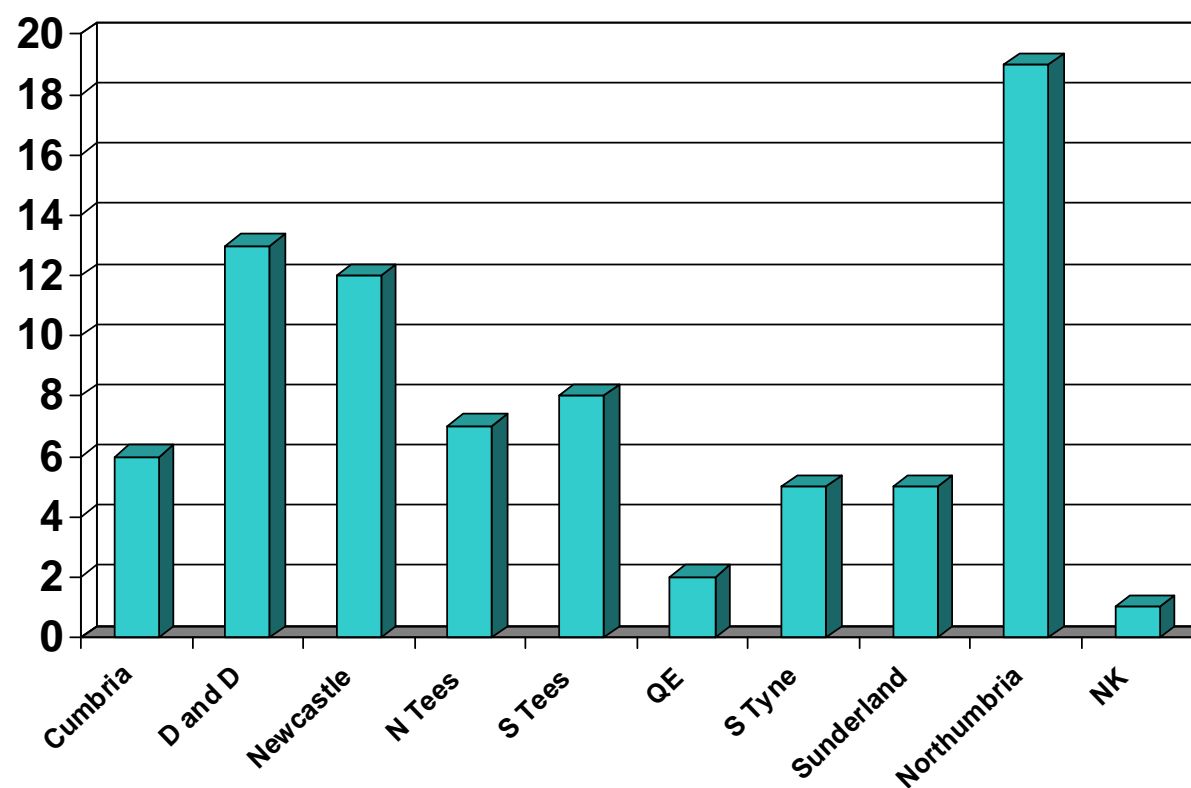
# Demographics

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- 78 referrals
- 37 previously tested in RCI
- Median age of patient 73.5 (range 4-94)
- Indications: mostly antibody ID and XM
- 2 transfusion reaction investigations
- 6 referrals due to bleeding:
  - 2 maternity, 2 GI bleed, 1 epistaxis and 1 bleeding from stoma

# Referrals by Trust

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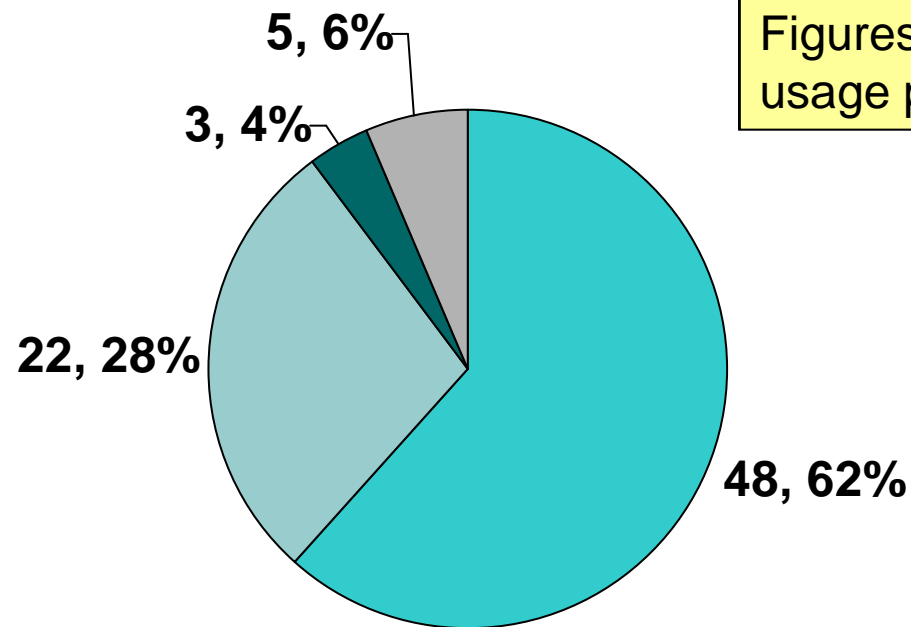


## Clinical problems

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|                     |    |
|---------------------|----|
| ○ AIHA              | 15 |
| ○ Other haematology | 17 |
| ○ Anaemia           | 13 |
| ○ Surgery           | 13 |
| ○ Trauma            | 5  |
| ○ Bleeding          | 4  |
| ○ Maternity         | 3  |
| ○ Critical Care     | 2  |
| ○ Oncology          | 1  |
| ○ Not stated        | 5  |

