

# **WHY SO MANY?**

## **AN AUDIT OF PLATELET USE AT CMFT**

### **A SURVEY OF EMPOWERMENT IN THE LABORATORY**



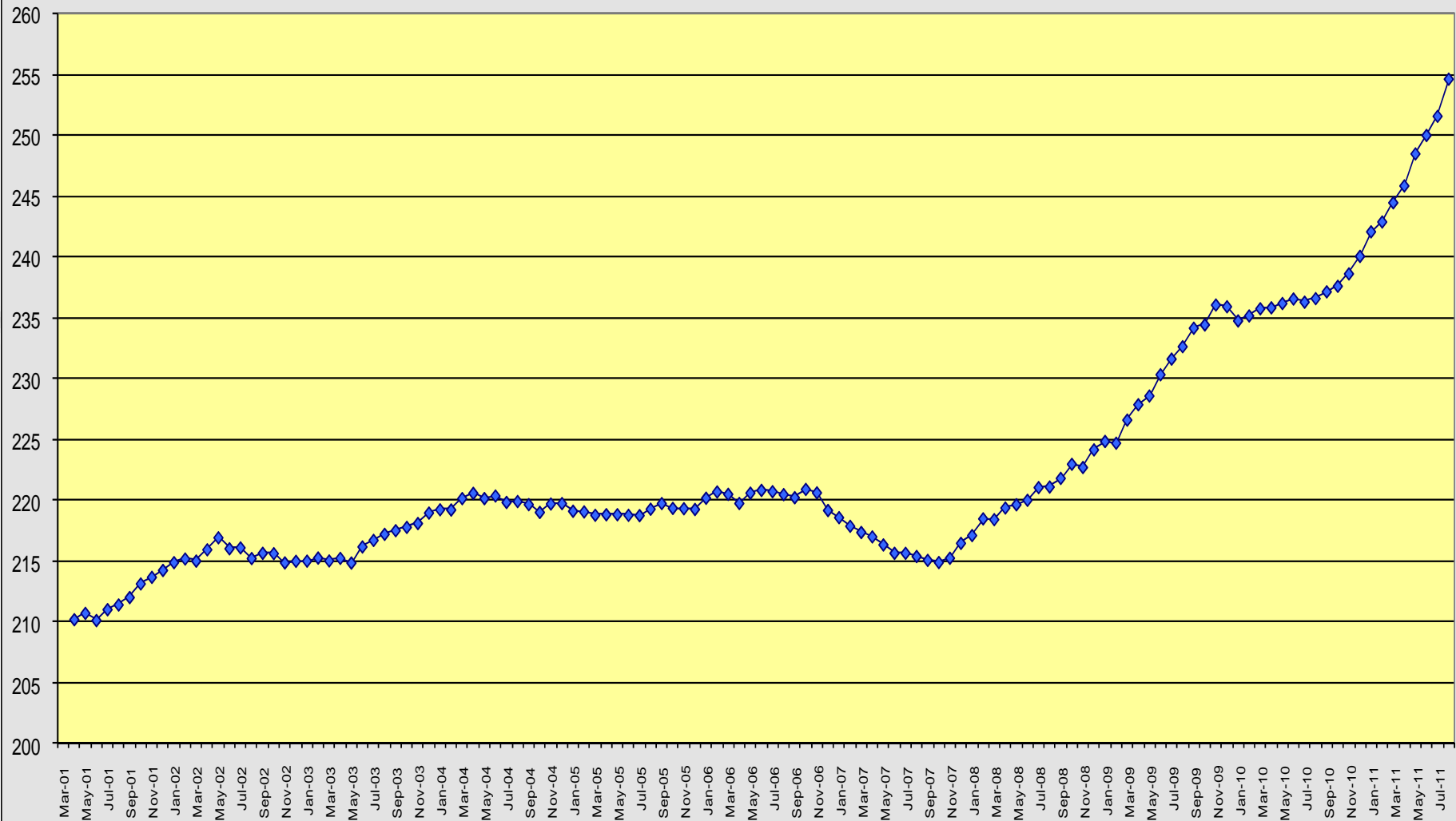
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**Haematology SpR & Consultant Haematologist**  
**North West Deanery**  
**19<sup>th</sup> January 2012**



# OBJECTIVES

- Increasing use of platelets
  - CMFT Data
  - NCA of platelet use
- Audit and Survey
  - Audit of Platelet Use at CMFT
  - Survey of Laboratory Empowerment
    - Implications
    - Recommendations

