Incorrect Blood Component Transfused (IBCT)

FIGURES FROM THE ANNUAL SHOT REPORTS 2016-2024

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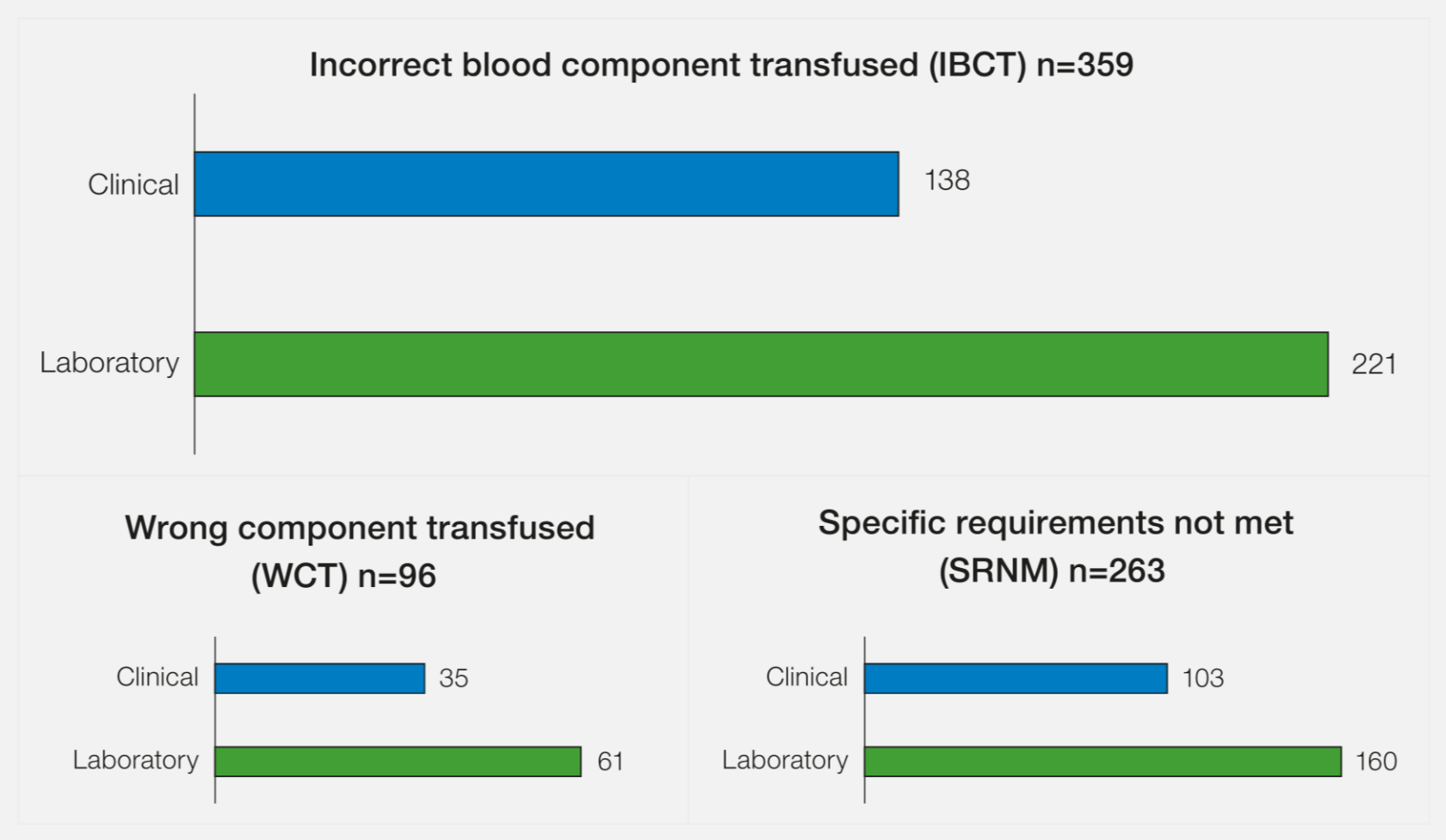
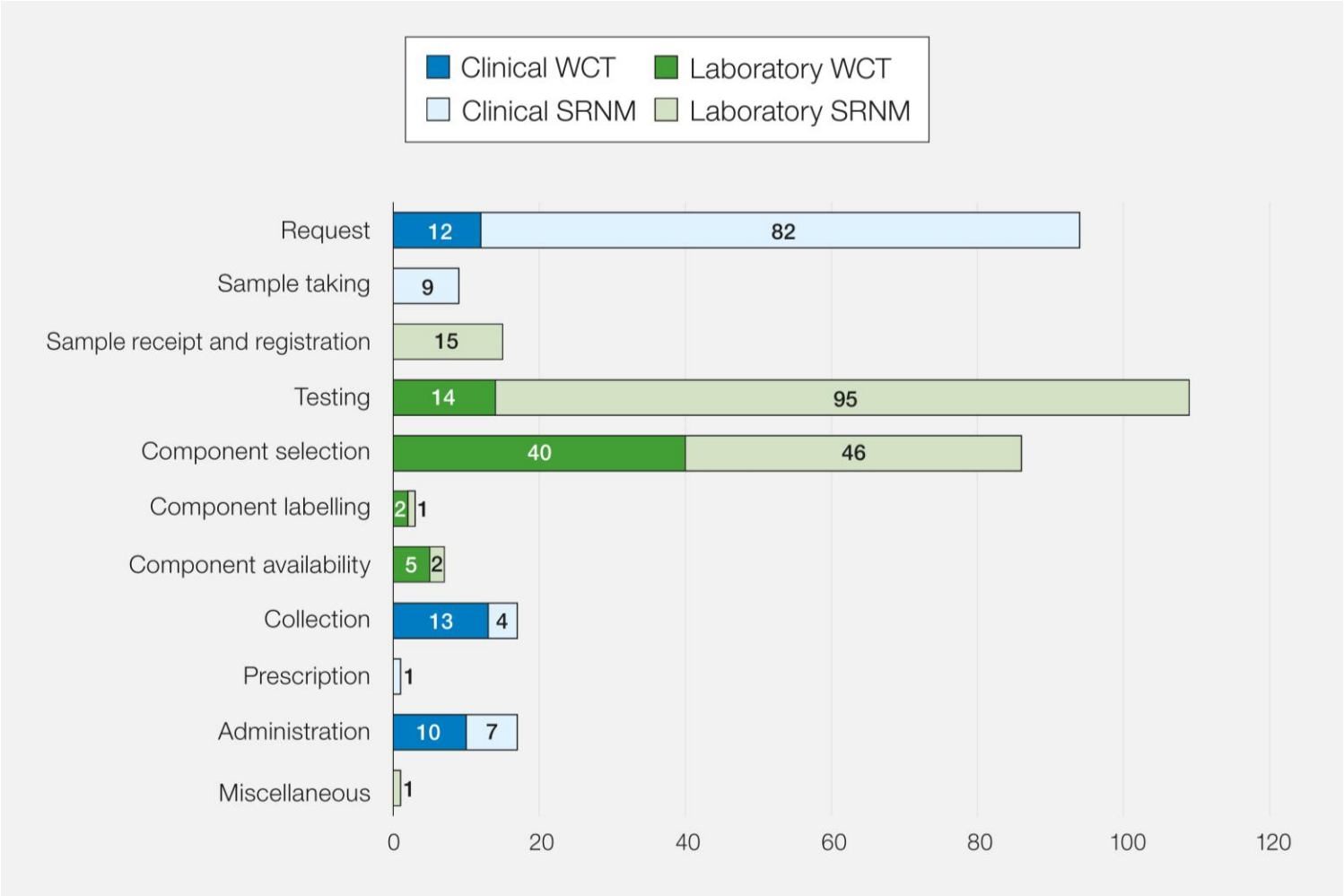
Overview of reports where an incorrect blood component was transfused in 2024 (n=359)

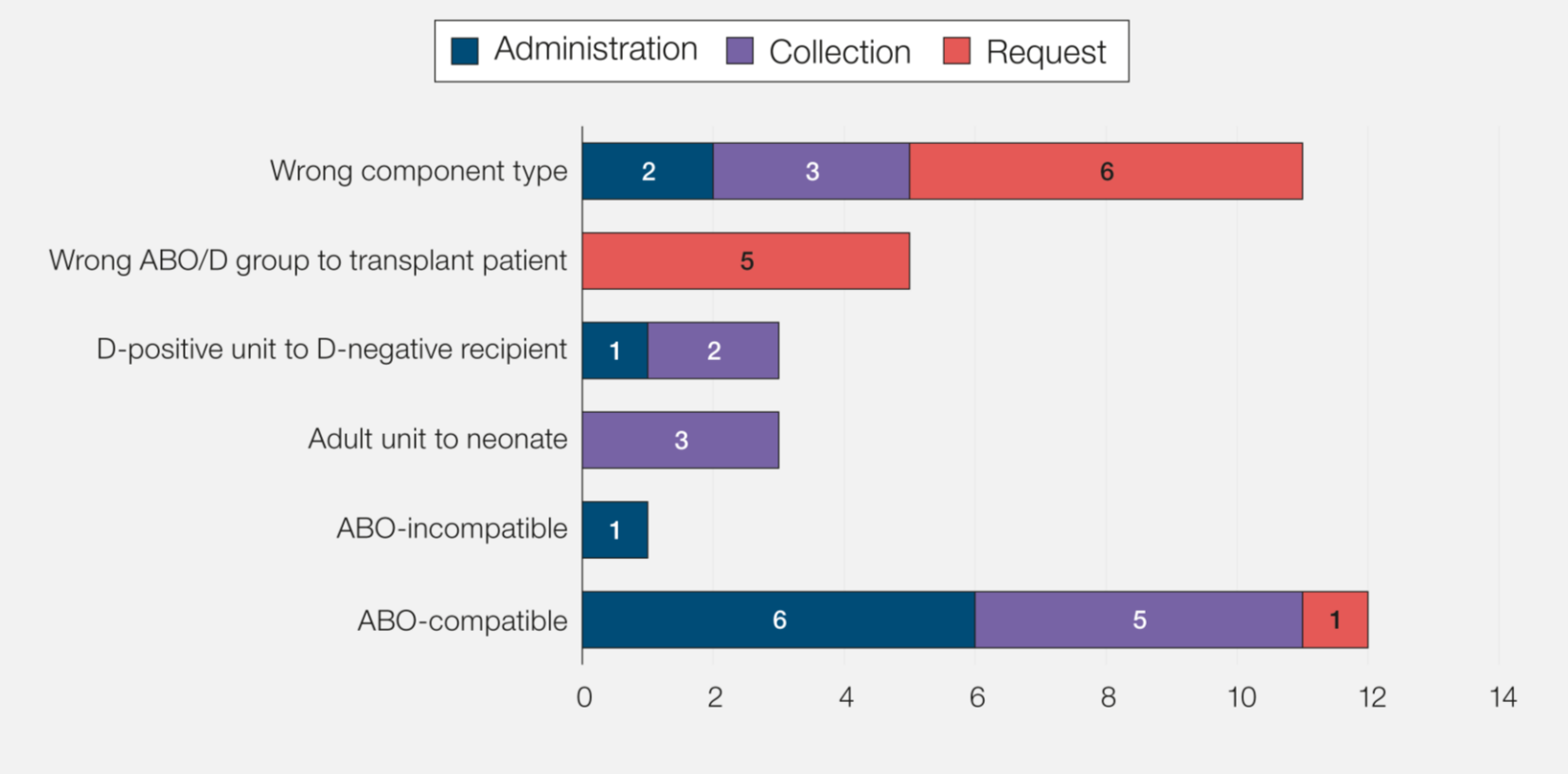


Total IBCT errors in 2024 categorised by the step in the transfusion process where the primary error occurred (n=359)

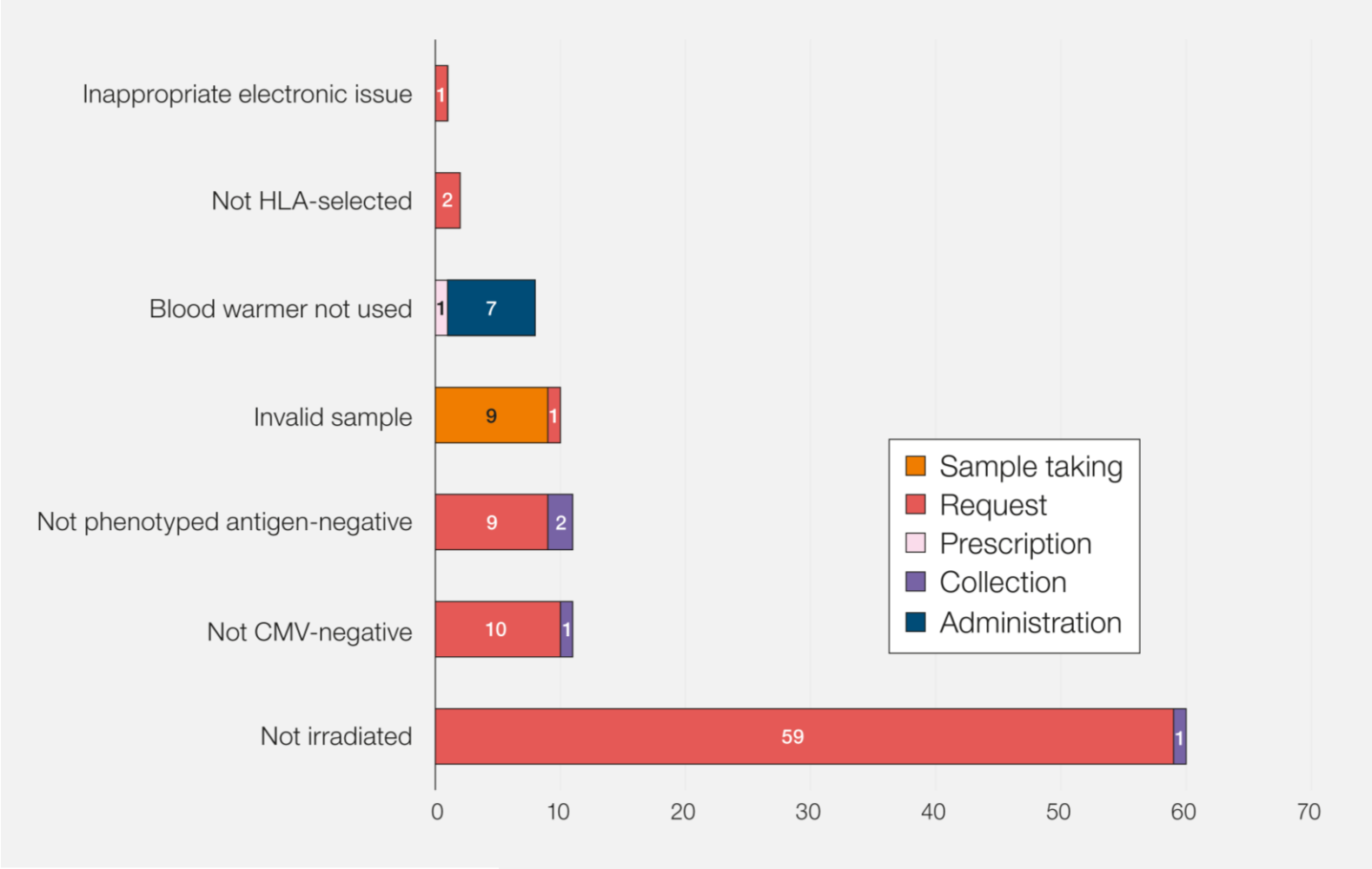


WCT=wrong component transfused; SRNM=specific requirements not met

Clinical IBCT-WCT errors and transfusion step where the error occurred in 2024 (n=35)



Clinical IBCT-SRNM errors and transfusion step where the error occurred in 2024 (n=103)



HLA-human laecocyte antigen; CMV=cytomegalovirus

Causal and contributory factors for IBCT clinical errors in 2024

Pre-administration checklist failure

A pre-administration checklist was used in 95/138 (68.8%) events yet did not detect the error. Common themes for checklist failure included no instruction to check prescription, or prescription not including specific requirement

Pre-administration checklist not used

A pre-administration checklist was not used in 28/138 (20.3%) cases, with only 9/28 (32.1%) stating that the error would have been detected had one been used using their current checklist

Pre-administration Checklist format

Errors occurred using both paper, 58/95 (61.1%), and electronic, 37/95 (38.9%), pre-administration checklists

Gaps in skills and knowledge

Gaps in clinical staff skills and knowledge continue to contribute to transfusion errors

Checking failures

Most errors occurred when there were two independent pre-administration checkers, 60/138 (43.5%)

Information technology

IT was involved in 80/138 (58.0%) of the errors mainly due to not informing the laboratory of transfusion requirements due to their clinical picture, which prevented the laboratory updating their LIMS with appropriate flags and rules

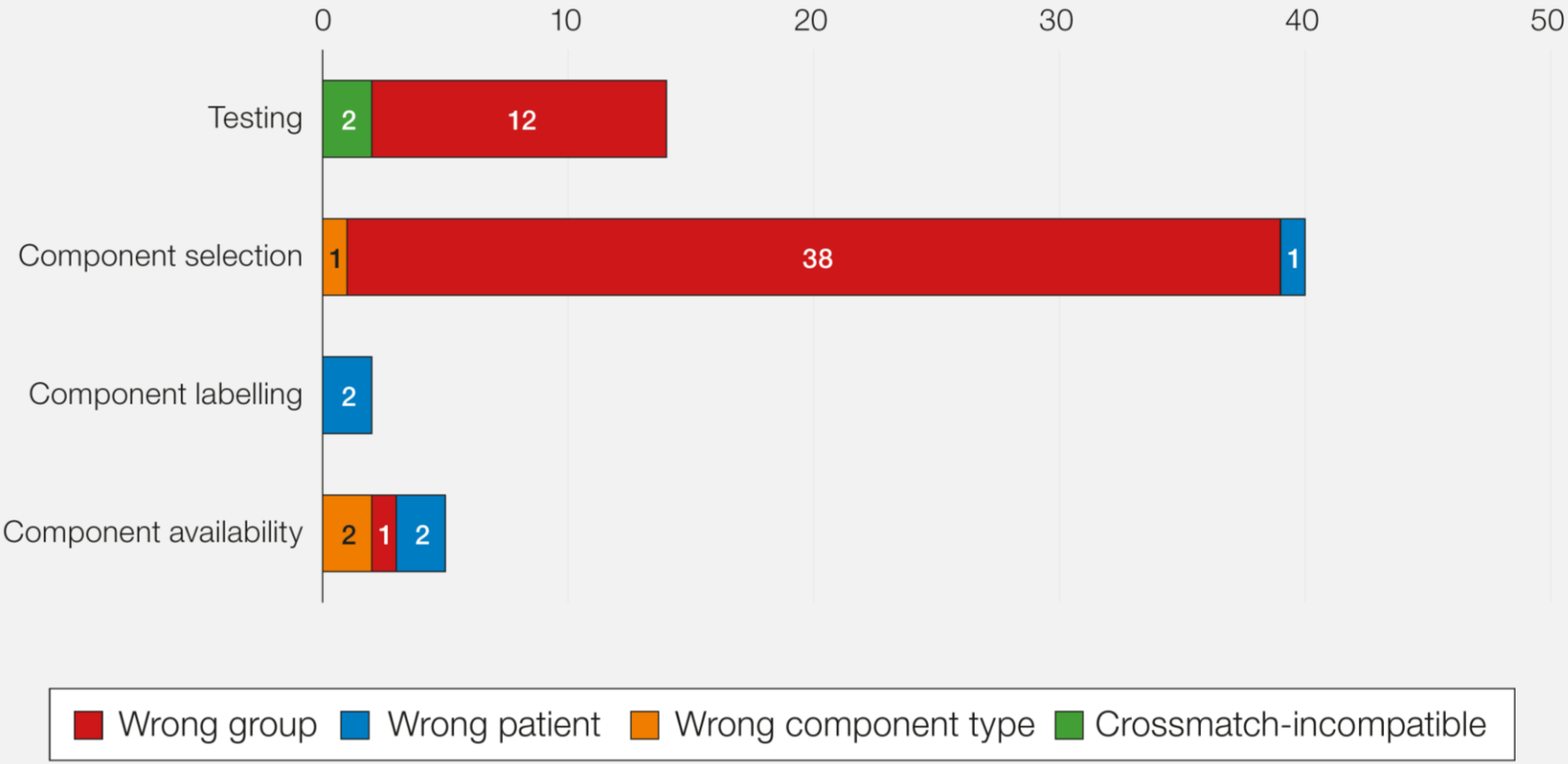
Communication gaps

Nearly half of errors stated that communication gaps worsened the situation

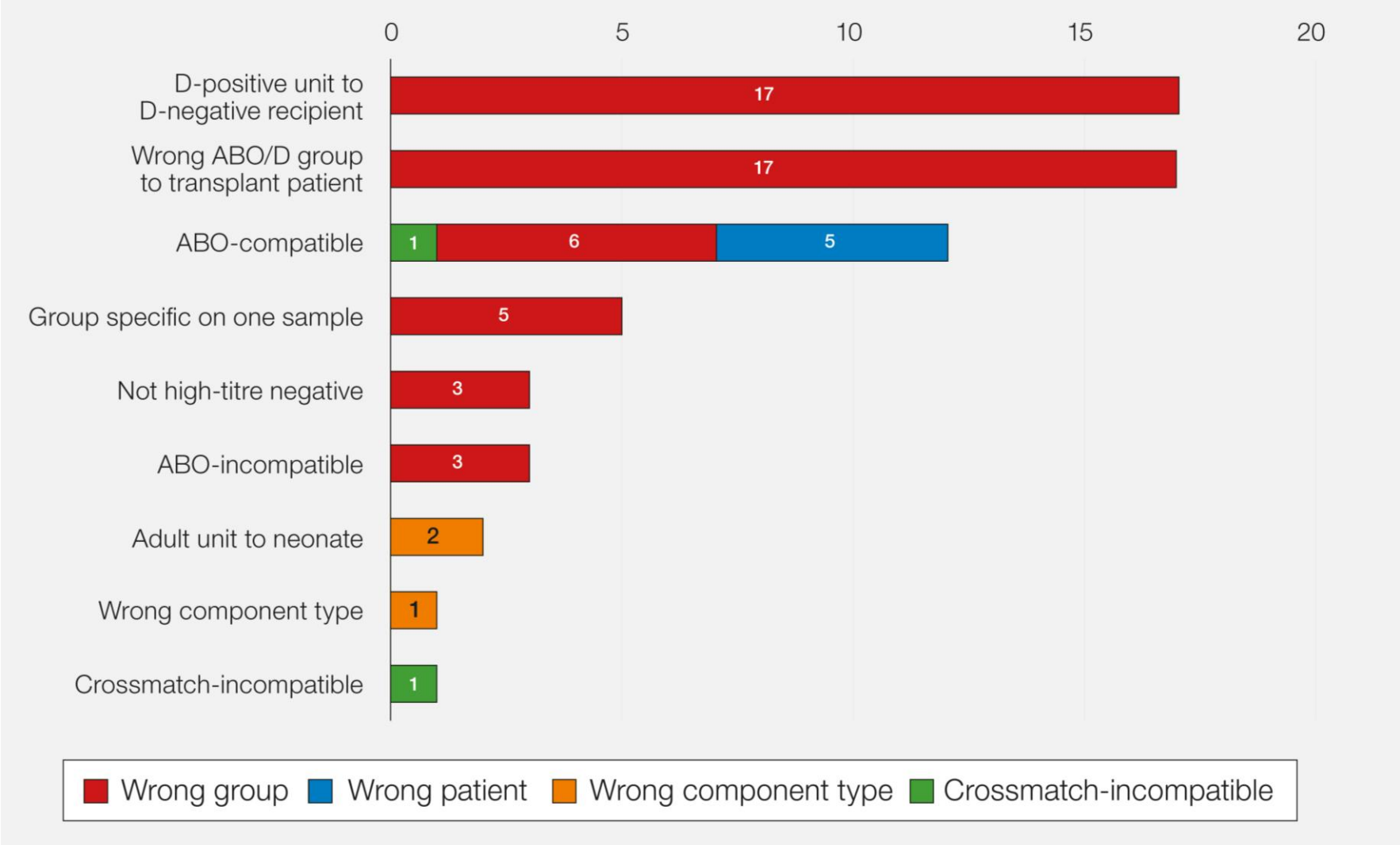
Team function

Failures in team function also contributed to clinical errors

Laboratory IBCT-WCT errors by transfusion step in 2024 (n=61)



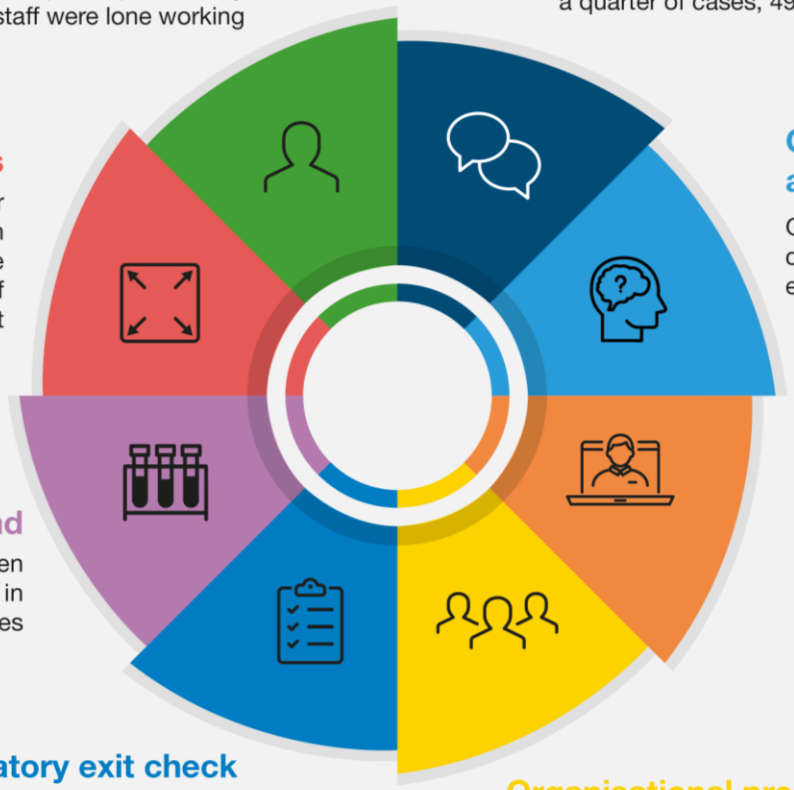
Laboratory IBCT-WCT error by category in 2024 (n=61)



Laboratory IBCT-SRNM errors by transfusion step in 2024 (n=160)

HLA-human laecocyte antigen; CMV=cytomegalovirus

Causal and contributory factors to IBCT laboratory errors in 2024



Lone working

Errors occurred outside of normal working hours in 95/221 (43.0%) and in 75/221 (33.9%) laboratory staff were lone working

Communication gaps

Communication gaps worsened the situation in nearly a quarter of cases, 49/221 (22.2%)

Capacity plans

Capacity plans were in place for 176/221 (79.6%) cases, of which 162/176 (92.0%) said that the capacity was met at the time of the event

Gaps in skills and knowledge

Gaps in knowledge was cited as a contributory factor in 57/221 (25.8%) errors

Information technology

Many errors involved IT, 150/221 (67.9%), of which 67/150 (44.7%) were related to LIMS warning flags. Of these 29/67 (43.3%) were due to IT flags in place but being overridden. In 28/150 (18.7%) there was a lack of functionality/algo-rithms in the IT system to support safe practice

Workload

There was a mismatch between workload and staffing provision in 38/221 (17.2%) cases

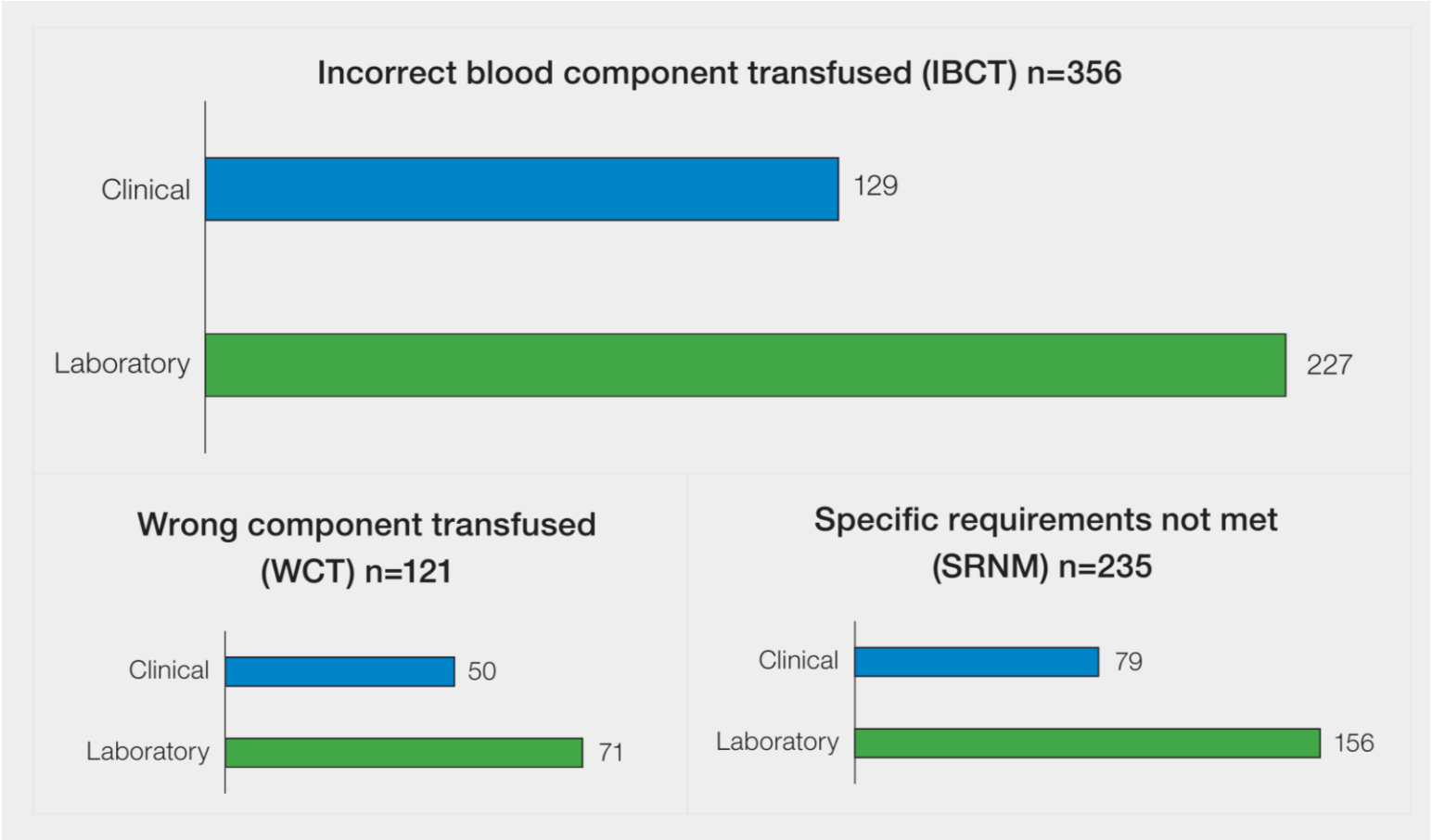
Laboratory exit check

A laboratory exit check was in place for 147/221 (66.5%) cases, yet the error was not detected prior to release of blood components

