NHS
Blood and Transplant

Characteristics of Referrals to RCI Laboratories Outside of Core Hours (AUD2611)

Matt Hazell

Caring Expert Quality

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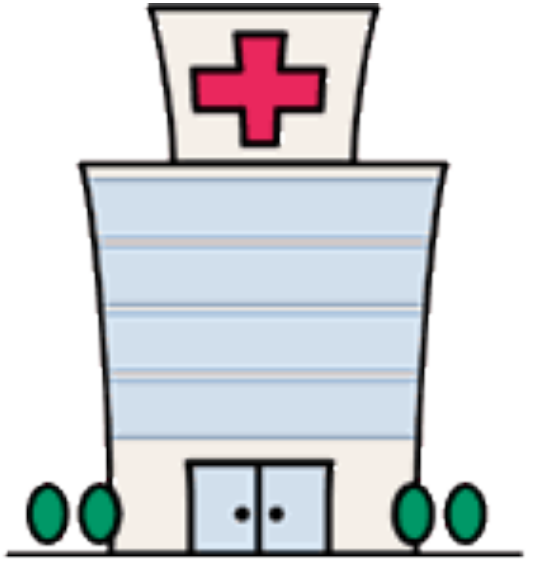

10% OOH
May 2013
July 2016

Urgent
Non-Urgent ?

Overview

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Purpose:

- Identify areas of non-compliance with current guidance
- Identify areas where improvements can be made
- Disseminate findings and recommendation across the service

Major objectives:

1. Assess OOH referral characteristics
2. Assess proportion of RBC units XM'd OOH that were Tx'd within 3 hours of end OOH service

Standards:

Criteria	Expected Level of Performance	Exceptions
1a. Referrals clearly state clinical indications for investigation and transfusion	100%	None
1b. Referrals identify the requesting clinician	100%	None
1c. Referrals discussed with the RCI consultant on-call are in line with SOP4743.	100%	None
2a. RBC units issued as a result of referrals are transfused	100%	Clinical Changes
2b. Transfusions were started within 3 hours of the end of the on-call period	100%	None

Overview

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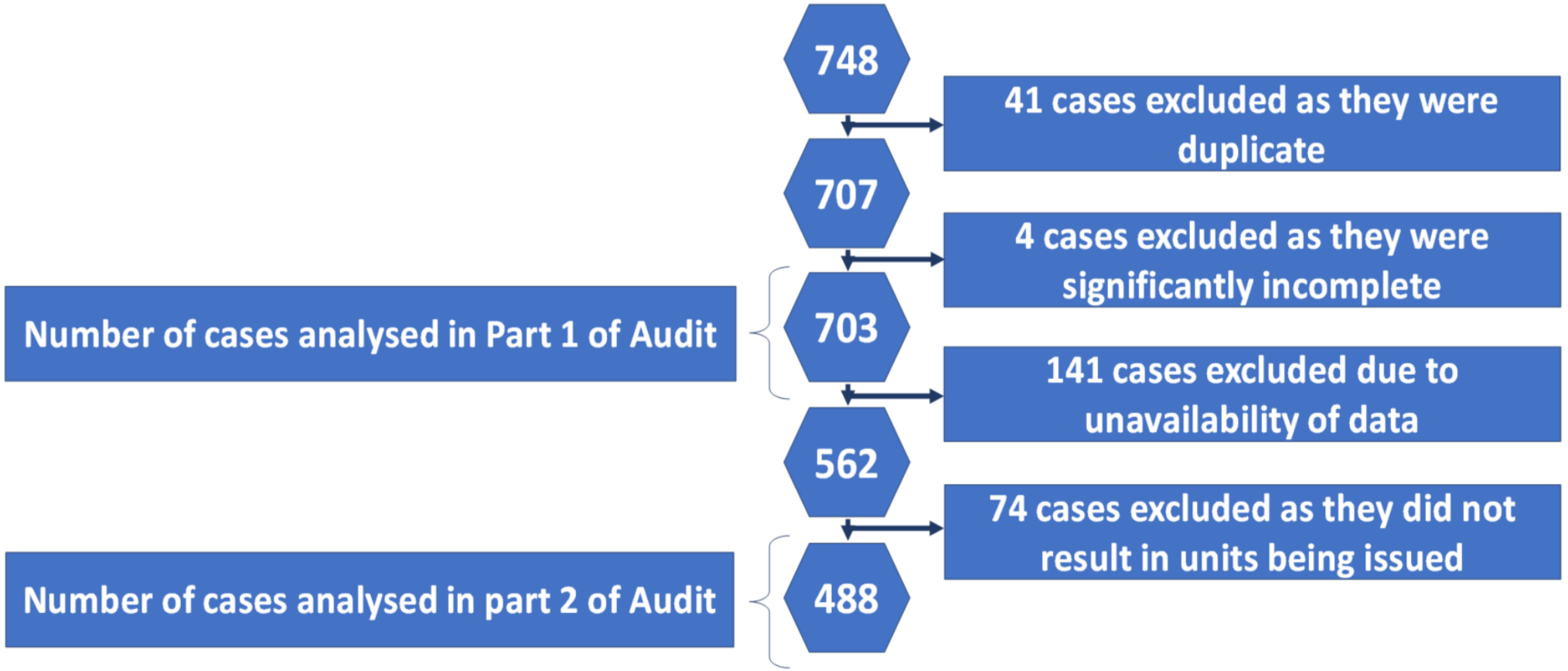
8 RCI Laboratories