### Moving Annual Total of Platelet Issues to Hospitals - 000s

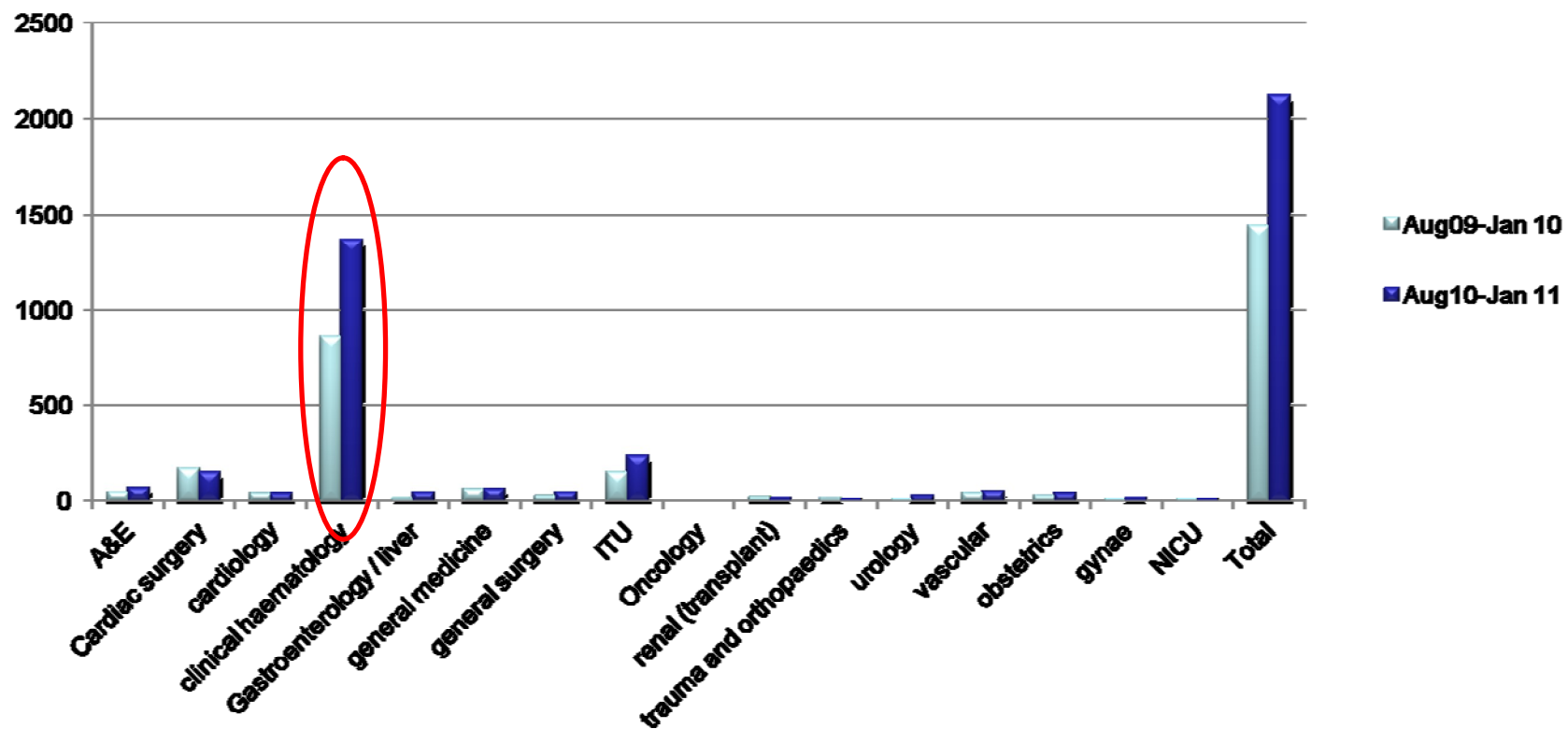


## Hospitals Served by :- Manchester

12 Month Averages expressed to nearest whole number

| Hospital Name                          | Pulse | Total Platelet Issues Comparison |          |                     |
|--|-------|----------------------------------|----------|---------------------|
|  |       | Last 12 Month Average            | May 2011 | Total Issues Change |
| Central Manchester Foundation Trust    | M103  | 461                              | 695      | 50.8%               |
| Christie Hospital                      | M020  | 191                              | 225      | 17.9%               |
| Wythenshawe Hospital                   | M050  | 104                              | 163      | 56.2%               |
| Salford Royal Hospital                 | M022  | 94                               | 151      | 60.4%               |
| Royal Oldham Hospital                  | M036  | 116                              | 96       | -17.3%              |
| Wigan Royal Infirmary                  | M046  | 64                               | 52       | -18.9%              |
| Leighton Hospital                      | M026  | 32                               | 51       | 61.1%               |
| Royal Bolton Hospital                  | M014  | 34                               | 45       | 30.8%               |
| North Manchester General Hospital      | M032  | 66                               | 35       | -47.1%              |
| Trafford General Hospital              | M044  | 26                               | 25       | -2.9%               |
| Stepping Hill Hospital                 | M040  | 22                               | 15       | -32.6%              |
| Tameside General Hospital              | M042  | 15                               | 12       | -20.9%              |
| Fairfield General Hospital             | K003  | 13                               | 7        | -46.8%              |
| Macclesfield District General Hospital | M028  | 7                                | 7        | 7.7%                |
| TDL Salford                            | M112  | 14                               | 7        | -49.4%              |
| SPIRE Hospital Manchester              | M082  | 1                                | 4        | 500.0%              |

**Chart showing platelet use by specialty MRI / SMH**



# NCA 2007-2010

## ○ 2007-08

- 27 to 57% haematology patients
- Prophylactic to prevent haemorrhage

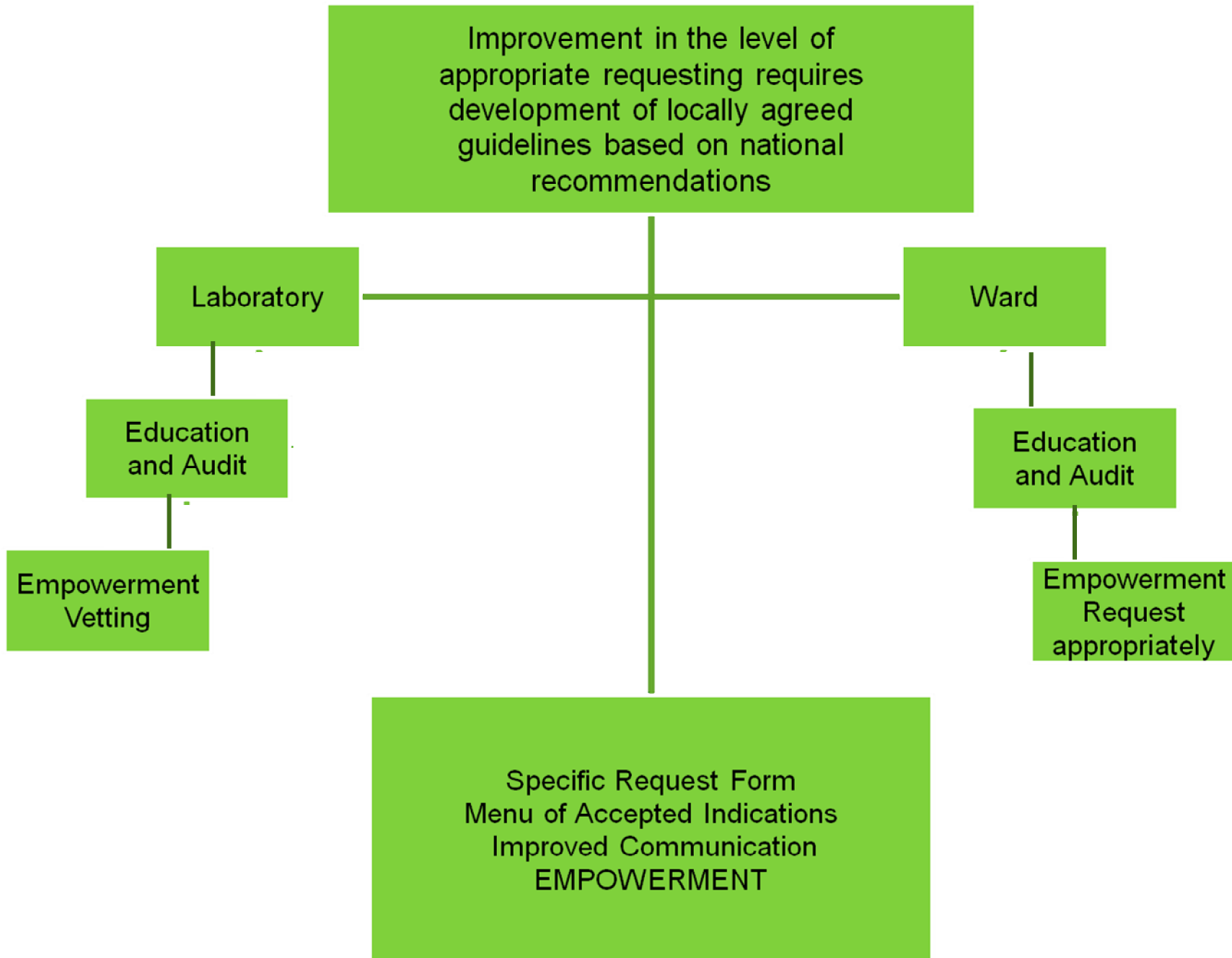
## ○ 2010

- 28% inappropriate use
  - 69% prophylactic
    - 34% were inappropriate
    - 10% were double dose transfusions
- 15% were pre-invasive procedure
  - 23% were inappropriate
  - 9% Prior to BM

## ○ Local Guidelines differ from BCSH

## RECOMMENDATIONS (NCA)

- A pre and post-transfusion should always be performed
- Platelet transfusion is **not** required routinely
  - Prior to bone marrow aspiration and biopsy
  - In stable patients with long term bone marrow failure
- Double-Dose prophylactic platelets unnecessary
- Local Guidelines should be based on updated BCSH guidelines
- IT solutions to make data to audit practice





# OUR INTERVENTIONS

- **Audit**

- 1) **Clinical Audit**

- 2) **Laboratory Audit**

} **CMFT**

- **Survey**

- 1) **Empowerment Survey**  
(North West and North Wales)