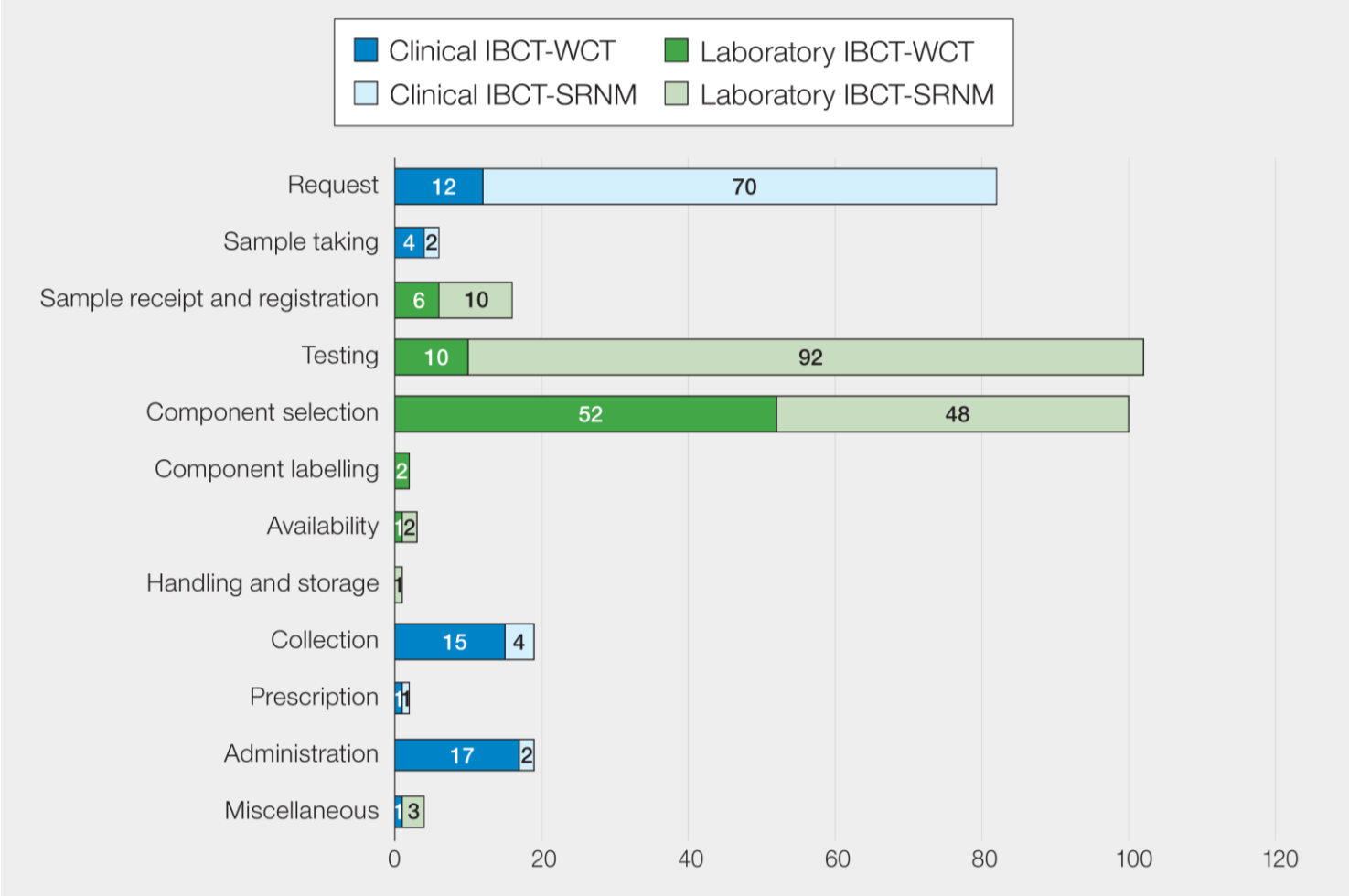
Organisational pressures

Organisational pressures, 27/221 (12.2%), lack of team function, 23/221 (10.4%), and the working environment, 13/221 (5.9%) all contributed to errors

Overview of reports where an incorrect blood component was transfused in 2023 (n=356)

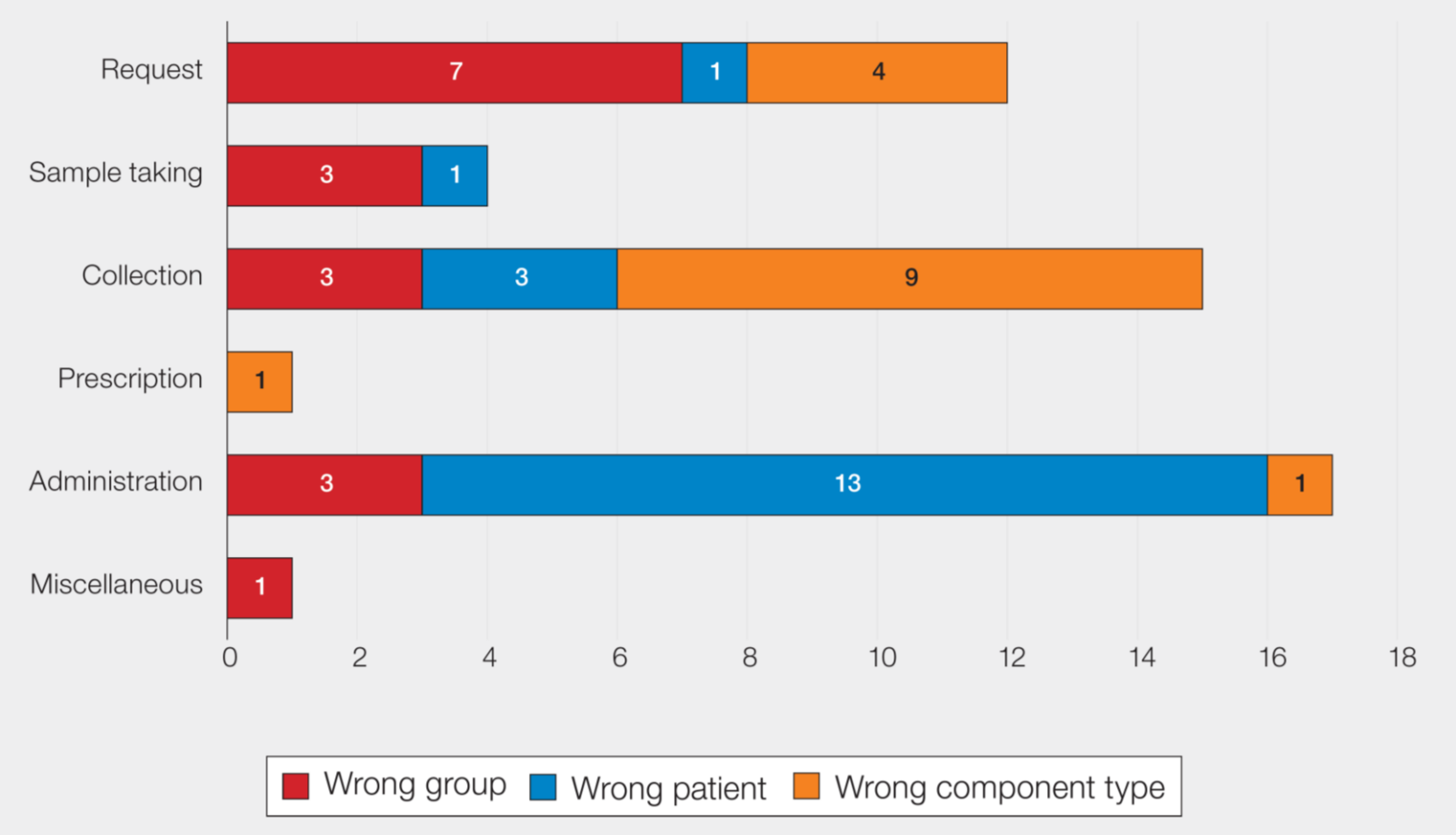


Total IBCT errors categorised by the step in the transfusion process where the error occurred in 2023 (n=356)

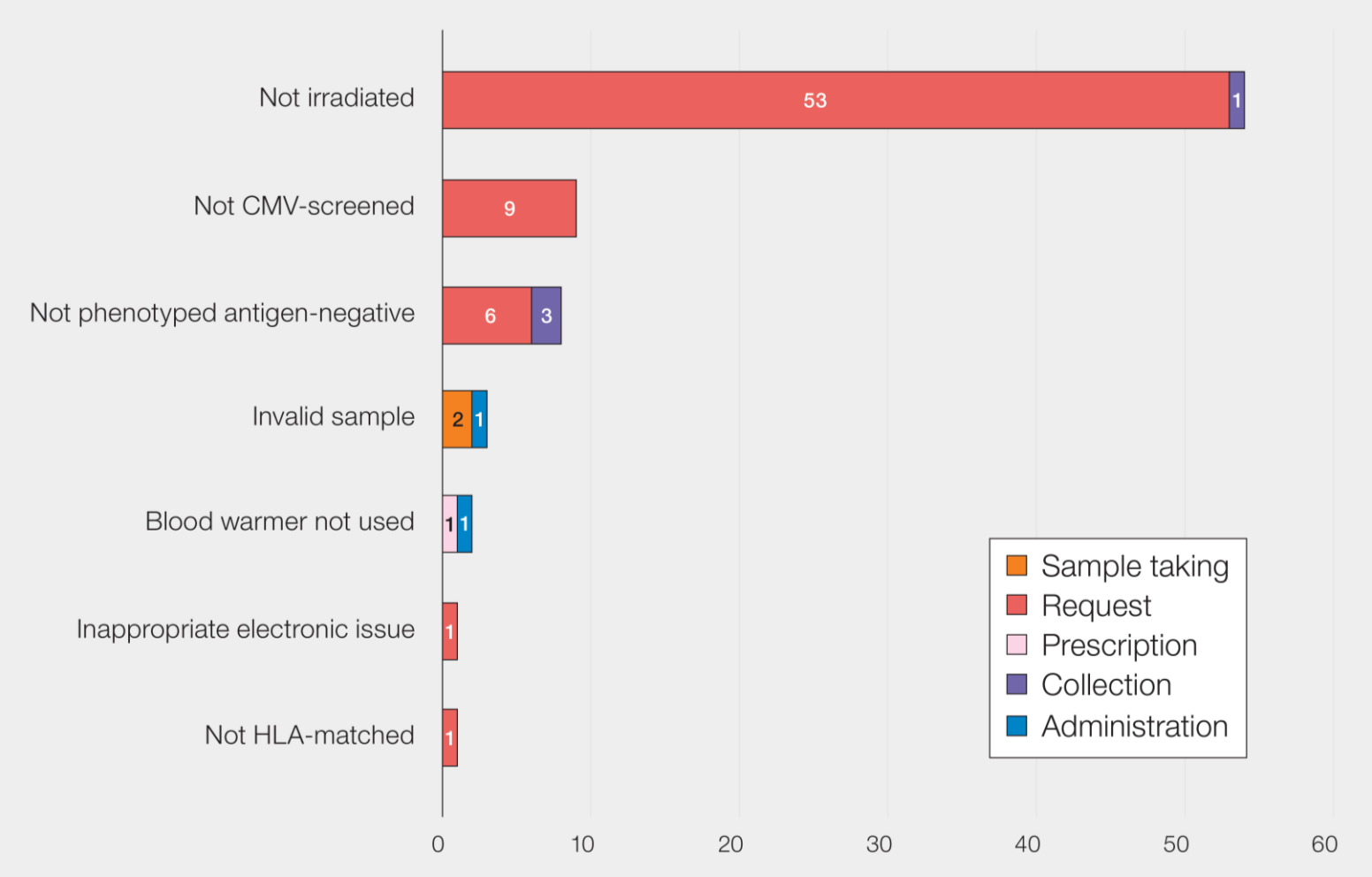


IBCT-SRNM=incorrect blood component transfused-specific requirements not met; IBCT-WCT=IBCT-wrong component transfused

Categorisation of clinical IBCT-WCT errors by step where the primary error occurred in 2023 (n=50)

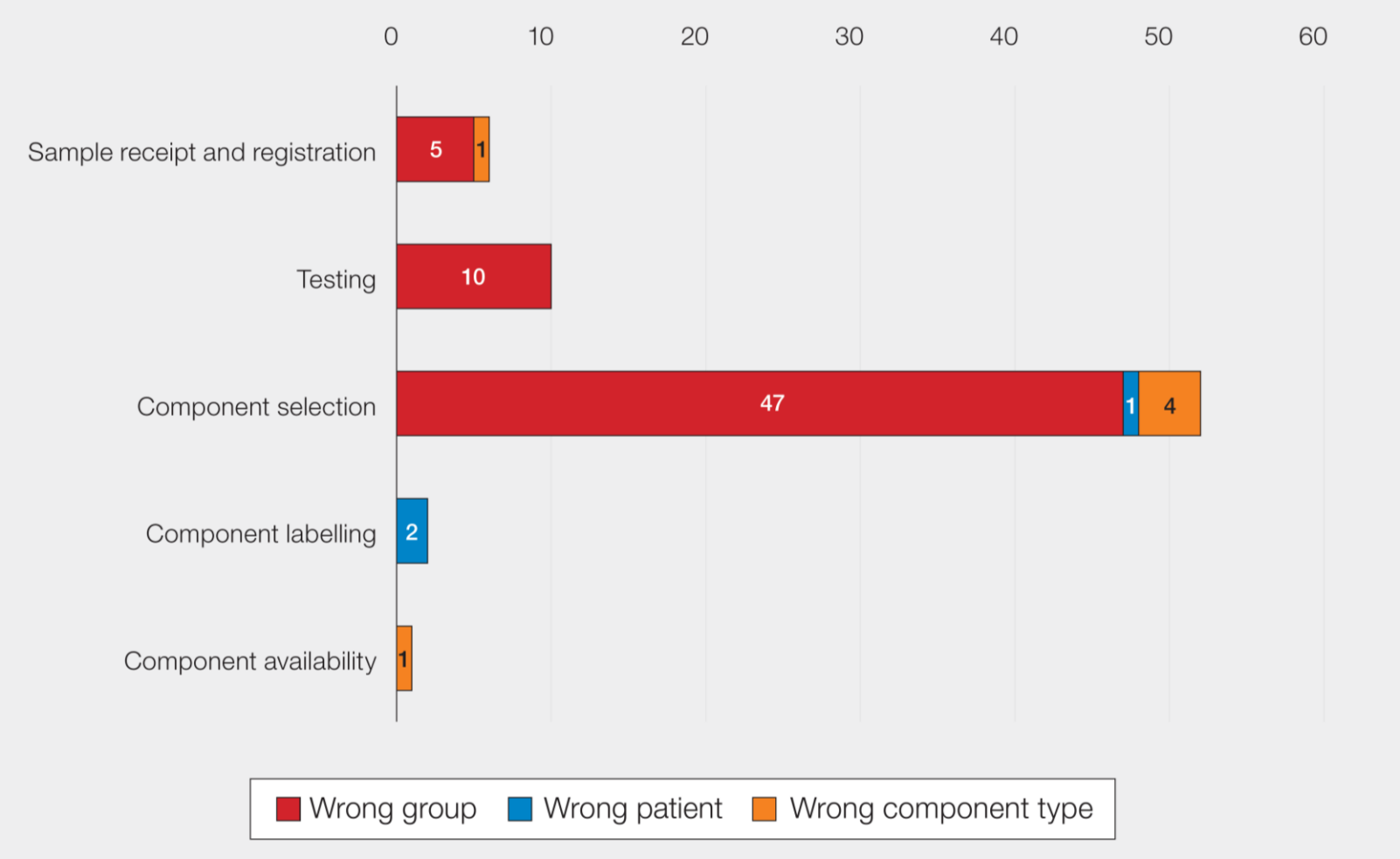


Clinical IBCT-SRNM errors and transfusion step where the error occurred in 2023 (n=79)

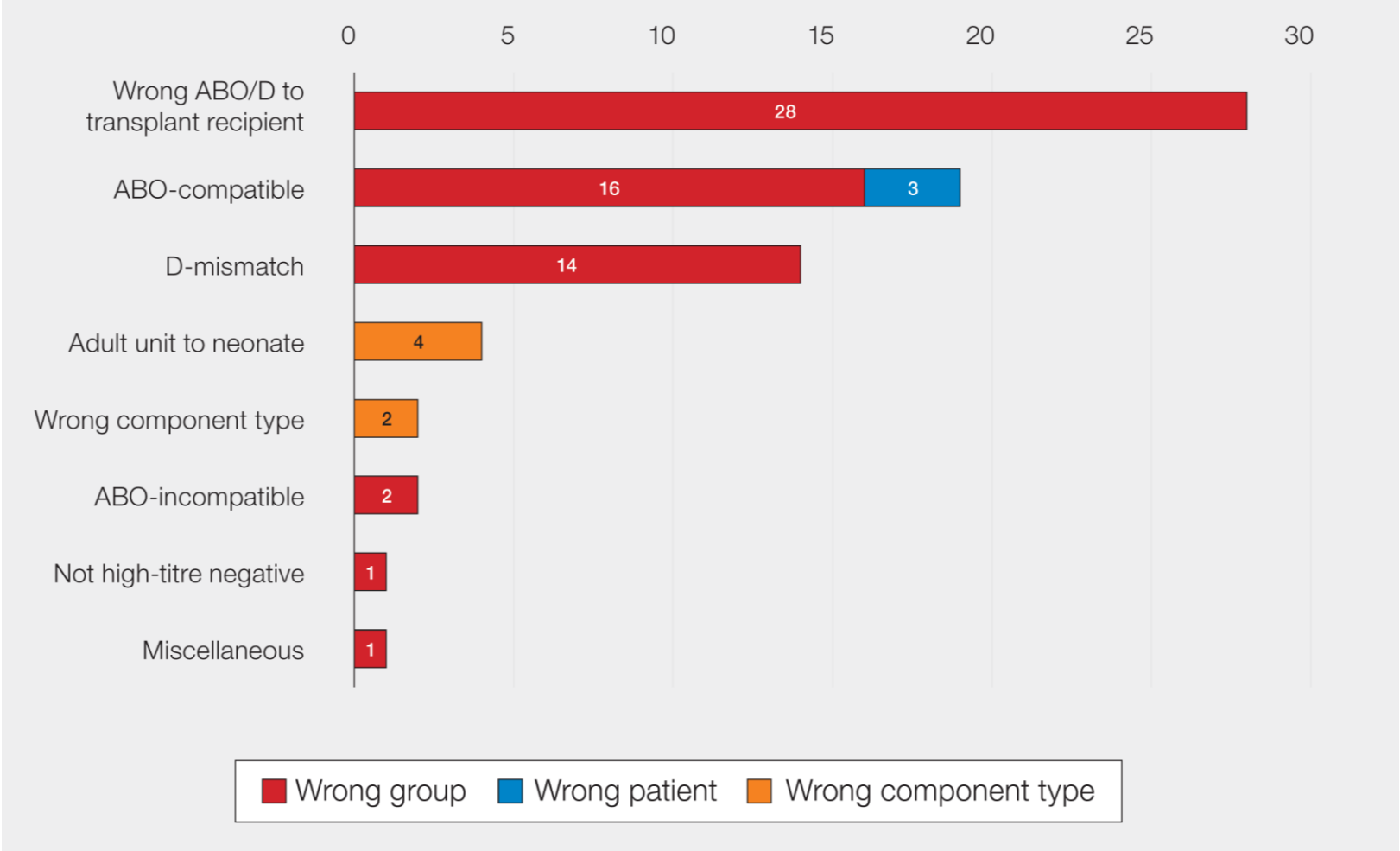


CMV=cytomegalovirus; HLA=human leucocyte antigen

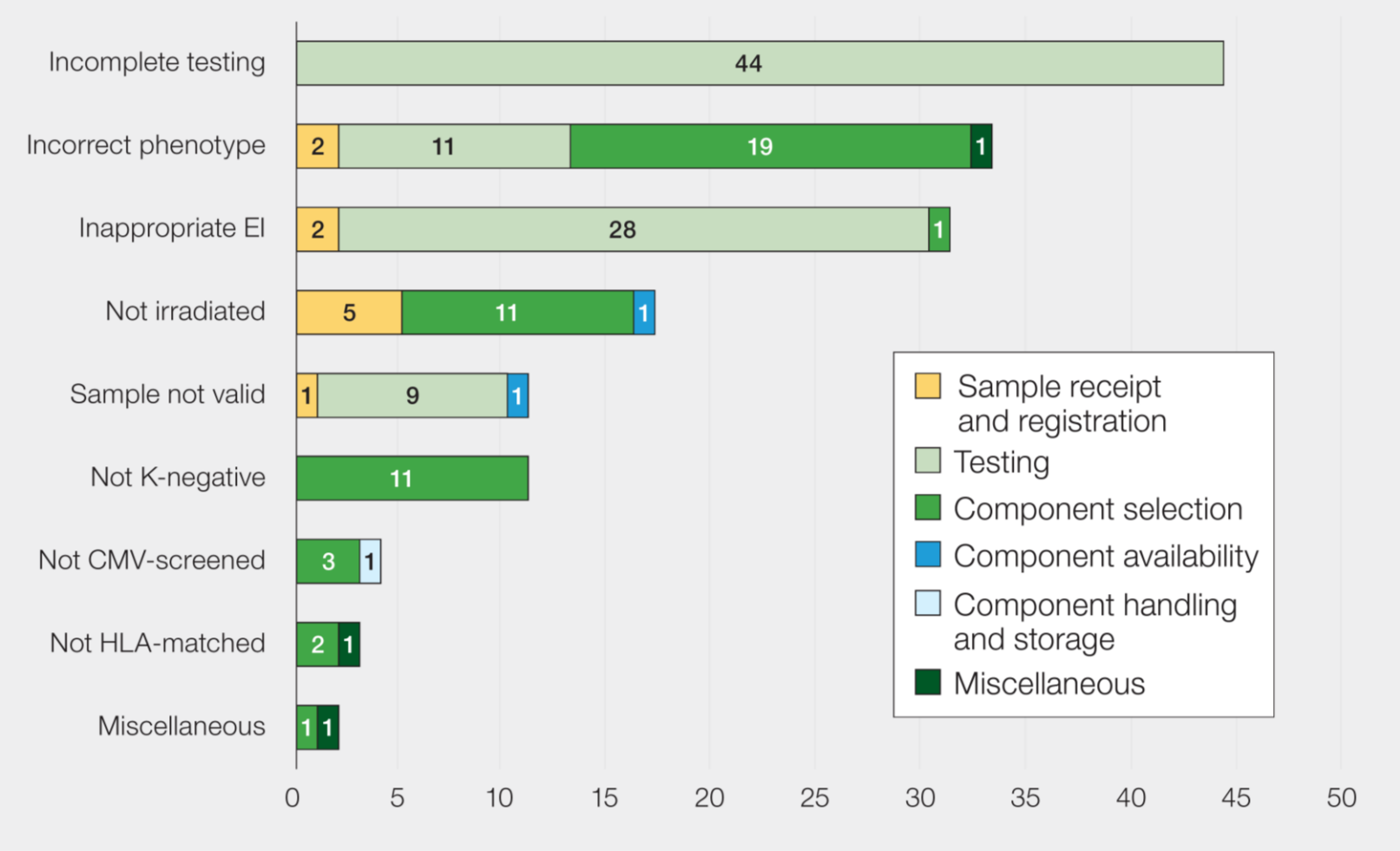
Laboratory IBCT-WCT errors by transfusion step in 2023 (n=71)



Laboratory IBCT-WCT error by category in 2023 (n=71)



Laboratory IBCT-SRNM errors by transfusion step in 2023 (n=156)



EI=electronic issue; HLA=human leucocyte antigen; CMV=cytomegalovirus

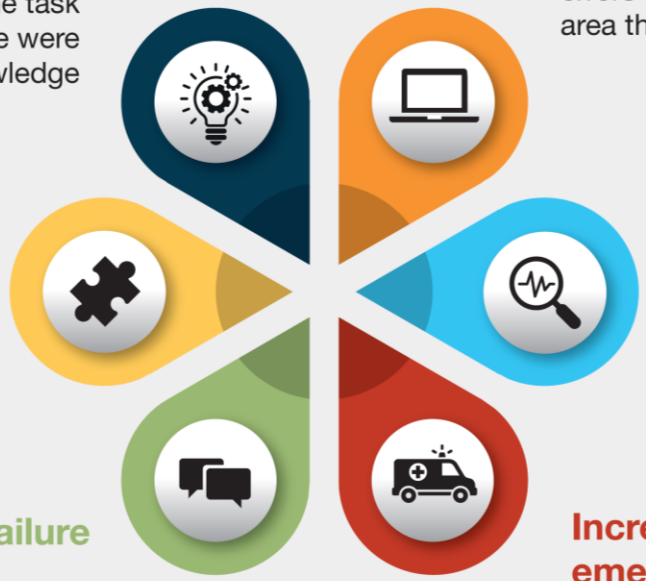
Contributory factors for IBCT errors in 2023

Gaps in staff training and knowledge

Over 80% of errors occurred when staff member was deemed competency-assessed for the task
Over 20% occurred when there were gaps in staff skills or knowledge

IT issues

In the laboratory over 75% of errors involved IT. In the clinical area this was over 60%



Staff and skill mix

In both the laboratory and clinical areas over 28% of reports mention staffing and skill mix issues. In the laboratory just under 50% of errors occurred when the member of staff was lone working

Suboptimal safety checks

Over 75% of clinical errors occurred despite the use of a pre-administration checklist. In the laboratory over 65% of errors occurred despite the use of a component labelling and exit check being used

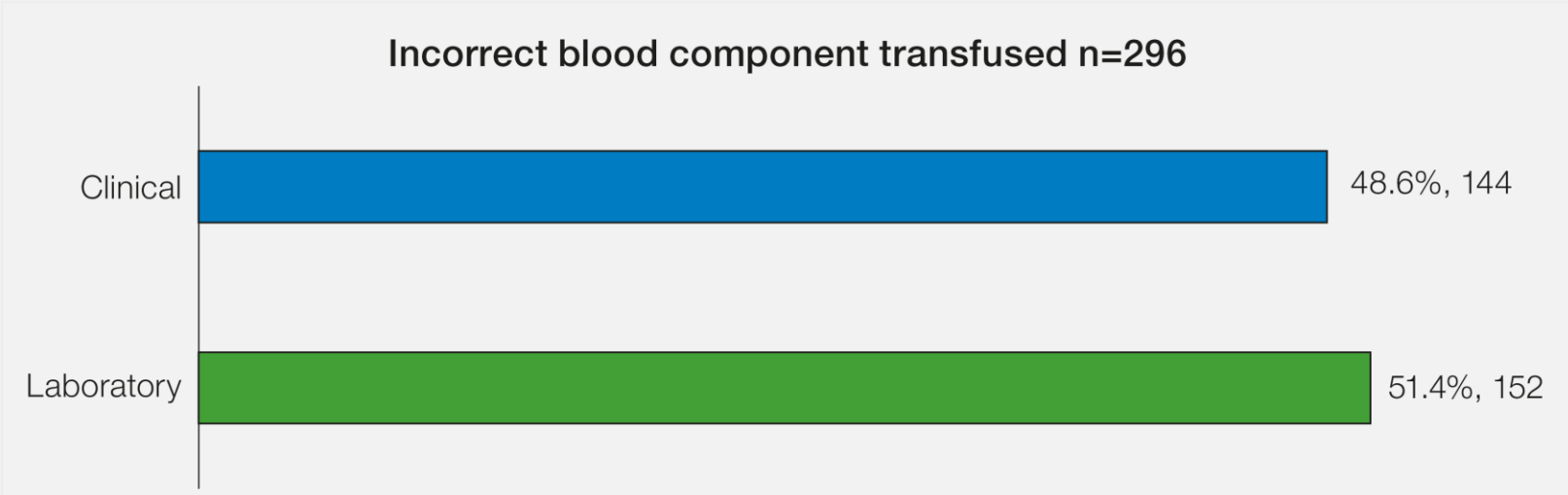
Communication failure

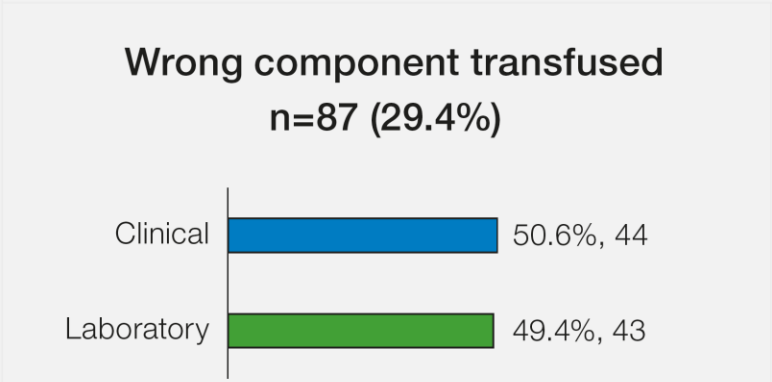
In nearly 50% of all IBCT-WCT and IBCT-SRNM reports a breakdown in communication was implicated

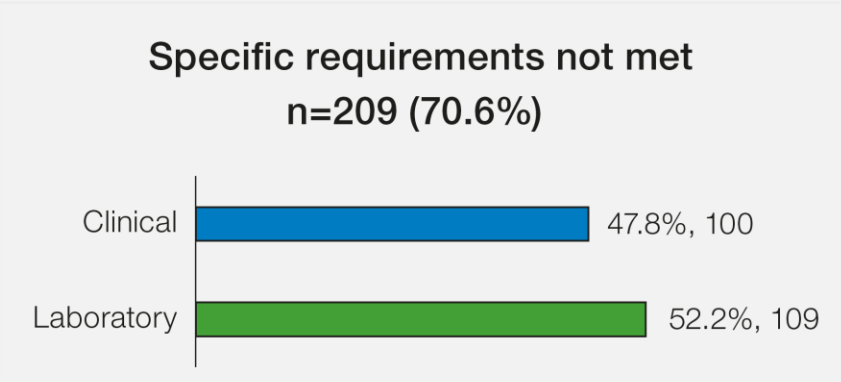
Increased pressure in emergency situations

Over 30% of laboratory errors involved emergency or urgent transfusions. This was 57% in clinical areas

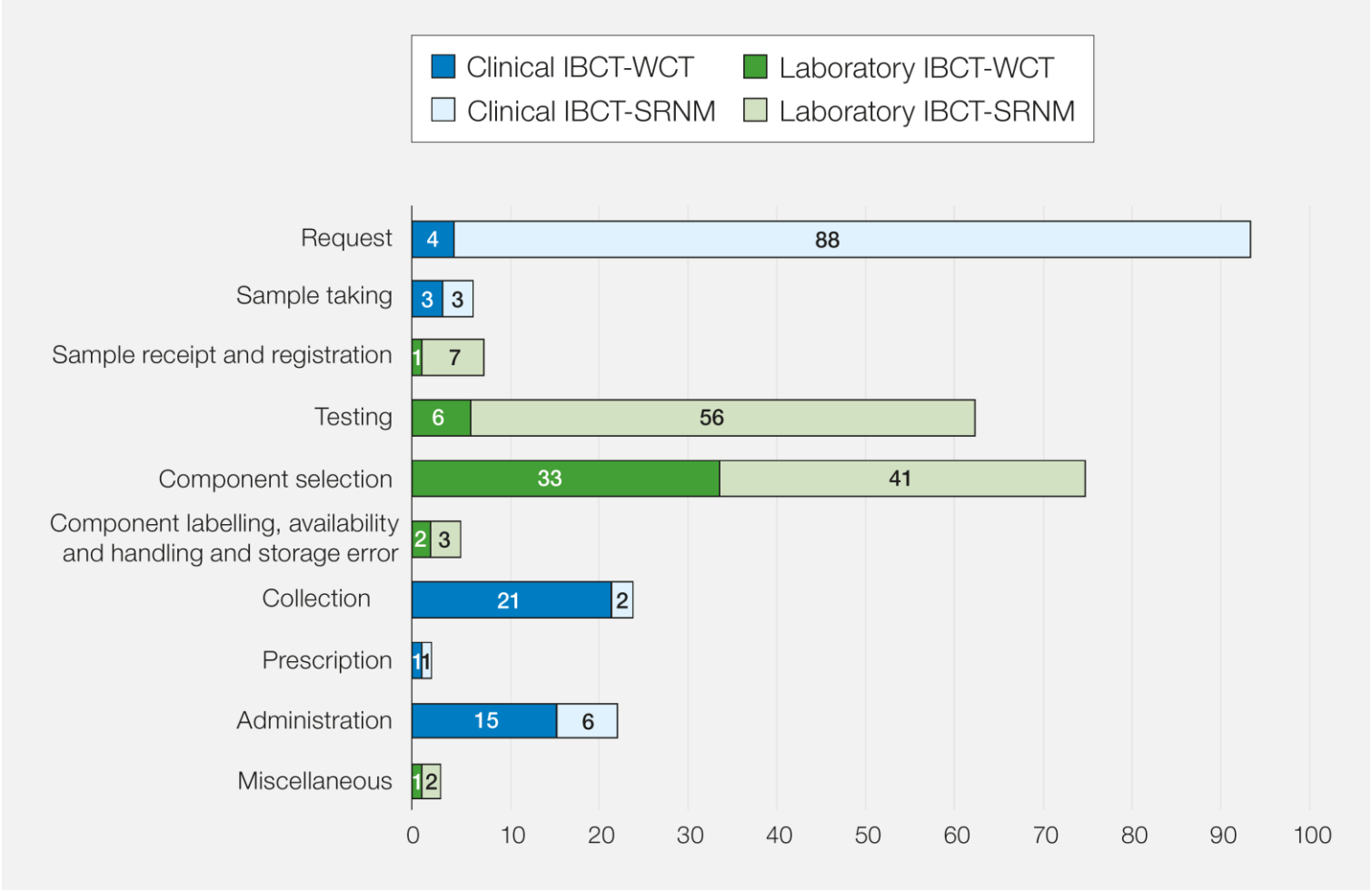
Overview of reports where an incorrect blood component was transfused in 2022 (n=296)







Total IBCT errors categorised by the step where the error occurred in 2022 (n=296)