100 Referrals per laboratory

Feb – Sept 2017

Part 1 – Referral Characteristics

Part 2 – Fate of RBC Units



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PART 1 – Referral Characteristics

Criterion 1a – Referrals clearly state clinical indications for investigation or Transfusion (n = 703)

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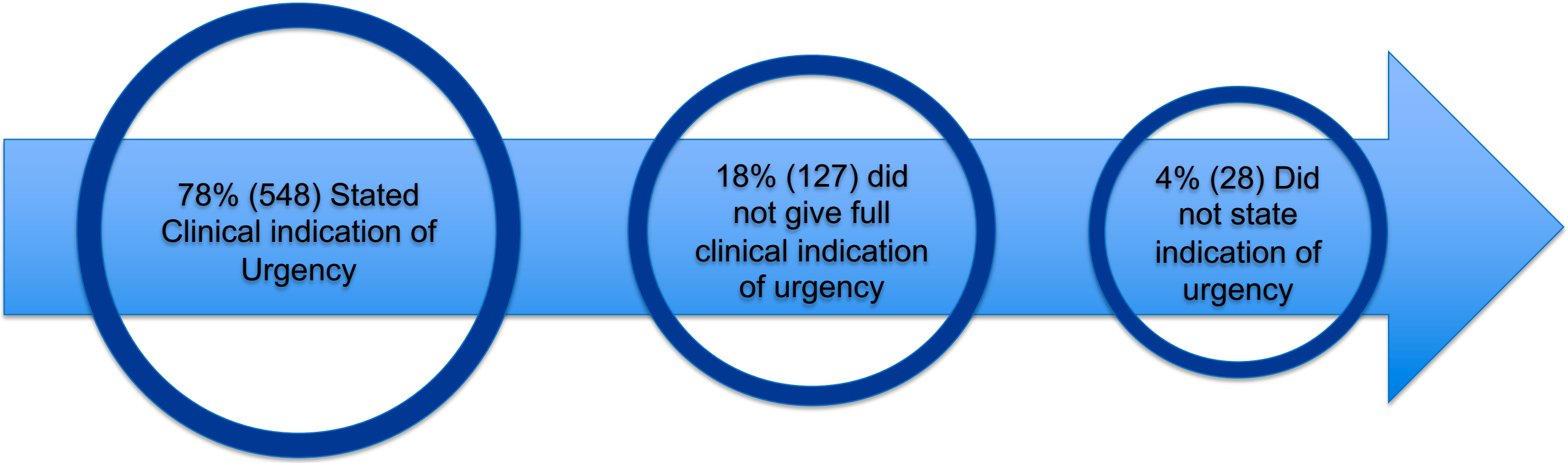
What percentage of out of hours referrals to RCI stated the clinical indication for investigation or transfusion?

- ❑ <10%
- ❑ 10 – 24%
- ❑ 25 – 49%
- ❑ 50 – 74%
- ❑ 75 – 99%
- ❑ 100%

Criterion 1a – Referrals clearly state clinical indications for investigation or Transfusion (n = 703)



Investigation into the information provided to RCI
19% cases did not state diagnosis of patient
17% cases did not state Hb level
8% cases did not state nature of surgery

Criterion 1b – Referrals identify the requesting clinician (n = 703)

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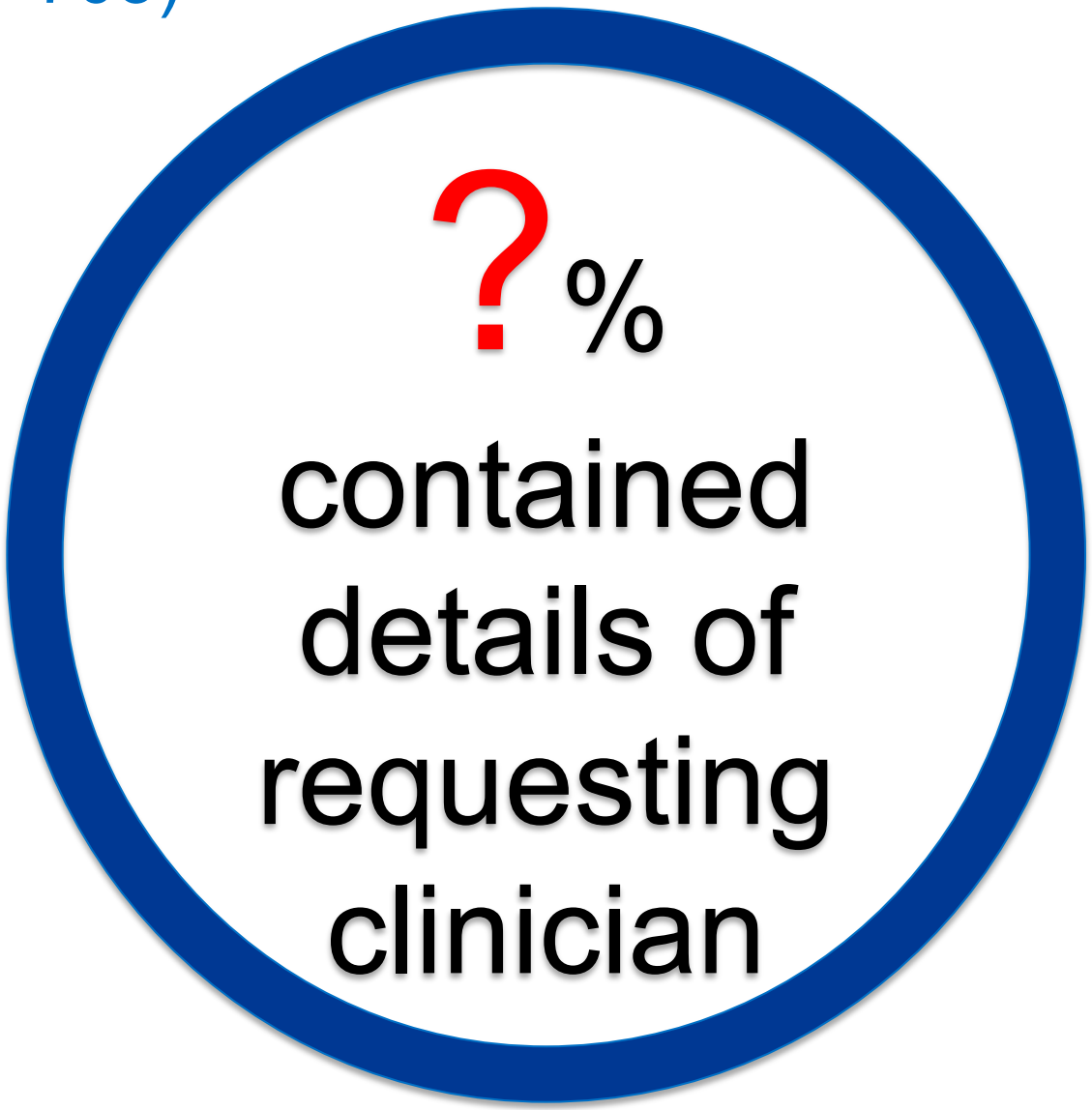