# **AUDIT (CMFT)**

## **CLINICAL AND LABORATORY**

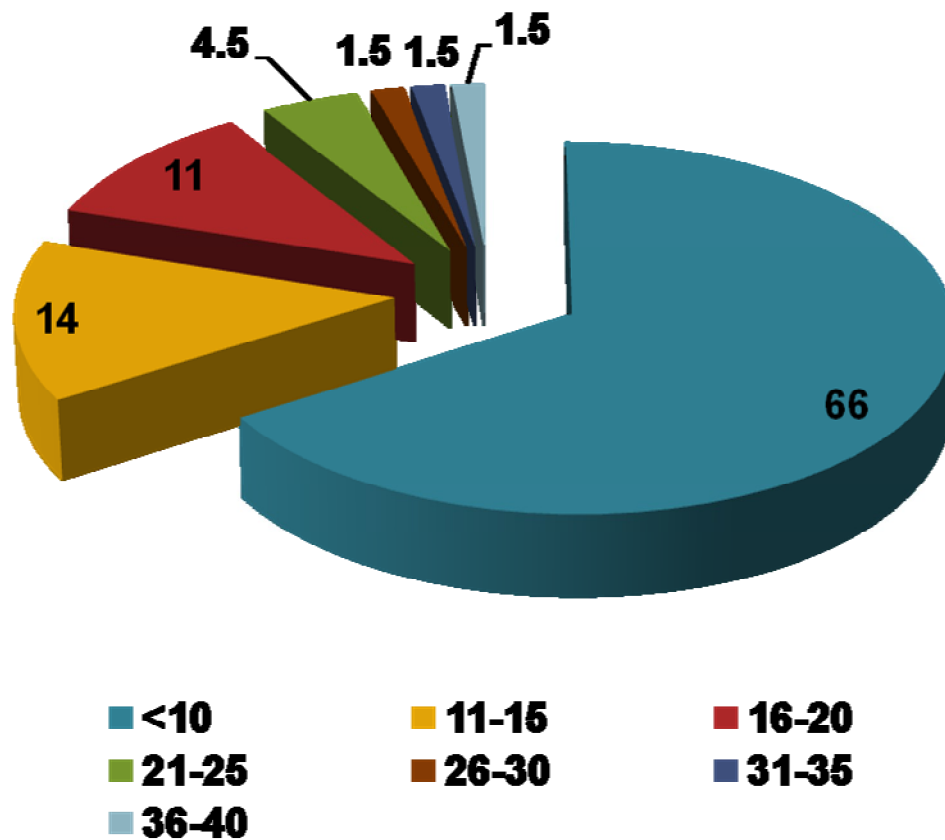
# RESULTS

- 111 platelet requests made in October 2011

- Captured Data

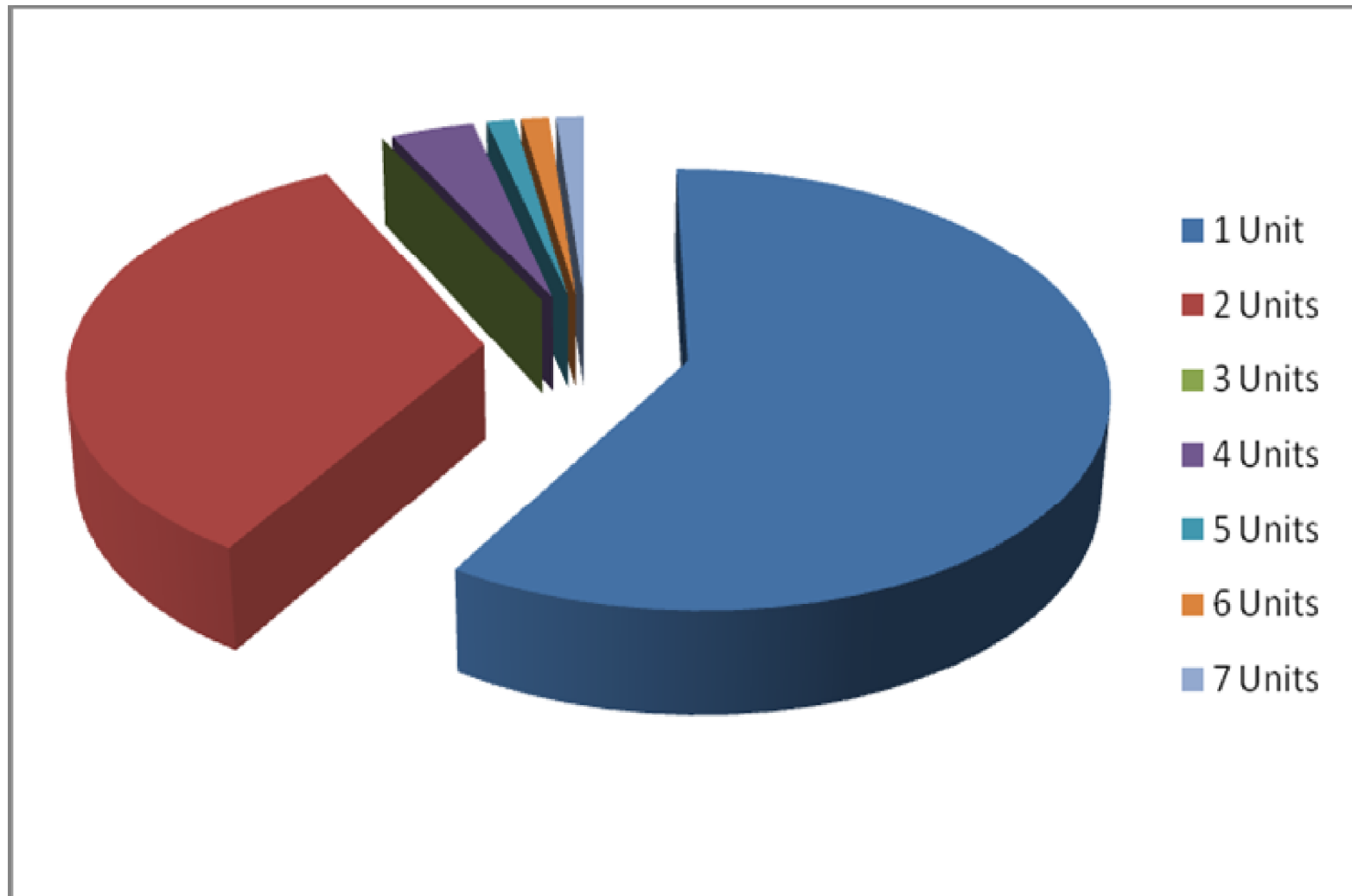
- Laboratory 80 / 111 (72%)
- Haematology Day Unit 30 / 111
- Ward 44 70 / 111 (90%)

## WARD (70/111)



- 70 episodes
  - Variable reasons
  - Pre counts
    - All 24hrs prior
    - 3-36
- 44% >10
  - 61% had risk factors
    - HLA abs
    - CVL insertion
    - IC bleeds
  - 39% did not

## NO OF DOSES REQUESTED



## NO OF DOSES REQUESTED

| DOSES | REASON                          | INAPPROPRIATE      |
|-------|---------------------------------|--------------------|
| 1     | Prophylaxis                     | 10/47              |
| 2     | HLA, Poor increments            | 20/27              |
| 3     | 0                               | 0                  |
| 4     | Post BMT, GI Bleed              | 0/3 (same patient) |
| 5     | Severe AA, Bleeding, HLA<br>Δhc | 0/1                |
| 6     | Severe AA, Bleeding, HLA<br>Δhc | 0/1                |
| 7     | Post BMT, IC Bleed              |                    |

**As the number of risk factors increases so does the Clinician's anxiety**

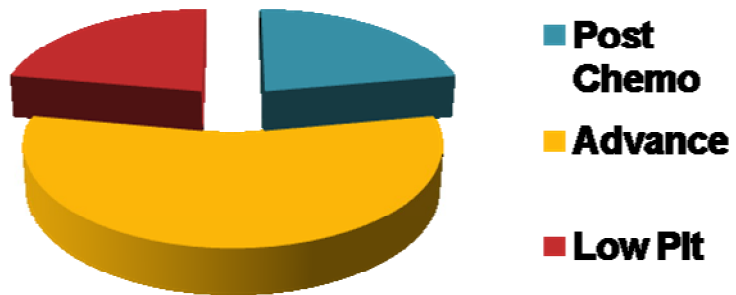
## DAY UNIT (30/111)



■ Lymphoma  
■ MDS  
■ AA  
■ Waldenstroms

- Chronic Conditions
  - All had pre-counts
    - Only 1/30 post count
- Advance requests
  - Made >24hrs
- All prophylactic

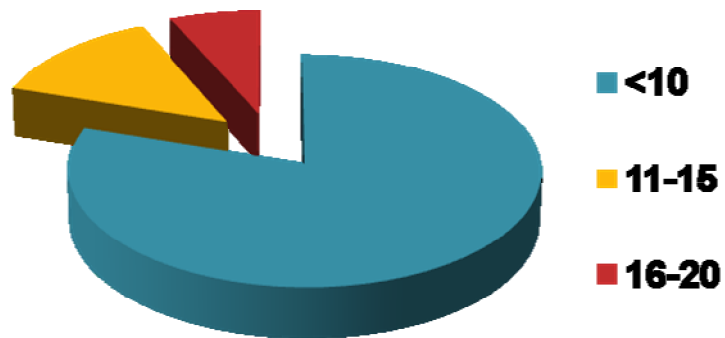
## DAY UNIT (30/111)