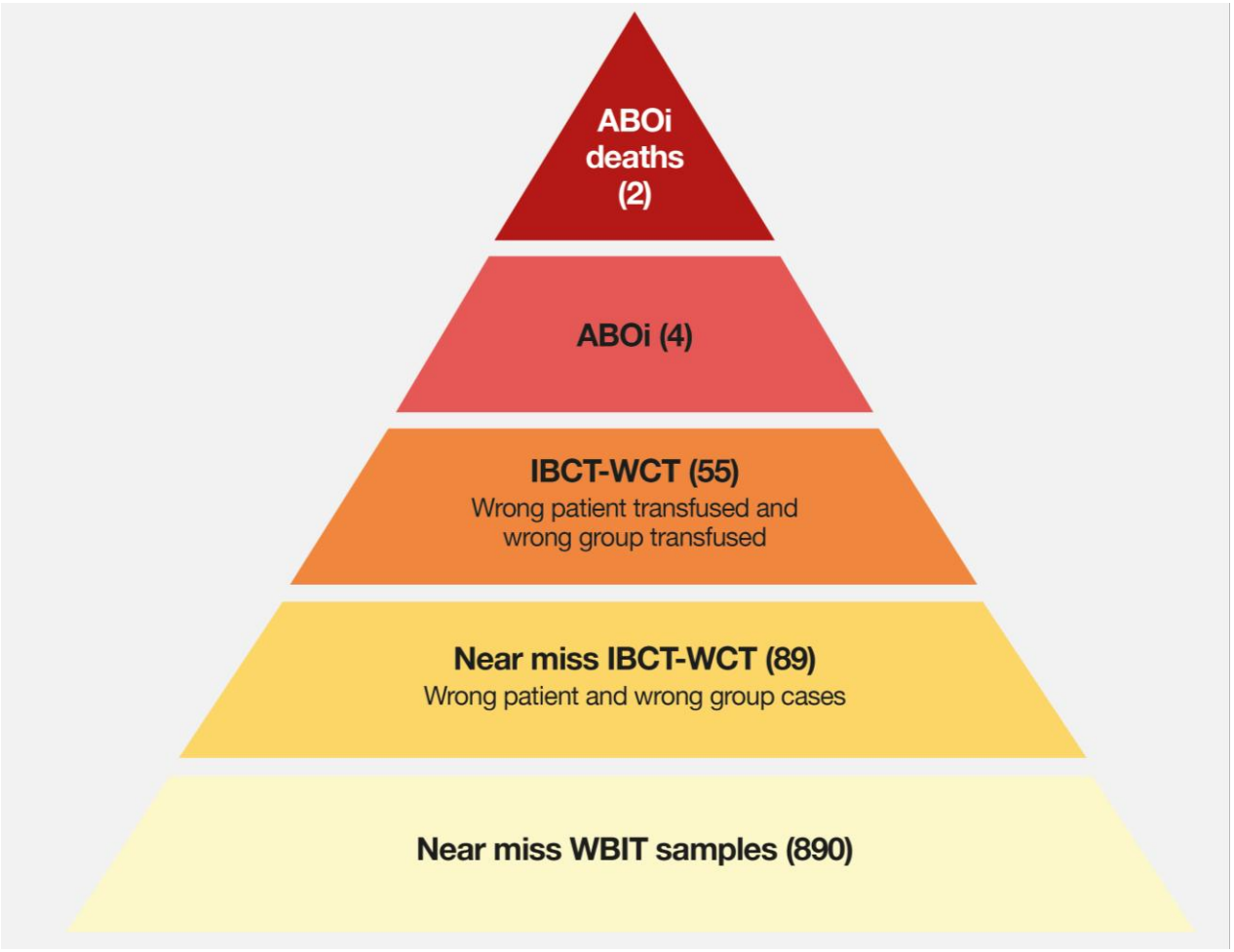


IBCT-SRNM=incorrect blood component transfused-specific requirements not met; IBCT-WCT=IBCT-wrong component transfused

ABO-incompatible cases reported in 2022 (n=6)

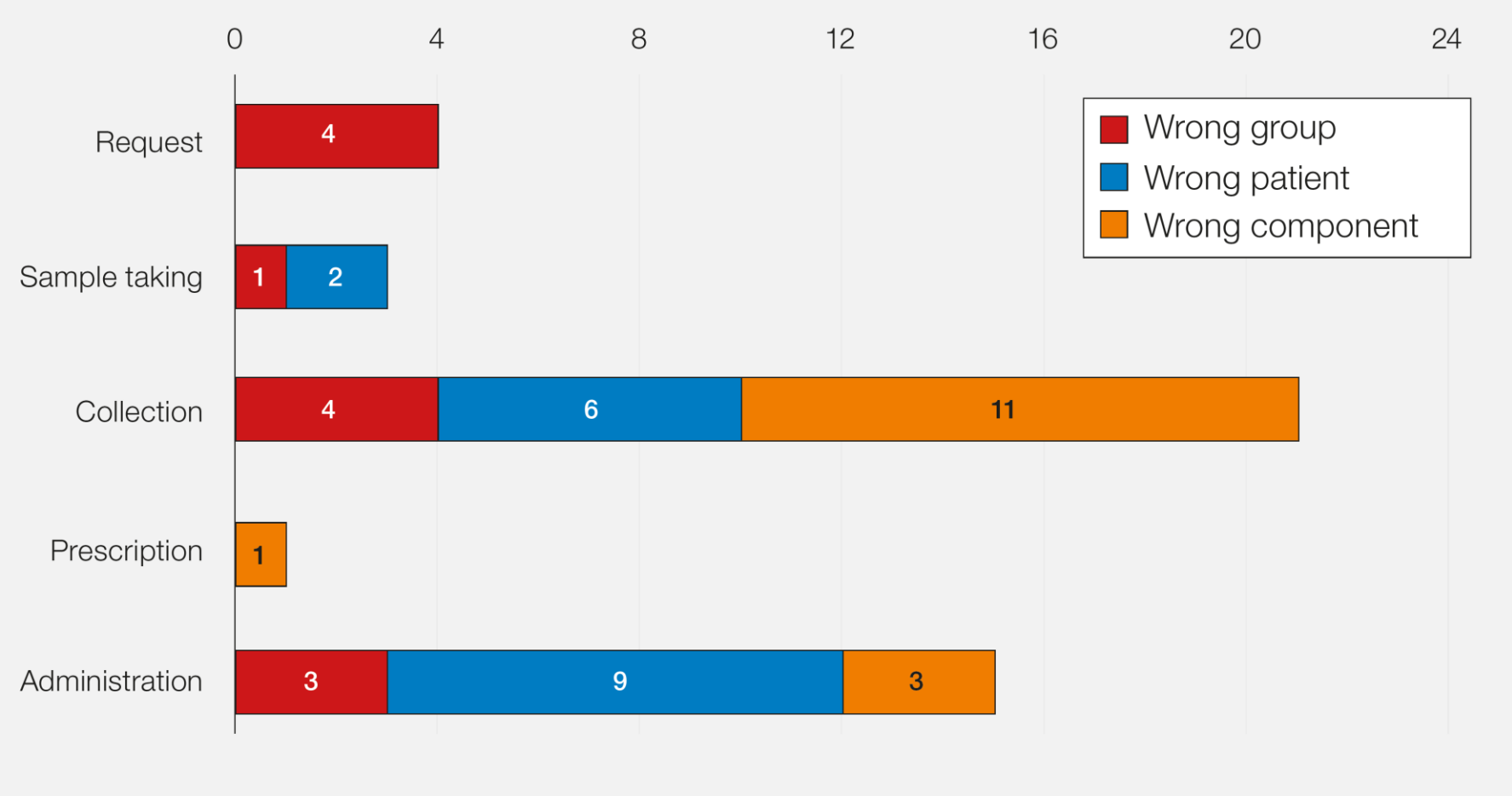
ABOi=ABO-incompatible; FFP=fresh frozen plasma. Note: case numbers refer to the cases in Table 9.1

ABO-incompatible (ABOi) transfusions and events that had the potential to lead to ABOi in 2022

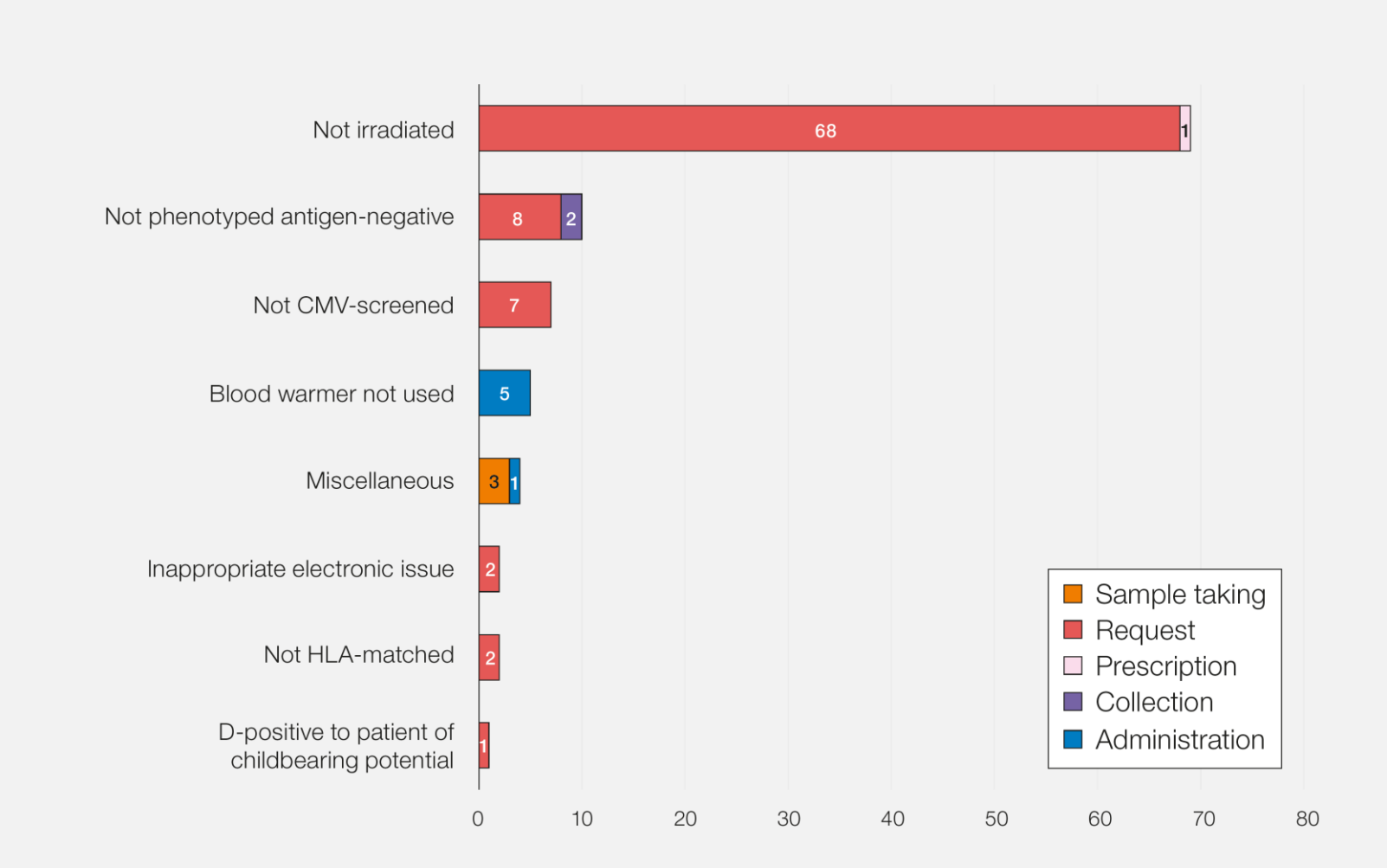


ABOi=ABO-incompatible; IBCT-WCT=incorrect blood component transfused-wrong component transfused; WBIT=wrong blood in tube

Categorisation of clinical IBCT-WCT errors by transfusion step where the primary error occurred in 2022 (n=44)

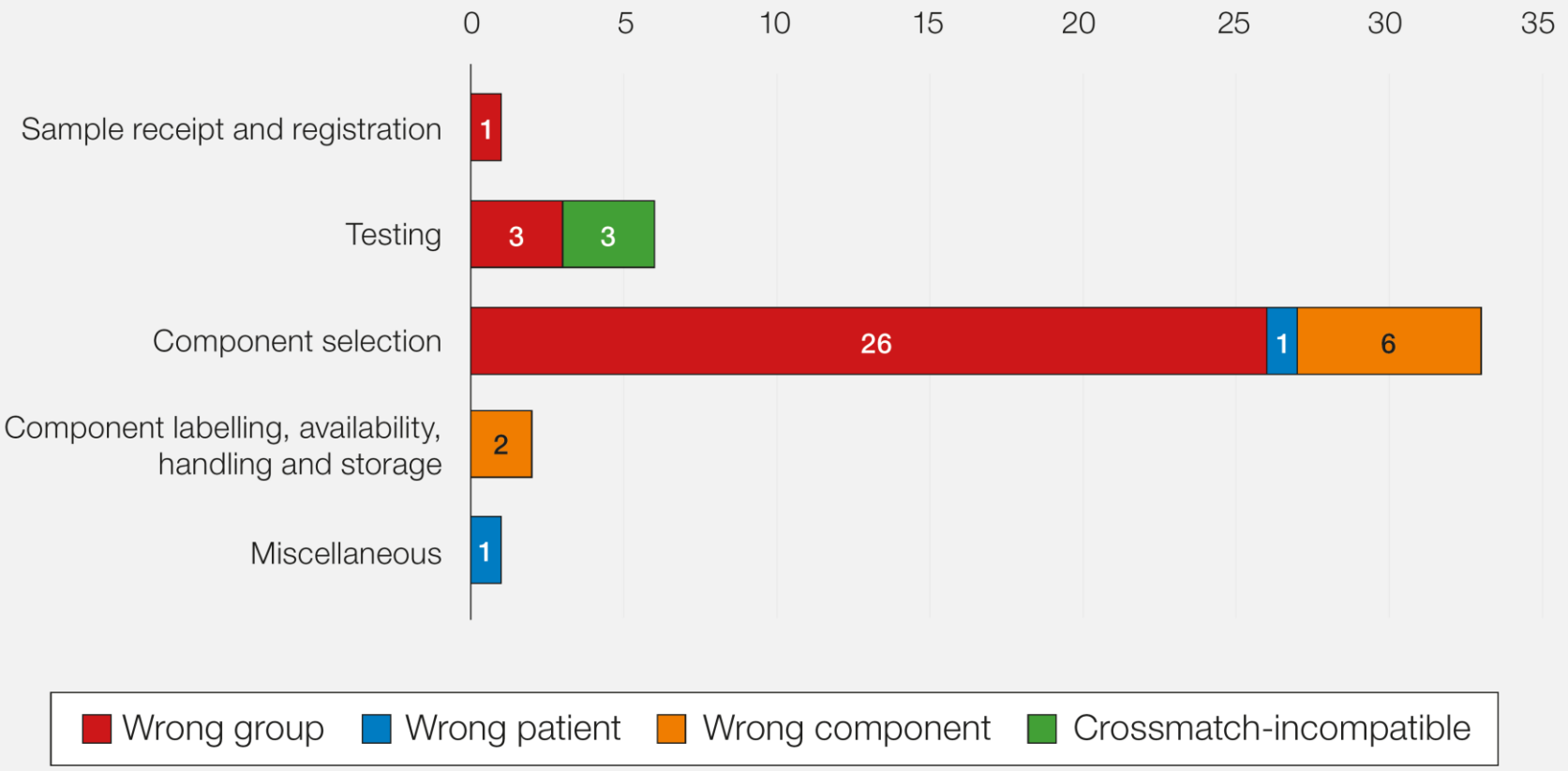


Clinical IBCT-SRNM errors and transfusion step where the primary error occurred in 2022 (n=100)

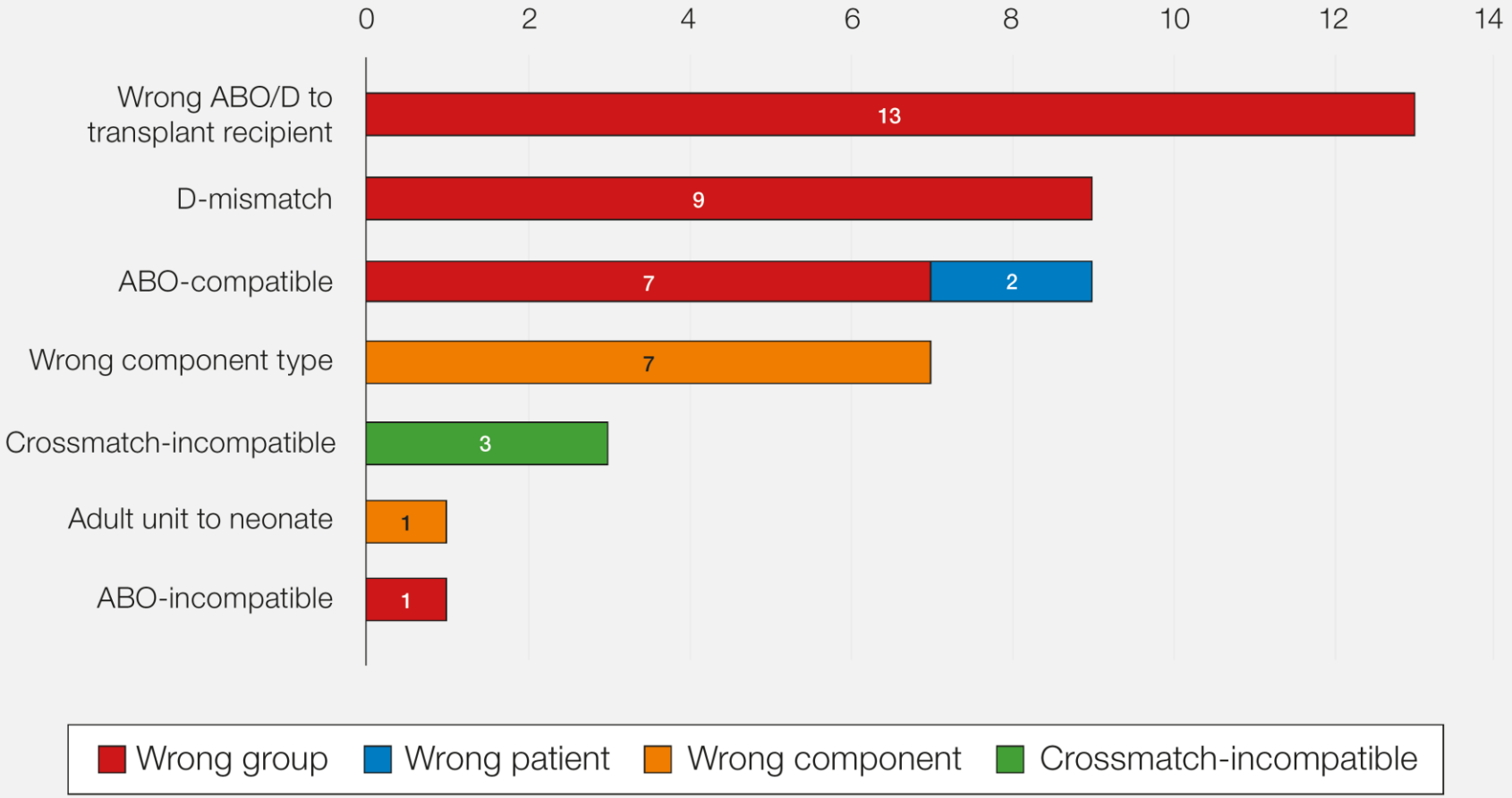


CMV=cytomegalovirus; HLA=human leucocyte antigen

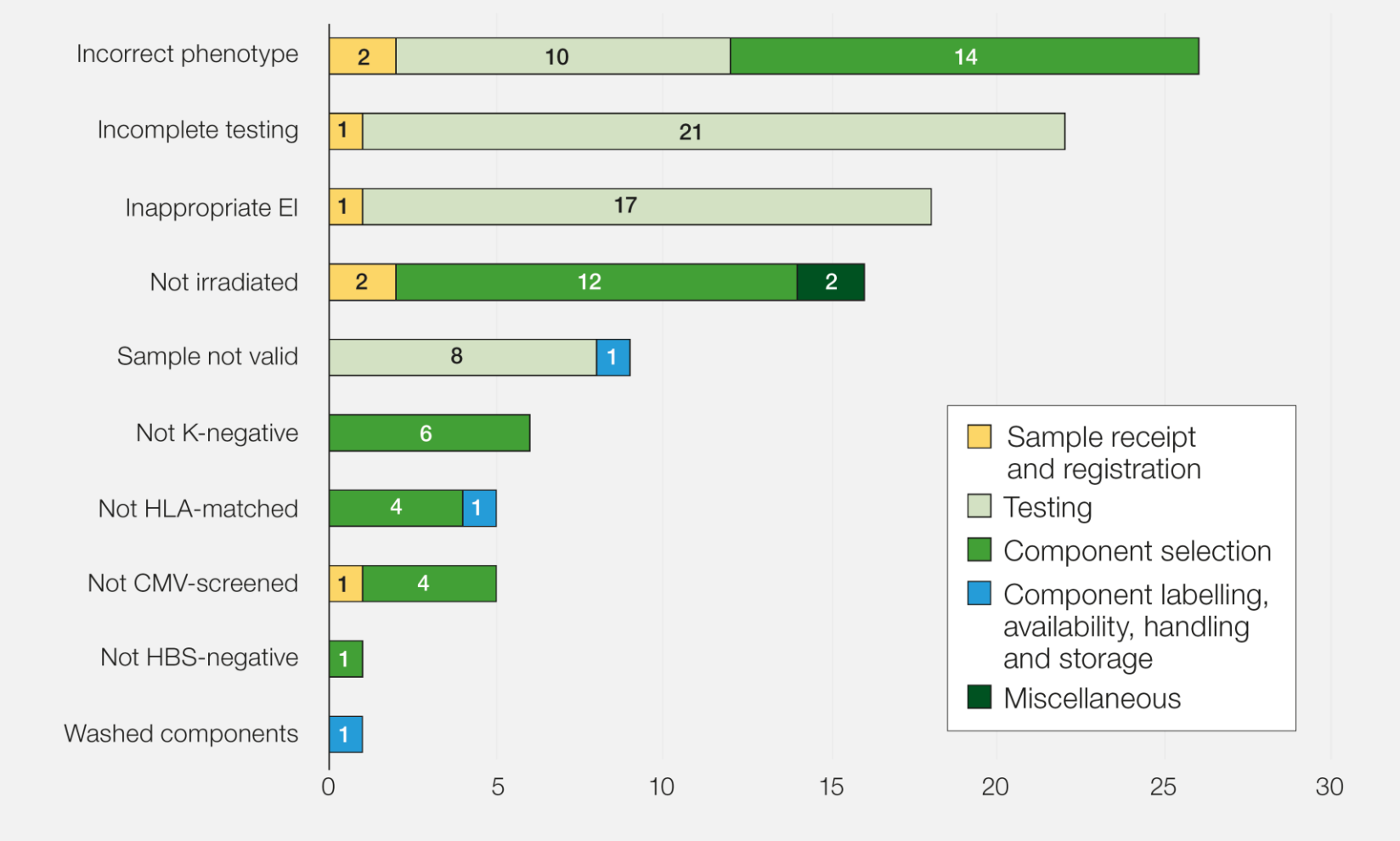
Laboratory IBCT-WCT errors by transfusion step in 2022 (n=43)



Laboratory IBCT-WCT error by category in 2022 (n=43)

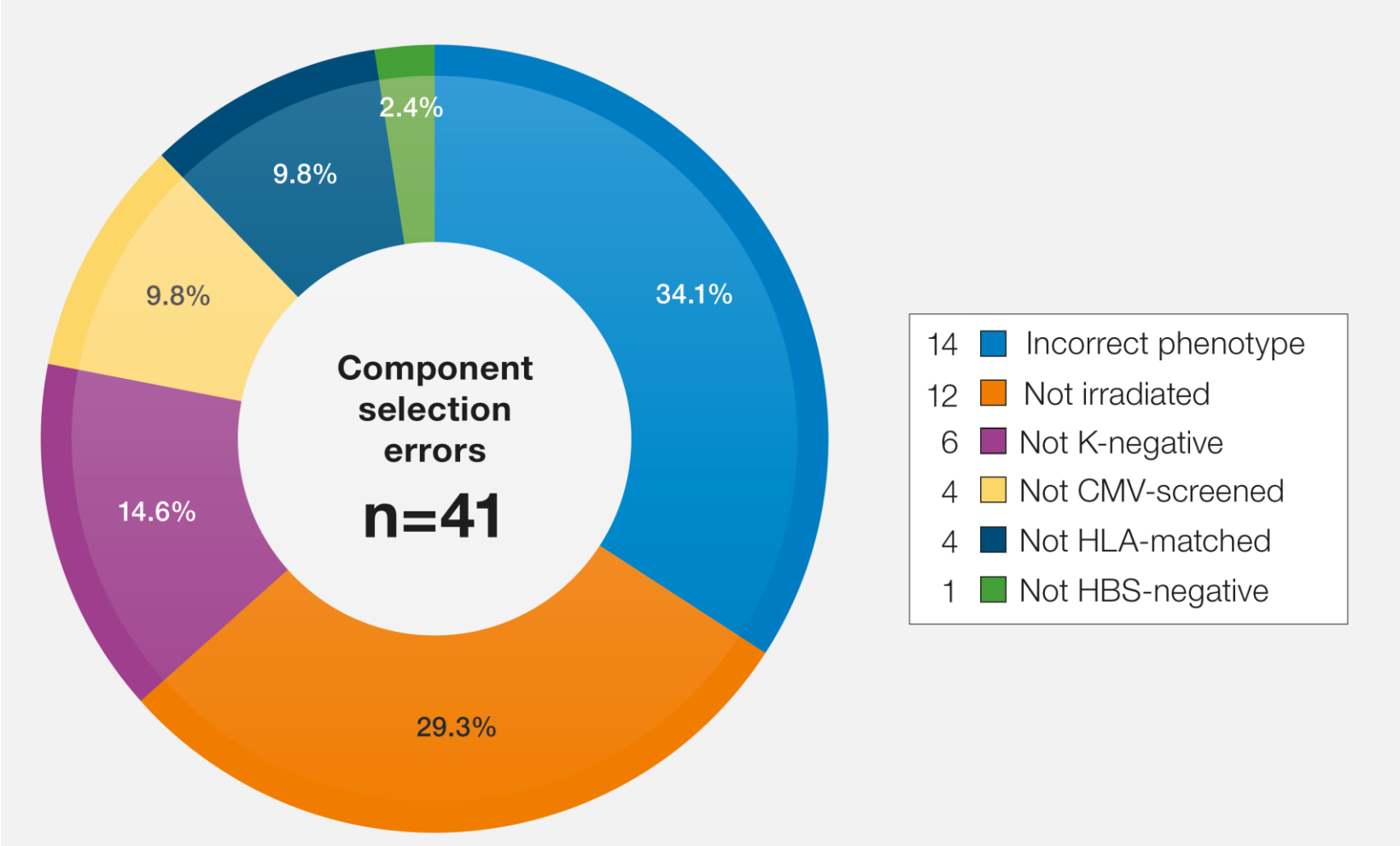


Laboratory IBCT-SRNM errors by transfusion step in 2022 (n=109)



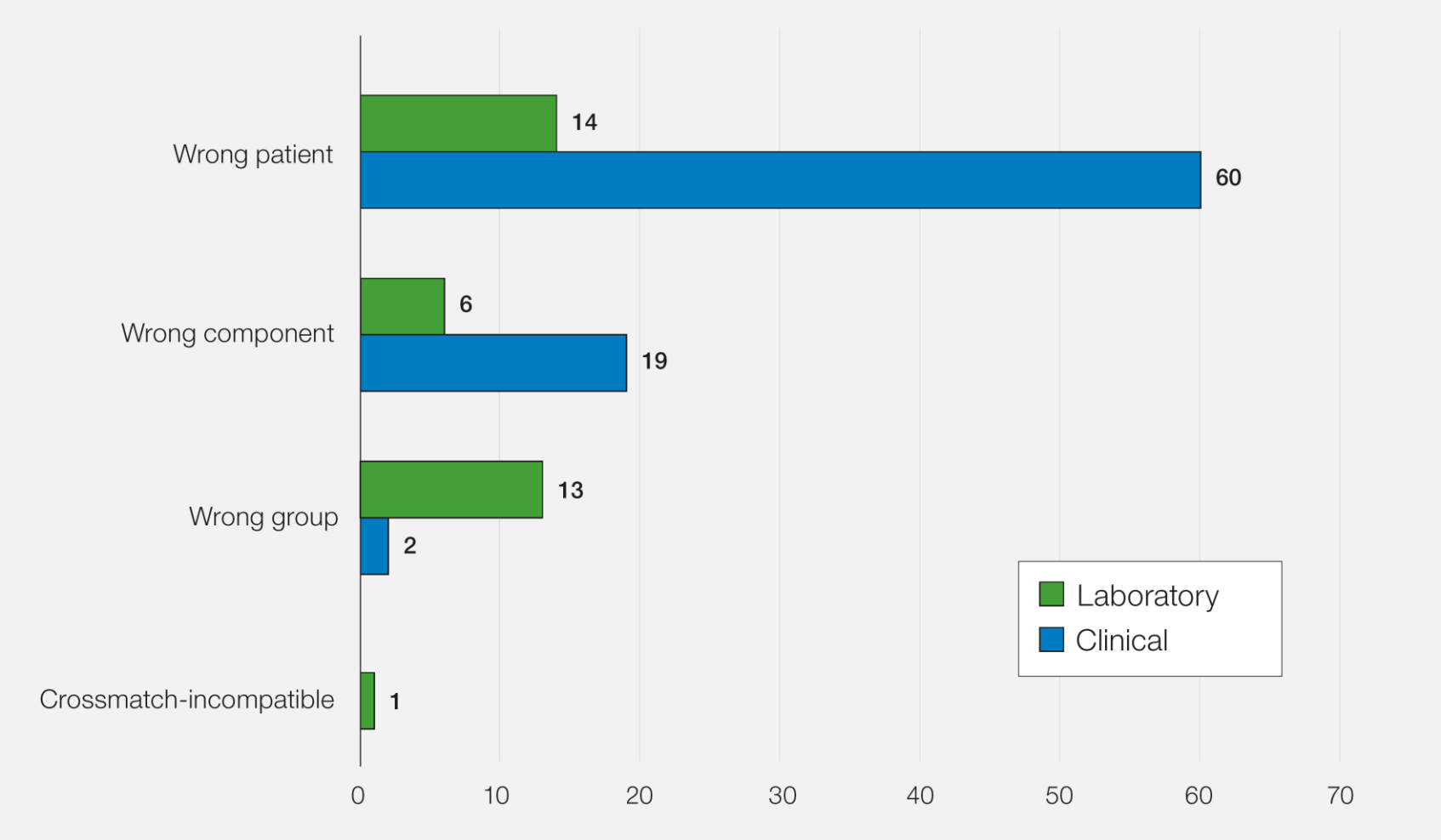
EI=electronic issue; HLA=human leucocyte antigen; CMV=cytomegalovirus

Laboratory IBCT-SRNM component selection errors in 2022 (n=41)

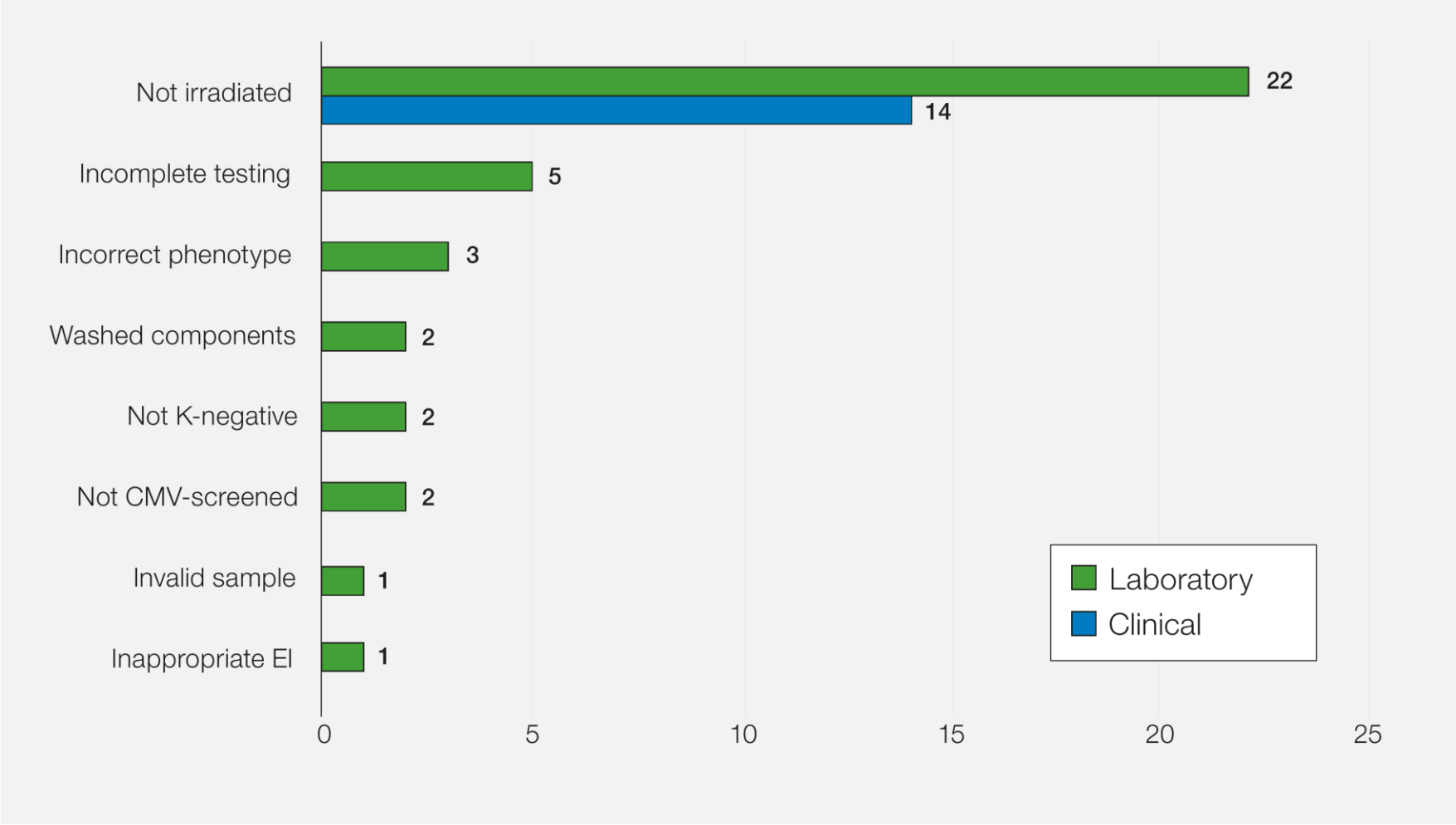


CMV=cytomegalovirus; HLA=human leucocyte antigen

Near miss IBCT-WCT reported to SHOT in 2022 (n=115)



Near miss IBCT-SRNM reported to SHOT in 2022 (n=52)



Pause and check pre-administration

Pre-administration checks - PAUSE!