What percentage of out of hours referrals to RCI identified the requesting clinician?

- ❑ <10%
- ❑ 10 – 24%
- ❑ 25 – 49%
- ❑ 50 – 74%
- ❑ 75 – 99%
- ❑ 100%

Criterion 1b – Referrals identify the requesting clinician (n = 703)

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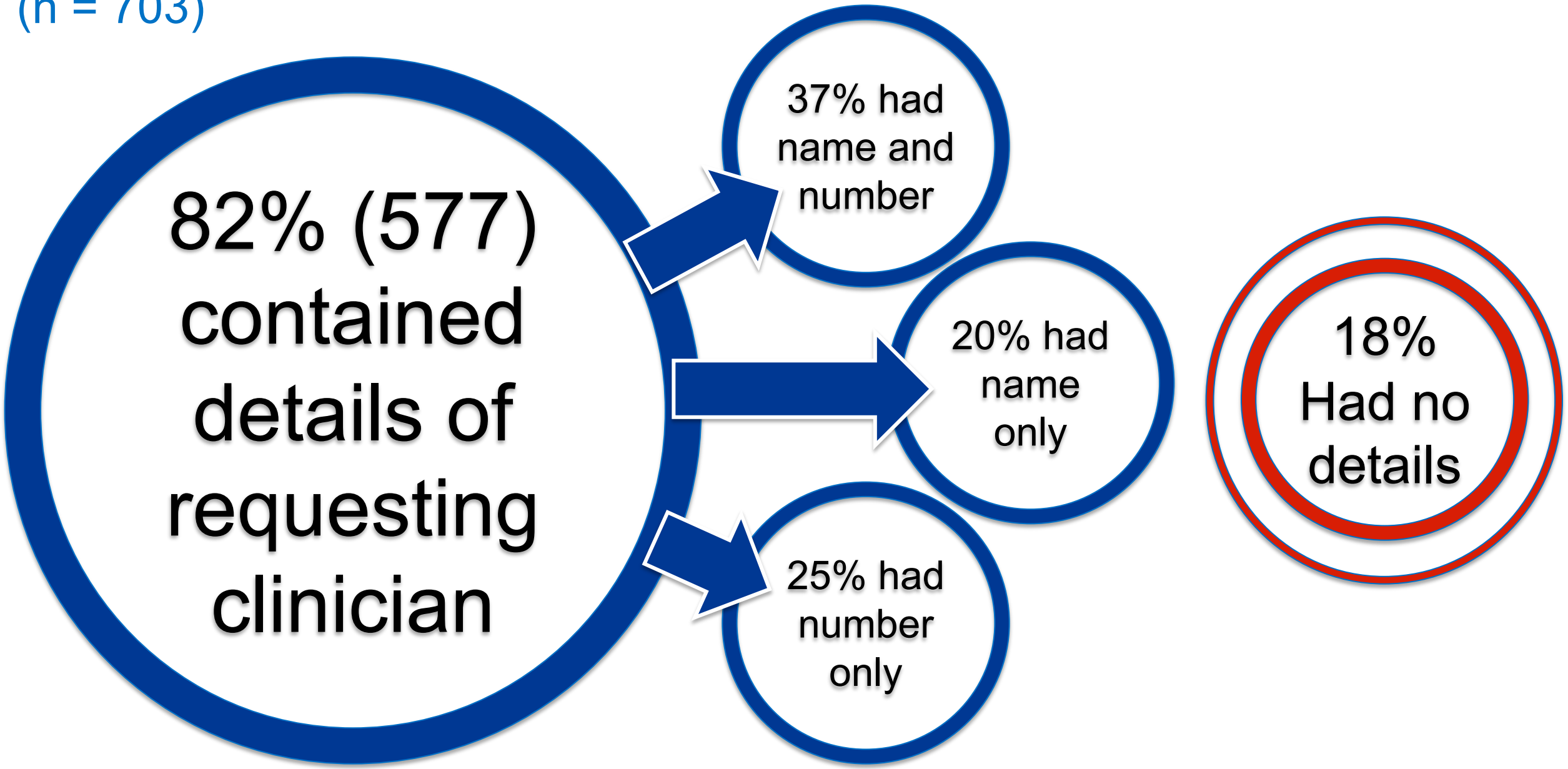