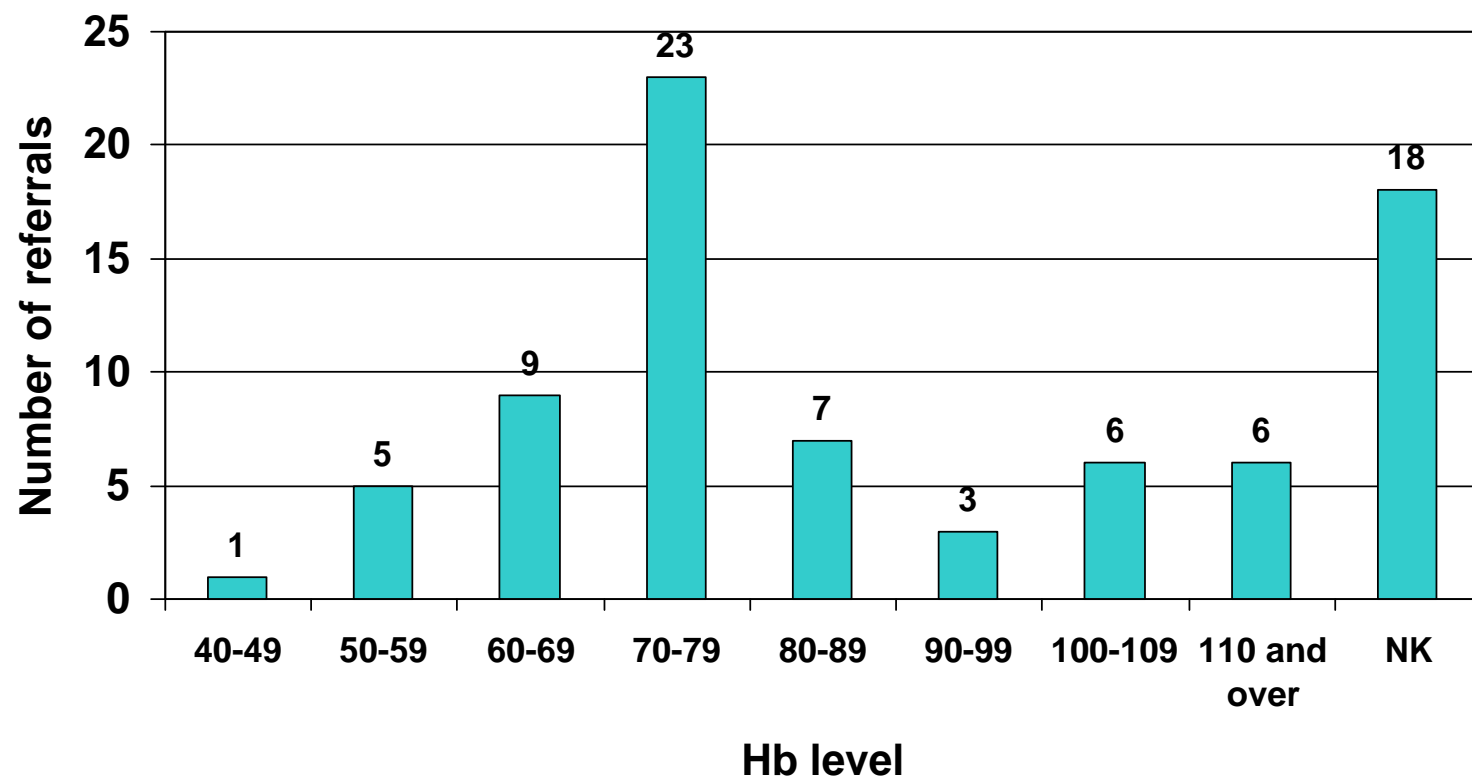
## Referrals by broad clinical category



■ Med ■ Surg ■ Obs ■ NK

# Hb on referral