○ Prophylaxis

○ All had 1 unit

○ 20% had a Plt count >10 at time of Transfusion





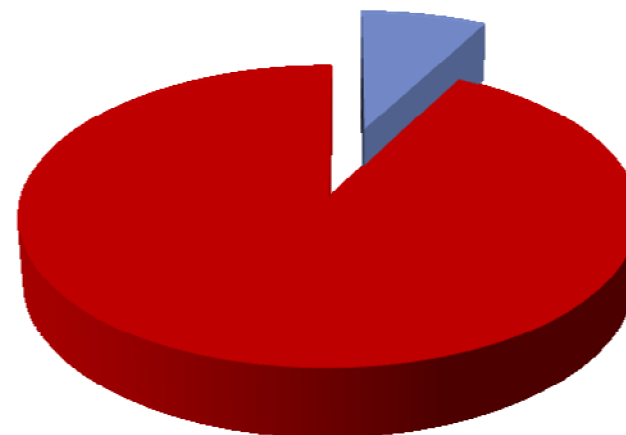
# LABORATORY (80/111)

**Reason stated**



■ Yes ■ No

**Queried**



■ Yes ■ No

**Platelet Count**



■ Yes ■ No

## LABORATORY (80/111)

- Reason stated
- SR PAD Accurate
- ABO Matched
- Rh Matched
- Minimal Delays
- Inspection
- Platelet count
- Low level of querying

# AUDIT CONCLUSIONS

- Inappropriate use of platelets
  - Thresholds not always adhered
  - $> 1$  unit requested
  