Criterion 1c – Referrals discussed with RCI Consultant are in line with SOP4743 - Alerting Duty Consultant to Urgent Clinically Significant Issues and Handover (n = 703)

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- Advice regarding medical management of patient
- Sample does not meet acceptability, but another sample cannot be obtained
- Discrepancy between historic and current blood group
- Clinically significant change in antibody level during pregnancy
- Transfusion reaction investigation request
- Hb <60g/L and urgent transfusion is required
- Units with special requirement are needed e.g. rare frozen unit; low titre anti-T
- FMH estimation is >4mL and further anti D is required
- OOH work prioritisation

Criterion 1c – Referrals discussed with RCI Consultant are in line with SOP4743 - Alerting Duty Consultant to Urgent Clinically Significant Issues and Handover (n = 703)

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40%

did not contain enough information to deem if referral was appropriate

0.1%

Referred to duty Consultant

37%

Were not Referred to duty Consultant

3.9%

Lacked information to determine if they were referred

60%

contained enough information to deem if referral was made appropriate

10%

Referred to duty Consultant

95%

contained enough information to deem if referral was made appropriate

Criterion 1c – Referrals discussed with the RCI consultant on-call are in line with SOP4743 (n = 703)

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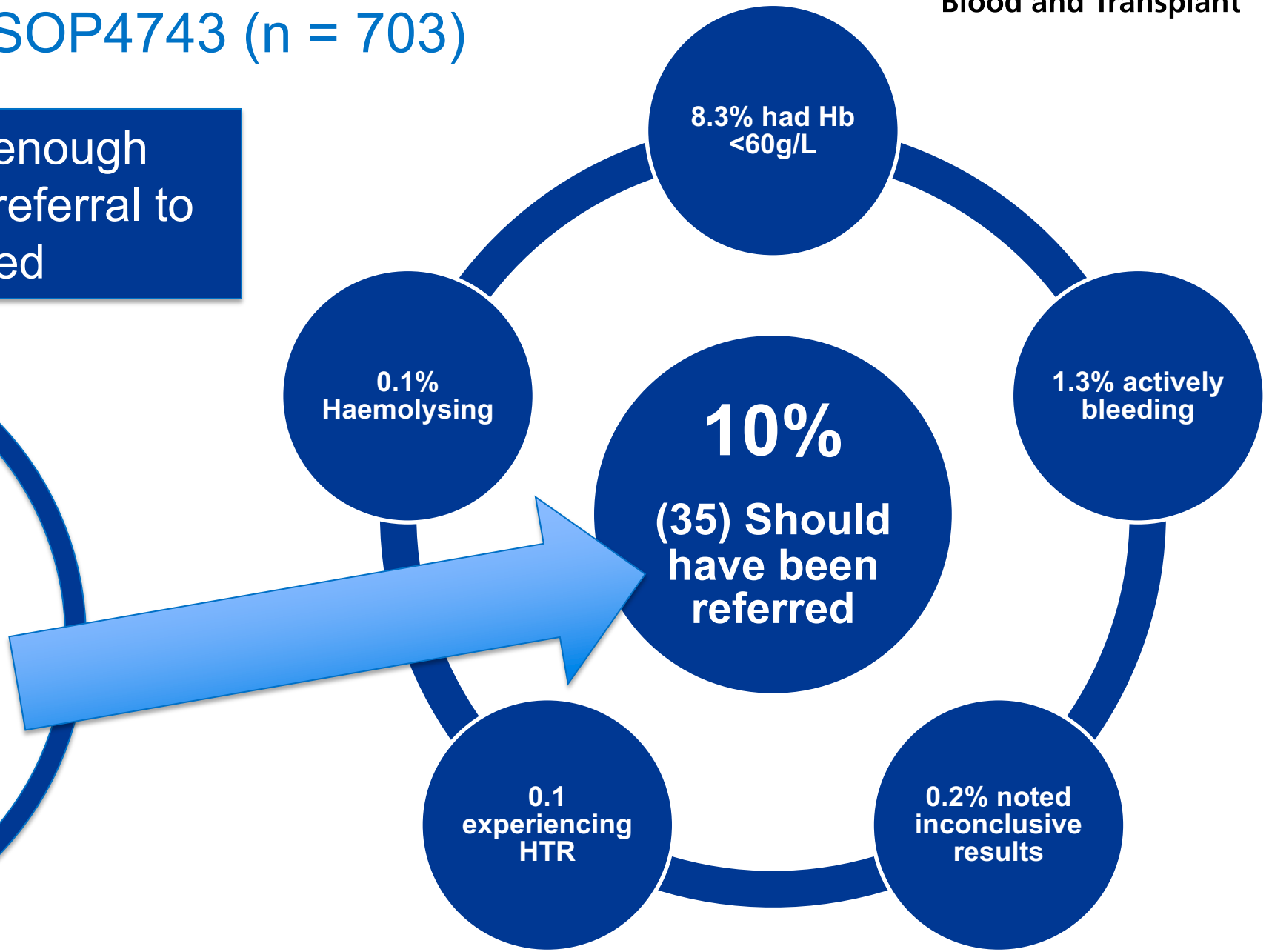
60% (421) contained enough information to assess if referral to consultant required

50% (352) were not referred



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Part 2 – Fate of Red Blood Cell Units

Criterion 2a – Blood units issued as a result of referrals are transfused (n = ?)