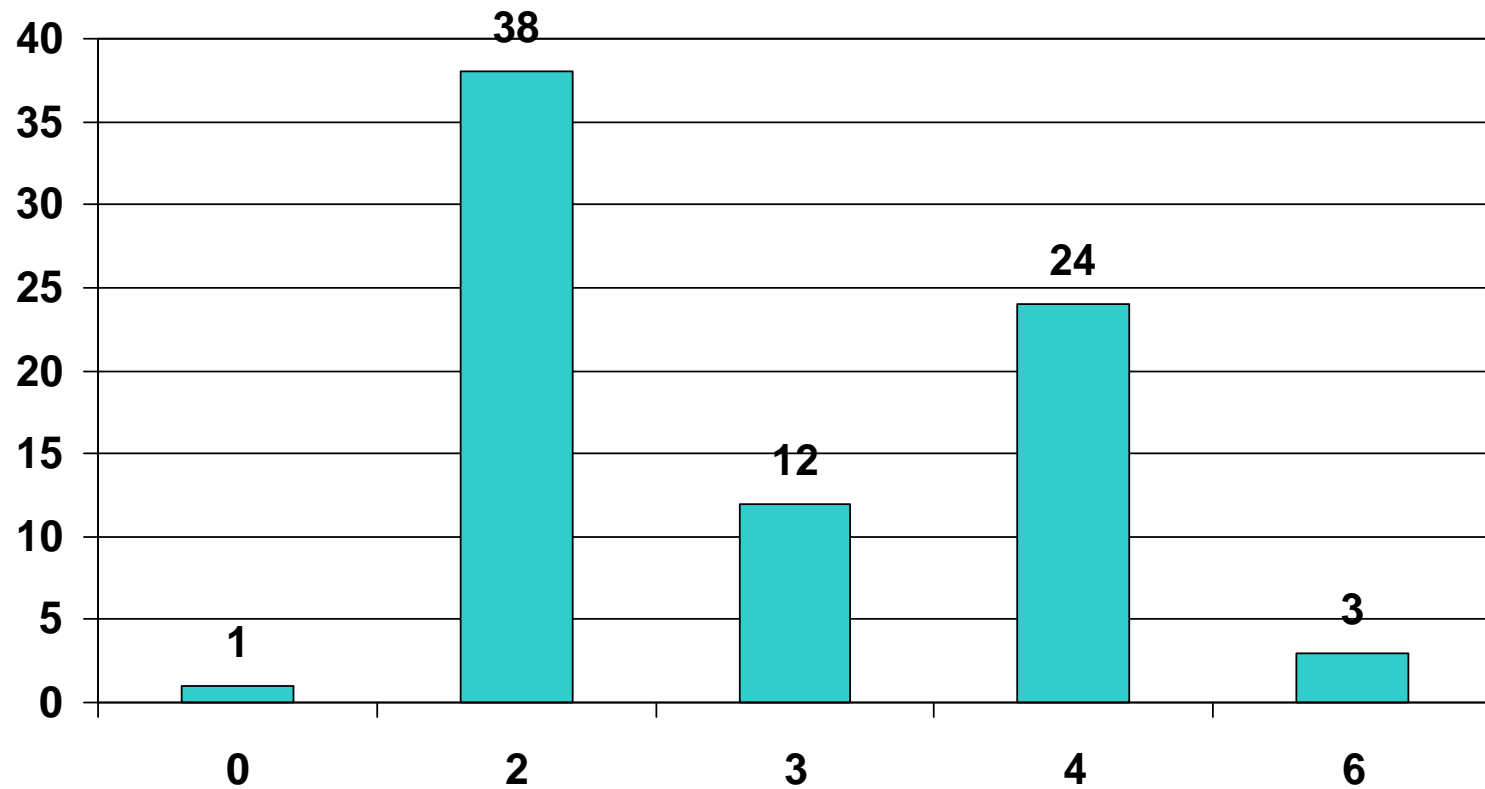
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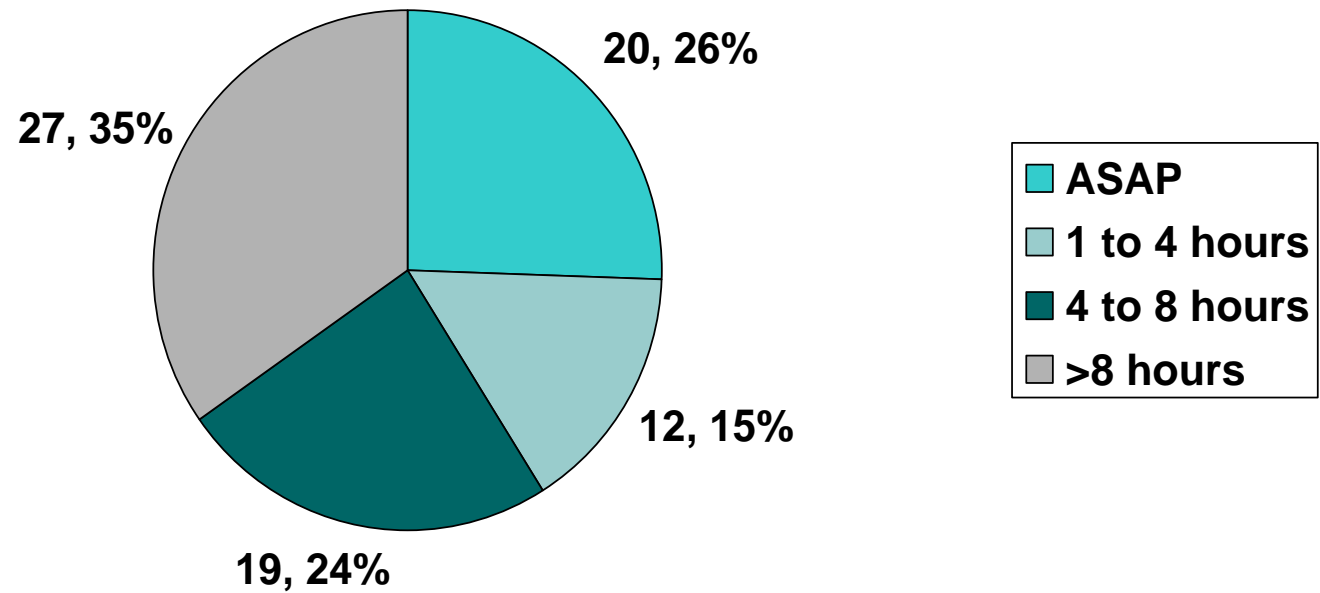
# Units requested