- Laboratory
  - More involvement
  - Do not query

**SURVEY**

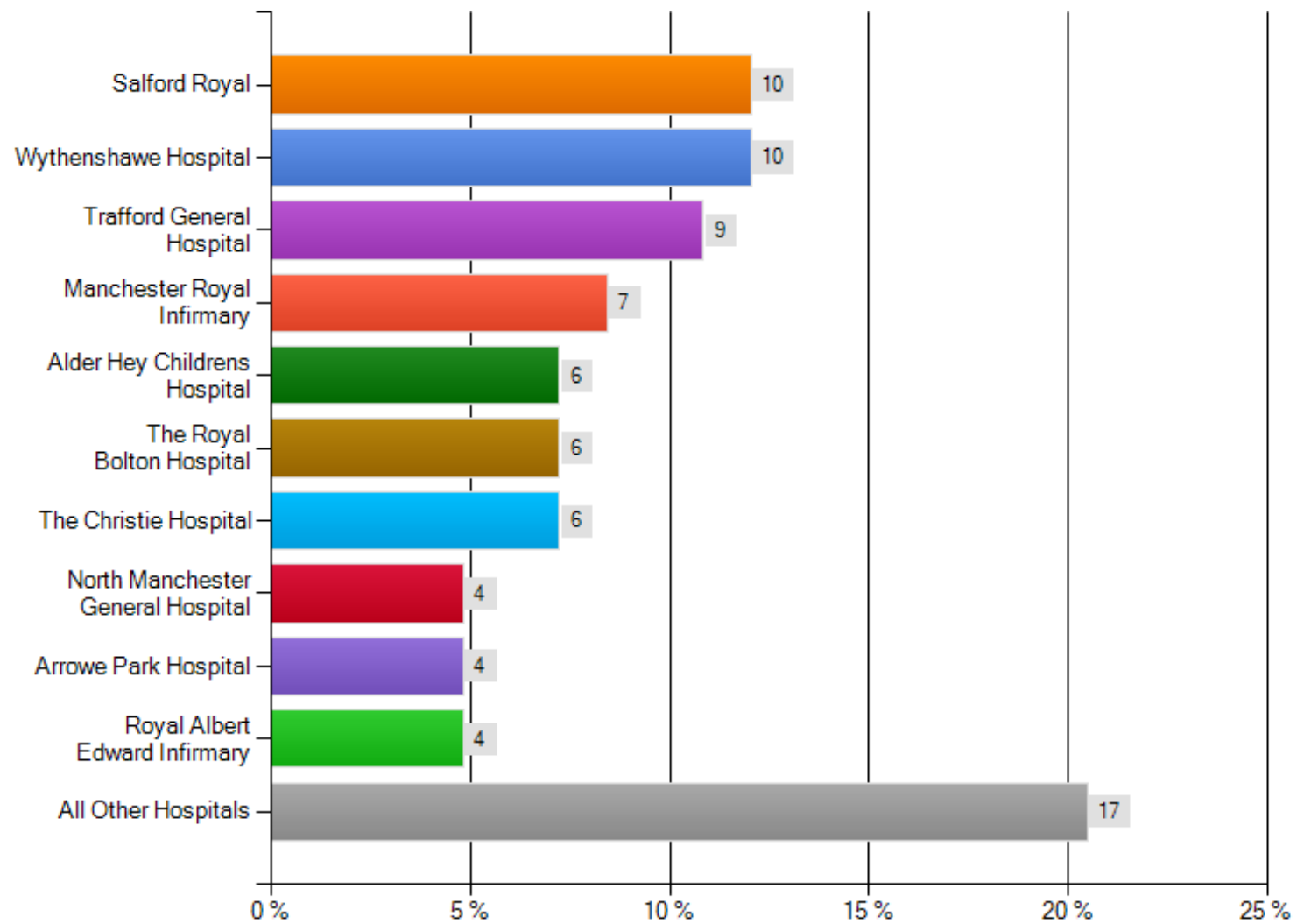
**EMPOWERMENT**

**(NORTH WEST & NORTH WALES)**

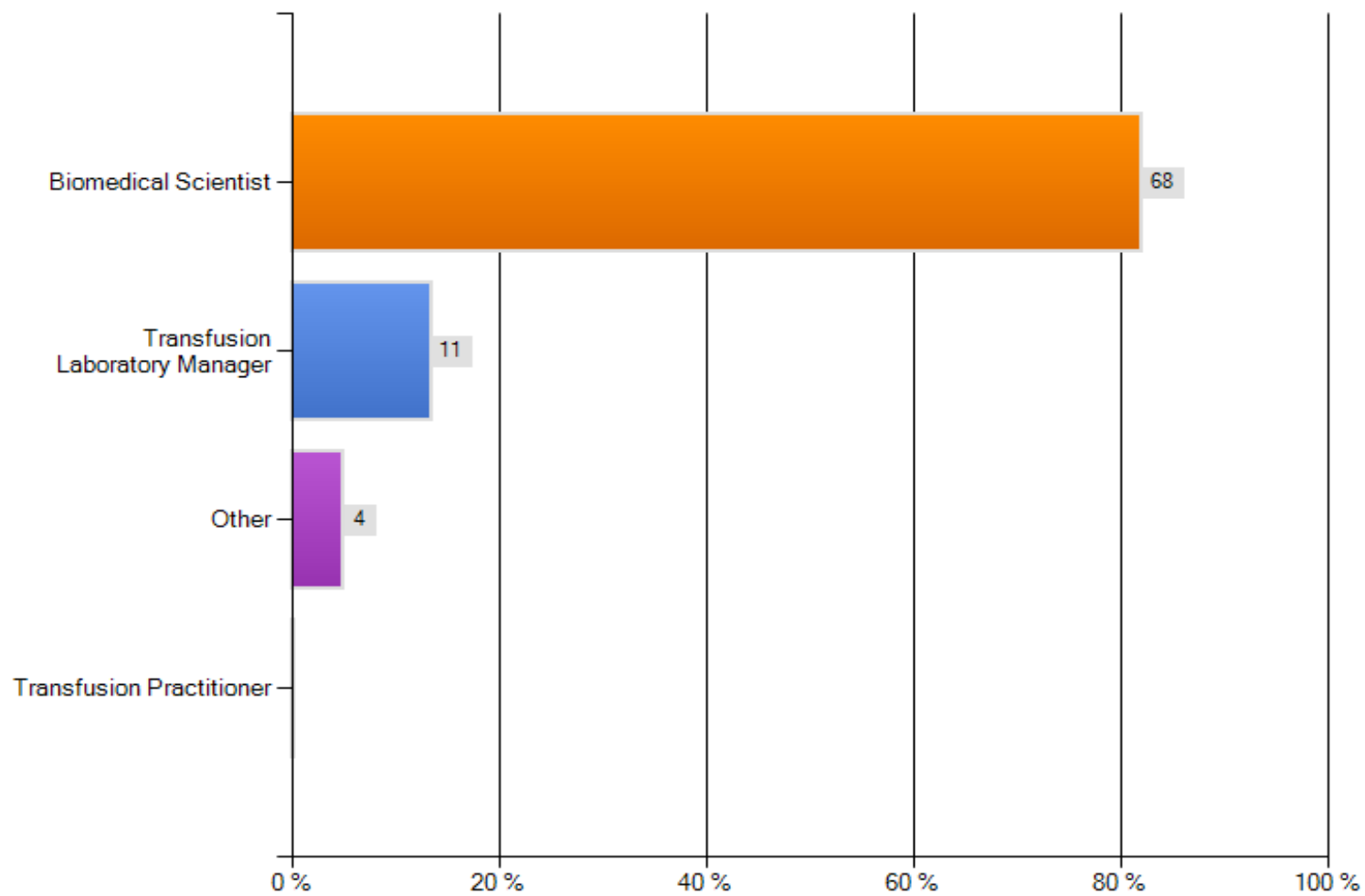
# EMPOWERMENT SURVEY

- Survey Monkey tool
- 37 Trusts
  - North West and North Wales
- 14 questions
  - Biomedical Scientist
  - Their laboratory
  - Their practice
  - Their views