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?%

Of cases were issued with RBC units

What percentage of cases referred out of hours were issued with red cell units?

- ❑ <10%
- ❑ 10 – 24%
- ❑ 25 – 49%
- ❑ 50 – 74%
- ❑ 75 – 99%
- ❑ 100%

Criterion 2a – Blood units issued as a result of referrals are transfused

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69% (488) of referrals were issued RBC units

?%

Of cases issued with RBC units were transfused

What percentage of cases issued with red cell units led to transfusion?

- ❑ <10%
- ❑ 10 – 24%
- ❑ 25 – 49%
- ❑ 50 – 74%
- ❑ 75 – 99%
- ❑ 100%

Criterion 2a – Blood units issued as a result of referrals are transfused (n = 488)

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80%

(390) Of cases were issued with RBC units led to transfusion

10%
(39) no record of issue OOH

20%
Of cases issued with RBC units were not transfused

Criterion 2a – Blood units issued as a result of referrals are transfused (n = 390/488)

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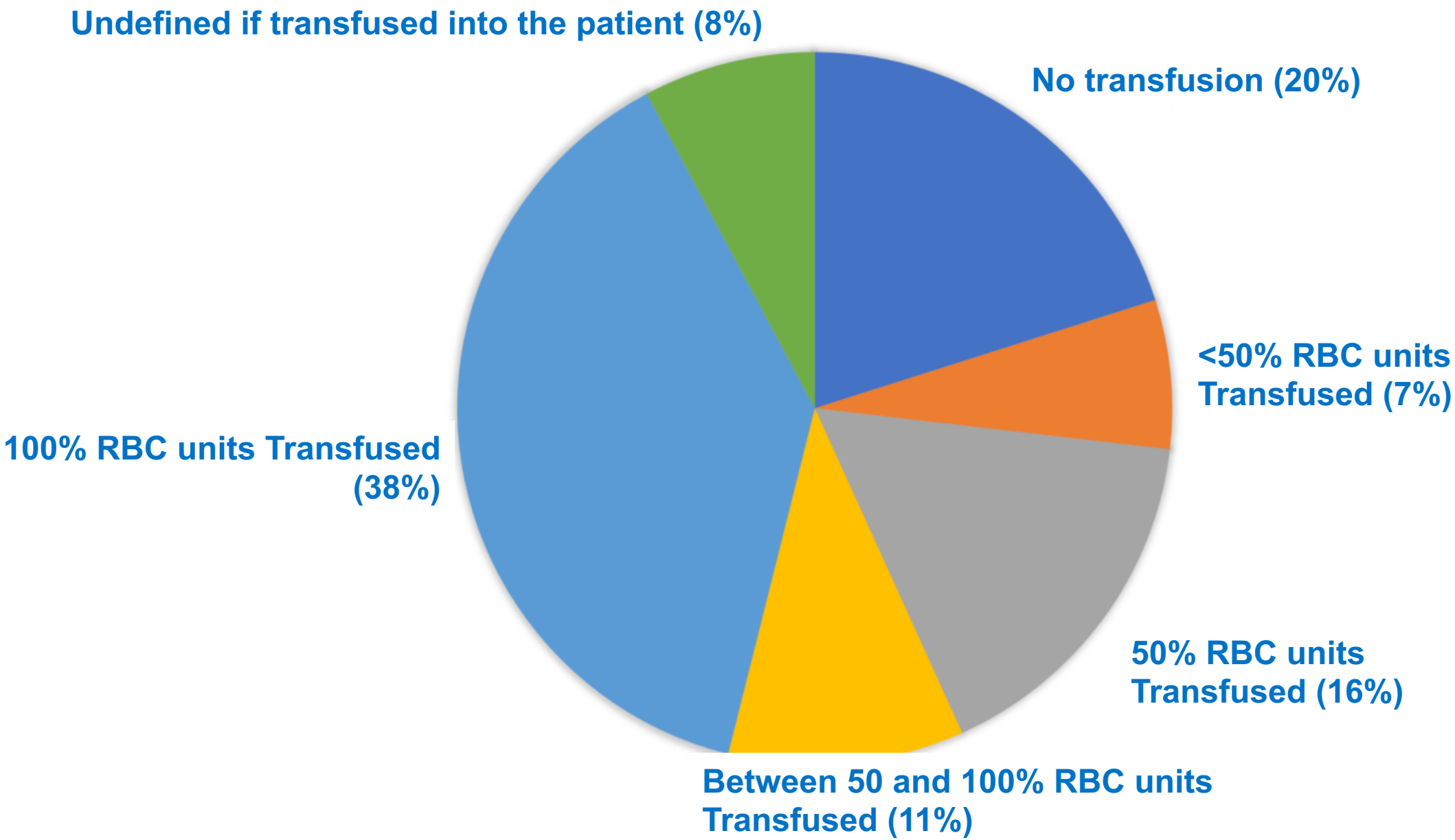
Percentage of total units issued that were transfused