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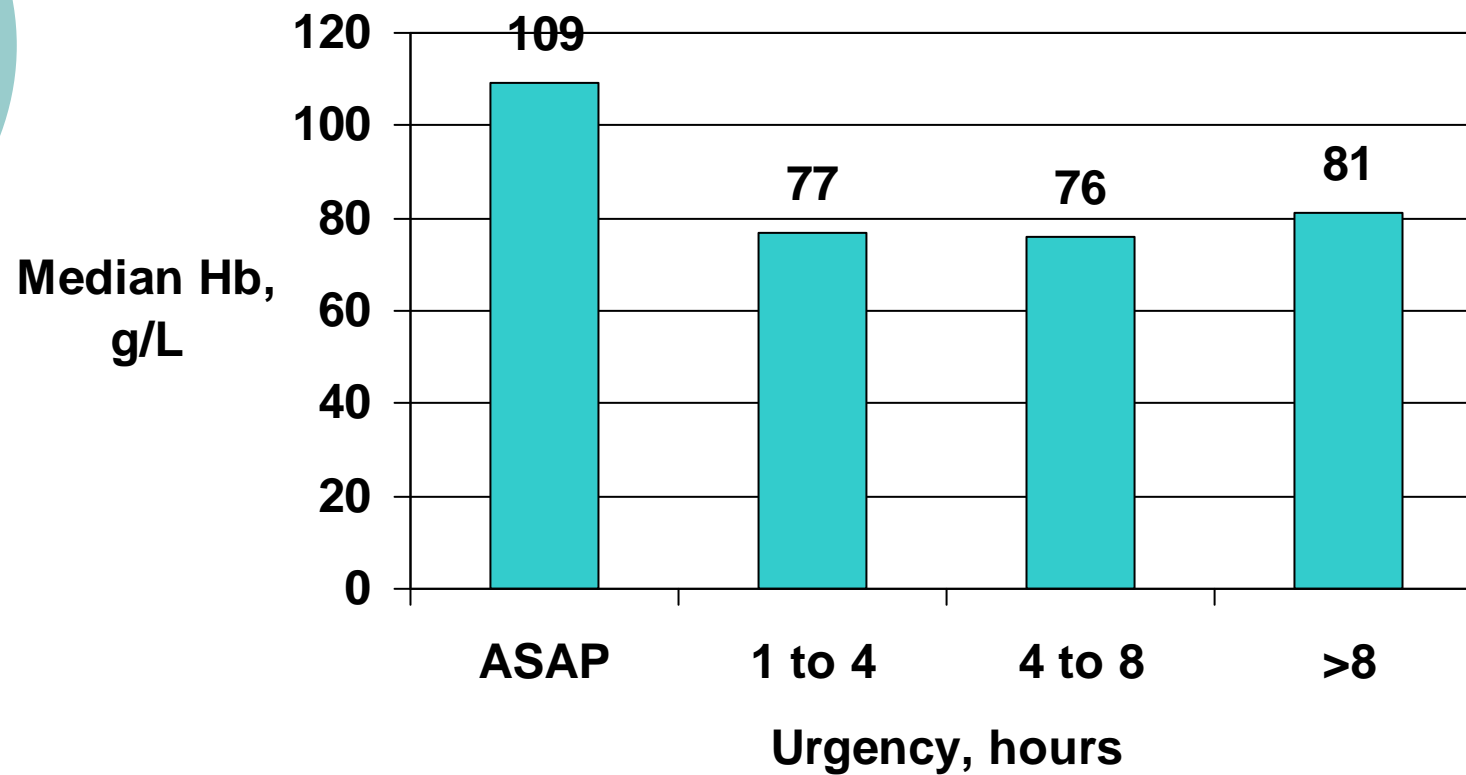
# Urgency of request

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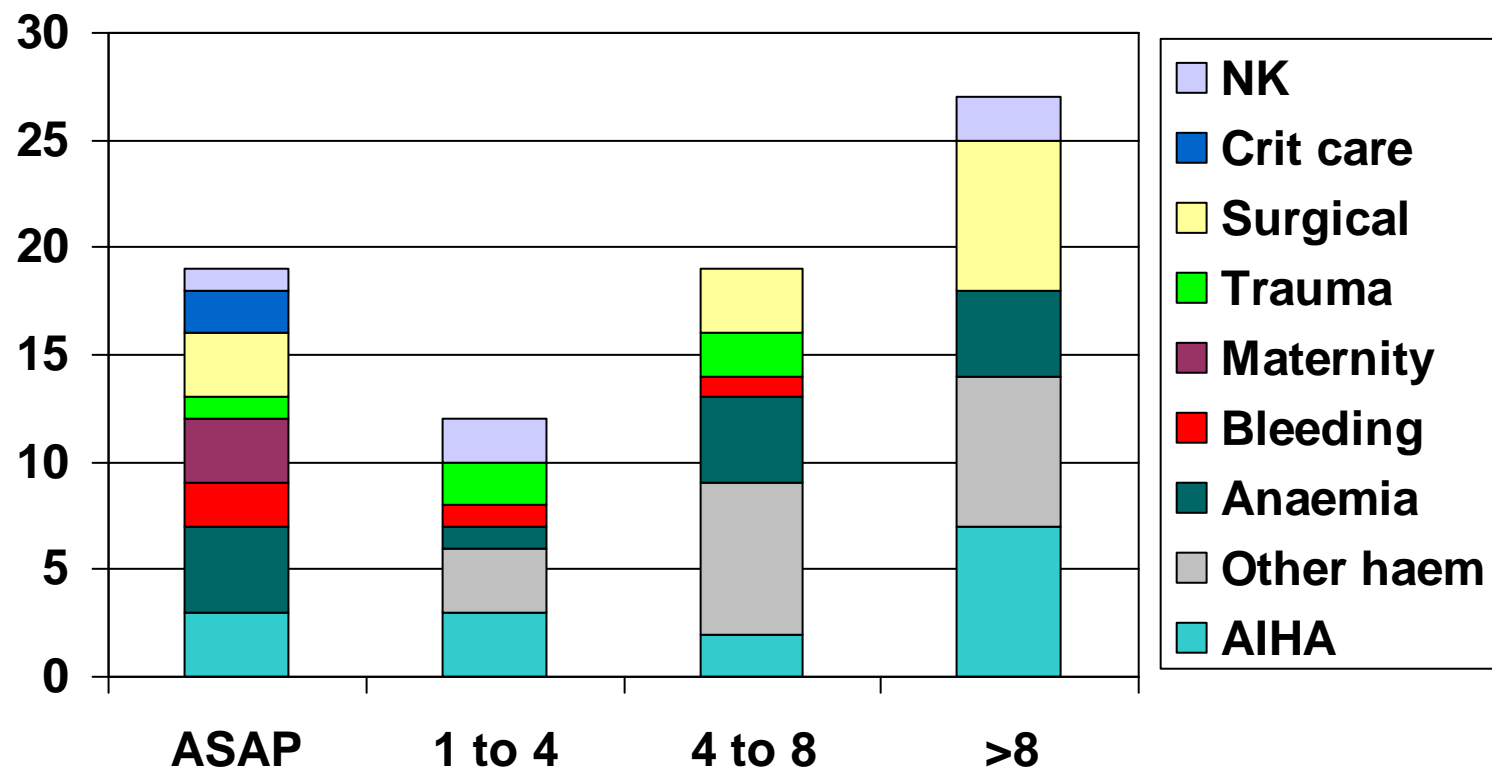