P — **Patient identification**
Do the patient details match on ID band/patient statement/authorisation and component label?

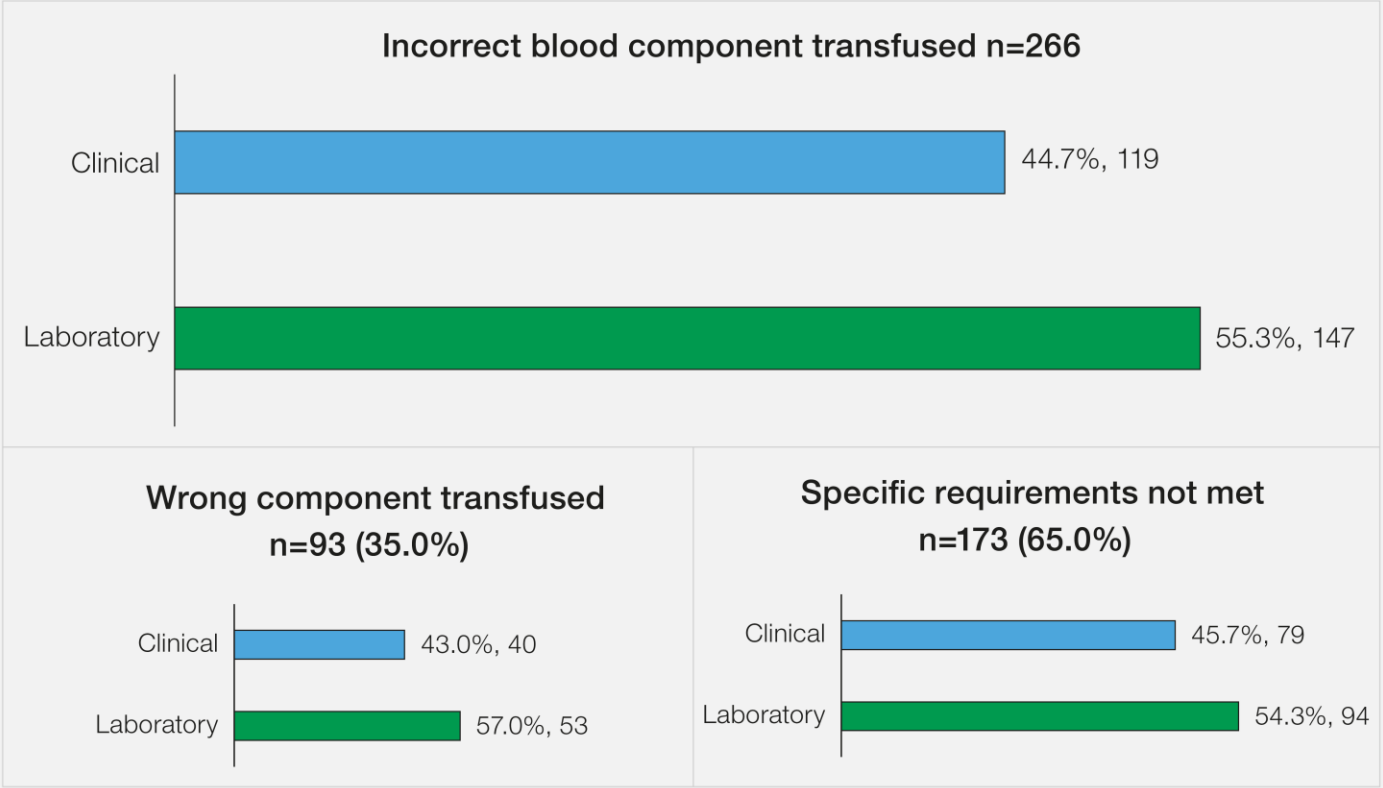
A — **Authorisation**
Does it state the component type required, any specific requirements, the rate and volume.
Is the date correct and authorisation signed?

U — **Unit**
Is it the correct component? Does the donor number on the traceability label and component match?
Have traceability requirements been met? Has the unit had a visible check (clumps/leaks).
Does it meet all specific requirements?

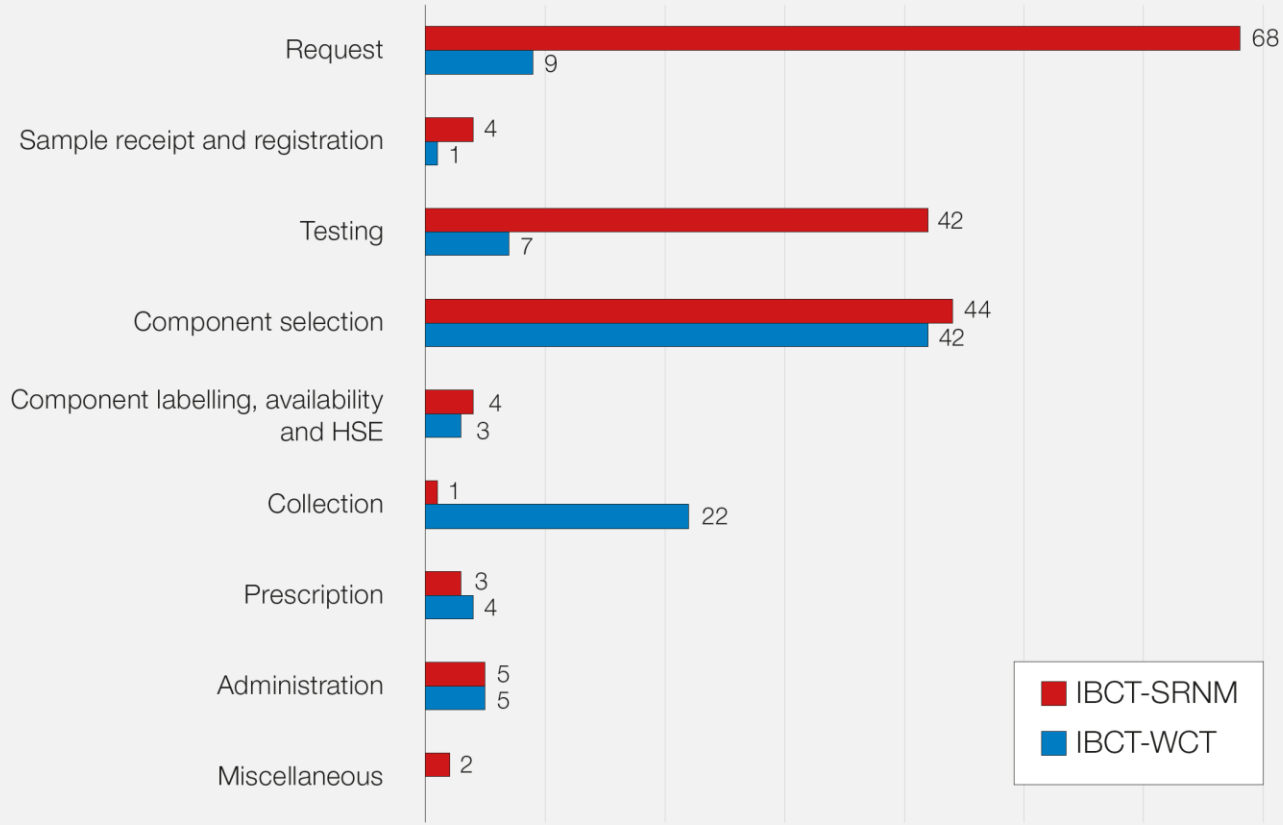
S — **Speak up!**
Are there any discrepancies? If yes seek urgent advice and do not commence the transfusion.

E — **Expiry**
Is the unit in date and will it finish by midnight of the expiry date?

Overview of reports where an incorrect blood component was transfused in 2021 n=266

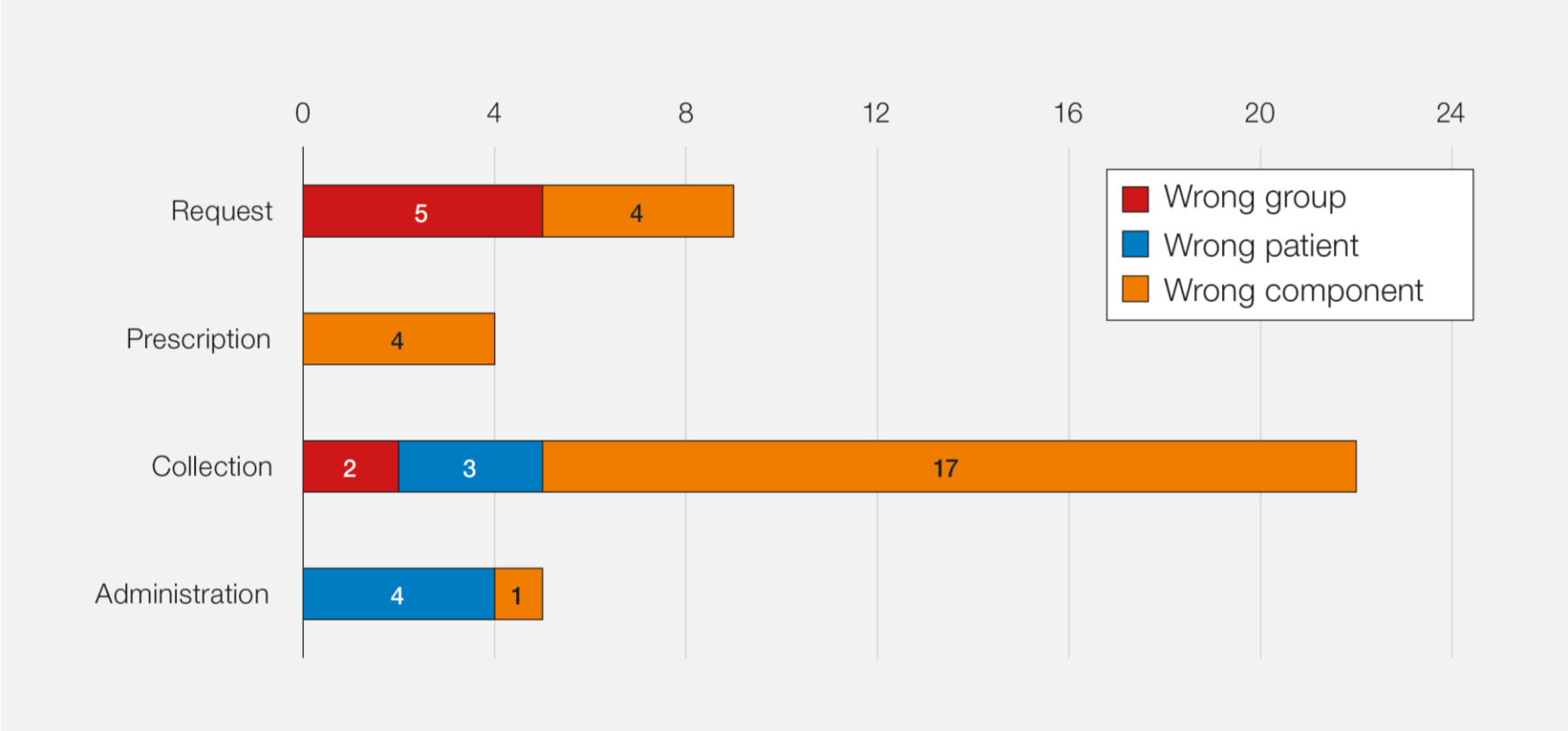


Total IBCT errors categorised by the step where the error occurred n=266

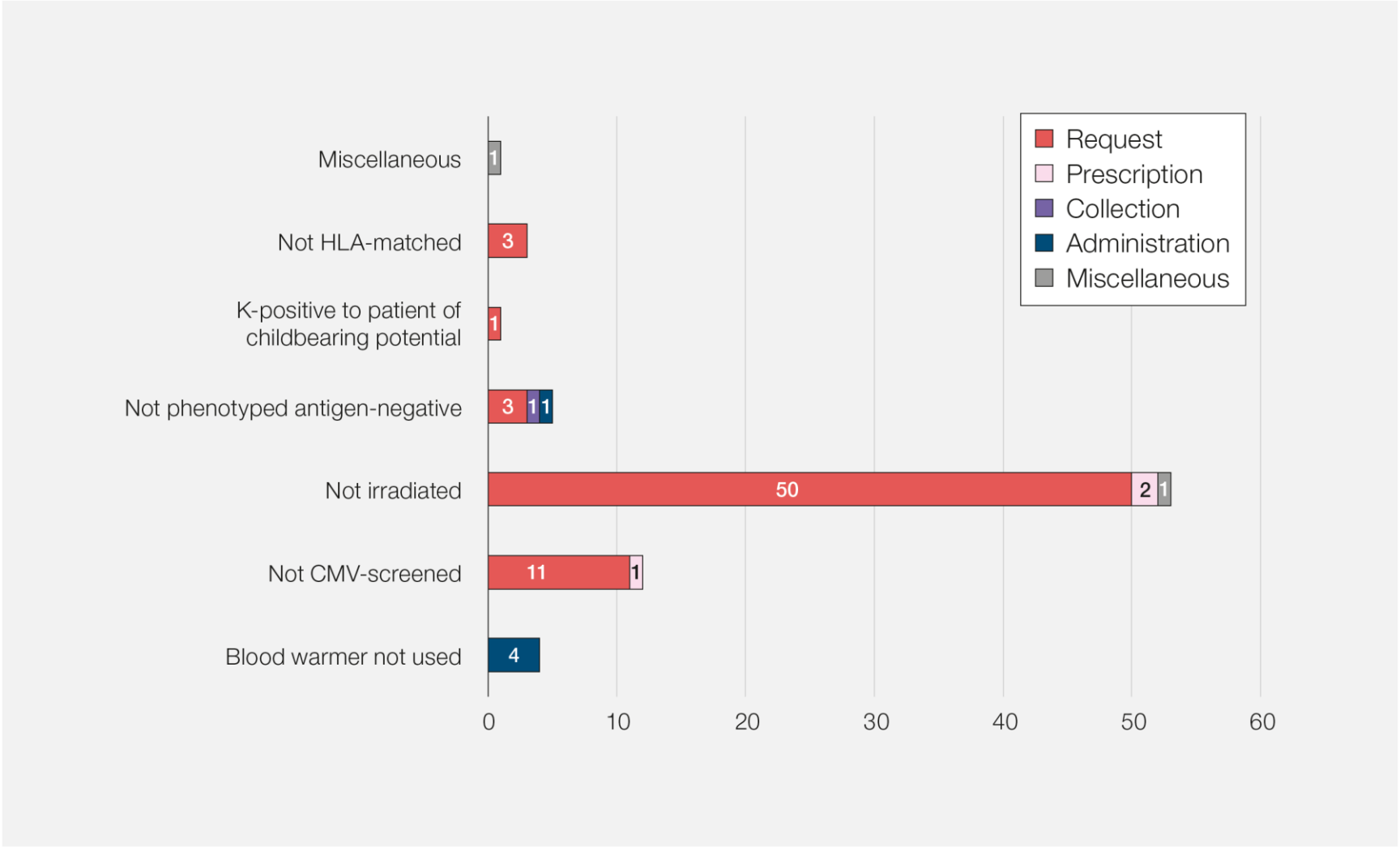


IBCT-WCT=incorrect blood component transfused-wrong component transfused; IBCT-SRNM=IBCT-specific requirements not met; HSE=handling and storage errors

Categorisation of clinical IBCT-WCT errors by transfusion step where the primary error occurred (n=40)

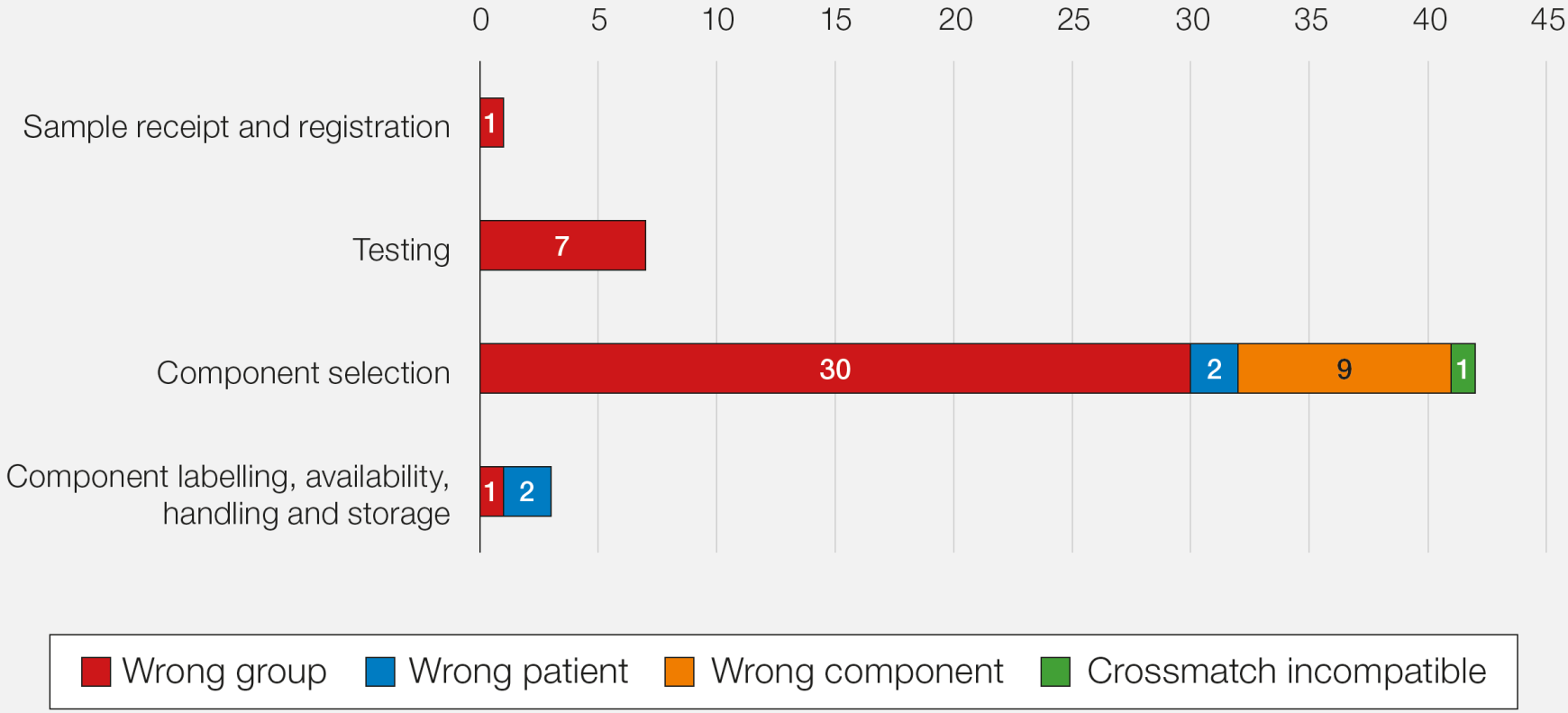


Clinical IBCT-SRNM errors and transfusion step where the primary error occurred (n=79)

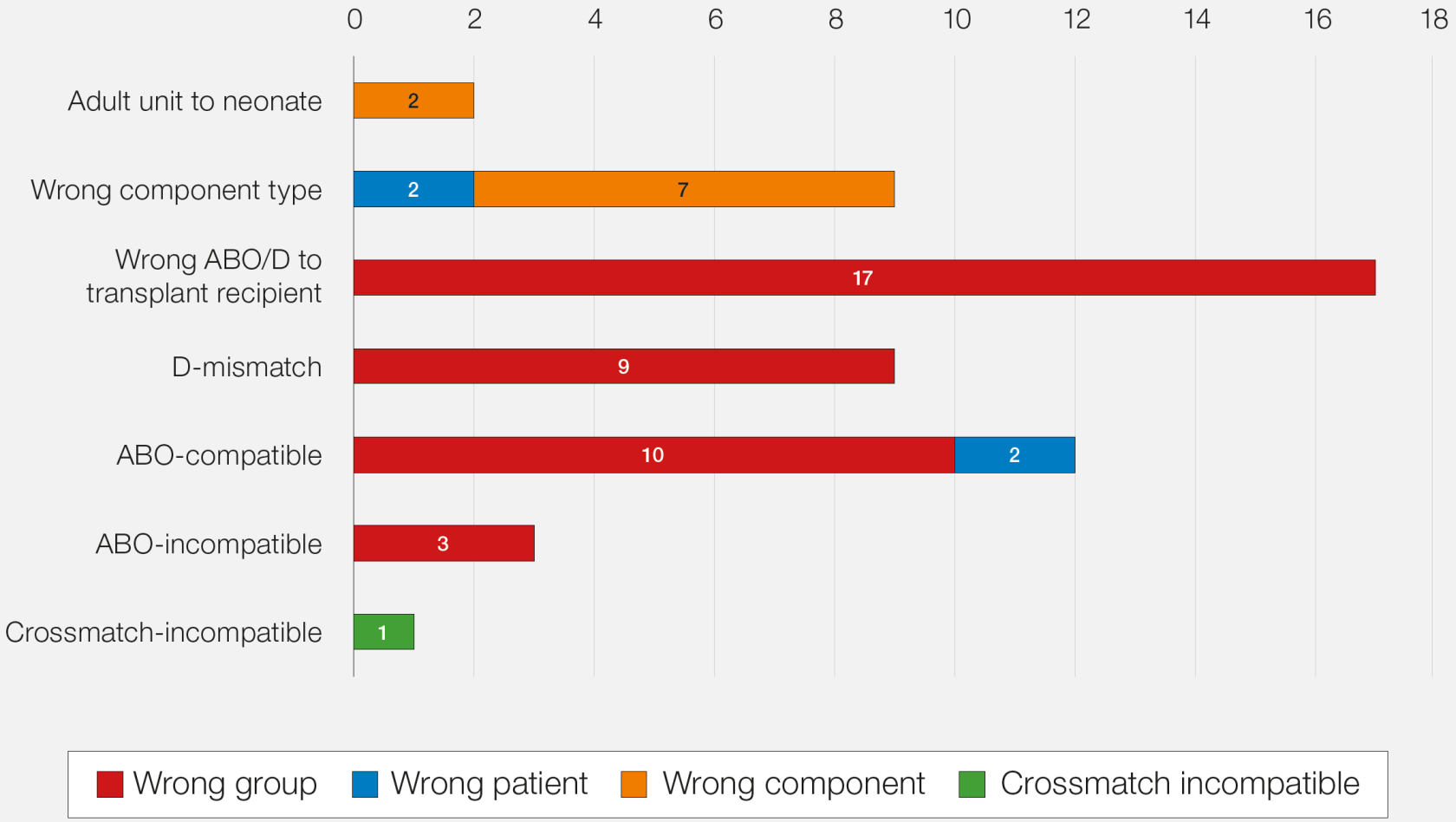


HLA=human leucocyte antigen; CMV=cytomegalovirus

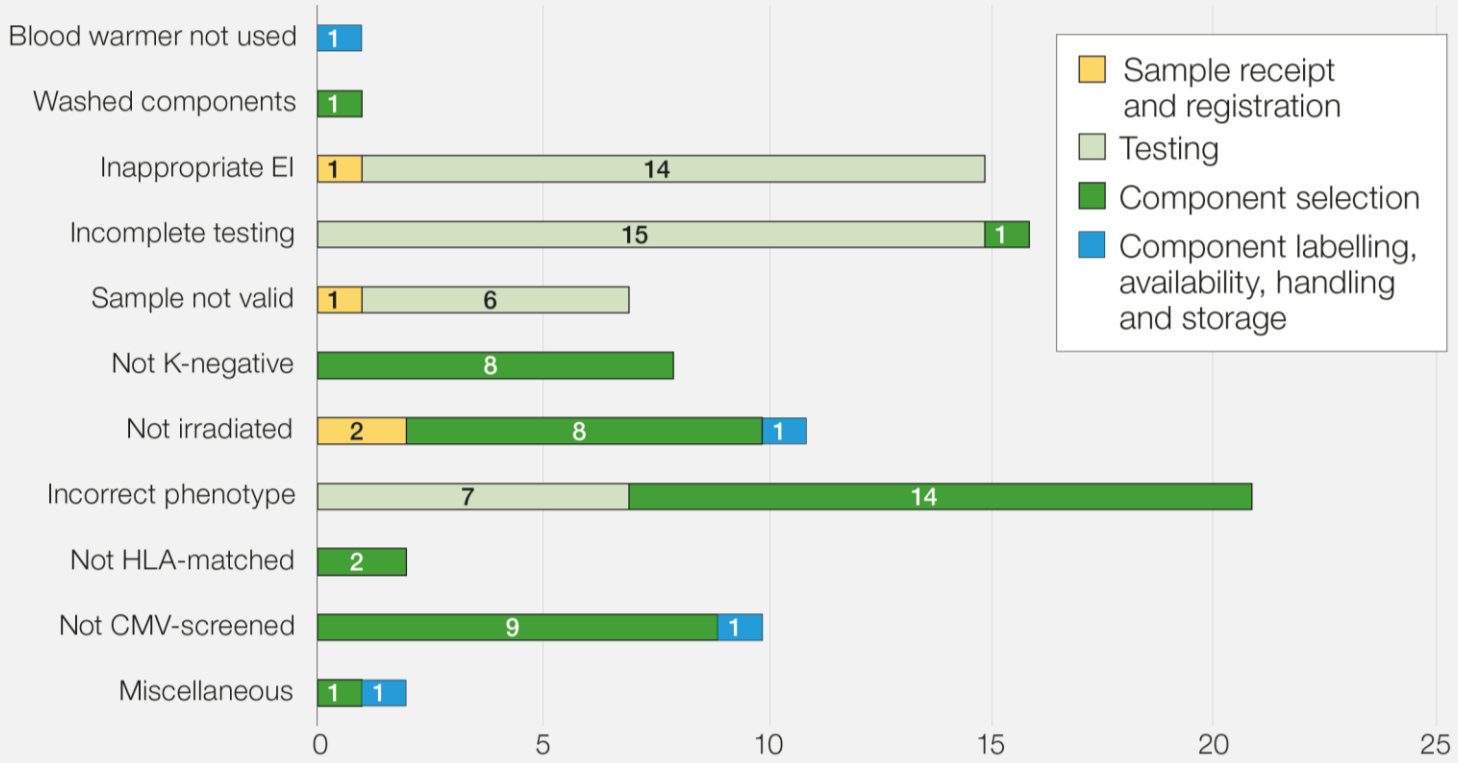
Laboratory WCT errors by transfusion step (n=53)



Laboratory WCT errors by category (n=53)



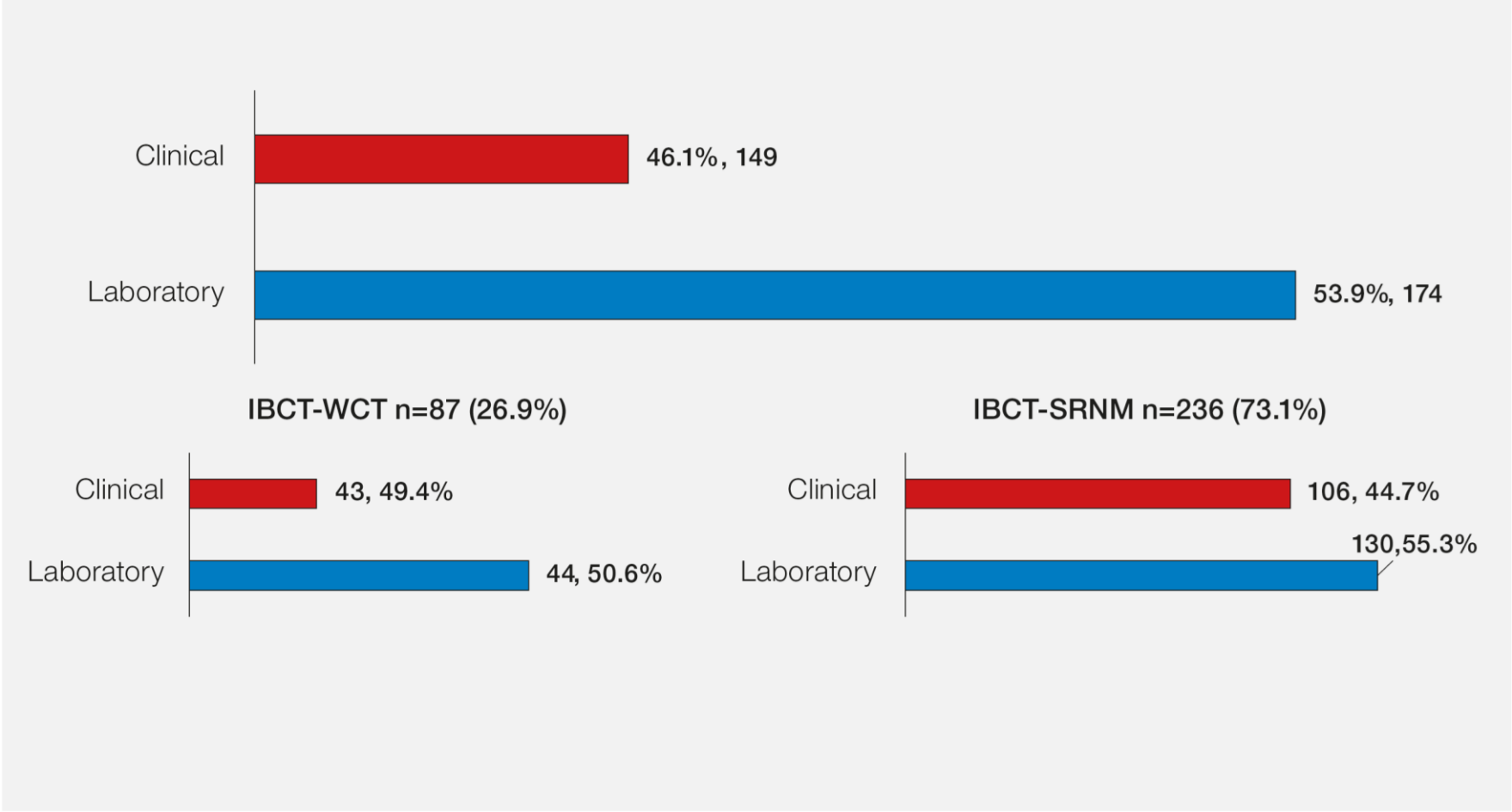
Laboratory errors resulting in SRNM (n=94)



Footnote: Where the blood warmer was not used, transfusion laboratory knew patient had cold agglutinins and would normally add a sticker to unit if warmer is needed. Clinical staff should have been informed before collection of unit as they would need to source warmer pre transfusion EI=electronic issue; HLA=human leucocyte antigen; CMV=cytomegalovirus

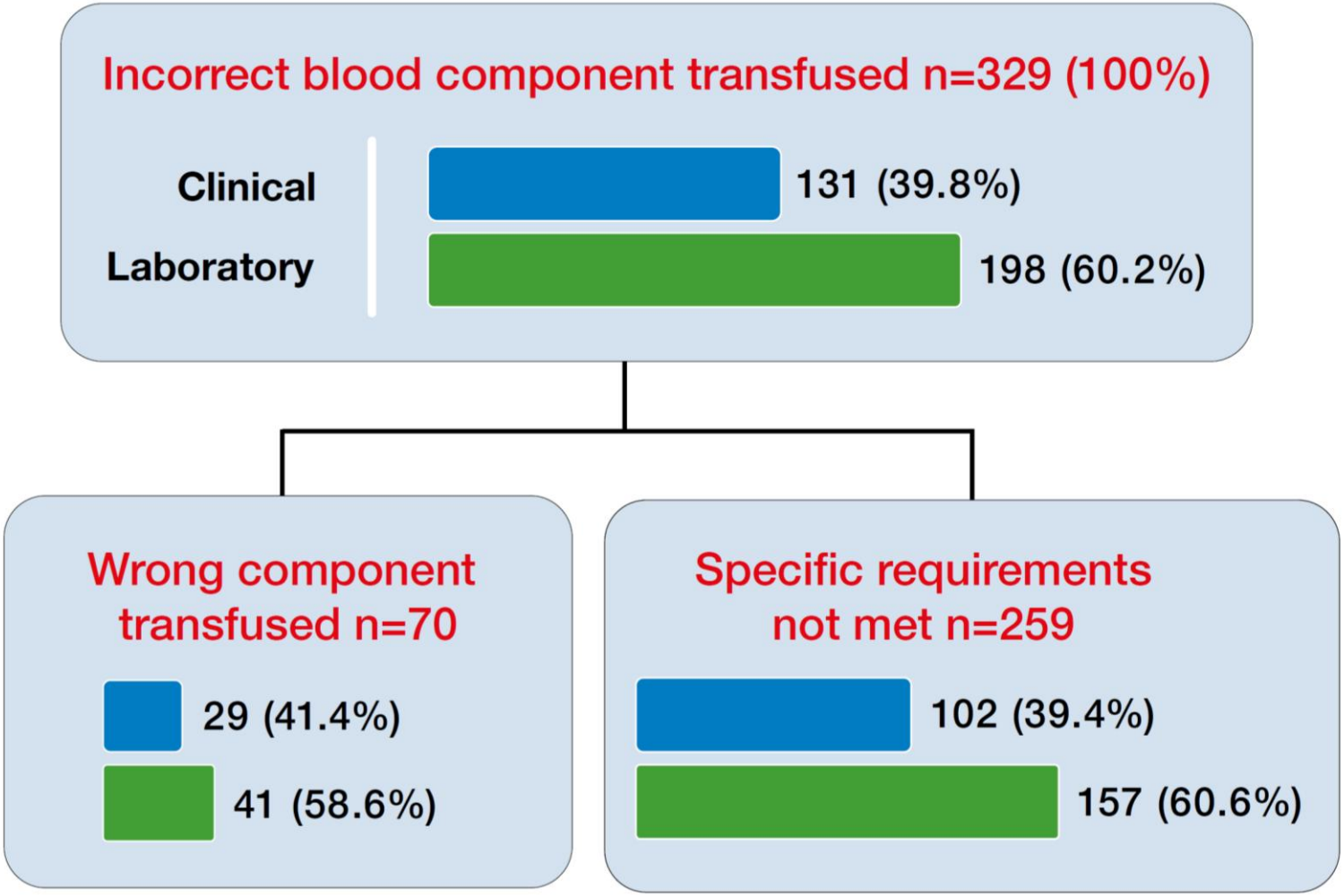
Incidents have been grouped based on the specific requirement that has not been met