Criterion 2a – Blood units issued as a result of referrals are transfused

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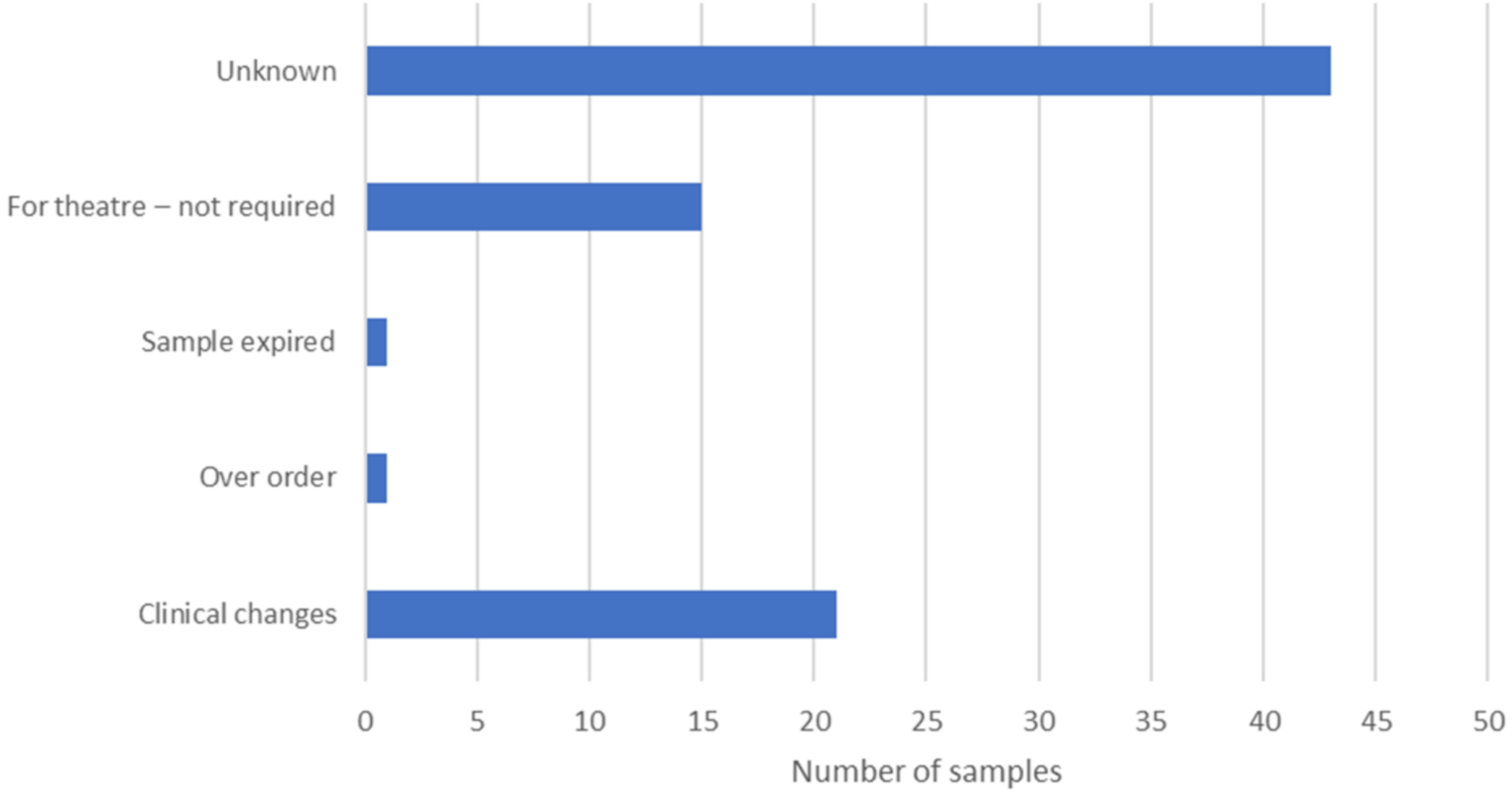
Reasons why RBC units were issued but transfusion did not take place



Criterion 2b – Transfusions were started within 3 hours of the end of the on-call period (n=390/488)