## Hb by urgency

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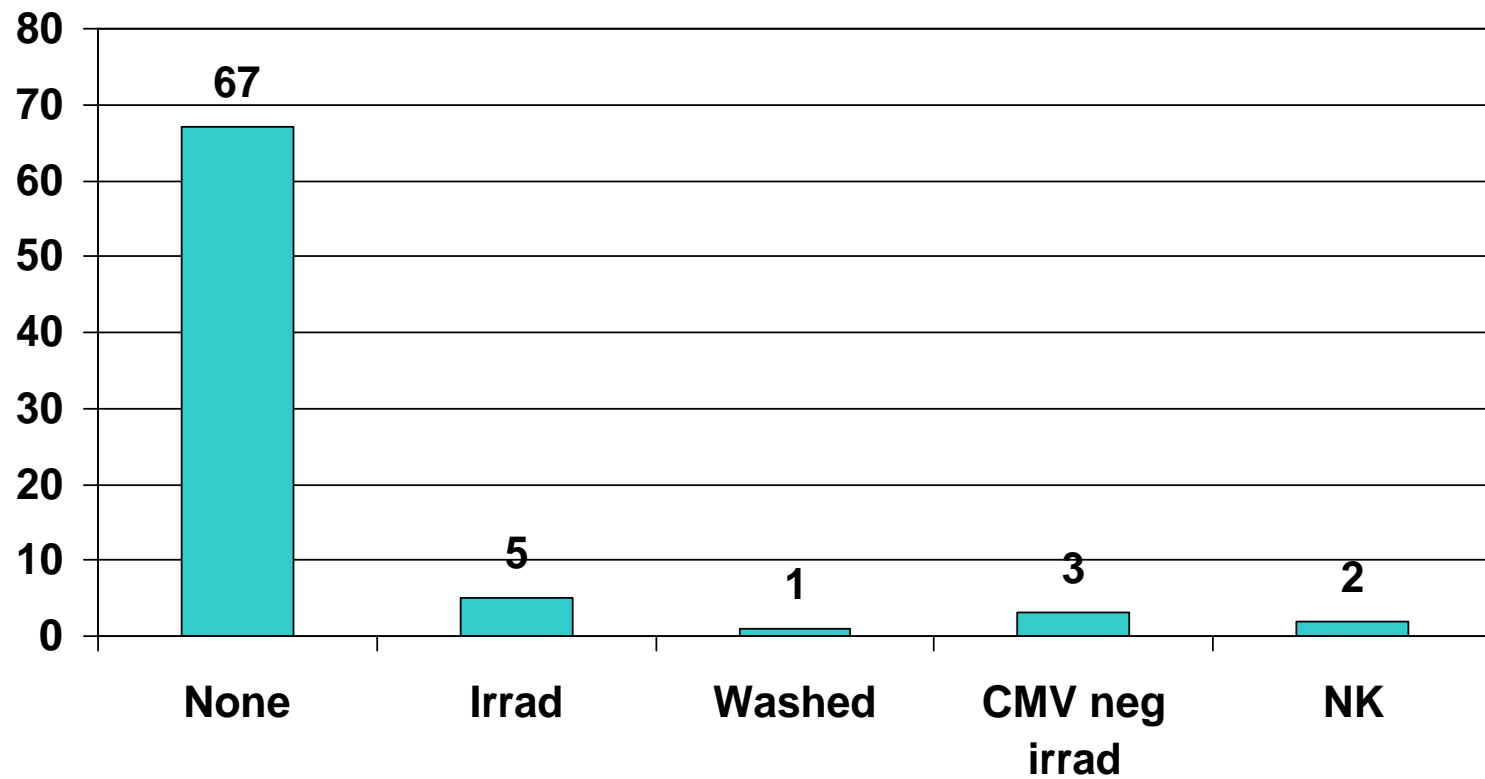
# Clinical indication and urgency