Overview of reports where an incorrect blood component was transfused in 2020 n=323

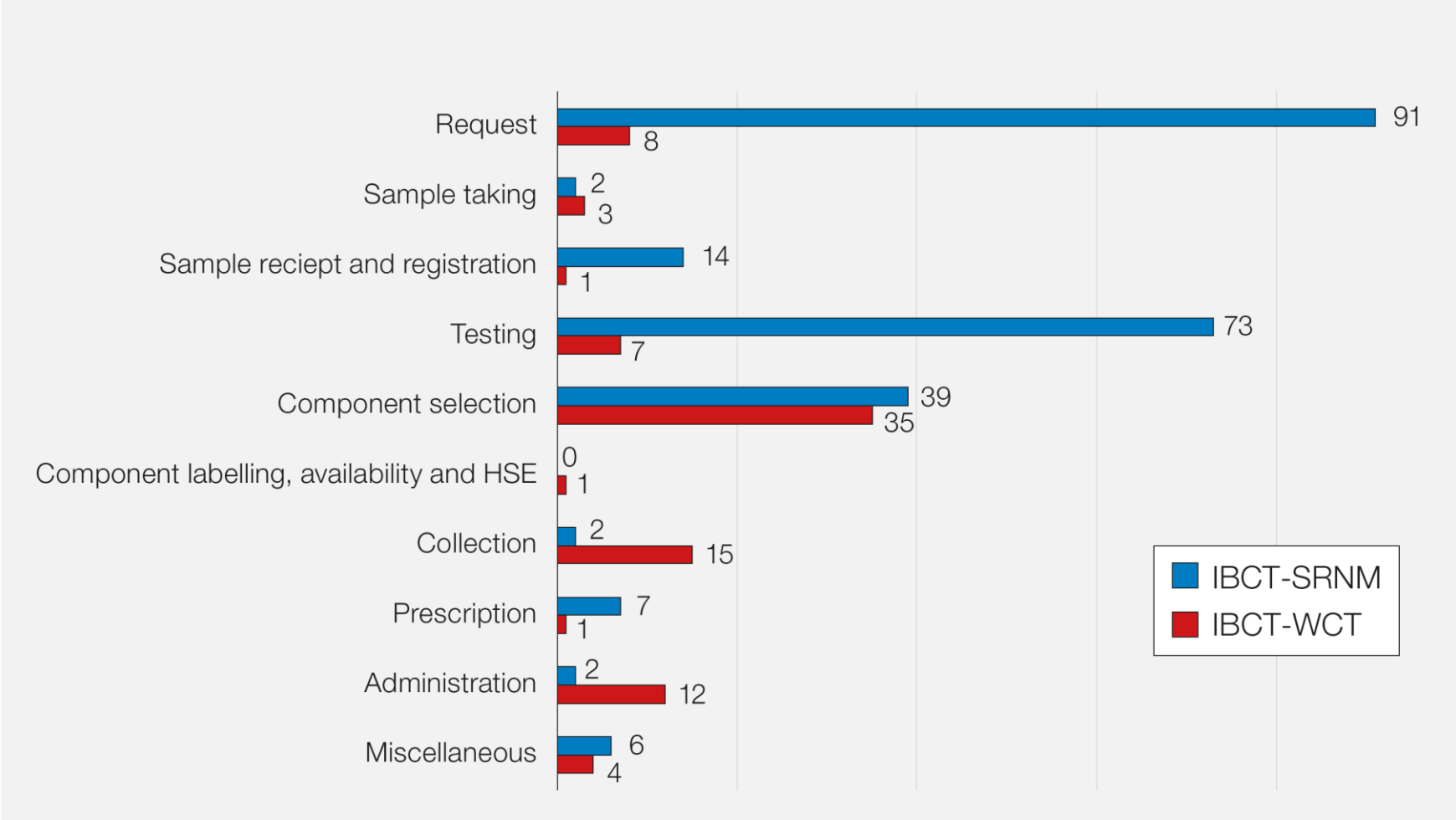


IBCT-WCT=incorrect blood component transfused-wrong component transfused; IBCT-SRNM=IBCT-specific requirements not met

Overview of reports where an incorrect blood component was transfused in 2019 n=329



Total incorrect blood component transfused errors categorised by the step where the error occurred in 2020 n=323



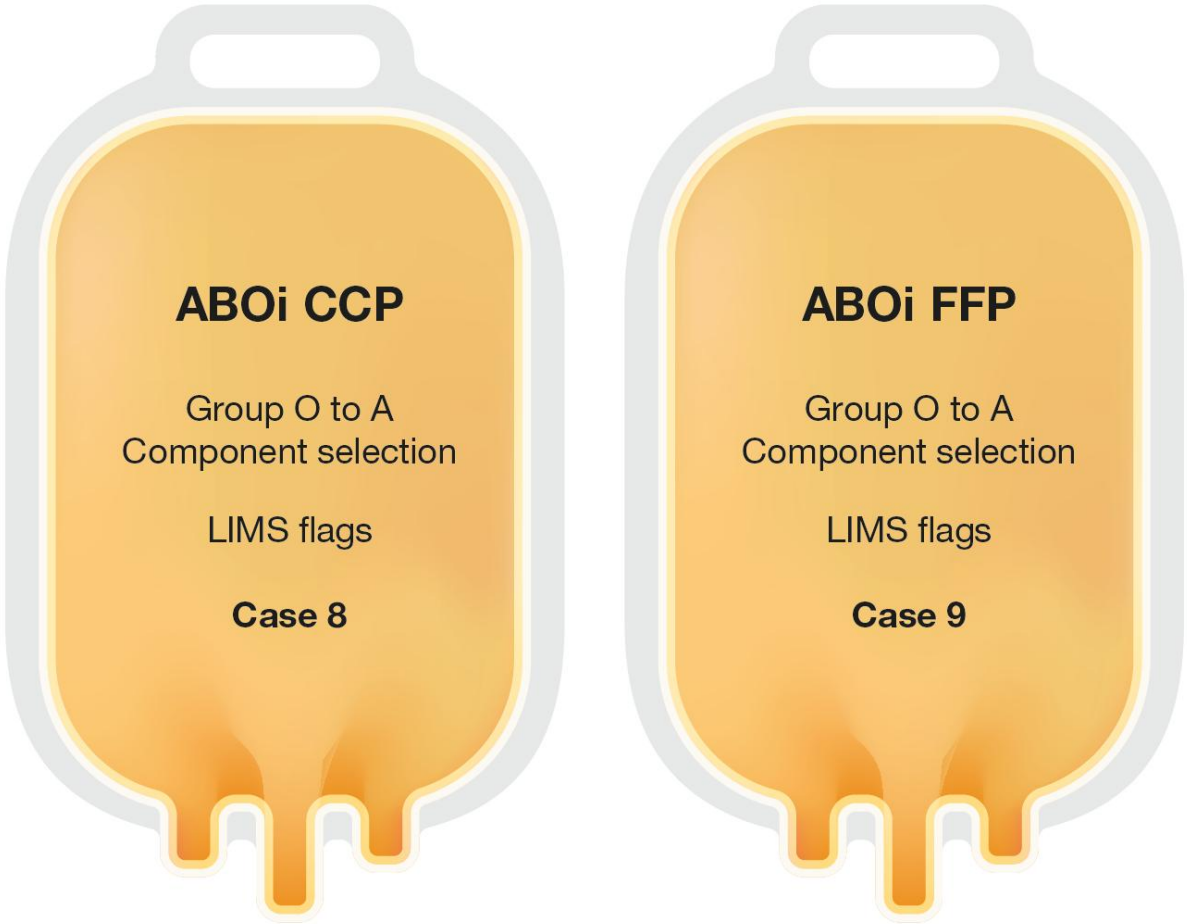
IBCT-WCT=incorrect blood component transfused-wrong component transfused; IBCT-SRNM=IBCT-specific requirements not met; HSE=handling and storage errors

Clinical ABO-incompatible red cell cases in 2020 n=7

ABOi=ABO-incompatible

Note: case numbers refer to the cases in Table 10.1

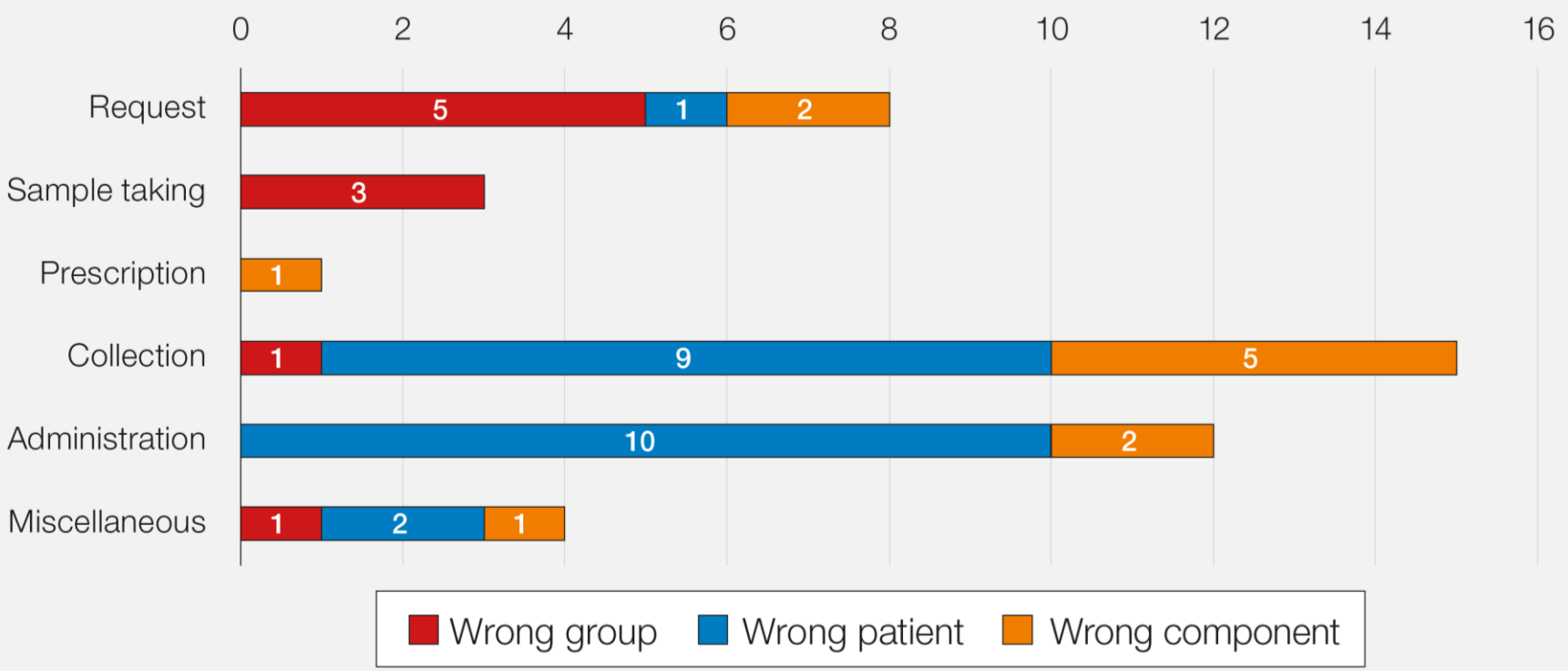
Laboratory ABO-incompatible cases in 2020 n=2



ABOi=ABO-incompatible; CCP=COVID-19 convalescent plasma; FFP=fresh frozen plasma; LIMS=laboratory information management system

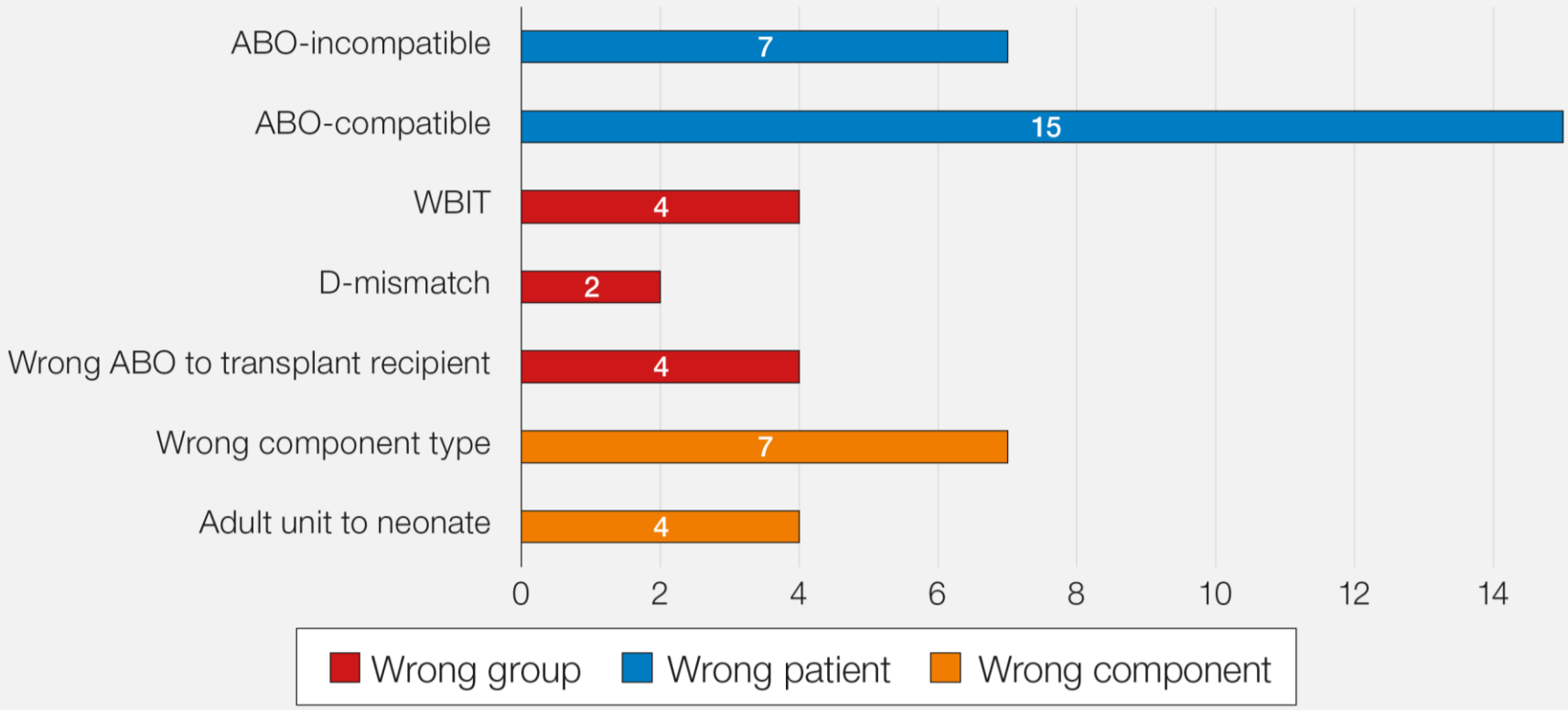
Note: case numbers refer to the cases in Table 10.1

Categorisation of clinical WCT errors by transfusion step where the primary error occurred in 2020 n=43



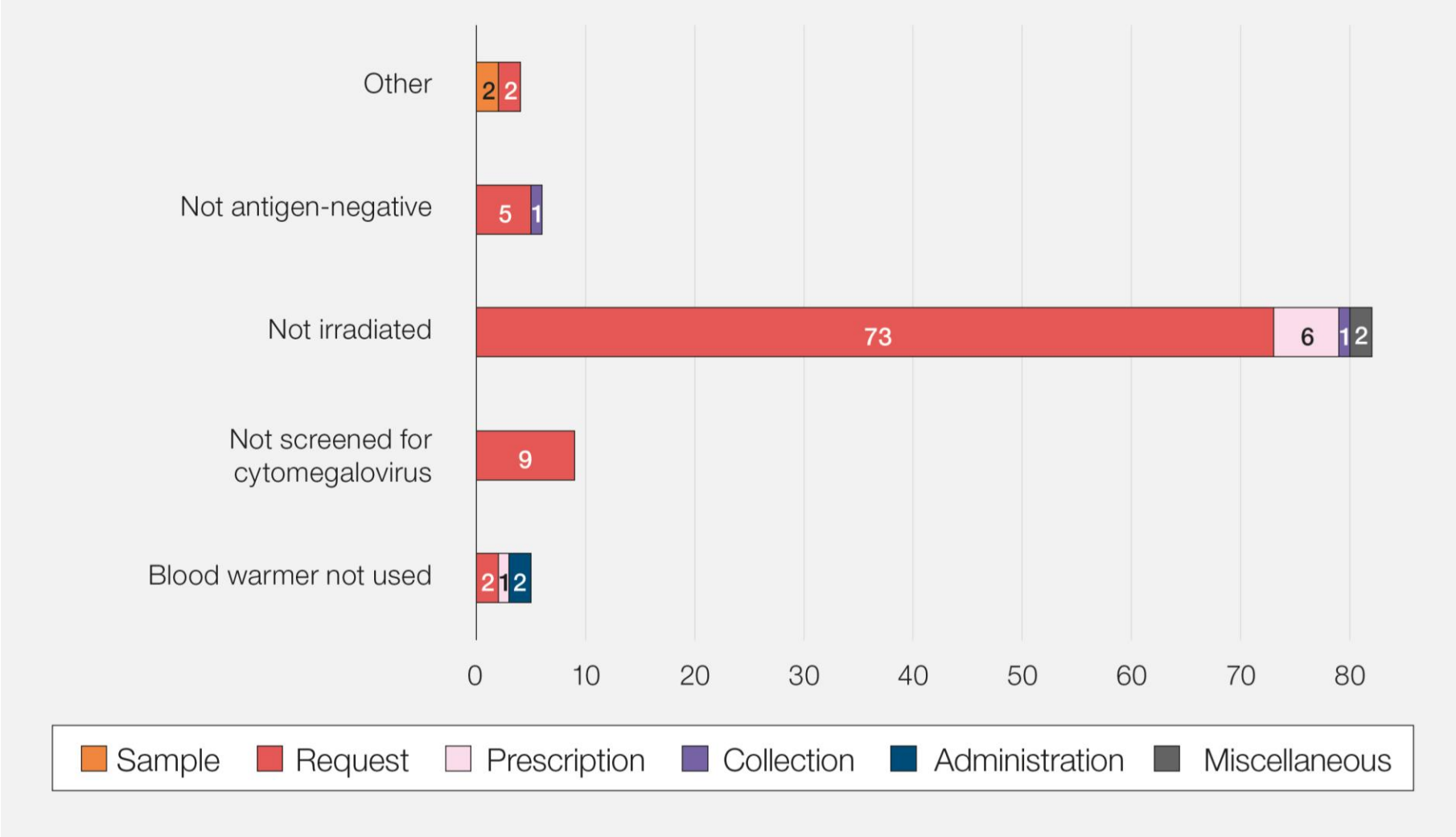
Note: 'Miscellaneous' cases include: a WBIT where the patient was clerked with another patient's details, an adult unit administered to a neonate where this was a conscious decision made by the doctor due to volume requirements, a patient who was wearing another patient's ID band, and patient details on a compatibility label manually changed by clinical staff

Categorisation of clinical WCT errors by sub-category in 2020 n=43

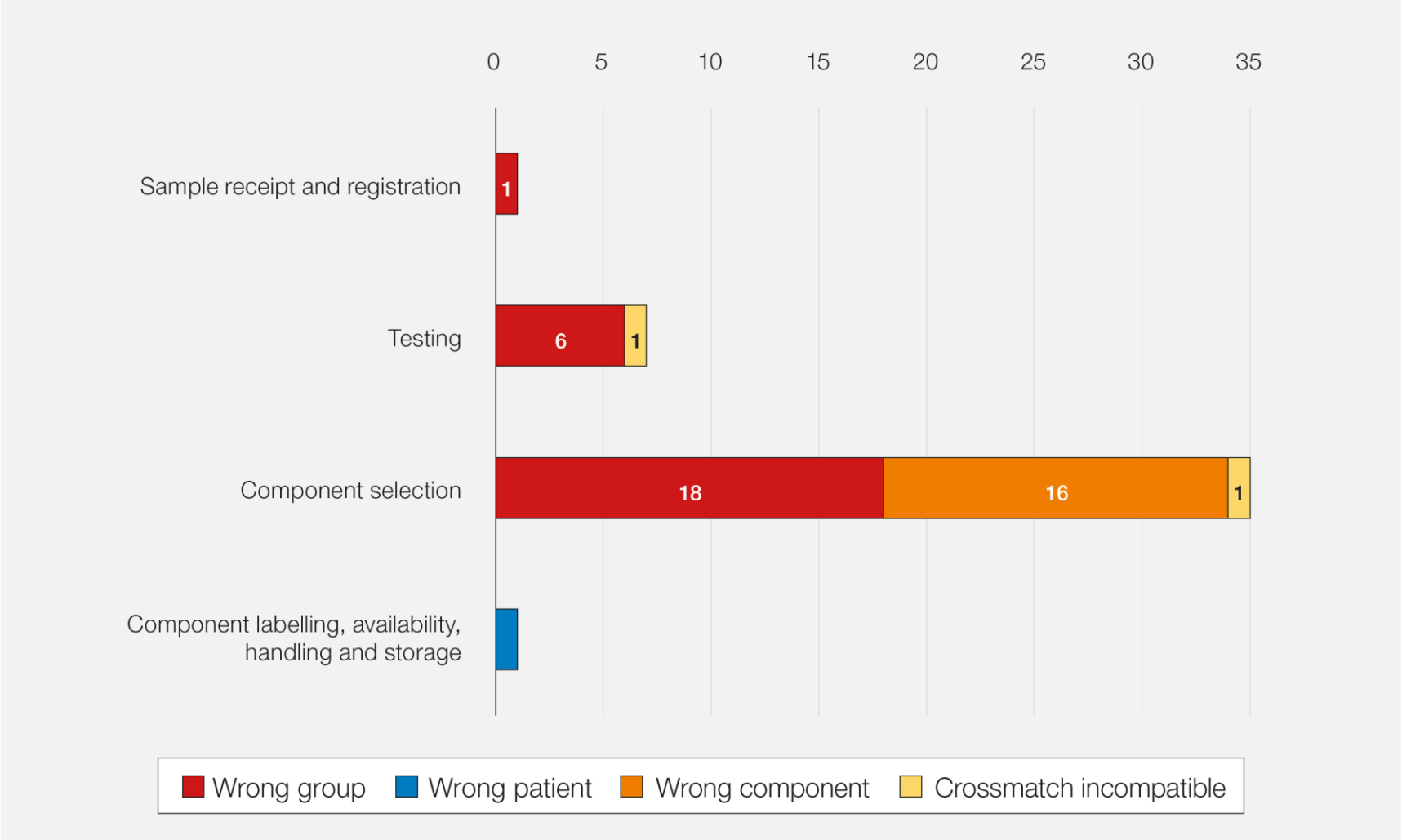


Note: Wrong blood in tube (WBIT) events which resulted in ABO/D compatible blood transfusions

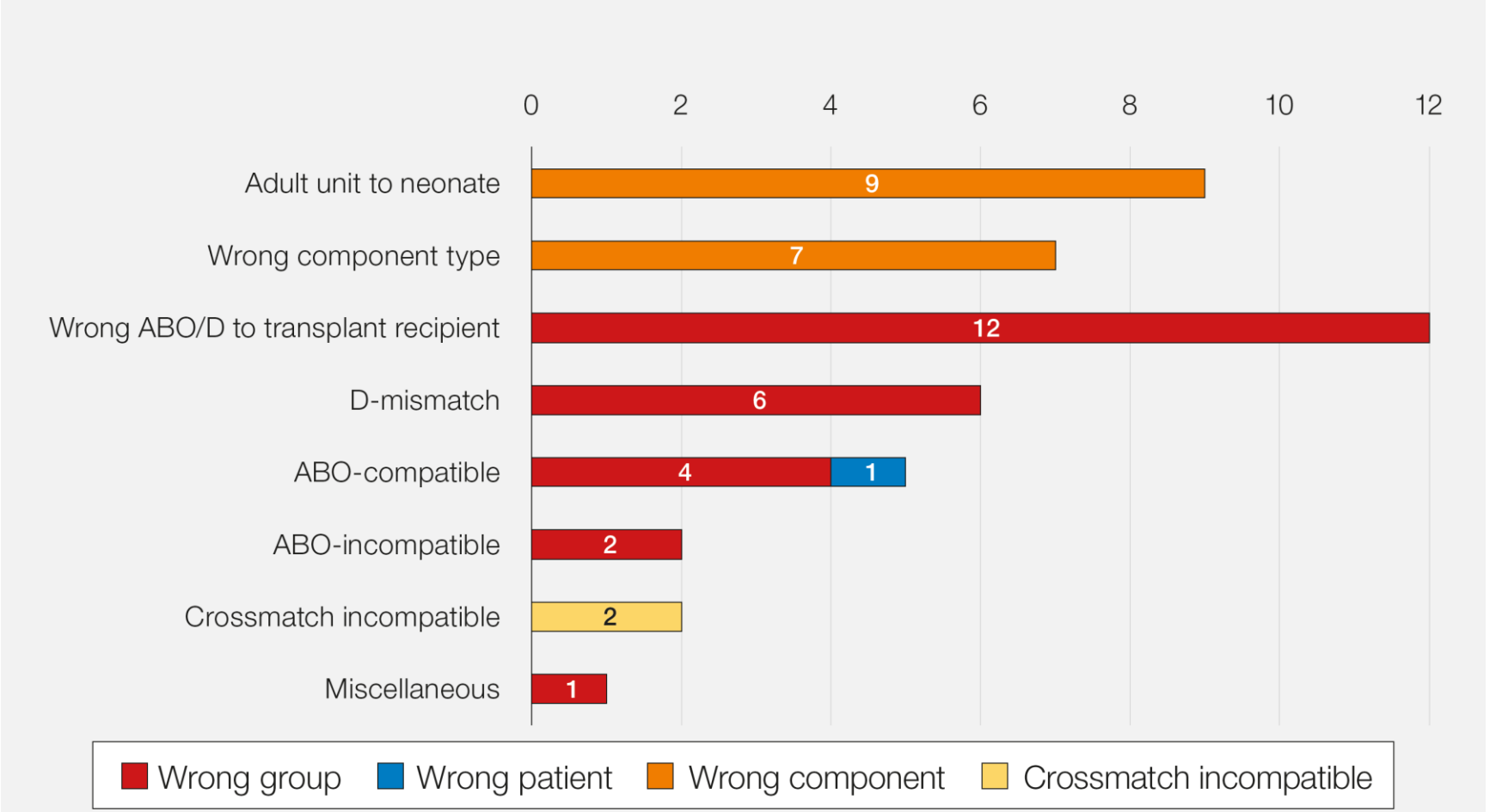
Clinical errors resulting in IBCT-SRNM categorised by patient impact and stage the error occurred in 2020 n=106



Laboratory WCT errors by transfusion step where the primary error occurred in 2020 n=44

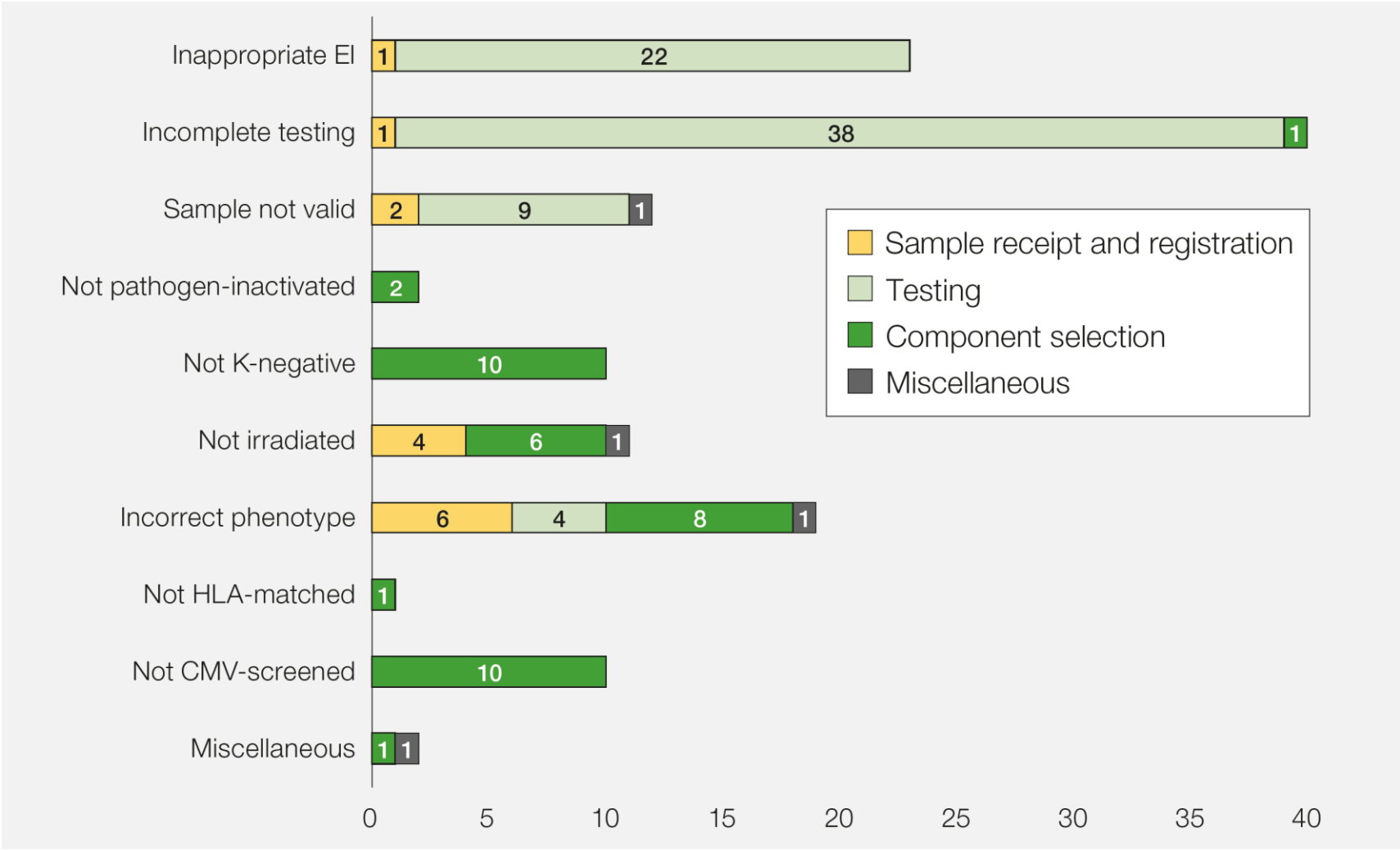


Laboratory WCT errors by category in 2020 n=44



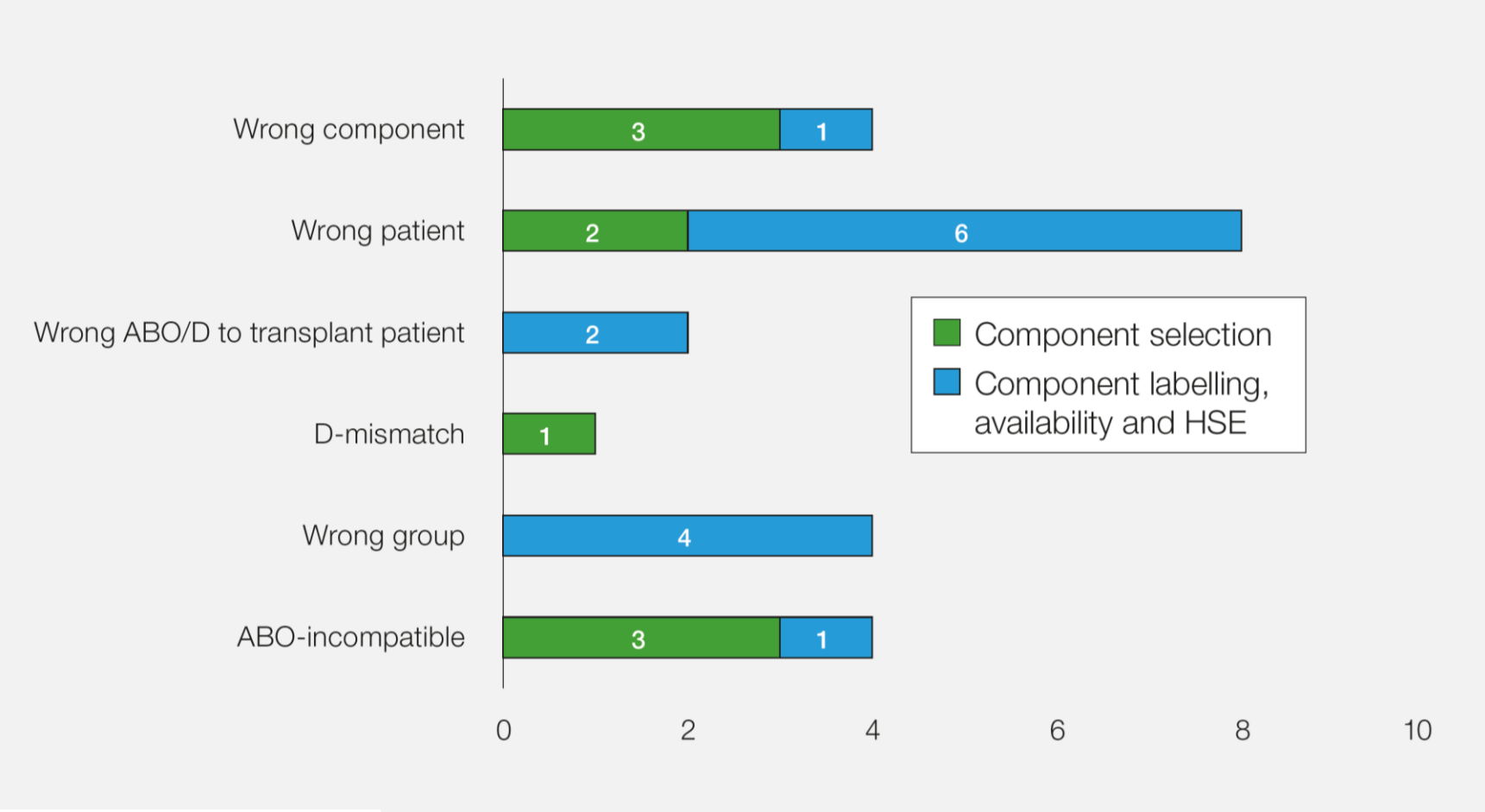
Note: Case classified as 'Miscellaneous' involved communication errors between the issuing laboratory and the laboratory who routinely treated this patient.