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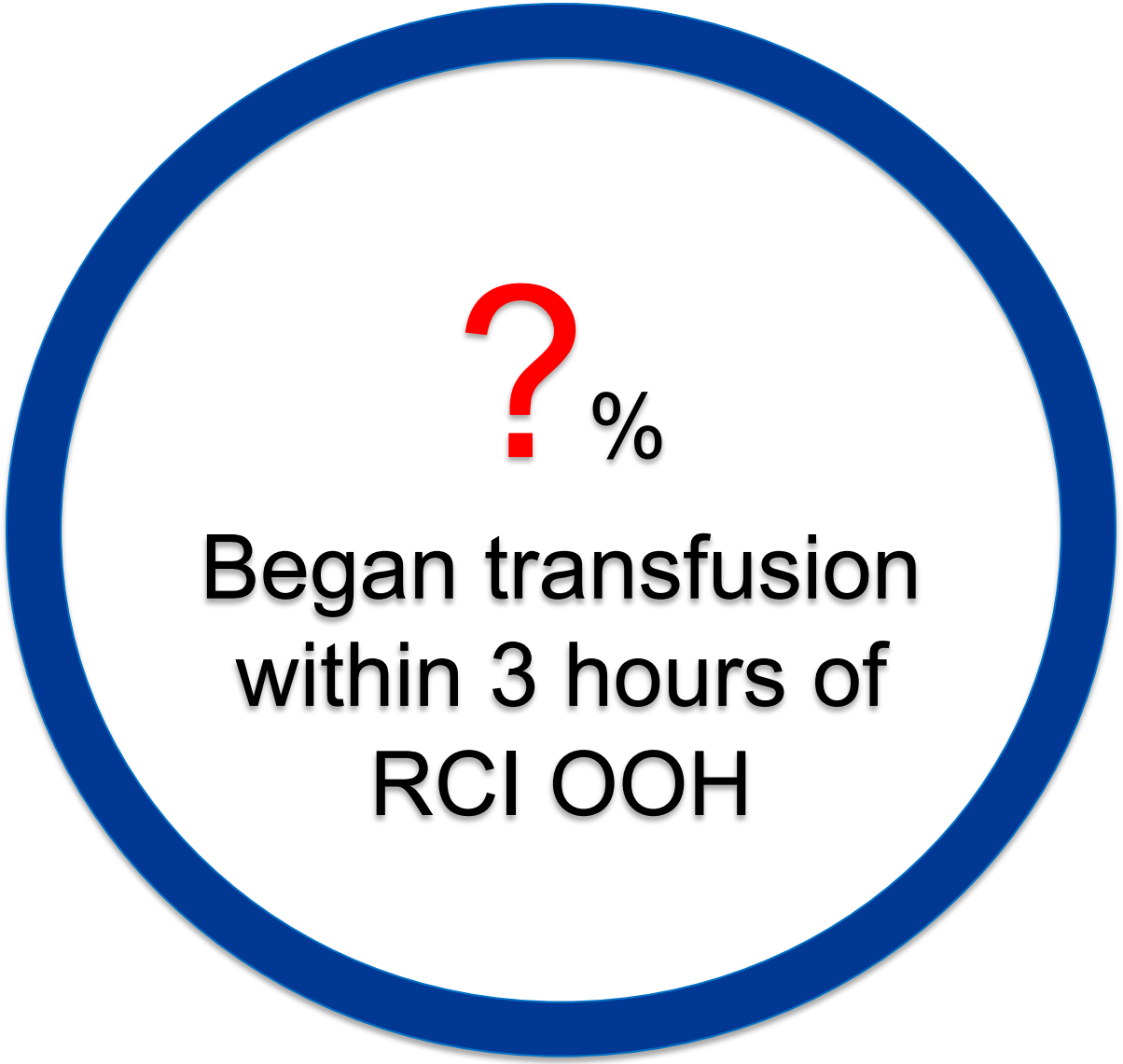

What percentage of cases where transfusion took place began transfusion within 3 hours of RCI out of hours service?

- ❑ <10%
- ❑ 10 – 24%
- ❑ 25 – 49%
- ❑ 50 – 74%
- ❑ 75 – 99%
- ❑ 100%

Criterion 2b – Transfusions were started within 3 hours of the end of the on-call period (n=390/488)

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75% (293) began transfusion within 3 hours

23% Within 3 hours of the end of the on-call period

77% Before the end of the on-call period

25% (97) did not begin within 3 hours

22% began transfusion beyond 3 hours after issue OOH

3% no record of RBCs issued OOH

Criterion 2b – Transfusions were started within 3 hours of the end of the on-call period (n=390/488)

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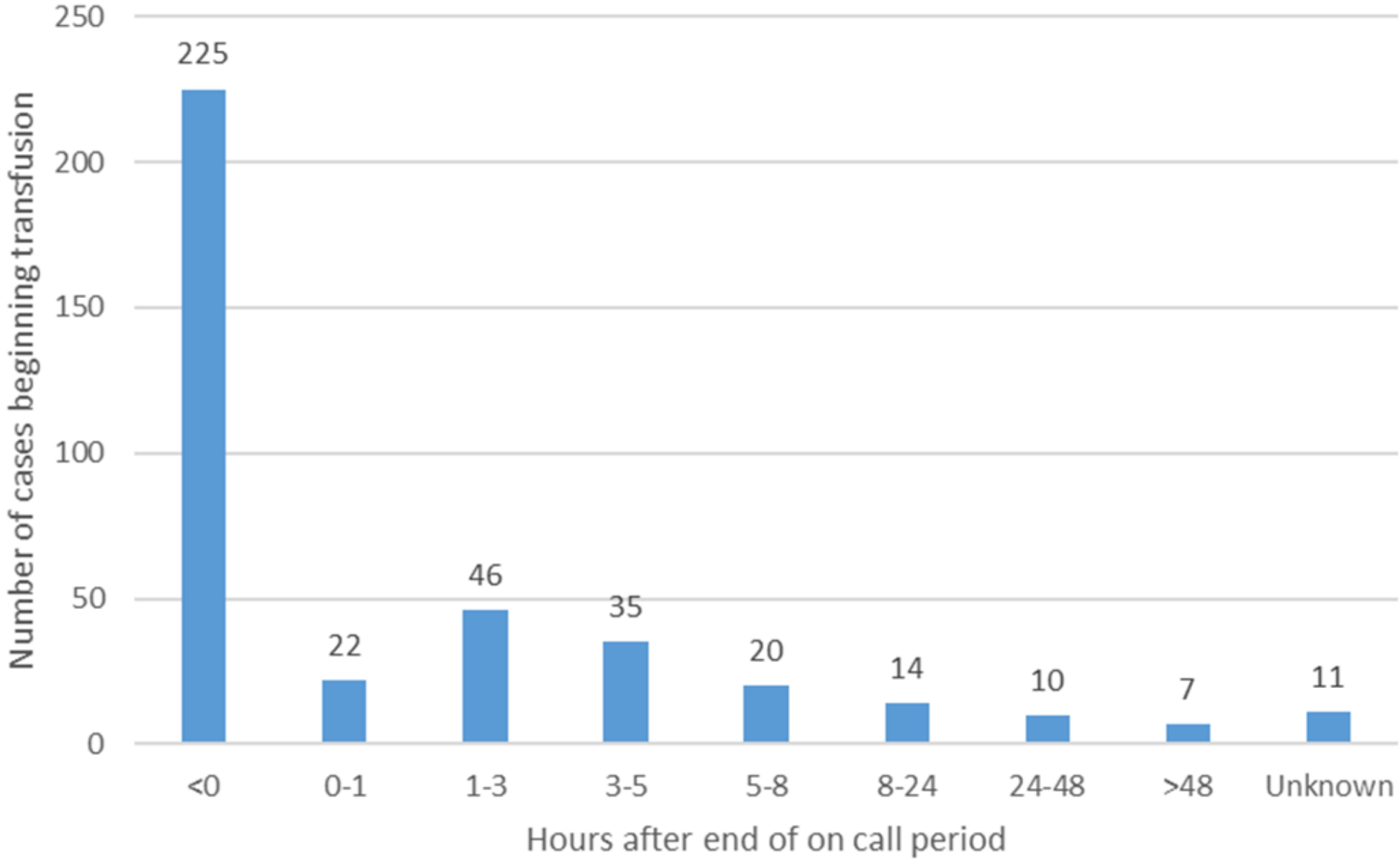