# Special requirements

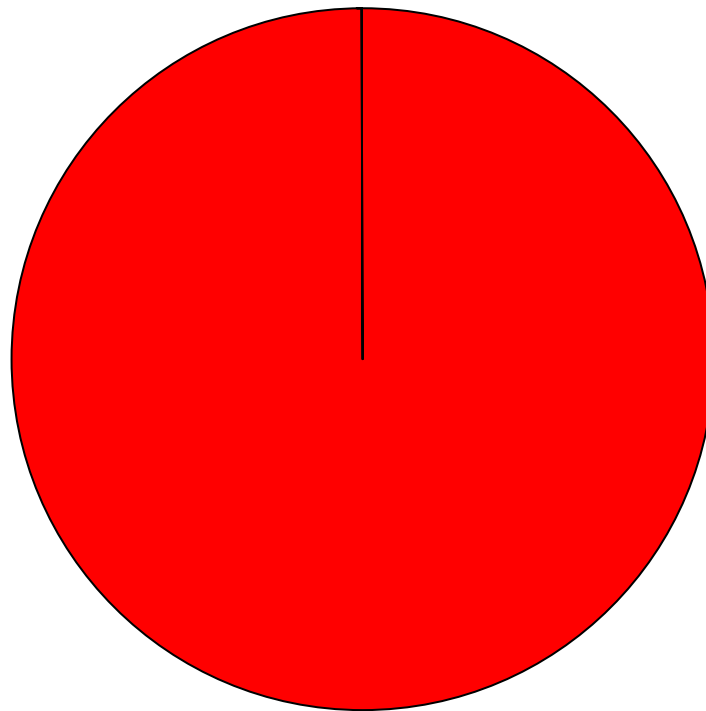
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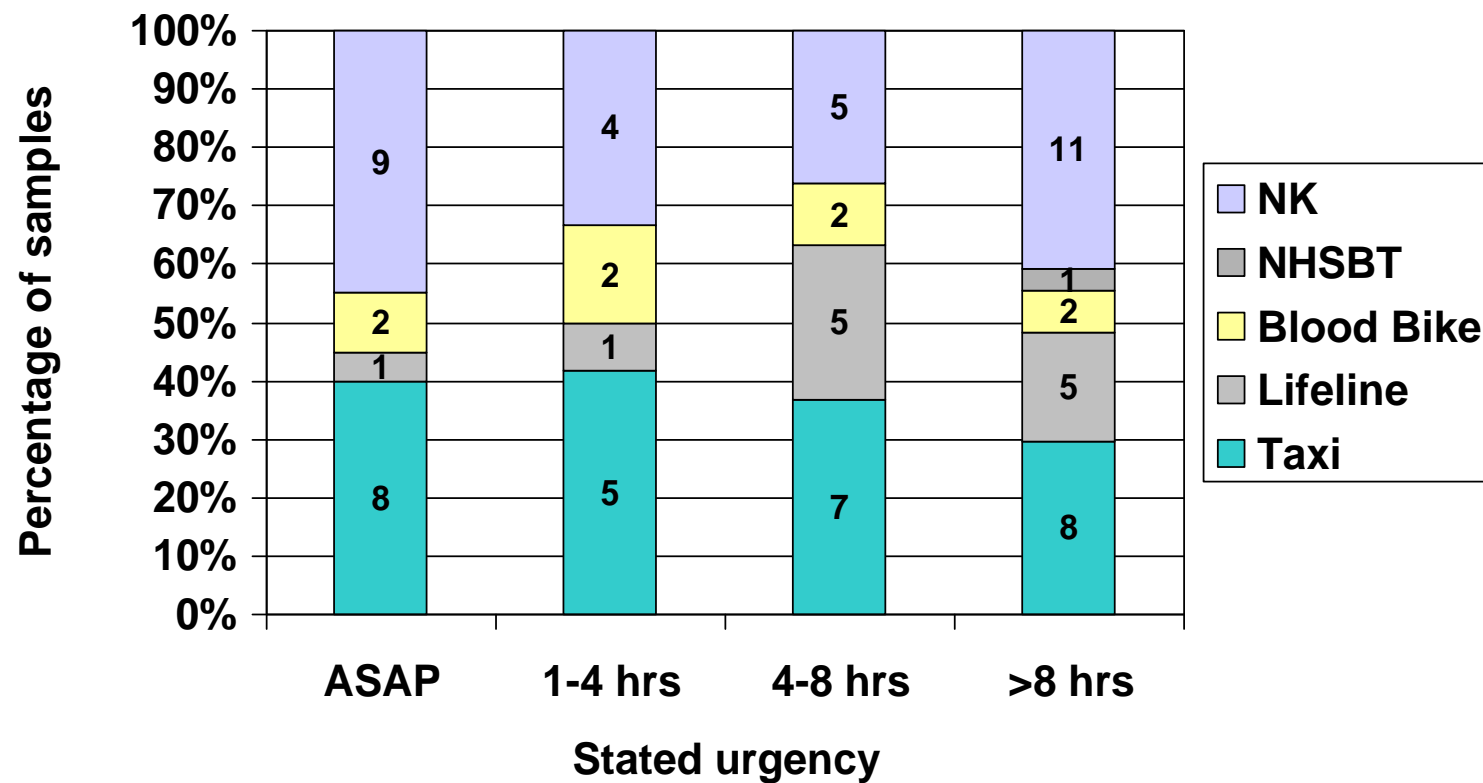


# Discussed with consultant?

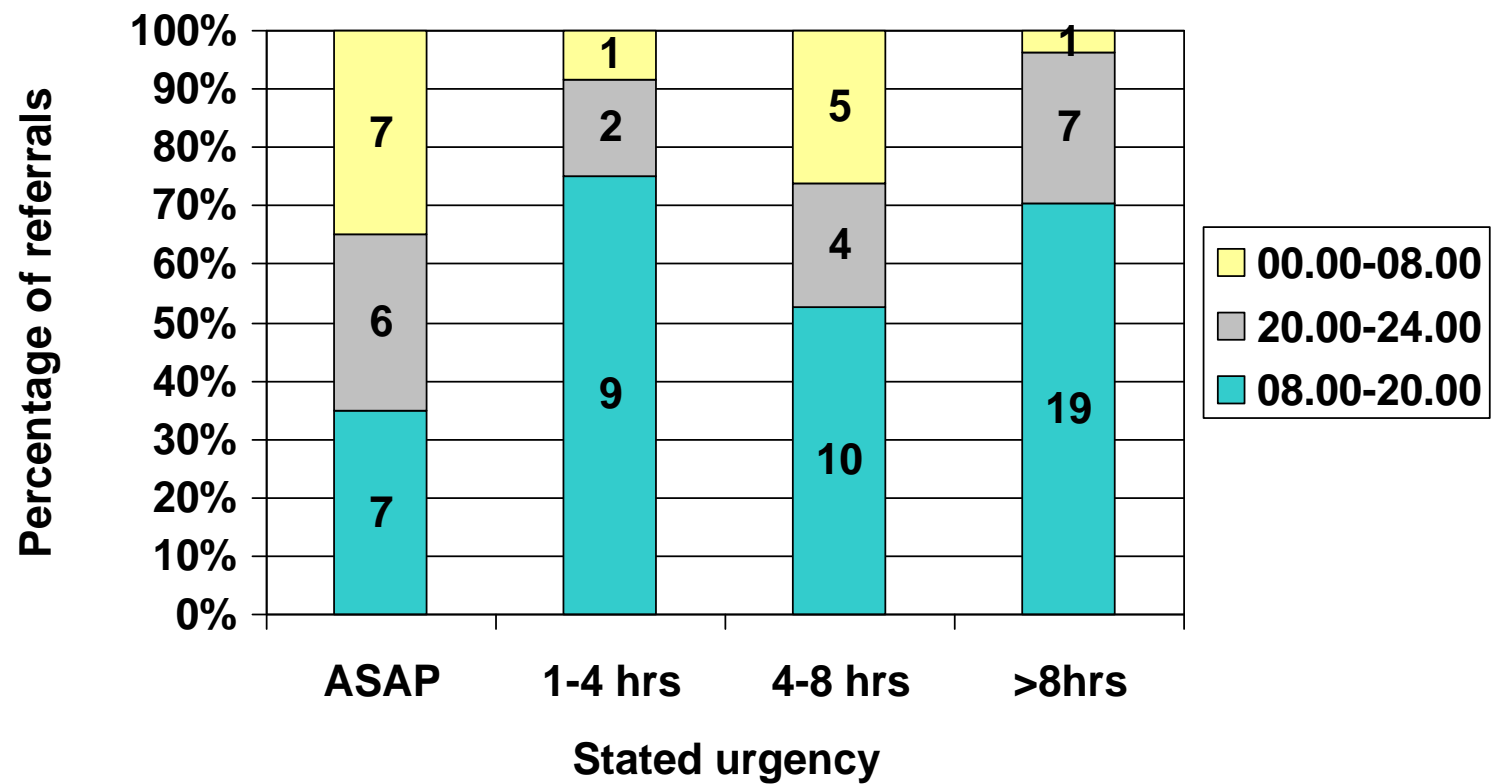
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# Mode of sample transport