Laboratory errors resulting in IBCT-SRNM in 2020 n=130



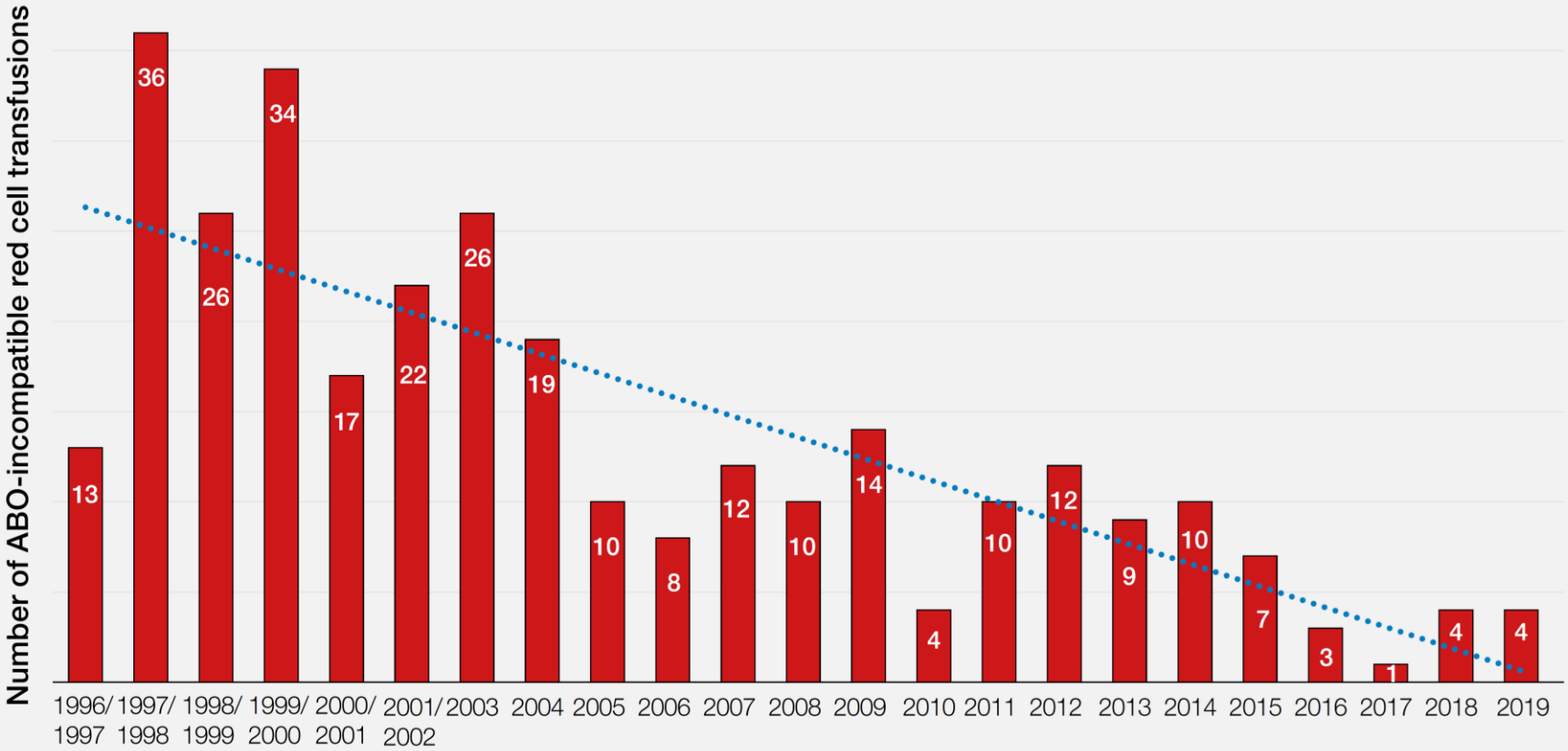
CMV=cytomegalovirus; HLA=human leucocyte antigen

Laboratory near miss IBCT-WCT events categorised by error and step in the transfusion process in 2020 n=23



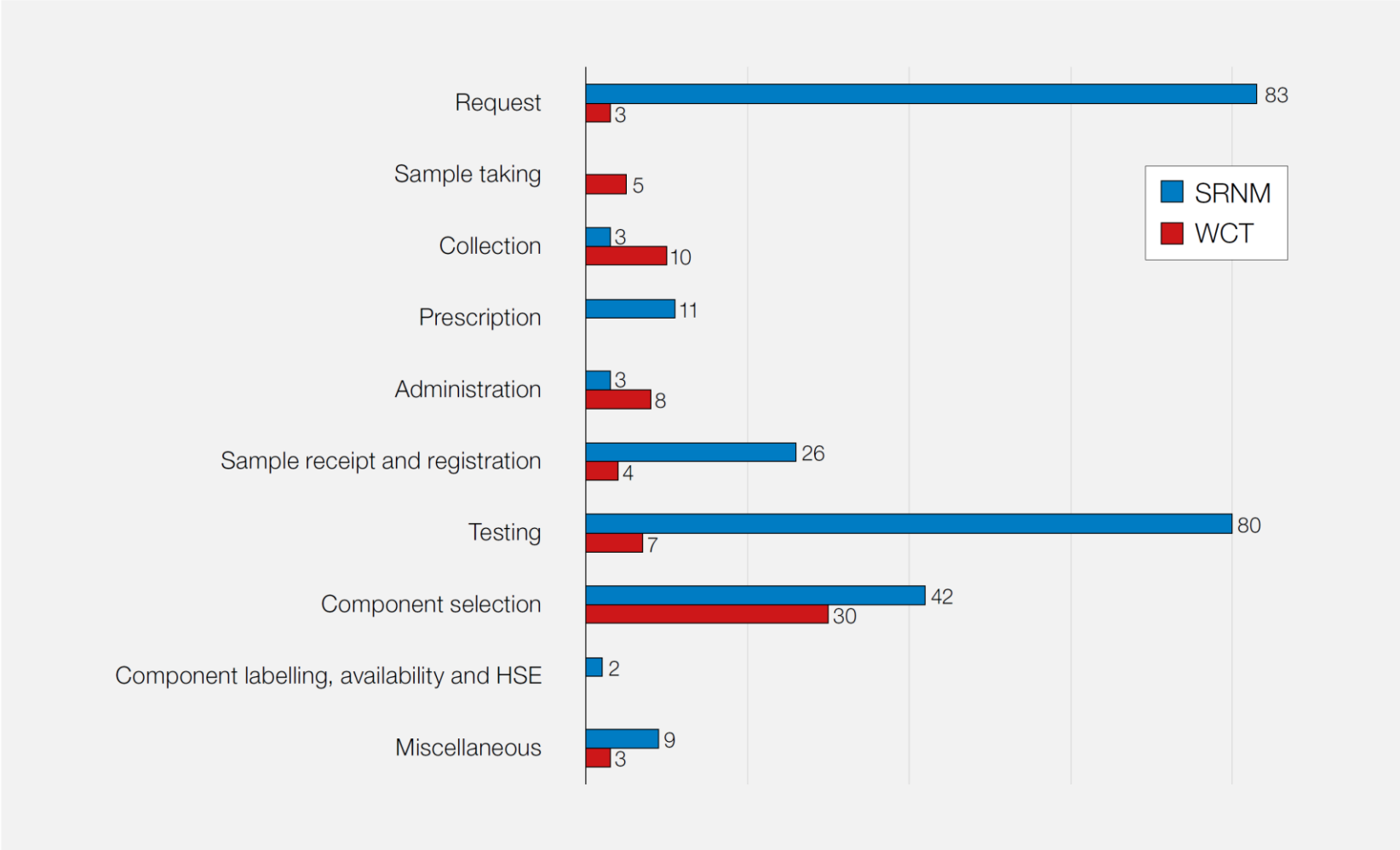
HSE = handling and storage errors

Number of ABO-incompatible red cell transfusions 1996-2019



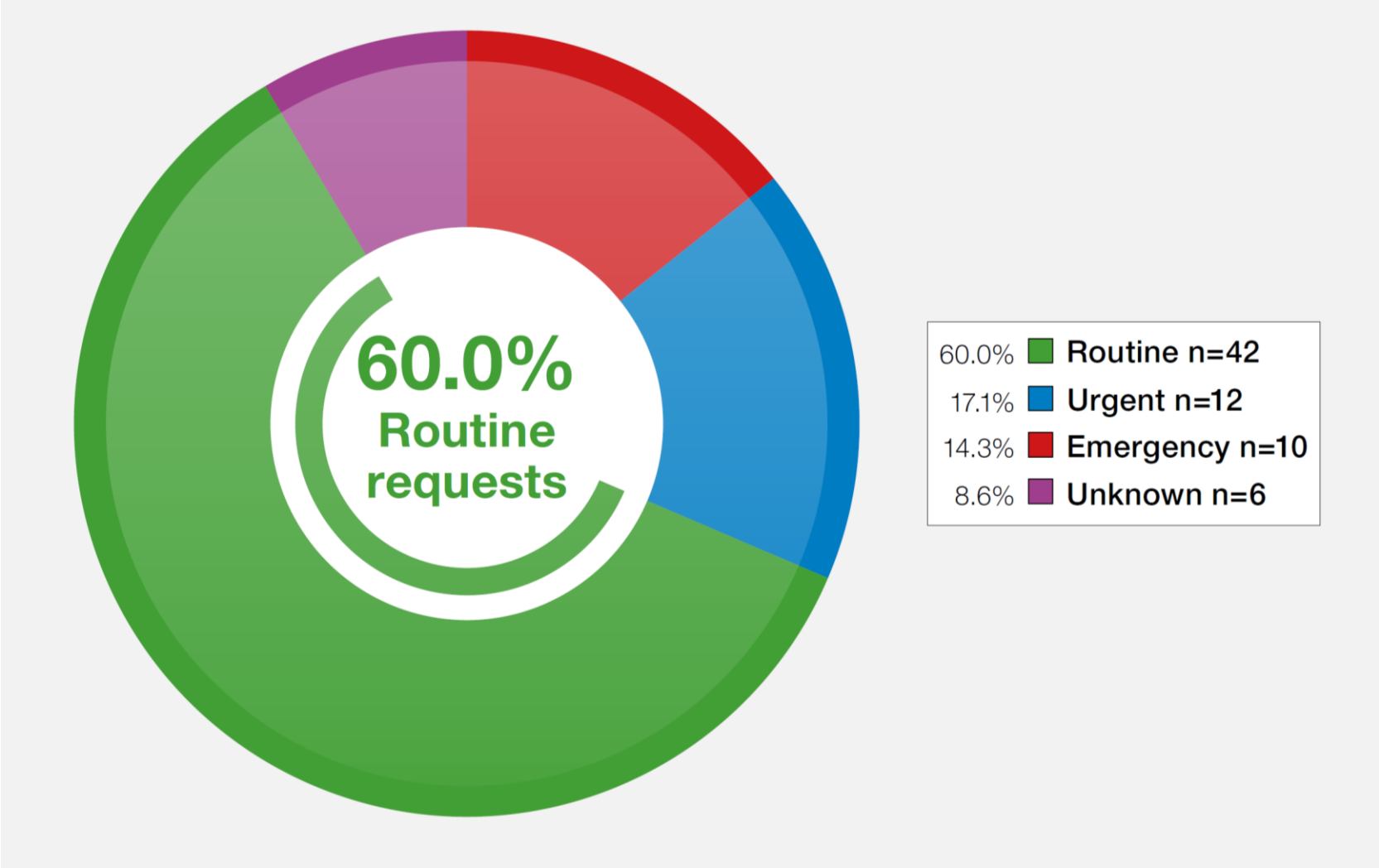
SHOT Serious Hazards of Transfusion

Total incorrect blood component transfused errors categorised by the step where the error occurred in 2019 n=329

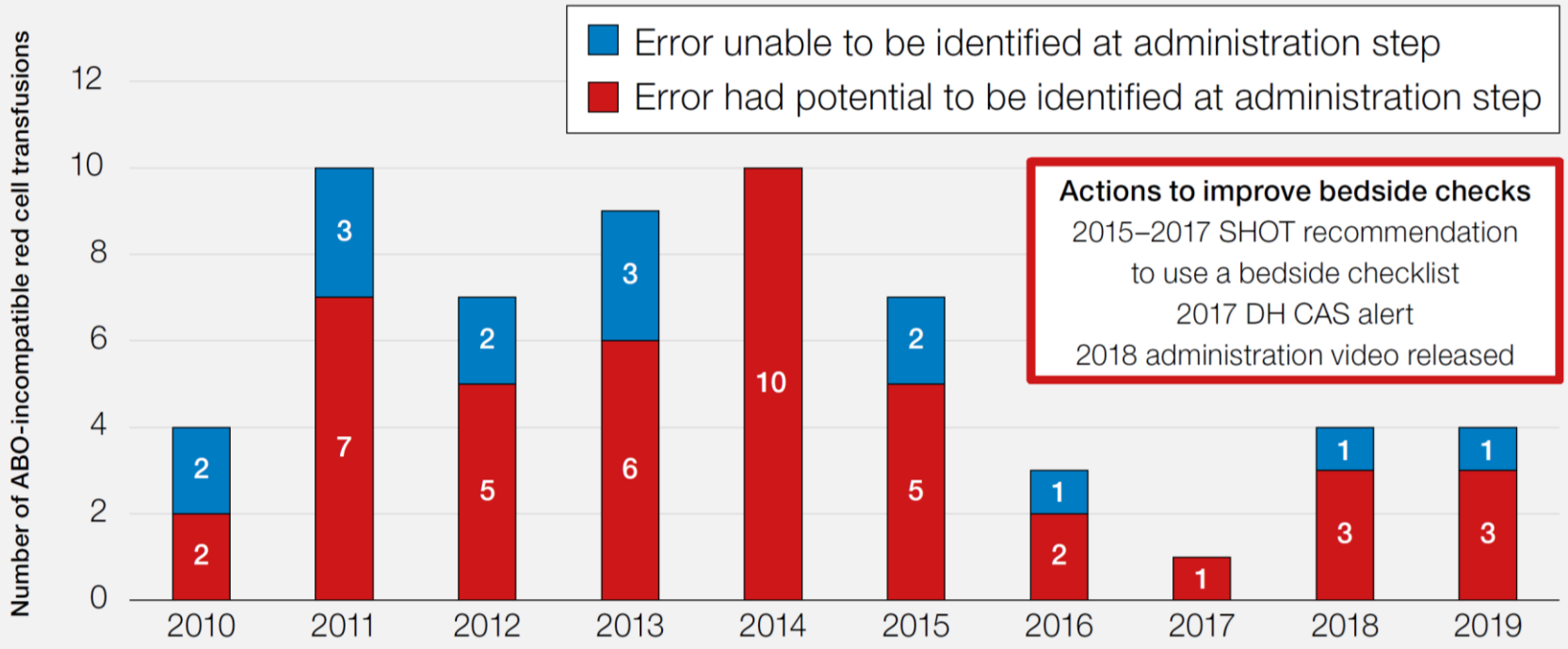


WCT=wrong component transfused; SRNM=specific requirements not met; HSE=handling and storage errors

WCT errors categorised by urgency of request in 2019 n=70

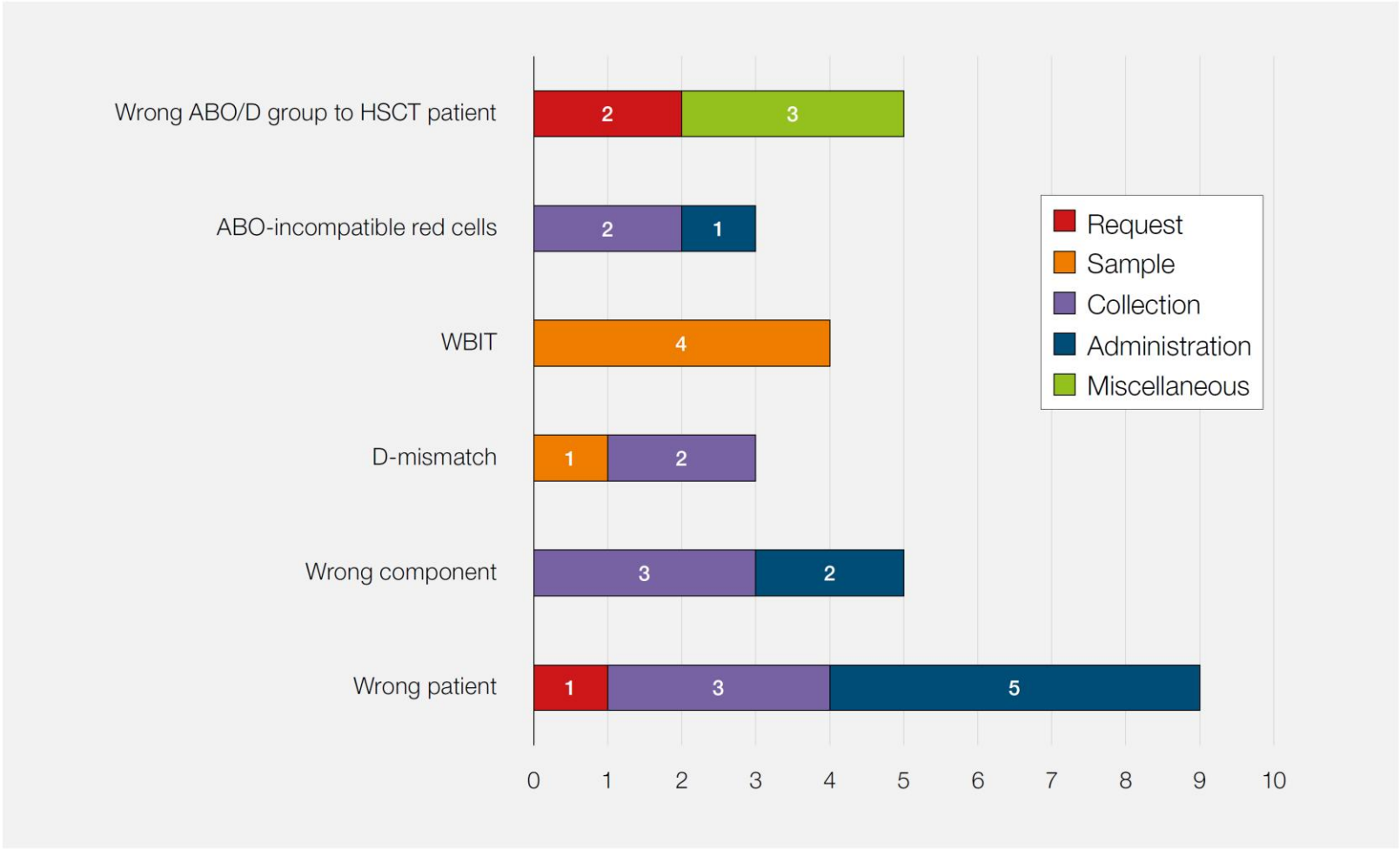


ABO-incompatible red cell transfusions from 2010-2019



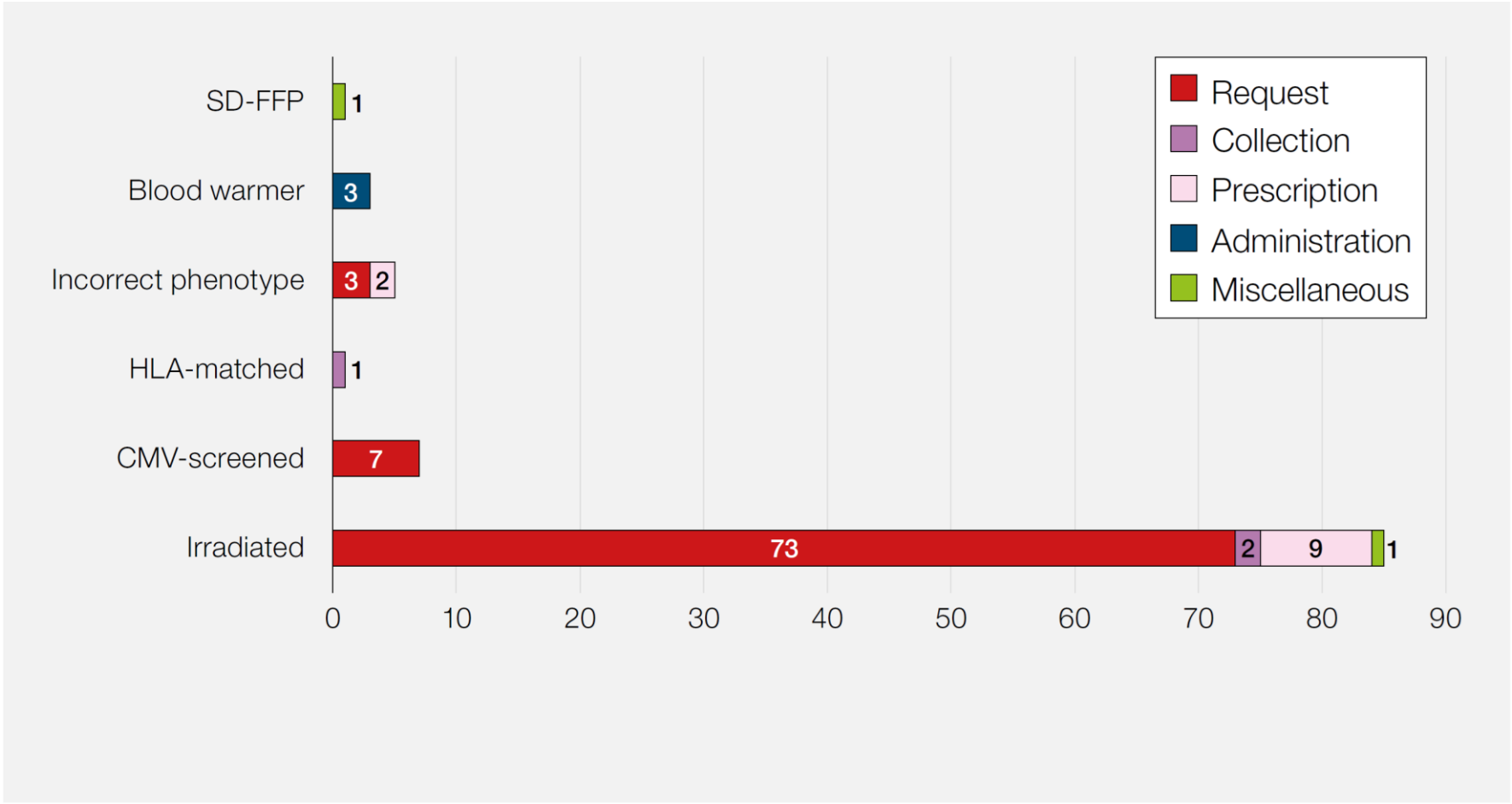
DH=Department of Health; CAS=central alerting system

Clinical errors resulting in IBCT-WCT categorised by stage the error occurred and patient impact 2019 n=29



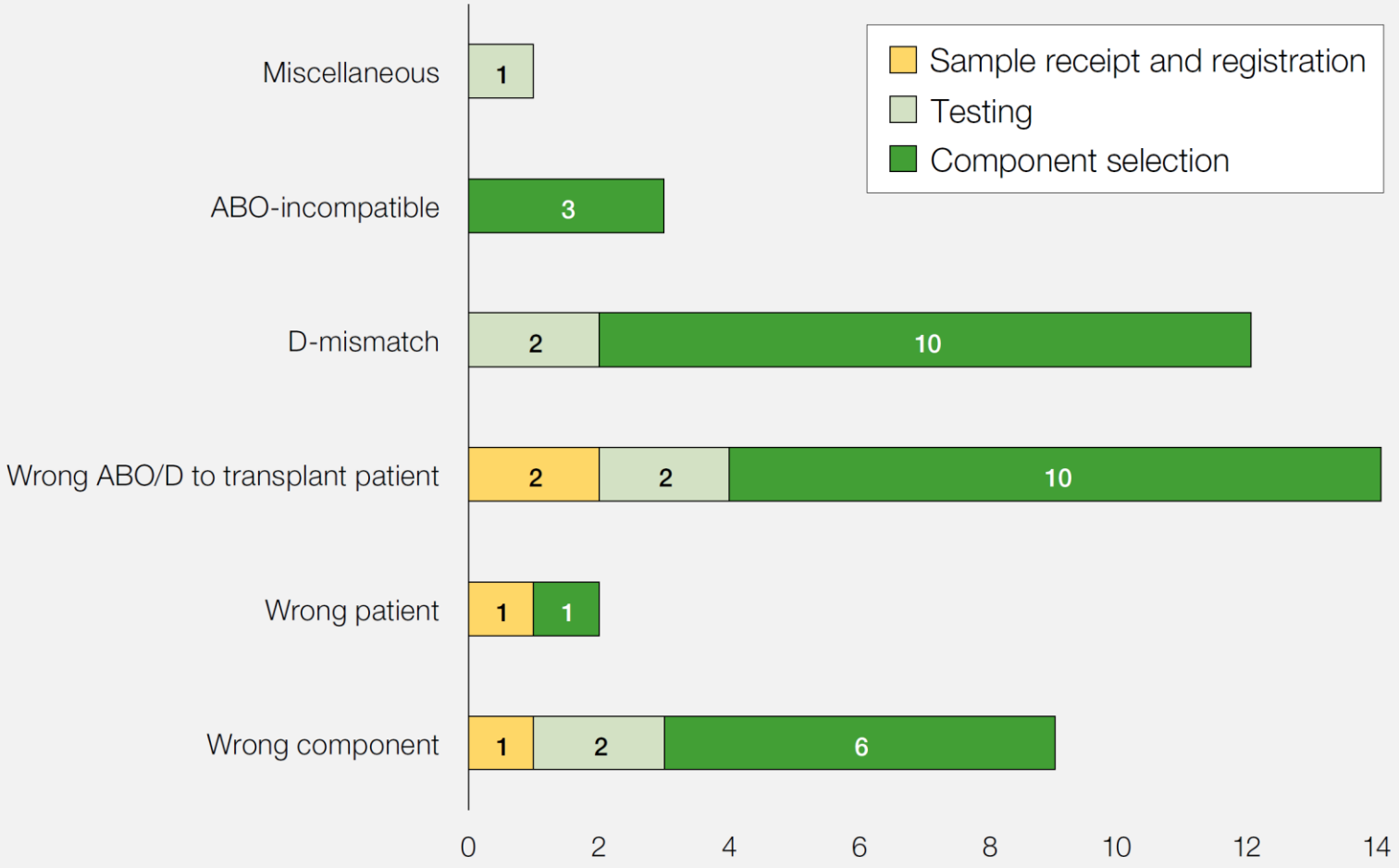
HSCT=haemopoietic stem cell transplant; WBIT=wrong blood in tube

Clinical errors resulting in IBCT-SRNM categorised by patient impact and stage the error occurred in 2019 n=102

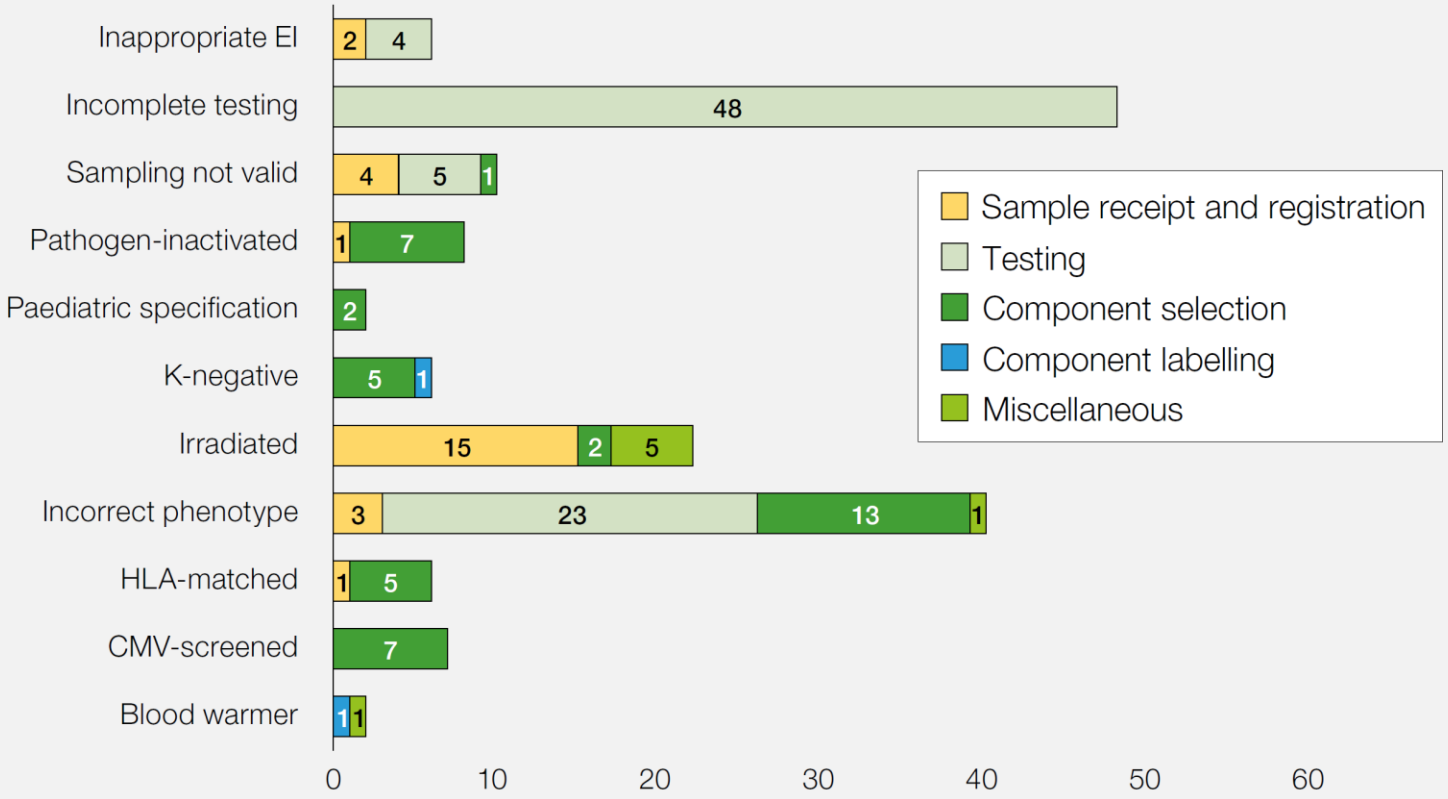


SD-FFP=solvent detergent fresh frozen plasma; HLA=human leucocyte antigen; CMV=cytomegalovirus