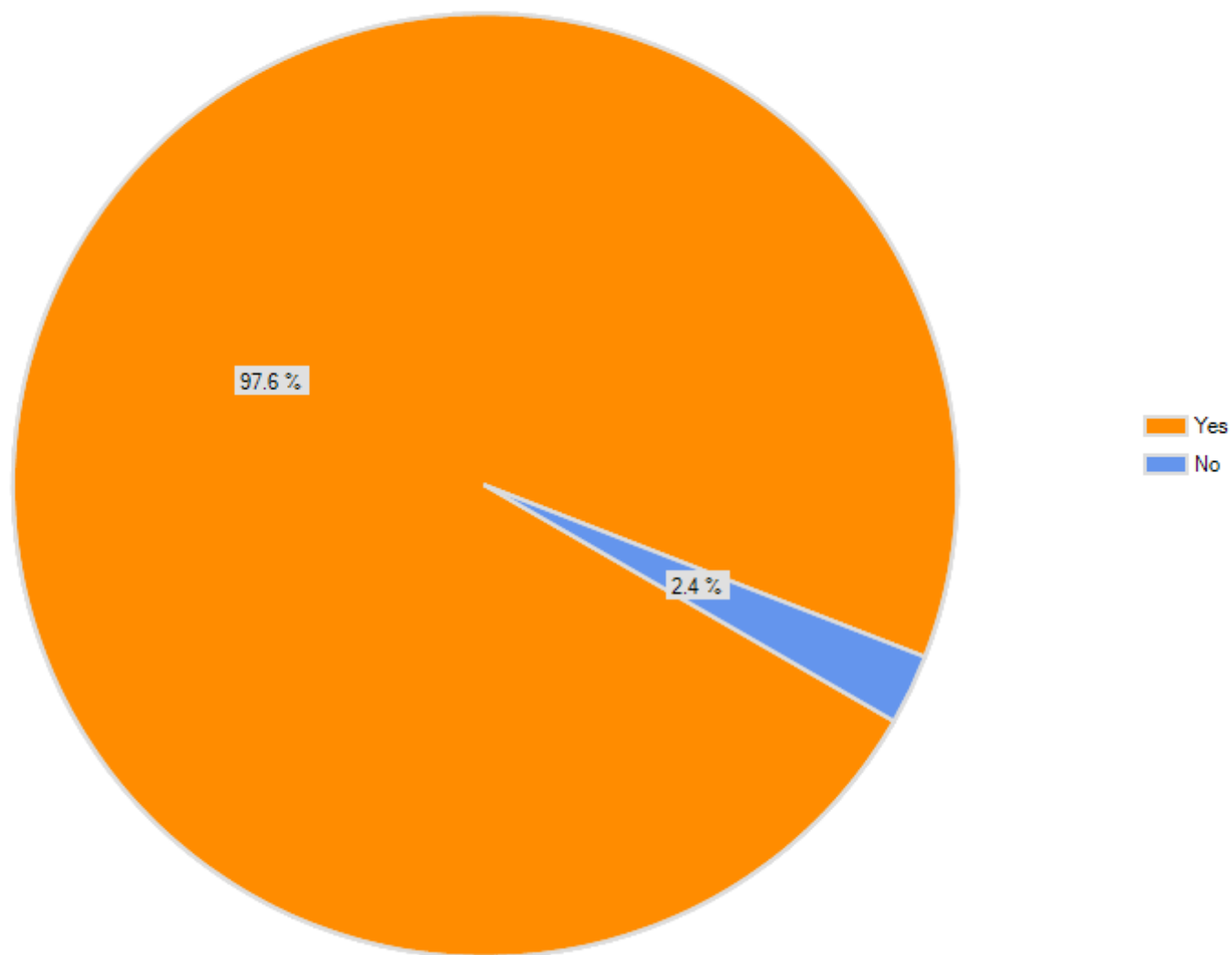
### Hospital Responses



### Job Description

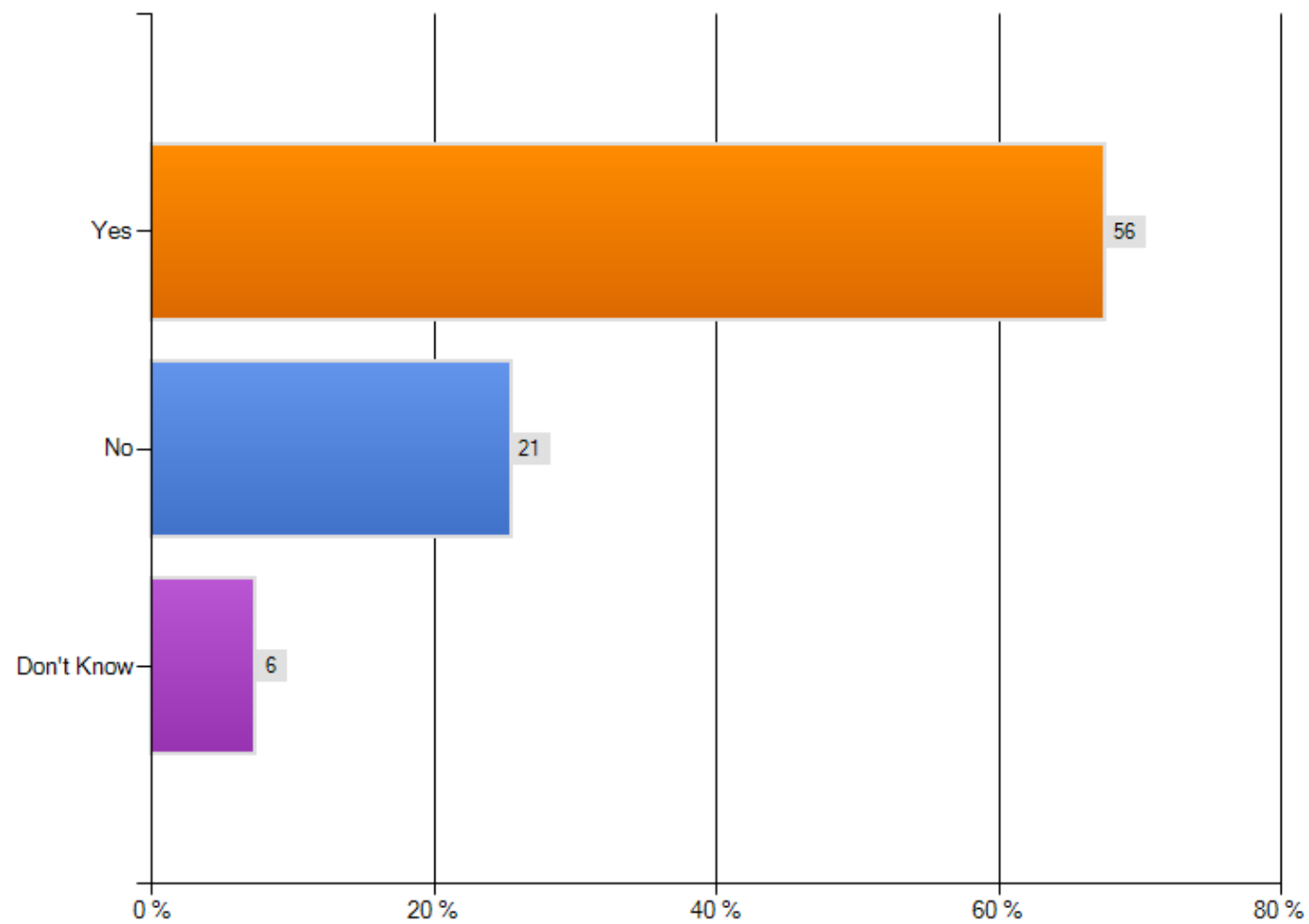


### Involvement in Blood Component Issuing

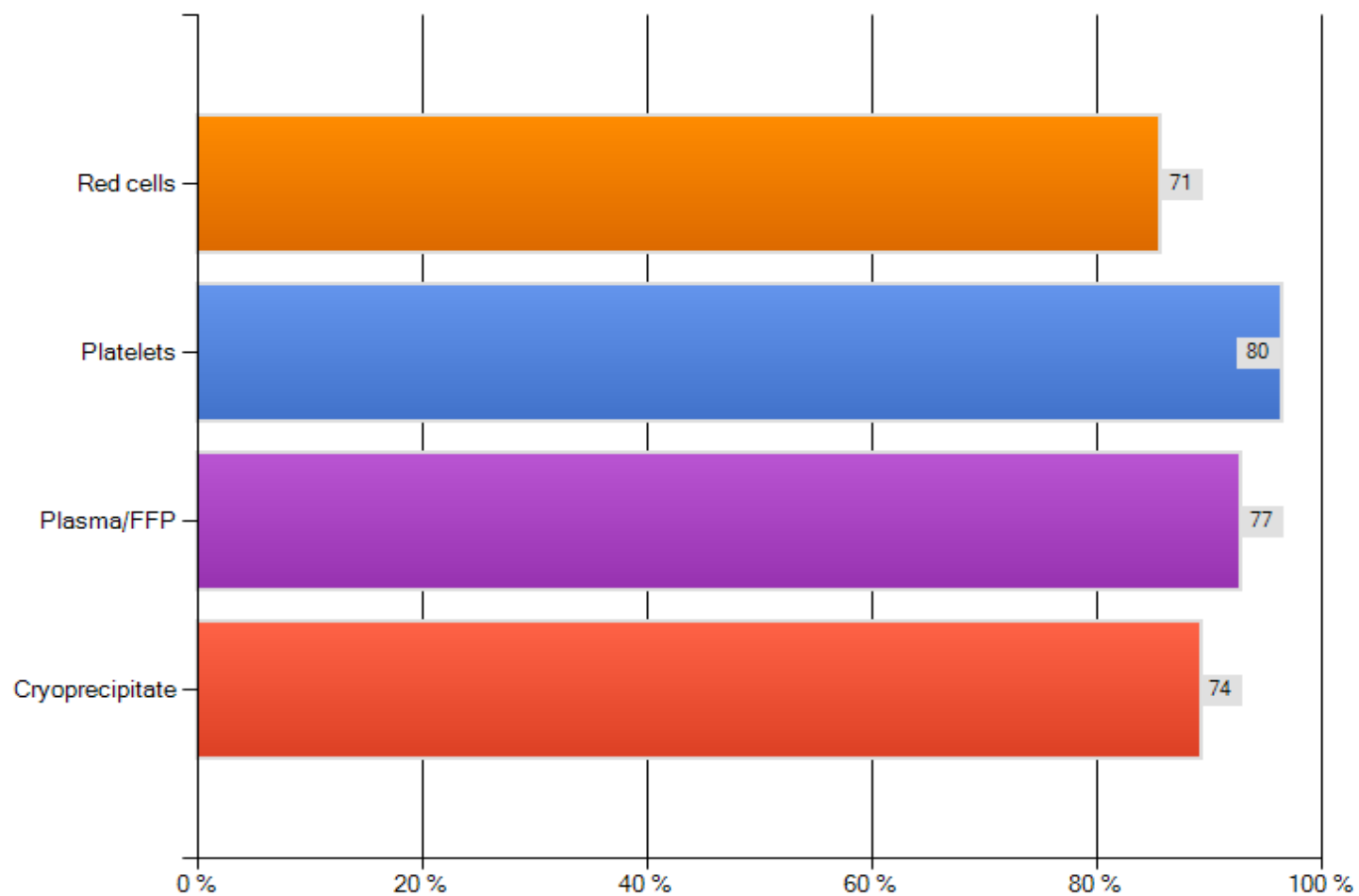




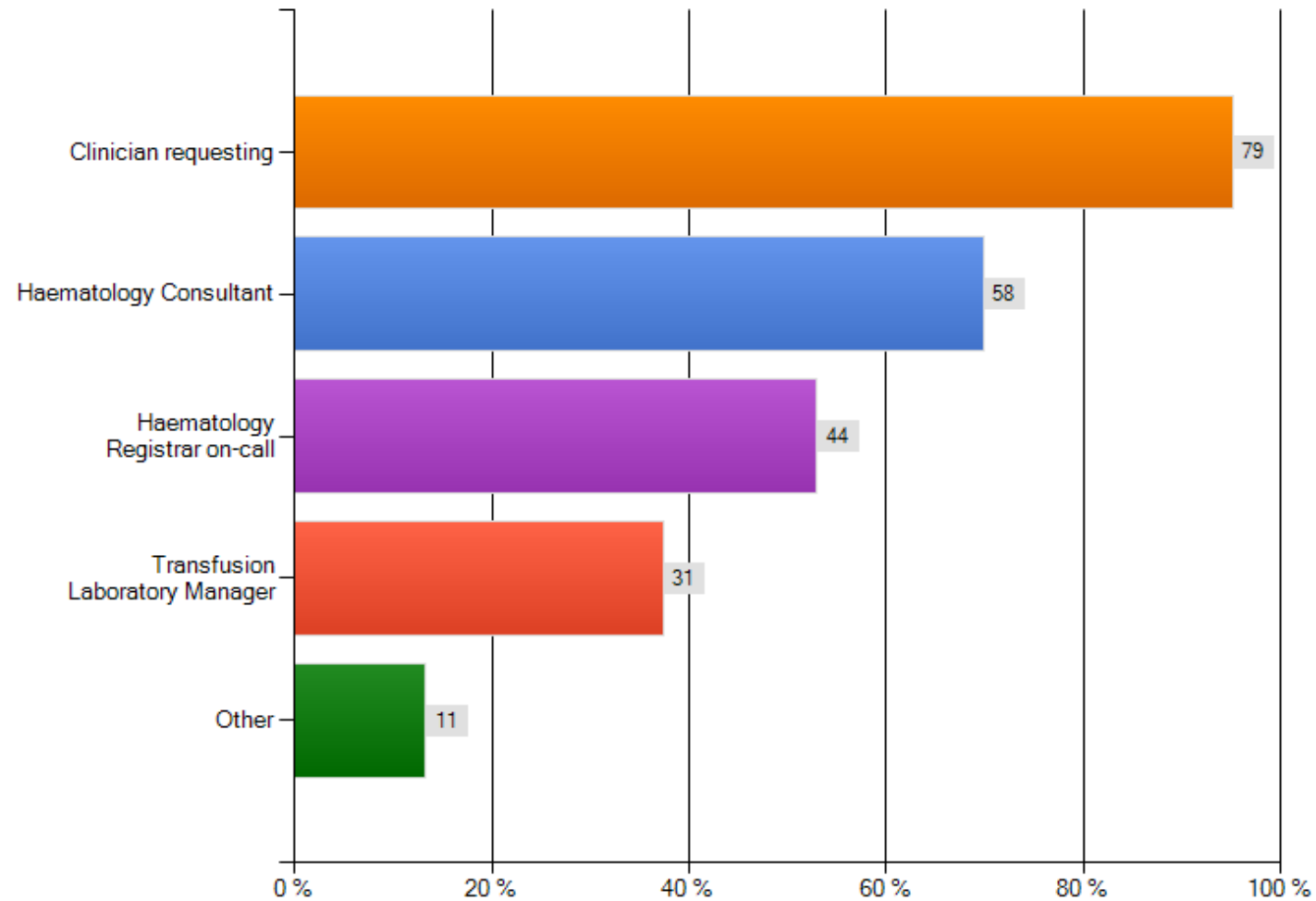
### Vetting procedure/Tool for the issue of blood components