Key Findings

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Part 1

- 78% of on-call referrals included clinical indications for investigation or transfusion.
- 39% of referrals were missing relevant information in relation to reason for referral.
- 82% of referrals contained details of the requesting clinician.
- 95% of referrals to RCI consultant were dealt with in line with SOP4743.

Part 2

- In 80% of relevant cases, RBC units were transfused to the patient following referral on-call.
- In 75% of these cases, transfusion began within three hours of the end of on-call period.

Table 1: The definition of the need for items of information relating to items defined on the RCI request form [taken from MPD637].

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	Request Form
NHS/CHI/HCS number	**Essential (if available)**
Name First and last name spelt correctly * Unless patient/donor identity is confidential	**Essential**
Date of Birth	**Essential**
Hospital Number or temporary unique identification number.	Desirable* must be used if NHS number is not available
Address	Optional
Date	**Essential**
Signature	**Essential**
Requesting institution	**Essential**
Requesting Clinician	**Essential**
Signature of requester	**Essential**
Clinical information/test required	**Essential**
Sample source e.g. blood, spleen	**Essential if not peripheral blood**

Caveats

- The potential in the audit for improvement was identified where 5% (3/66) of cases were observed to be incorrectly discussed with the Duty Consultant relative to criteria defined in SOP4743 [Alerting Duty Consultant to Urgent Clinically Significant Issues]. Further potential for improvement was also noted where 12% (72/610) cases that should have been referred were not handled in line with the requirements of SOP4743. The caveat to these figures is that Information collected as part of this audit does not document the full clinical scenario that unfolded during the on-call period for each of these cases. This creates difficulty in determining if there were extenuating circumstances that could mean the way these cases were dealt with was in line with SOP4743.
- Analysis of data relating to the referrals discussed with the RCI Consultant on-call was impacted by many cases (40%) of missing essential information.

Diagnostic and Therapeutic Services 2018

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Characteristics of Referrals to RCI Laboratories Outside of Core Hours (AUD2611)

Hazell M[1], Clinkard B[2], Tilsley D[2], Hines A[1], Maley M[1], Coyne C[1], Palmer P[1], Ali A[1], Lam D[1], Watson T[1], Desai-Leach[1] A, Williams M[1].

What did we do?

The Red Cell Immunohaematology (RCI) Department of NHSBT provides an out of hours on call service, to provide information on urgent patient referrals where failure to investigate could result in an unsafe outcome for the patient.

Some instances of out of hours requests relate to non-urgent samples. These have resource and quality implications for NHSBT, and affect prioritisation of the service for patients with the greatest clinical need. This audit was undertaken to aid improvements in this area.

How did we do it?

Sample size: All out of hours referrals received between 3rd February 2017 – 7th September 2017.

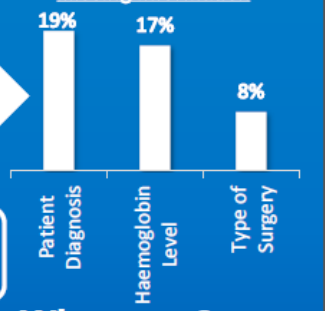
Method: Information was collected on all non-core referrals received, and the fate of red blood cell (RBC) units cross-matched and issued to patients as a result of these referrals.

What did we find?

78% of on call referrals *contained **clinical indications** for investigation/ transfusion*

39% of referrals were missing one or more relevant pieces of information

Missing Information



82% of referrals contained details of the **referring clinician**

95% of referrals to **RCI consultant** were in line with **SOP4743**

80% of referrals with RBC units issued **led to transfusion**

75% began within **3** hours from issue

What next?

- Feedback to **hospital transfusion laboratory senior staff** to ensure on-call referrals contain **all required essential information.**
- Work with hospital laboratories to **optimise sample referrals** so they **meet essential criteria** for on call activity.
- Cases **not in line** with **SOP4743** to be **reviewed** by RCI laboratory managers, to identify any staff training needs.
- **Re-audit** to explore reasons why RBC **units not transfused** in more detail.

[1]NHS Blood and Transplant, Red Cell Immunohaematology Department (Sheffield, Newcastle, Leeds, Liverpool, Birmingham, Bristol, Colindale, Tooting) UK.
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Thanks for Listening