Laboratory errors resulting in WCT in 2019 n=41

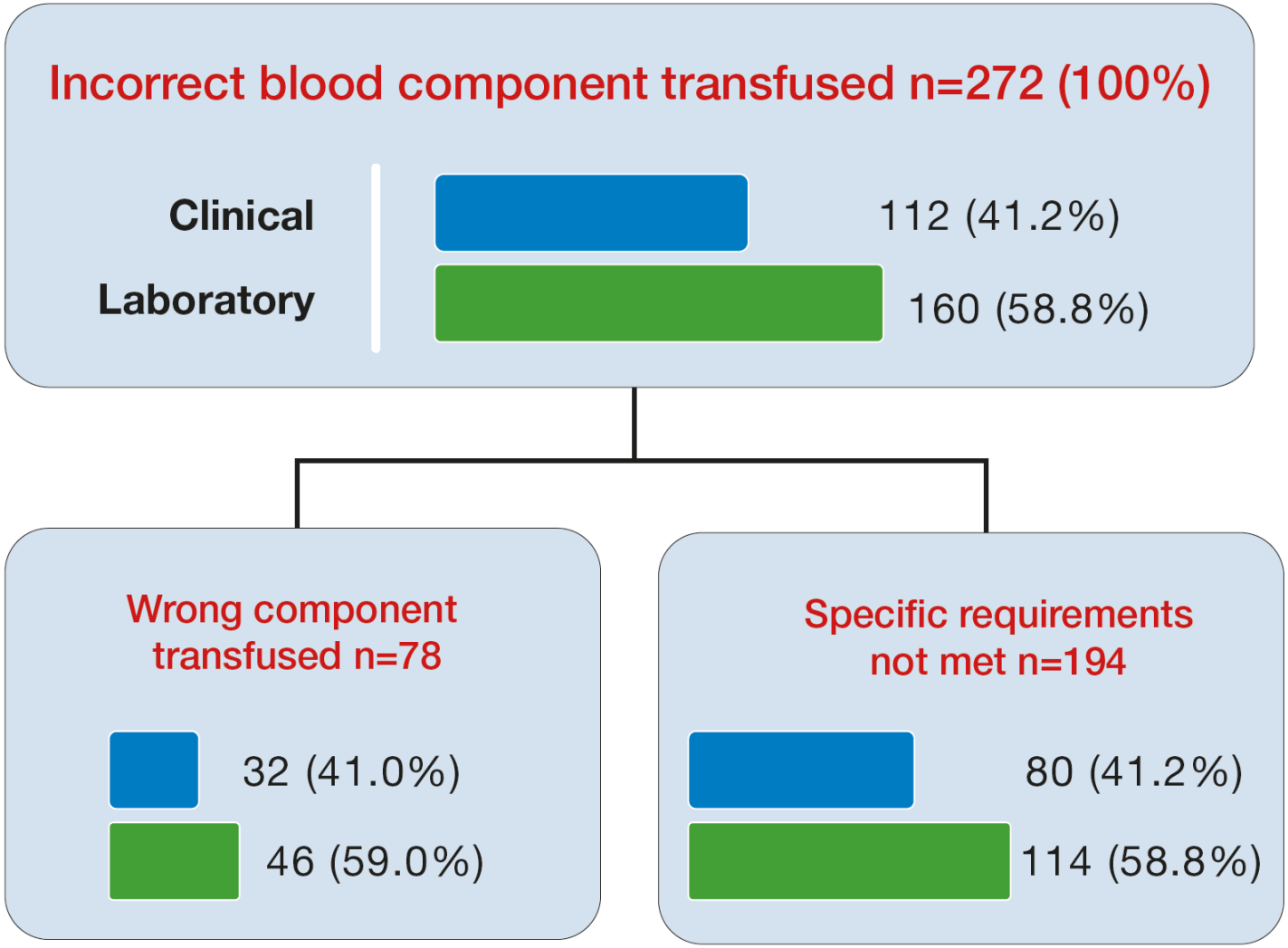


Laboratory errors resulting in SRNM in 2019 n=157



EI=electronic issue; HLA=human leucocyte antigen; CMV=cytomegalovirus

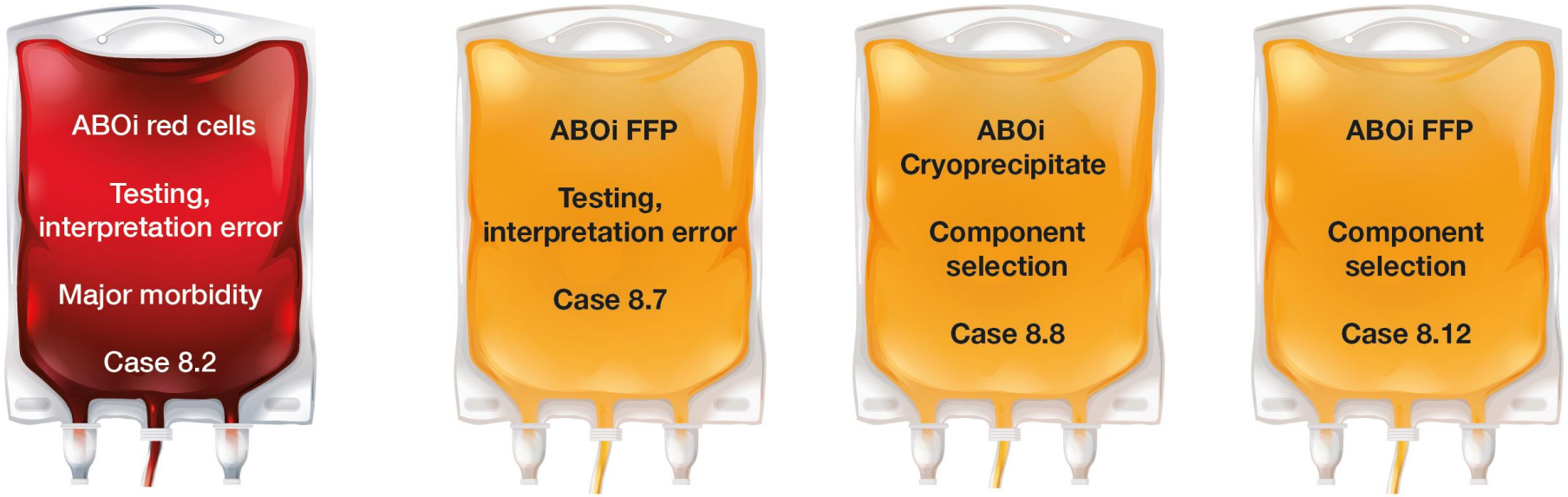
Overview of reports where an incorrect blood component was transfused in 2018 n=272



Clinical ABO-incompatible red cell transfusions in 2018 n=3

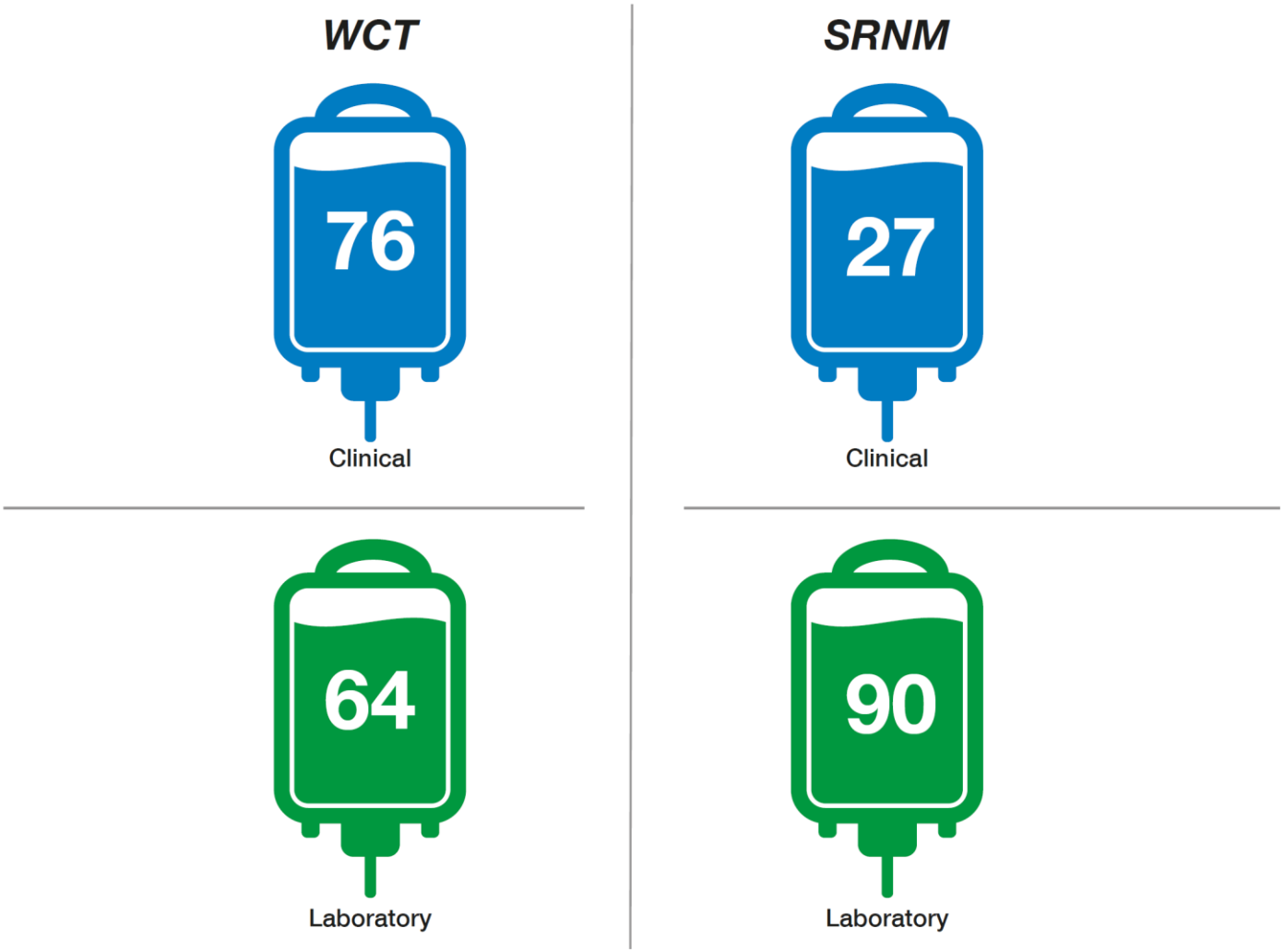
ABOi=ABO-incompatible

Laboratory ABO-incompatible transfusions in 2018 n=4



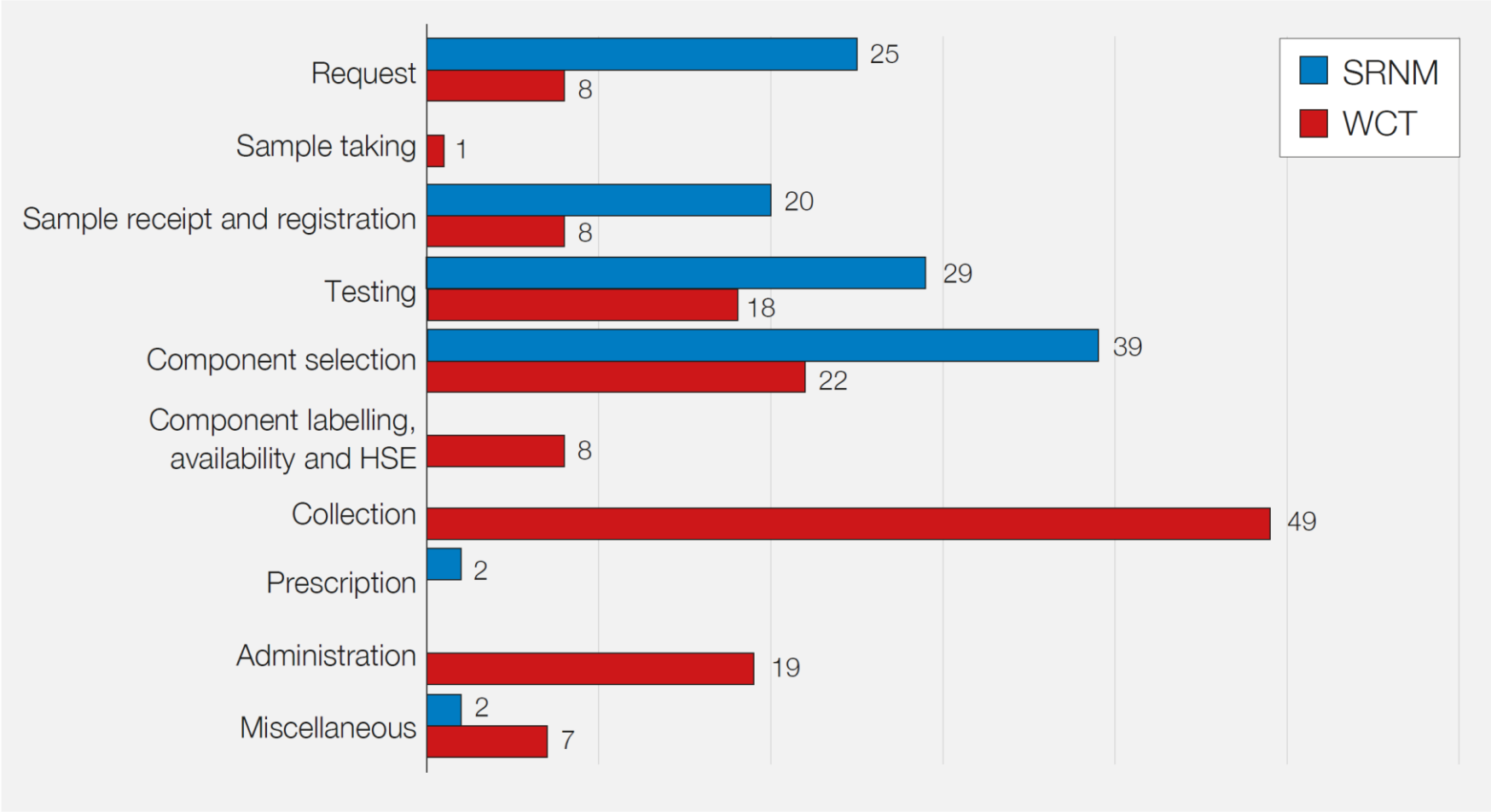
ABOi=ABO-incompatible; FFP=fresh frozen plasma

Overview of reports of near miss IBCT in 2018 n=257



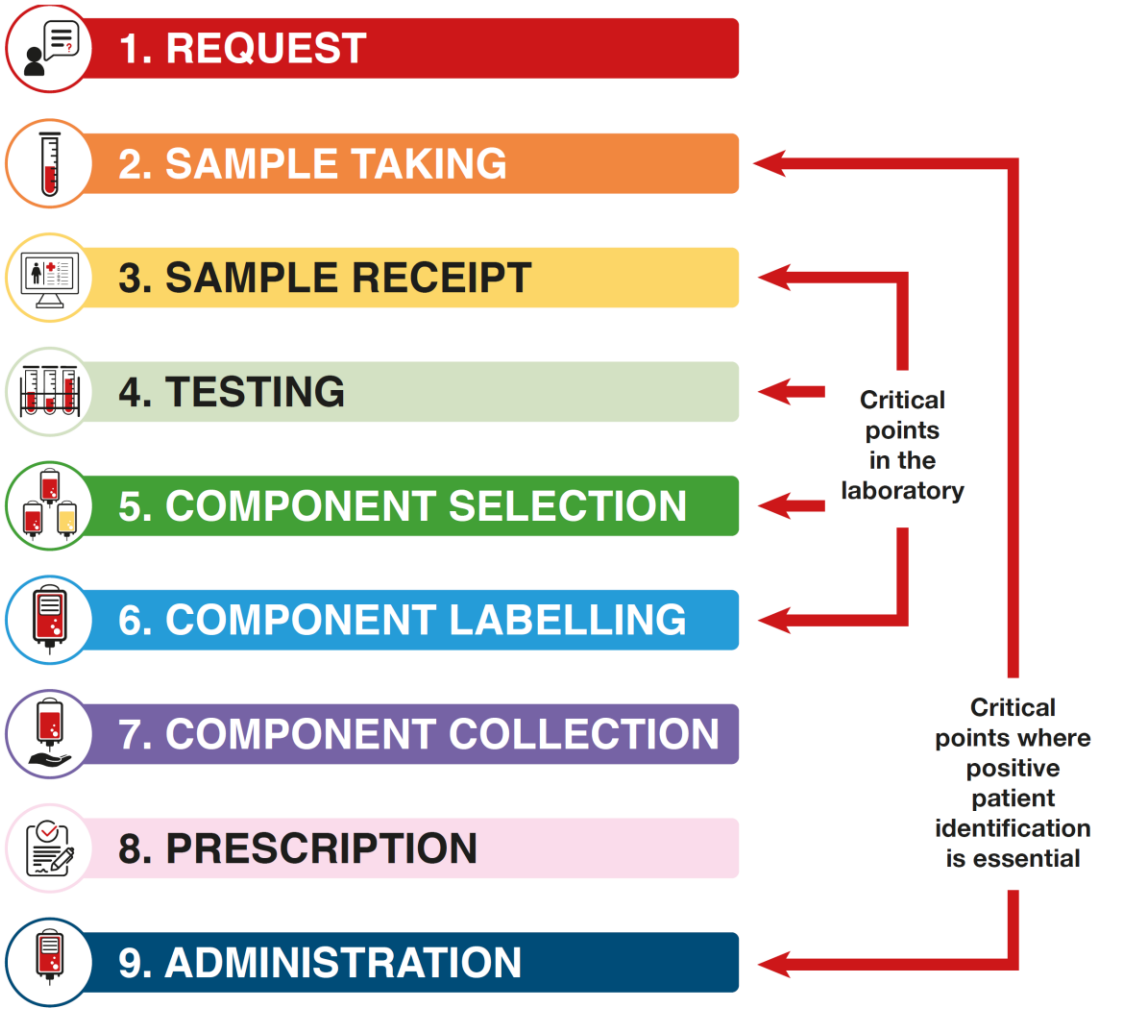
WCT=wrong component transfused; SRNM=specific requirements not met

Points in the transfusion process where the first mistake occurred (clinical and laboratory) leading to near miss wrong component (WCT) or specific requirements not being met (SRNM) in 2018 n=257



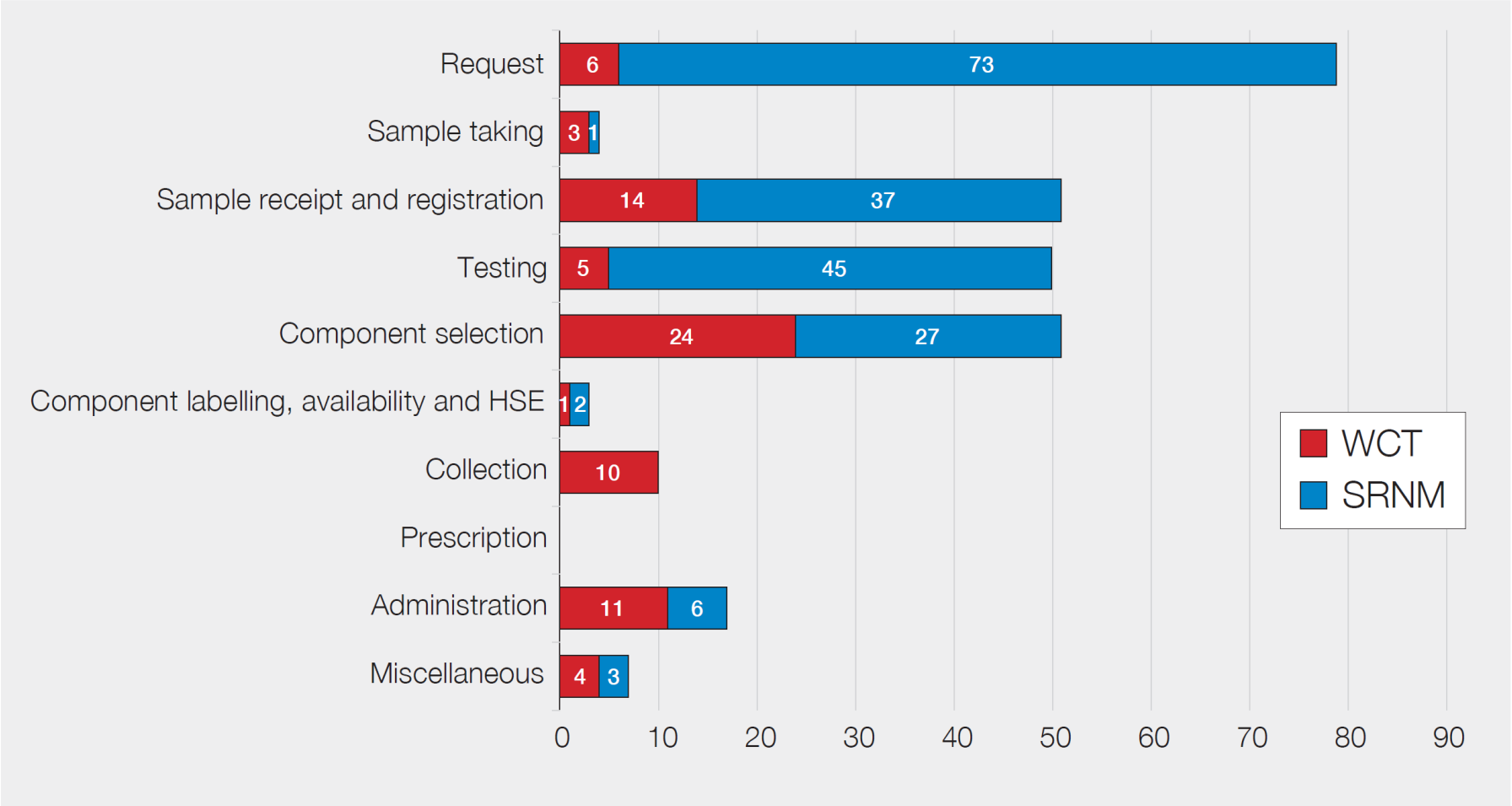
WCT=wrong component transfused; SRNM=specific requirements not met

Transfusion process (nine steps)



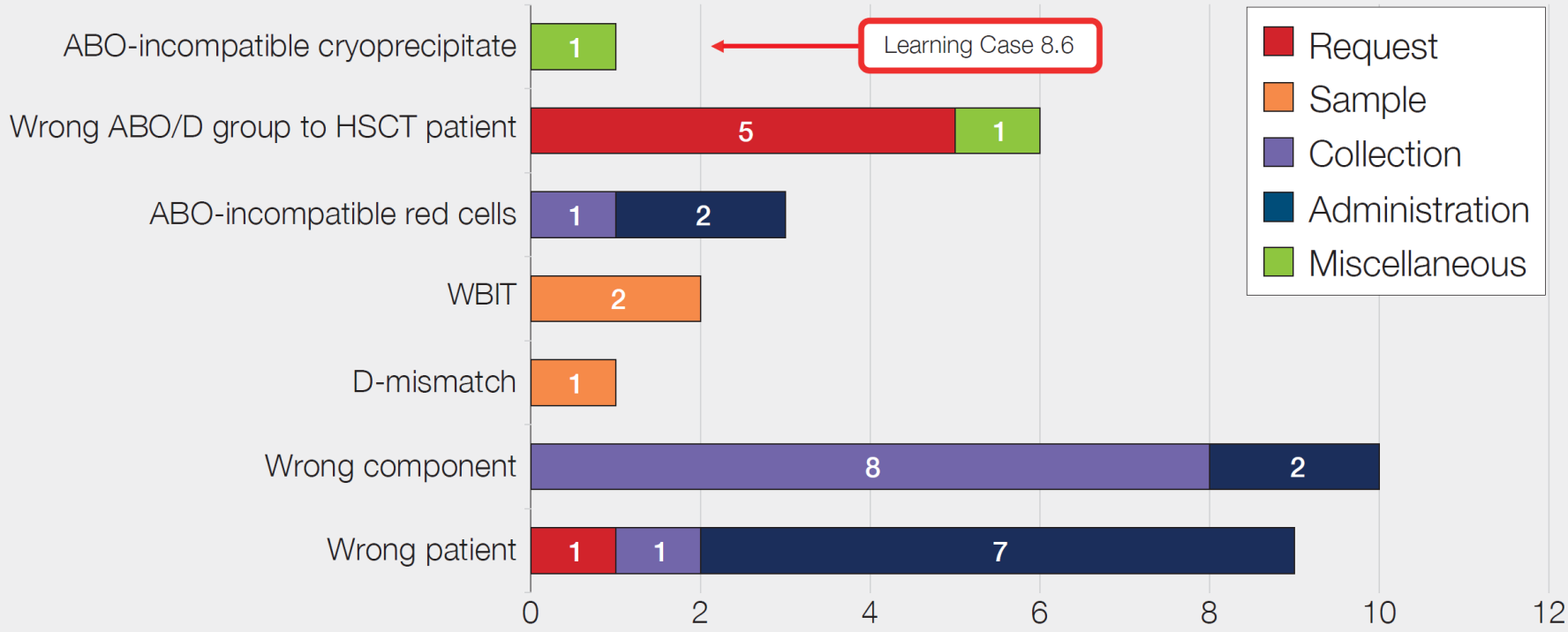
Note: Once a decision to transfuse is made, the authorisation or prescription may be written at variable times during this sequence, but ***must be checked at the final stage****.*

Points in the transfusion process where the first mistake occurred (clinical and laboratory) leading to wrong component transfused (WCT) or specific requirements not met (SRNM) in 2018 n=272



HSE=handling and storage errors

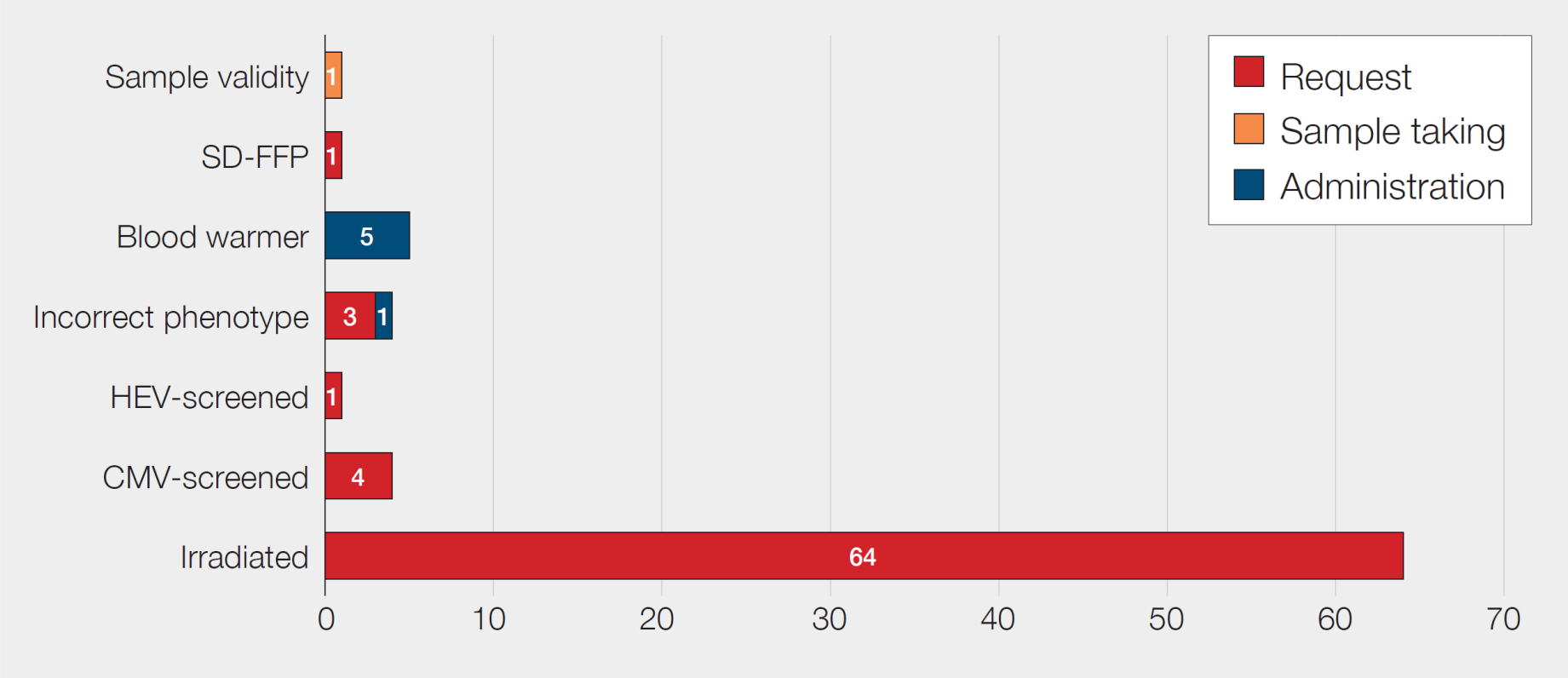
Clinical errors resulting in wrong component transfused in 2018 n=32



HSCT=haemopoietic stem cell transplant; WBIT=wrong blood in tube

There were no prescription errors reported in 2018

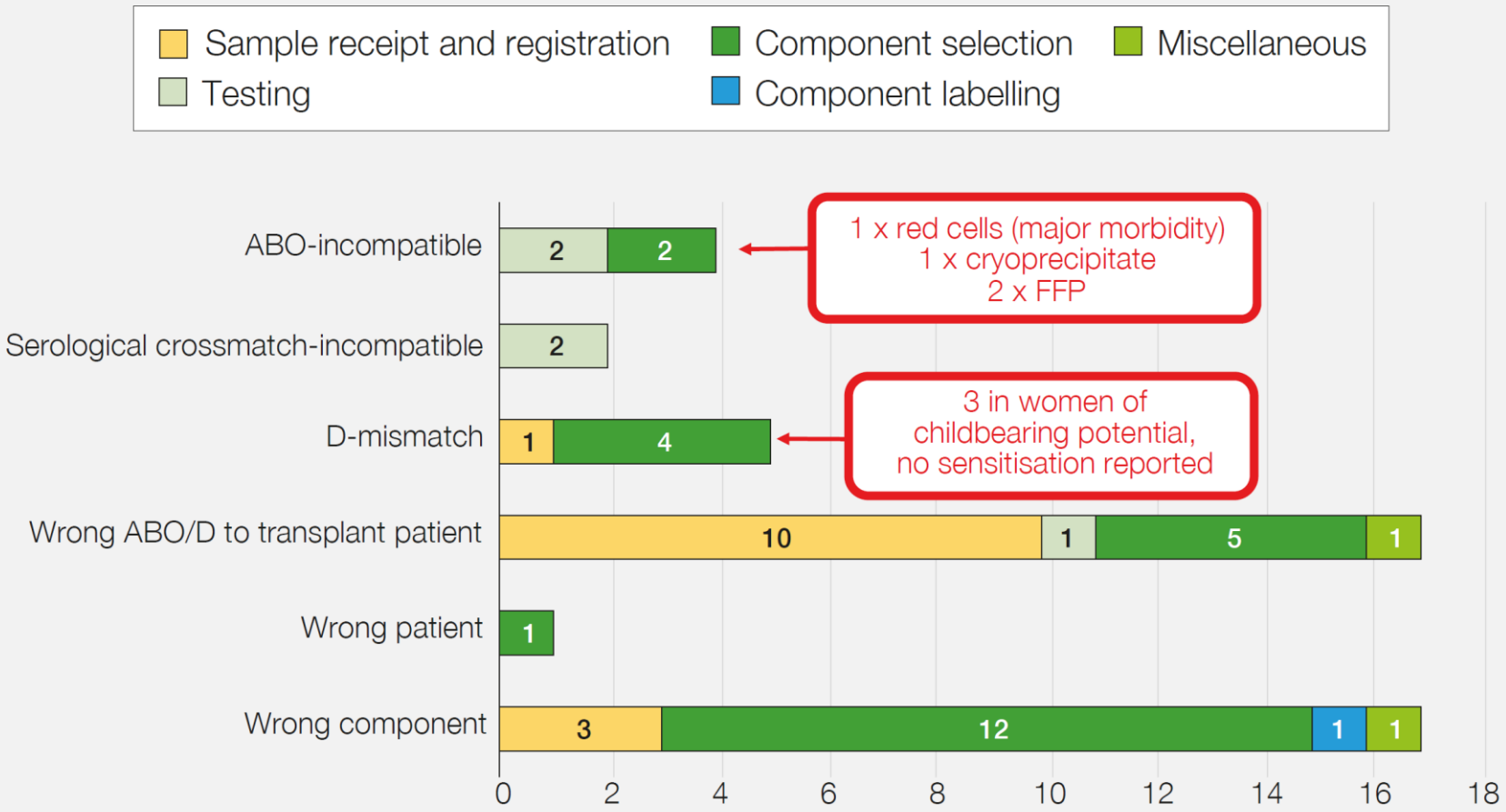
Clinical errors resulting in specific requirements not being met in 2018 n=80