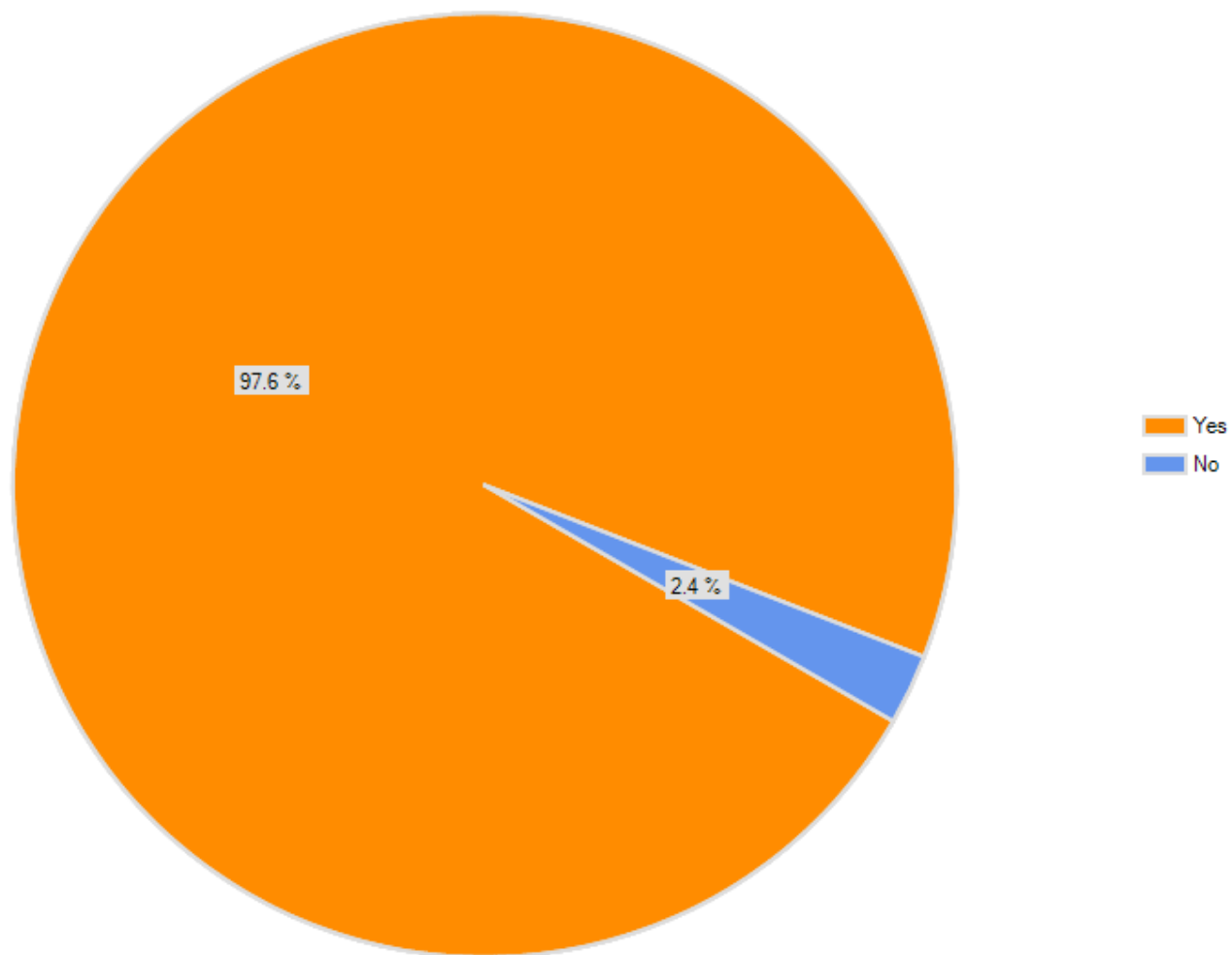
### Querying requests for blood components



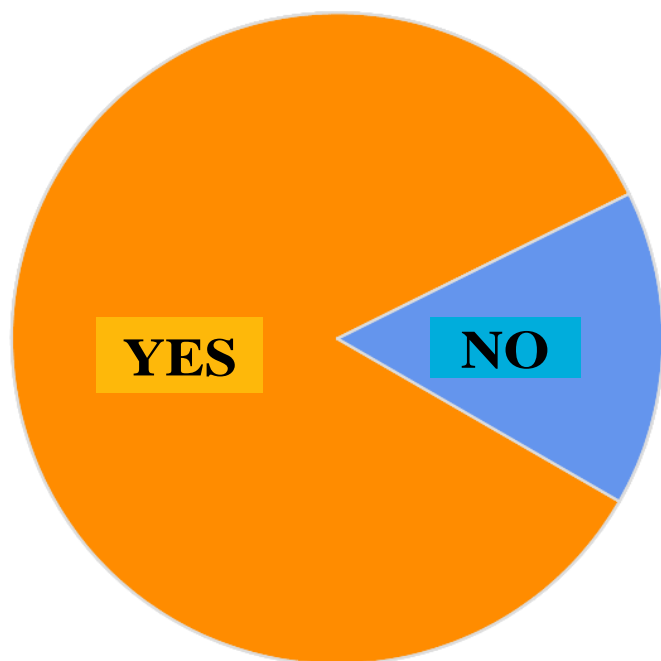
### Person request queried with



**Do you feel it is the Clinician's role to ensure the request is appropriate?**



**Laboratory's Role to Vet Request?**



**Happy to Vet Requests?**



## COMMENTS YES (77%)

- To ensure correct and appropriate use of blood and products
- Lack of knowledge or thought from clinician, especially in an emergency situation can lead to inappropriate requesting
- Because we are specialists in our area we can identify where blood use is inappropriate
- To avoid unnecessary transfusions and work within the lab
- I would vet if the request was considered inappropriate
- Shot report- majority of incidents caused by human error - we should do anything in our power to ensure all requests are appropriate and where they are not, relevant advice or referral given
- Because even though it is the requestors role to get it correct there maybe training/incompetency issues
- Better Blood Transfusion suggests that BMS's should vet

The BMS has a responsibility to ensure that all requests are appropriate, this must always be done in partnership with the clinical staff to ensure best patient care

## COMMENTS NO (23%)

- Clinicians should be aware of what they are requesting
- Not enough time. Guide sheets may help
- Doctors are paid more money to make clinical decisions
- Ultimately a Medics responsibility, we can only advise and point out results to guide and clarify their decision, we do not see the whole picture and I don't want that responsibility
- It requires a clinician to assess patient's requirements. A BMS would be loath to deny products against a clinician's wishes
- It's not my responsibility
- I think we are too busy to think about this as well
- I think it is really beyond the expectation of my grade, although knowledge of appropriate requests is necessary in the interest of patient care and safety

# SURVEY CONCLUSIONS

- Knowledgeable BMS'
- Variability in vetting / querying
  - Tools
  - Protocols
- Majority feel vetting role is appropriate