# Time of arrival





## Urgency and time taken to test

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| Urgency  | ASAP  | 1- 4 hrs   | 4-8 hrs  | >8 hrs   |
|--|---|--|--|--|
| Median time, arrival to investigation start, minutes         | <b>0 mins</b><br>(up to 4 hrs 10 min )            | <b>1 mins</b><br>(up to 1 hr 45 min )                | <b>0 mins</b><br>(up to 2 hrs 30 min)          | <b>1.5 mins</b><br>(up to 8 hrs + )                |
| Time taken from start of investigation to units ready, hours | <b>1hr 45 min</b><br>(range 1hr to 4 hrs 45 min ) | <b>2 hrs</b><br>(range 1hr to 3 hrs 50 min )         | <b>1 hr 45 min</b><br>(range 50 min to 4 hrs ) | <b>2 hr 30 min</b><br>(range 1 hr to 4hrs 30 min ) |
| Time from blood ready to transfusion, hours                  | <b>4 hrs</b><br>(range 1 hr 20 to 84 hrs ?? )     | <b>6 hrs</b><br>(range 2 hrs 15 min to 9 hrs 30 min) | <b>11 hrs</b><br>(range 4 hrs to 24 hrs)       | <b>14 hrs</b><br>(range 8 hrs to 40 hrs )          |



## Findings

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|                               |    |
|-------------------------------|----|
| ○ Panreactive auto +/- others | 25 |
| ○ Multiple alloantibodies     | 12 |
| ○ Single antibodies           | 8  |
| ○ Cold antibodies             | 5  |
| ○ "AB ID and XM"              | 4  |
| ○ Nil found                   | 10 |
| ○ Weak non-specific           | 4  |
| ○ NK/not clear                | 10 |

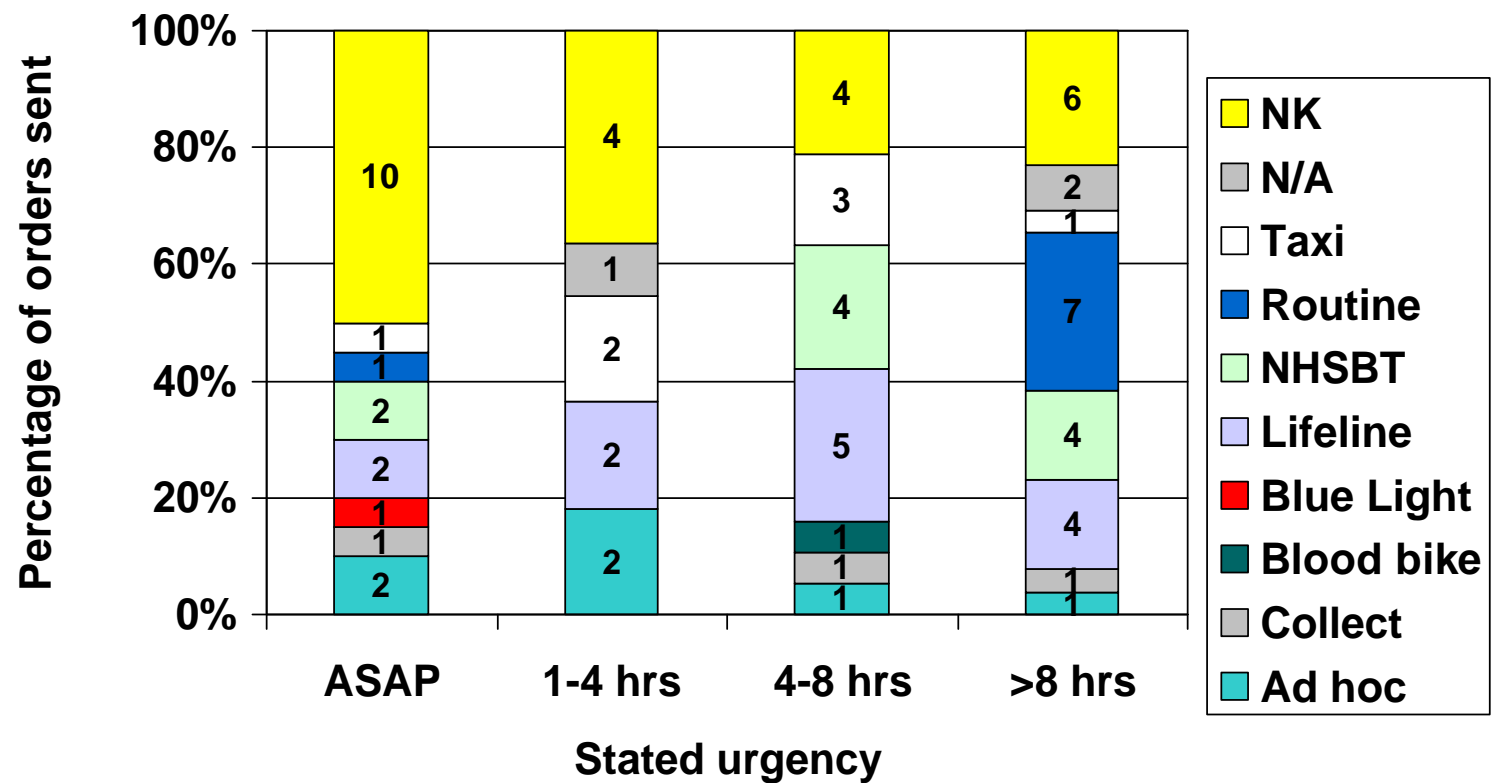


# Antibodies found

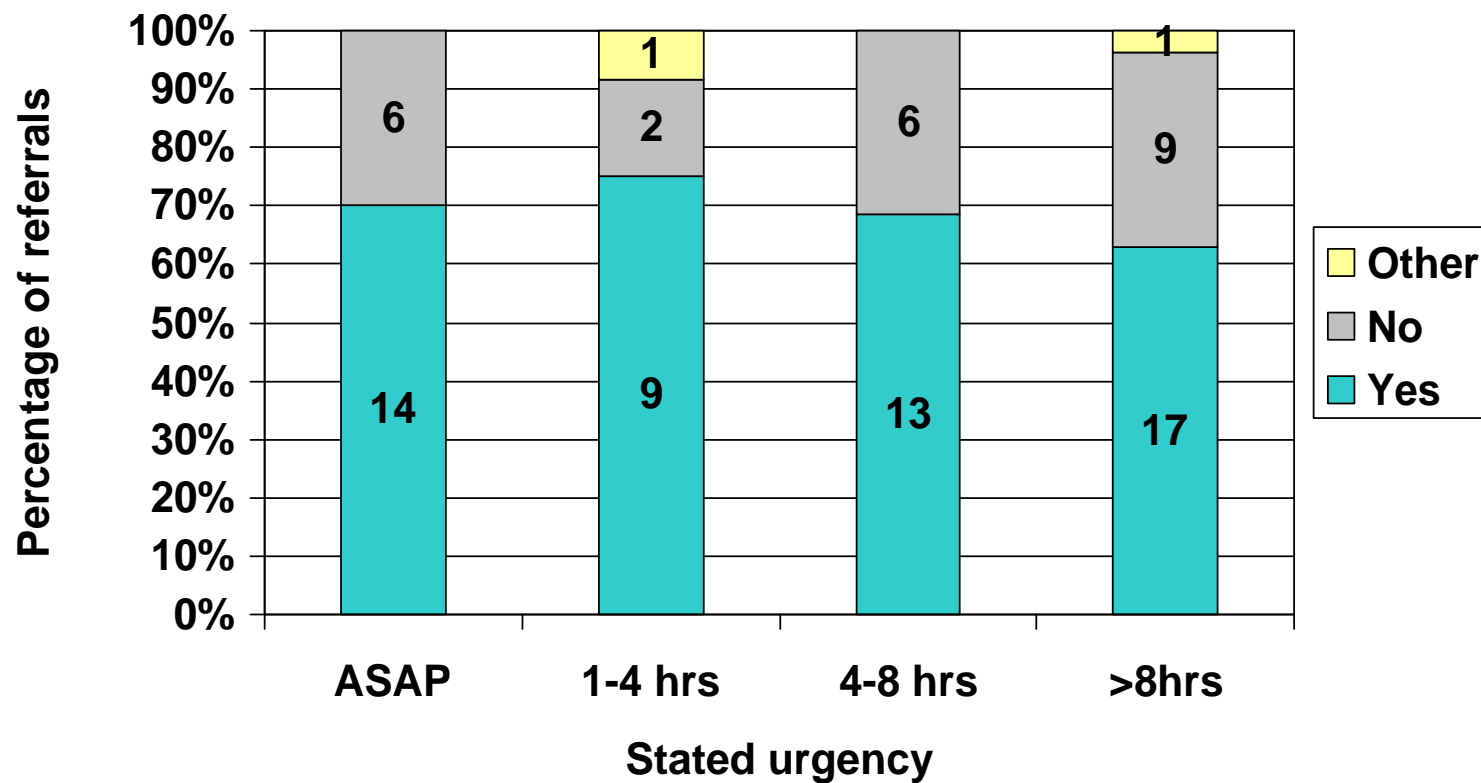
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|   |    |
|---|----|
| Panreactive                                   | 17 |
| ○ Allo anti E                                 | 6  |
| ○ Allo anti e                                 | 5  |
| ○ Auto-c, allo K, Auto cold antibodies        | 5  |
| ○ Allo-e, allo Jka, allo-C, weak non-specific | 4  |
| ○ Kpa   | 3  |
| ○ Fya, M, auto-C                              | 2  |
| ○ Cw, D, BgA, Ce, S                           | 1  |
| ○ Nothing                                     | 9  |
| ○ Weak, non-specific, B****d                  | 4  |
| ○ Other                                       | 8  |
| ○ Not stated                                  | 10 |

# Mode of blood delivery



# Transfused or not?



Other: 1 not known. 1 an ATR investigation





## Reasons why blood not used

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- 16 not required
- 1 “own units”
- 1 patient died
- 5 Not known



# Conclusions

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- 41% of referrals state blood needed within 4 hours
- Majority of referrals related to medical rather than surgical indication
  - AIHA
  - Other haematology problem
- Urgency not related to Hb
- Different immediate indications for urgent and less urgent samples
- Very prompt response when sample arrives!!
- Time from blood being available to being transfused is related to stated urgency
- Commonest problem is panreactive antibody/auto



# Recommendations

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- None from me
- Any thoughts?
  
- And thank you!