# OVERALL CONCLUSIONS

## ○ Clinical

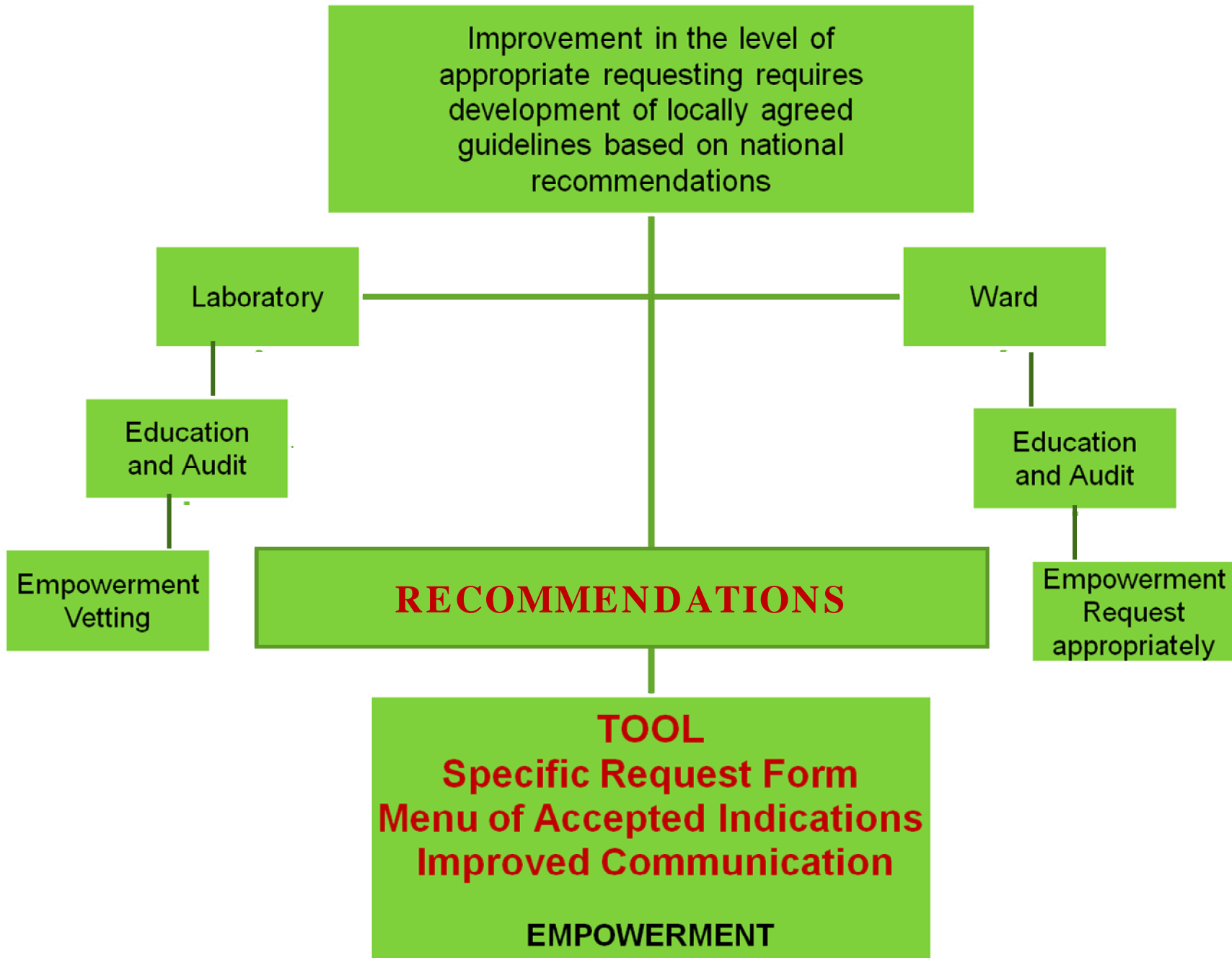
- Inappropriate Use

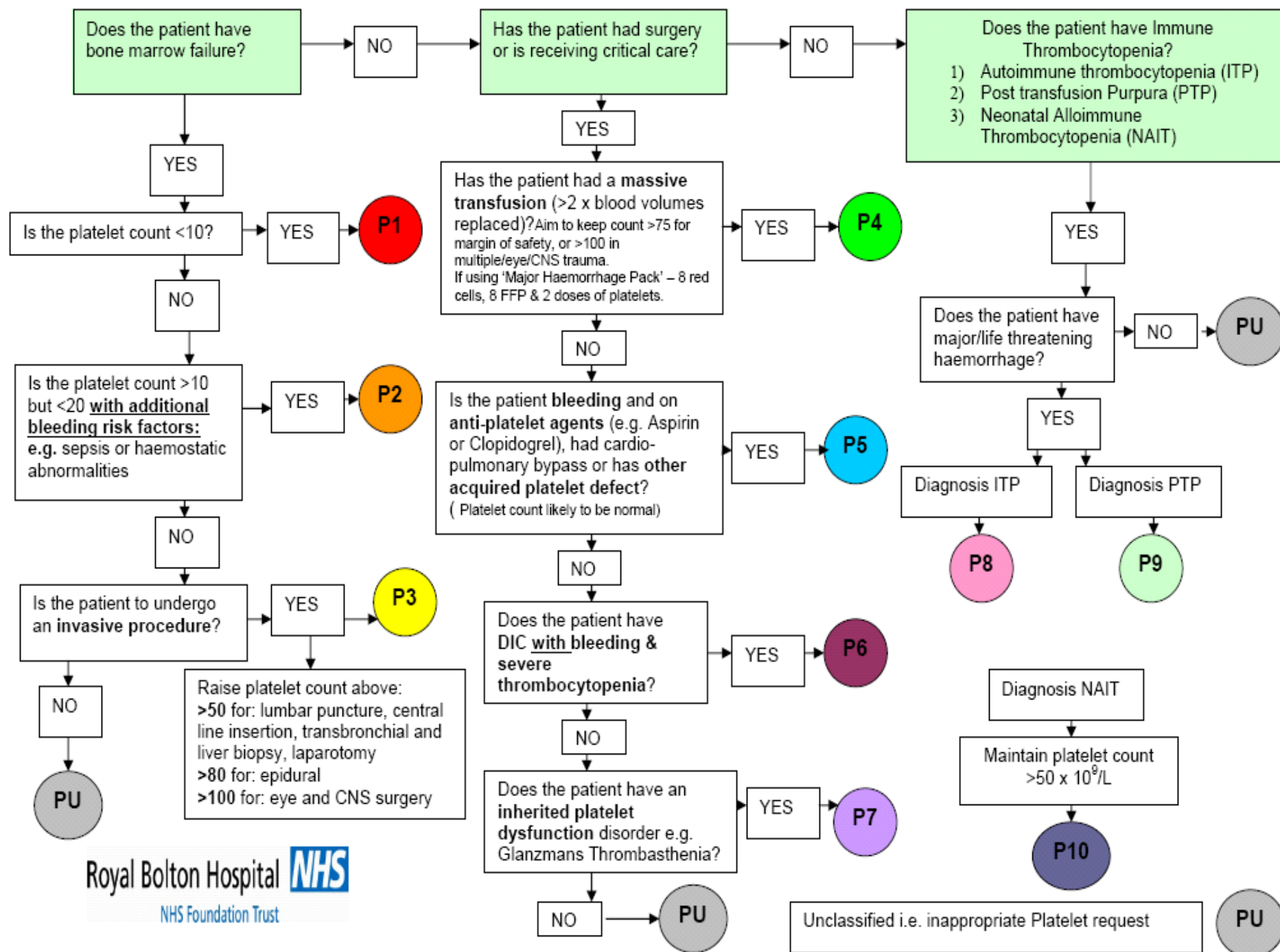
## ○ Laboratory

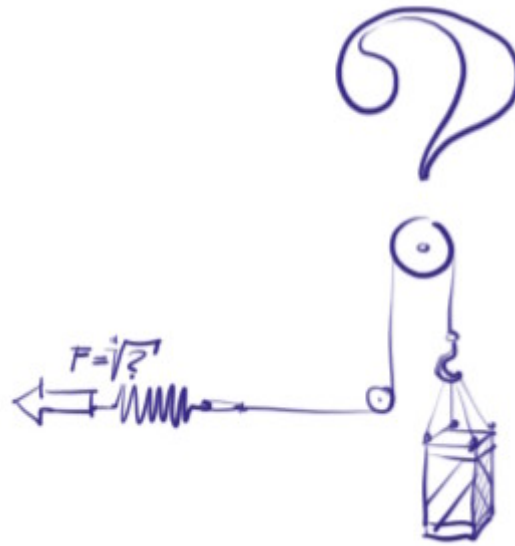
- Not enough Active involvement

## ○ Empowerment

- Majority want to be empowered







# QUESTIONS AND DISCUSSION

THANK YOU