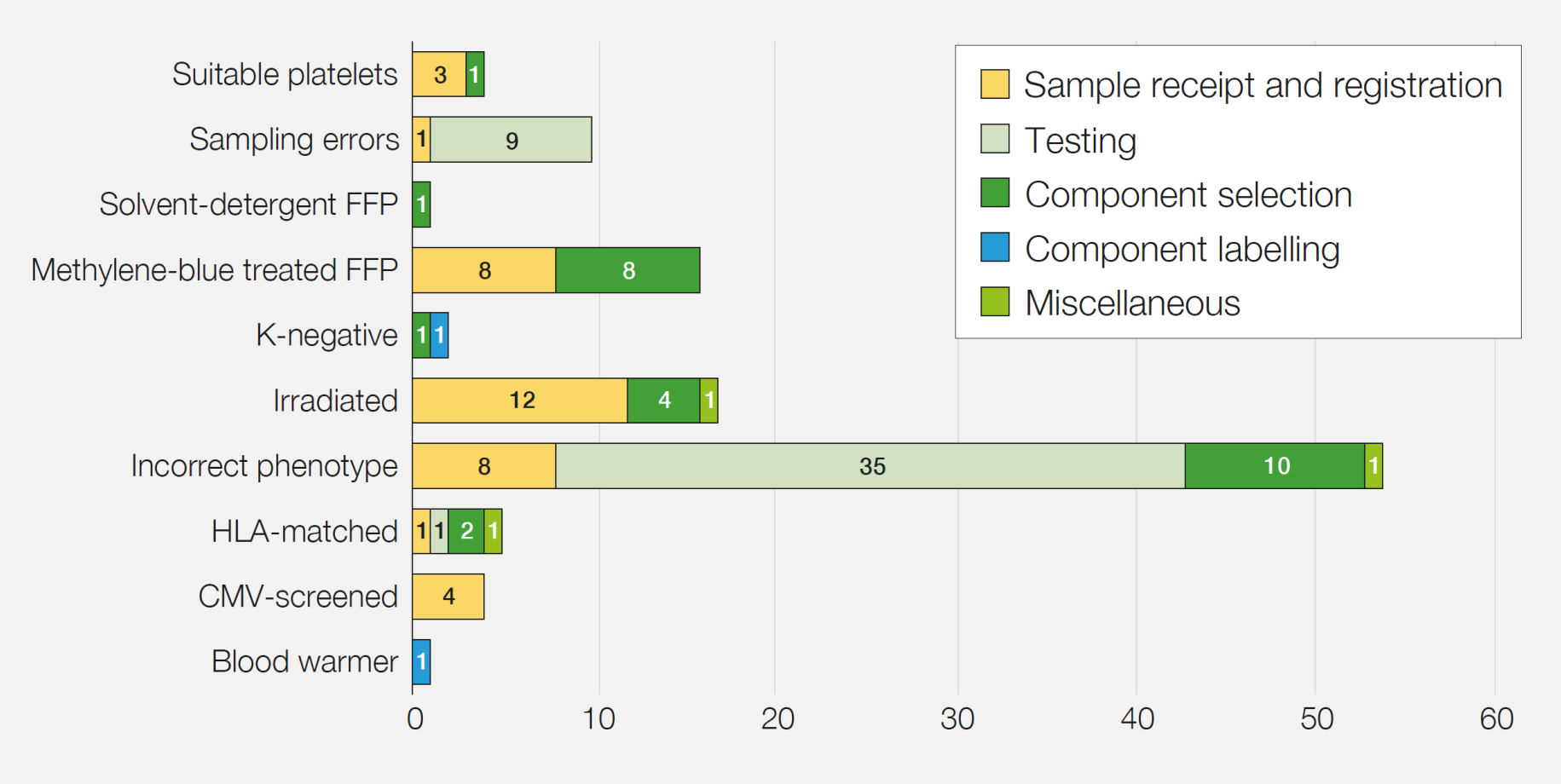
SD-FFP=solvent detergent fresh frozen plasma; HEV=hepatitis E virus; CMV=cytomegalovirus

There were no collection or prescription errors reported in 2018

Laboratory errors resulting in wrong component transfused in 2018 n=46



Laboratory errors resulting in specific requirements not being met in 2018 n=114



FFP=fresh frozen plasma; HLA=human leucocyte antigen; CMV=cytomegalovirus

Reduction in the number of SRNM primary request errors

Summary of sampling cases 2018

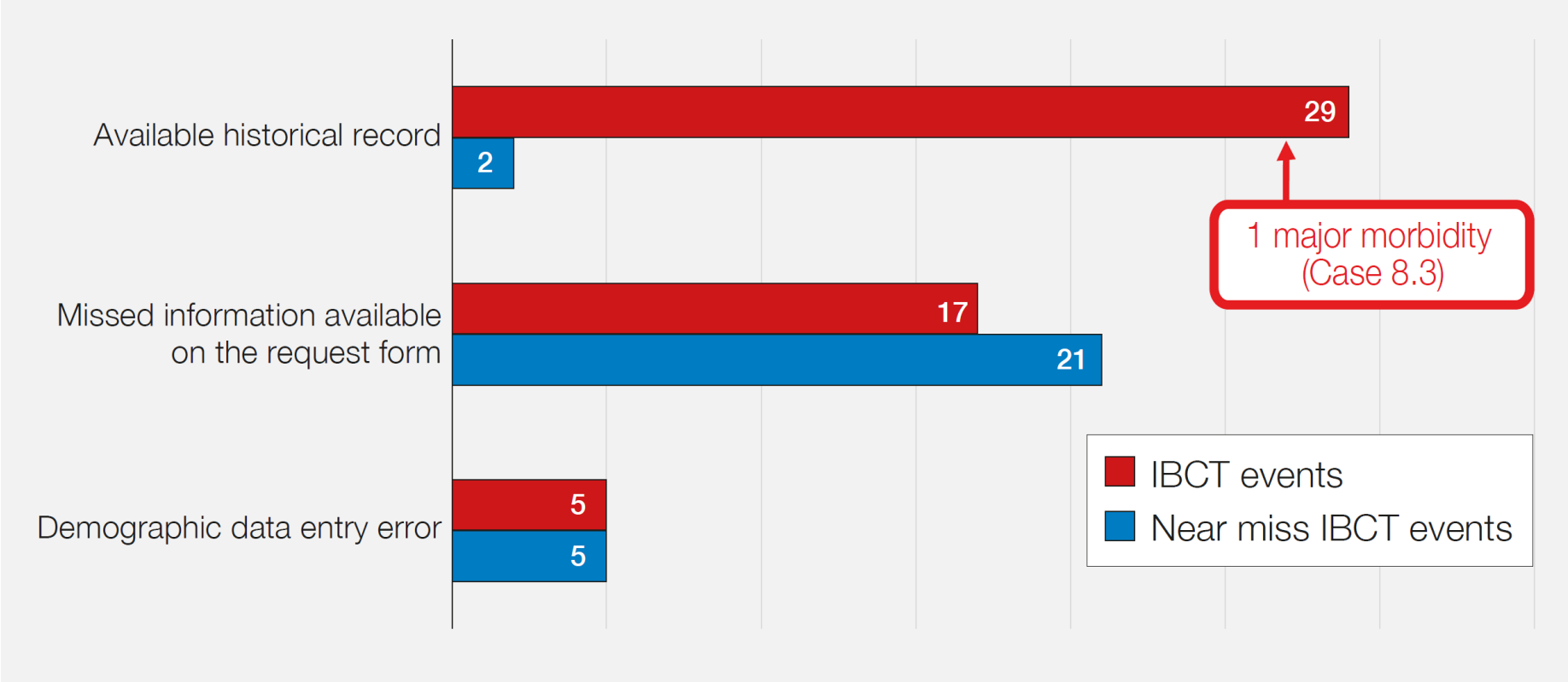
Two separate cases involved a mix up of samples (WBIT) between neonatal twins

One suspected historical case of WBIT led to a D-mismatched transfusion

One case of a sample that was not labelled correctly in the clinical area. The patient's date of birth was written in the 'date taken' box and 'date of birth' box. Not noticed by the laboratory staff and blood was issued and transfused using an invalid sample

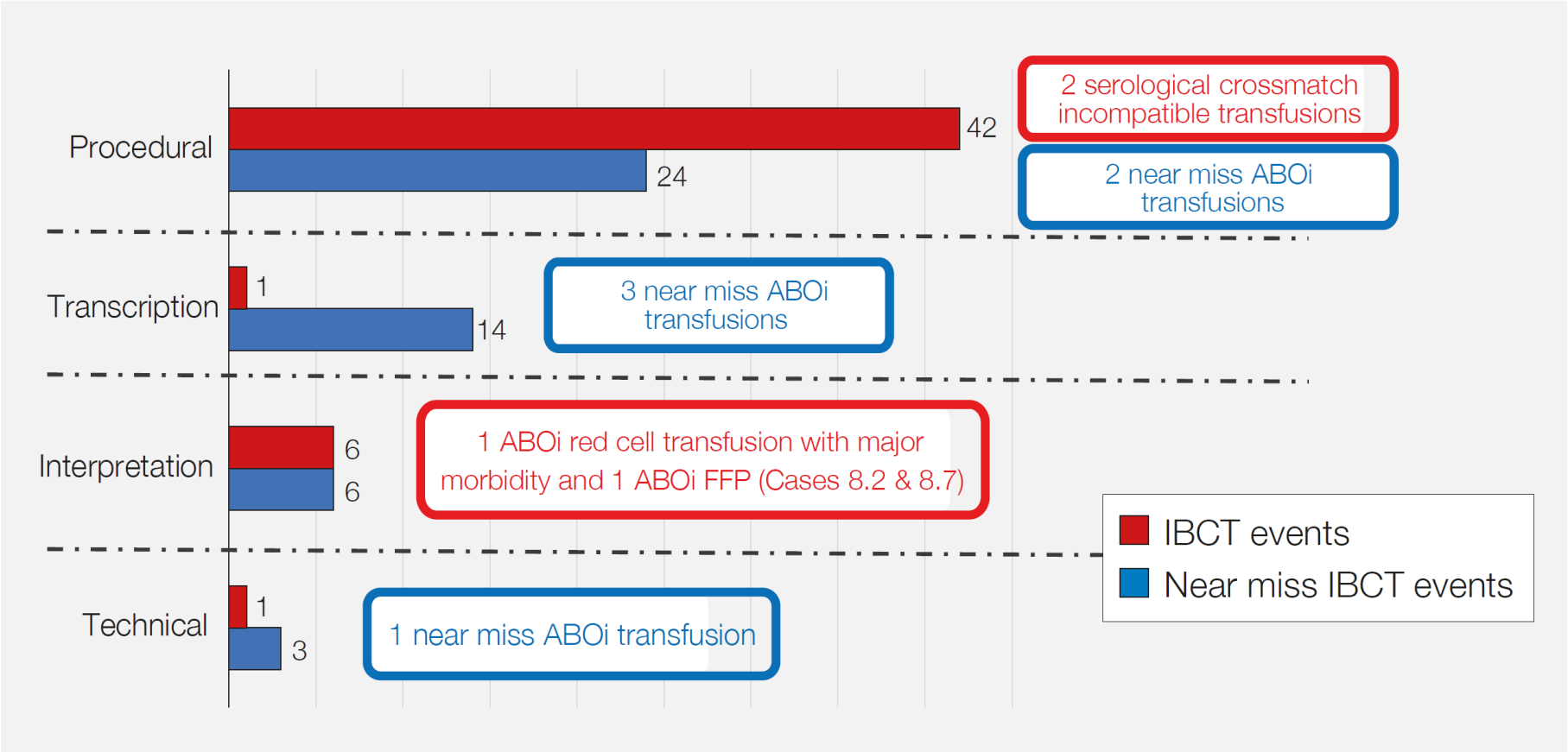
WBIT=wrong blood in tube

Sample receipt and registration errors with outcome in 2018 n=79



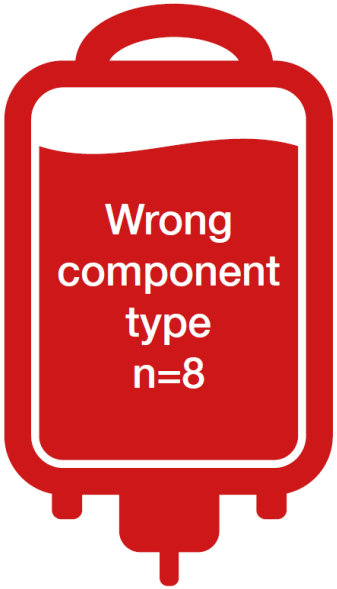
IBCT=incorrect blood component transfused

Testing errors with outcome in 2018 n=97



ABOi=ABO-incompatible; FFP=fresh frozen plasma

Summary of wrong component type cases in 2018



Three cases of wrong 'yellow' (FFP, cryoprecipitate, platelets) components **collected** and administered

Two cases of adult emergency red cell units **collected** and then administered to paediatric patients

One case of a red cell unit **collected** instead of platelets and administered

One case of emergency O D-negative red cells **collected** instead of issued O D-negative (group specific was not available)

One case of platelets **collected** instead of red cells and administered

FFP=fresh frozen plasma

Three cases demonstrating transfusion to the wrong patient in 2018

Case 8.9: Use of a 'dependent check' at the administration step leads to transfusion to the wrong patient

A ward sister confirmed the date of birth with the patient against the identification band and prescription. A healthcare assistant (HCA) as the 2nd checker failed to check these details against the compatibility label.

A bedside checklist was not in use in this hospital.

Recommendations – Trust/Health Board to explore if the use of HCA as 2nd checkers for blood administration is appropriate and consider the use of electronic clinical systems

Case 8.10: Use of a 'dependent check' and failure to identify the patient at the administration step leads to transfusion of the wrong patient

Two registered nurses performed a dependent check (one nurse checked the identification band and the other nurse checked the blood component and the prescription). They did not positively identify the patient.

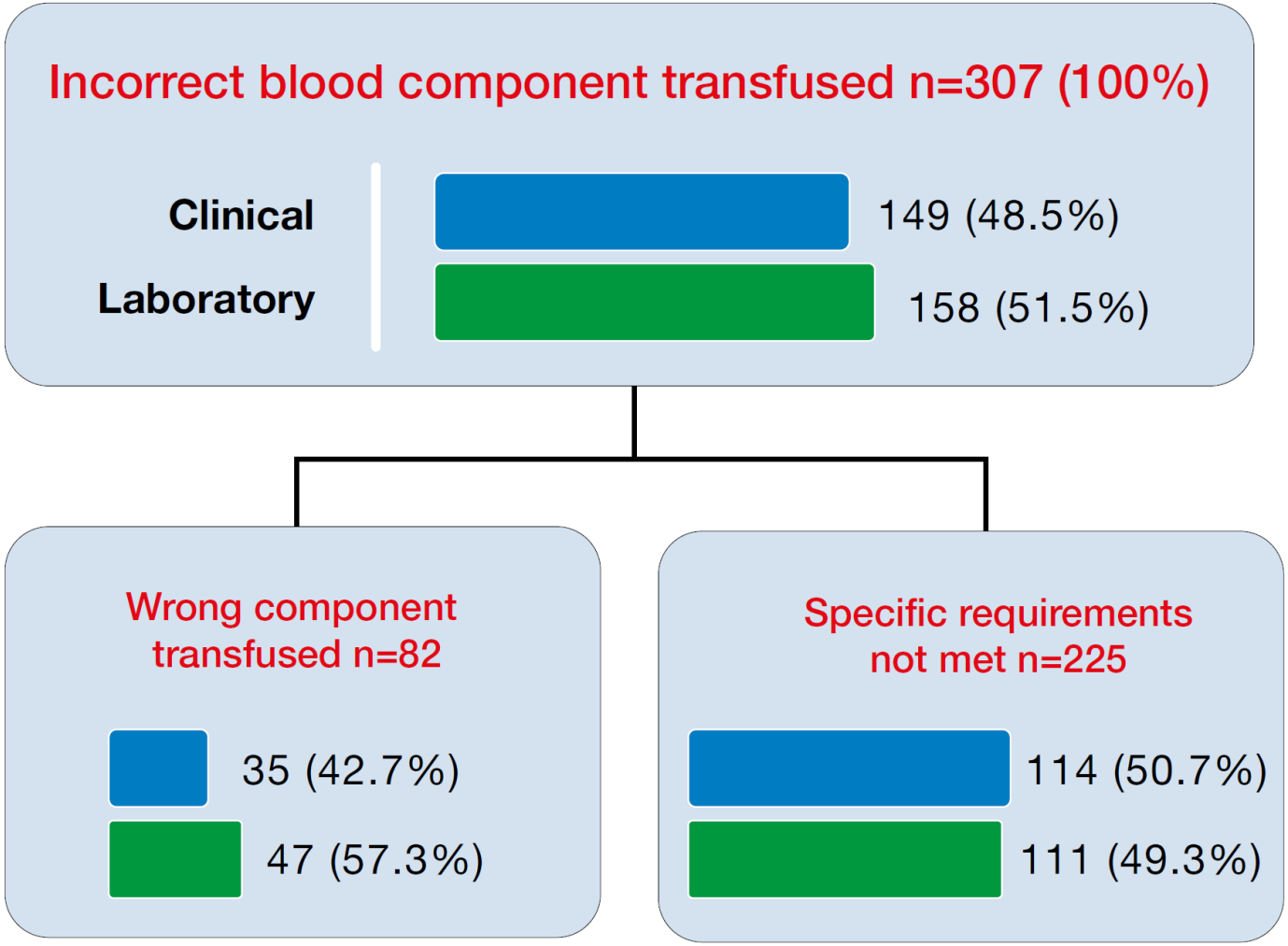
Both were competency-assessed and knew they should perform the check using an independent check. The event took place in the emergency department (ED), and was extremely busy and a shortage of staff was noted

Case 8.11: Transfusion to the wrong patient despite the use of an electronic system to alert staff of an error

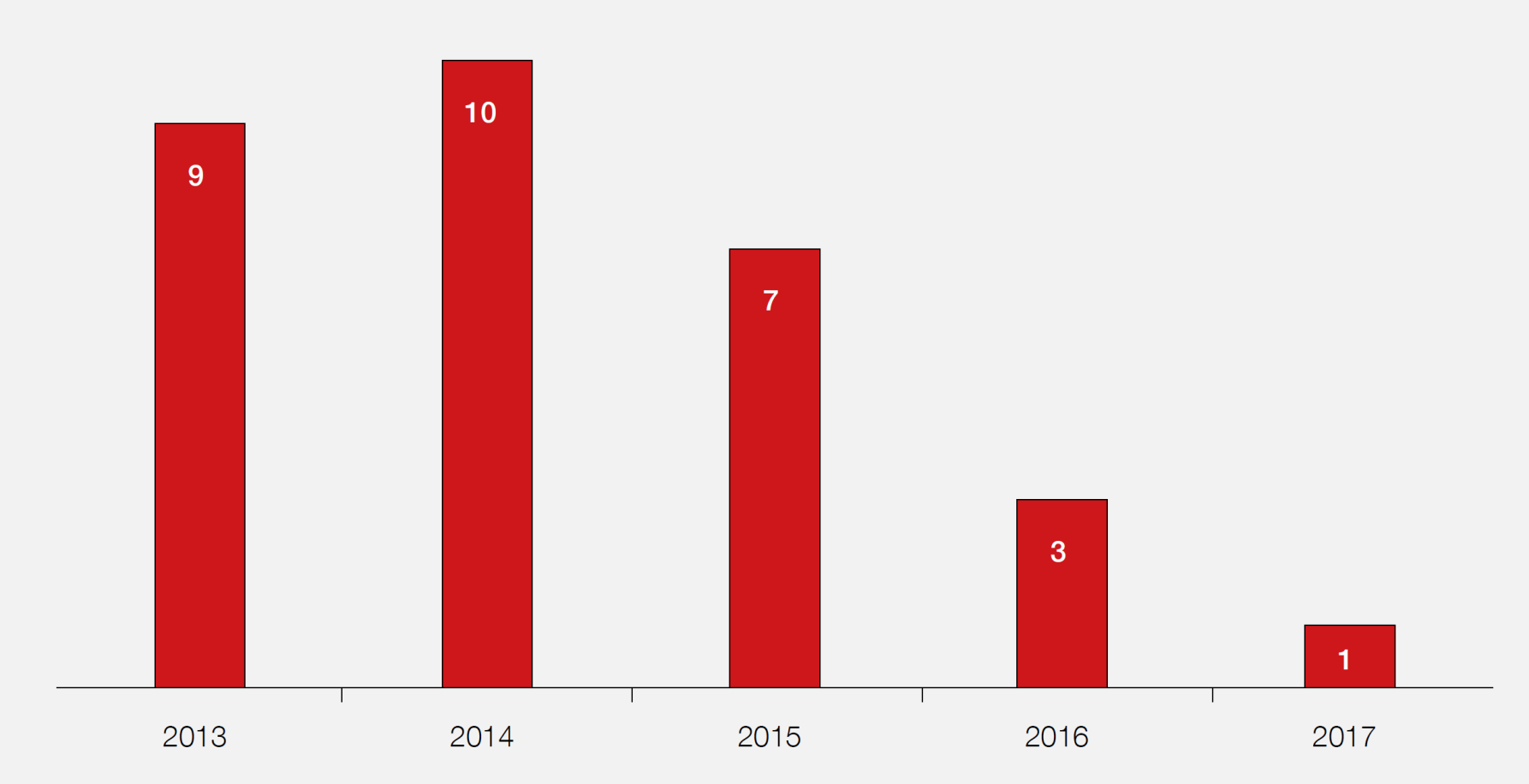
The wrong identification band was placed on a child which was intended for another child that was also due a transfusion that day.

The nurse took a unit of red cells to the child wearing the wrong identification band. Although there was an electronic prompt to carry out a verbal positive identification check, this did not take place. The electronic system was unable to alert the nurse this was the wrong patient because the unit matched the wristband

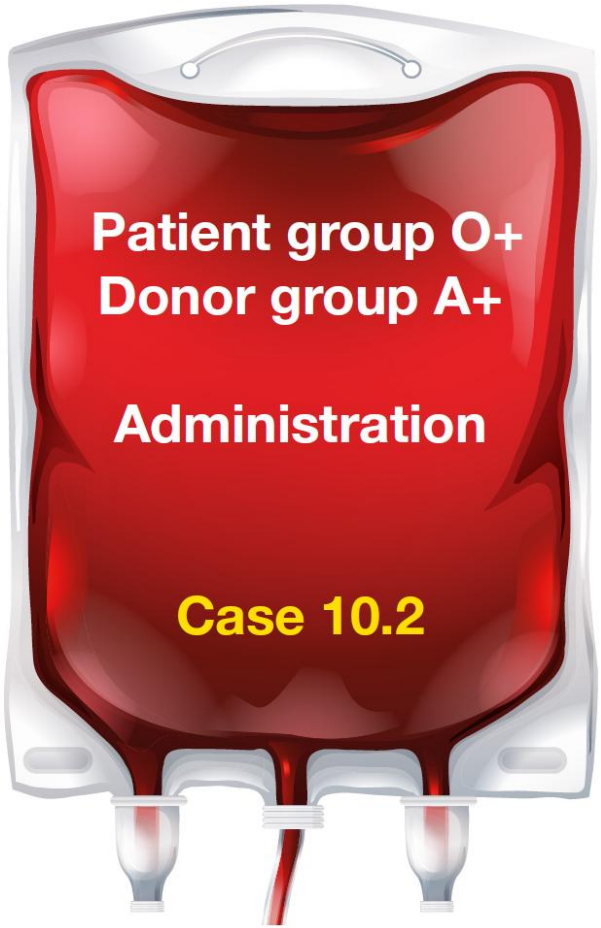
Overview of reports where an incorrect blood component was transfused in 2017 n=307



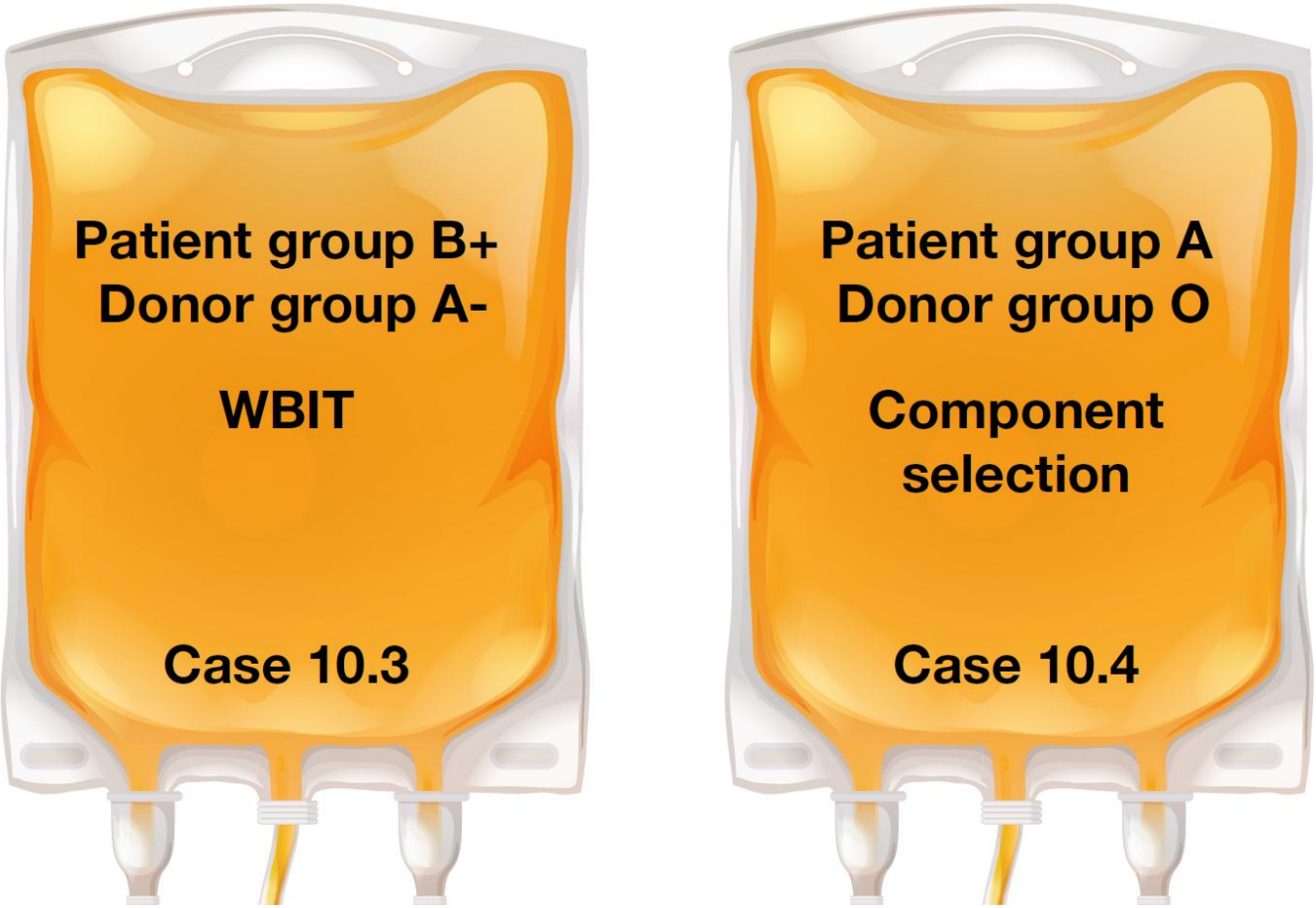
Reduction in the number of ABO-incompatible red cell transfusions 2013-2017



ABO-incompatible red cell transfusion in 2017
n=1 (clinical error)

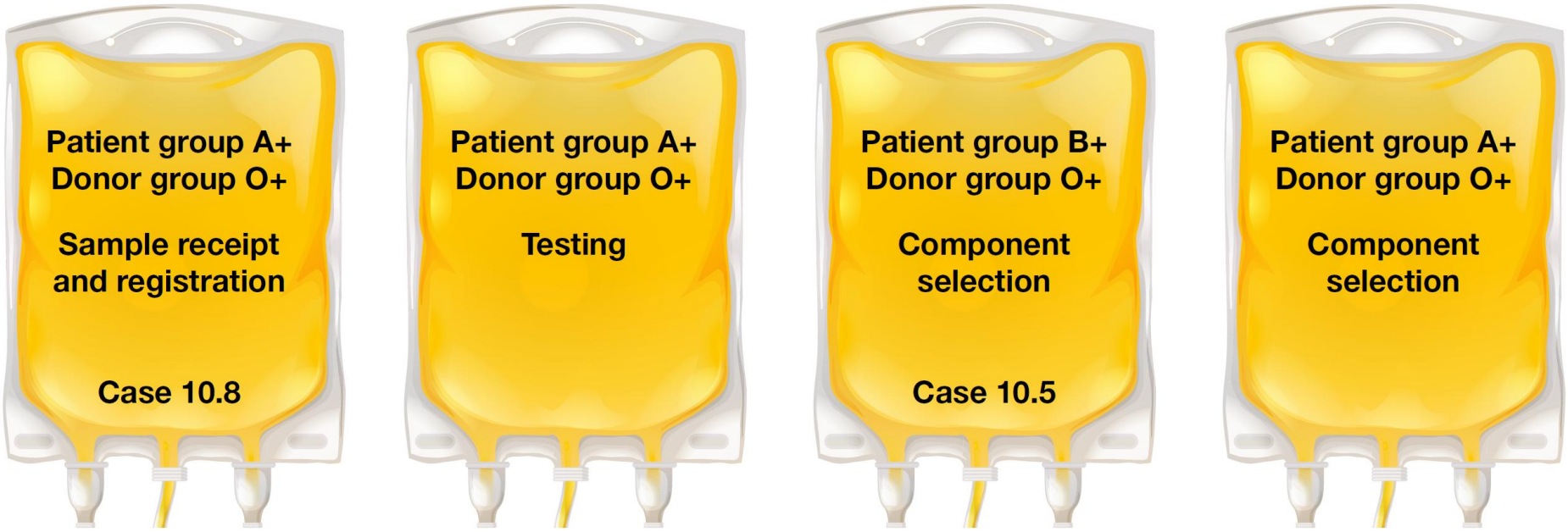


Unintentional ABO-incompatible platelet transfusions in 2017 n=2 (1 clinical, 1 laboratory error)

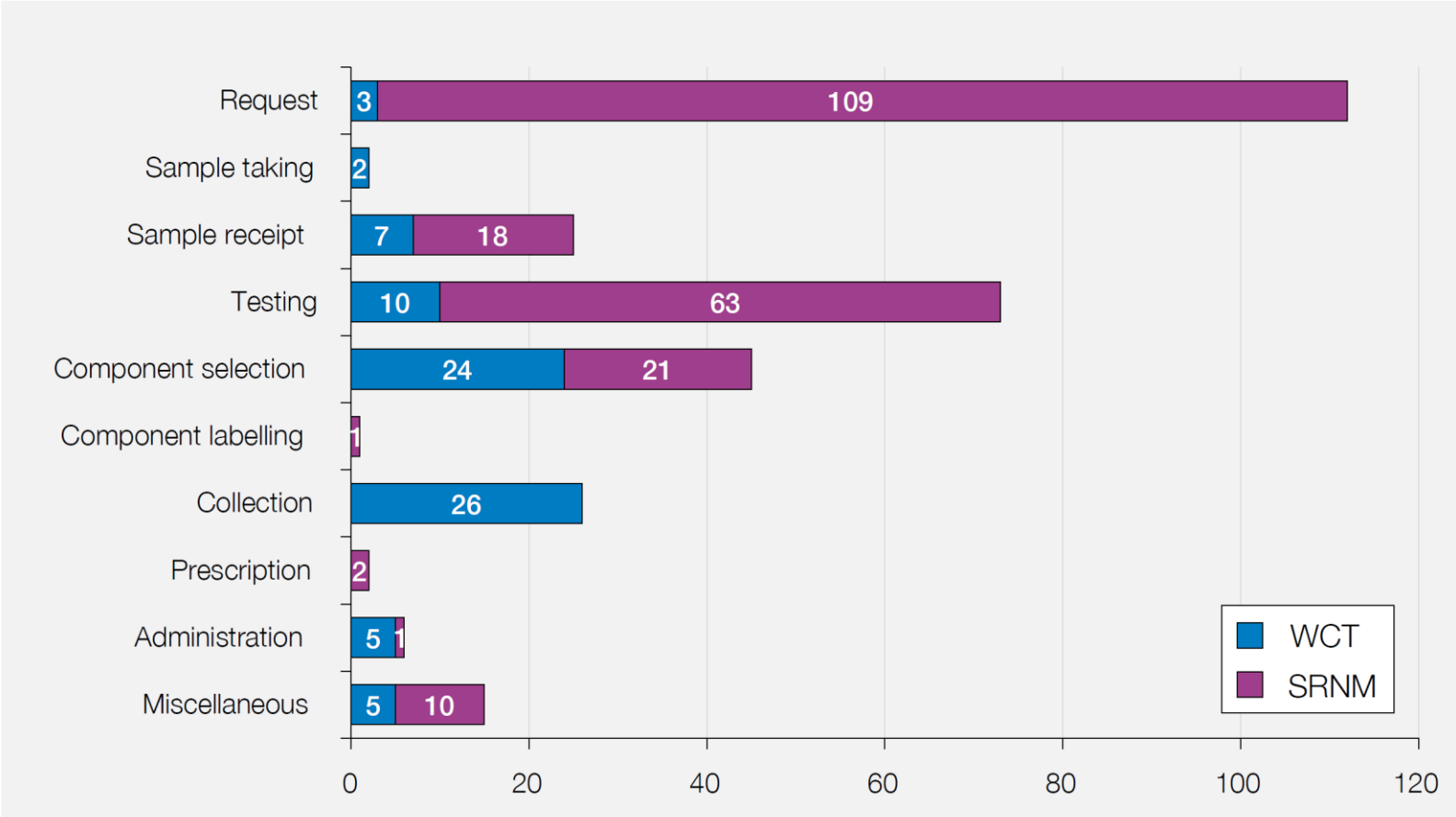


WBIT=wrong blood in tube

ABO-incompatible FFP transfusions in 2017 n=4 (laboratory errors)

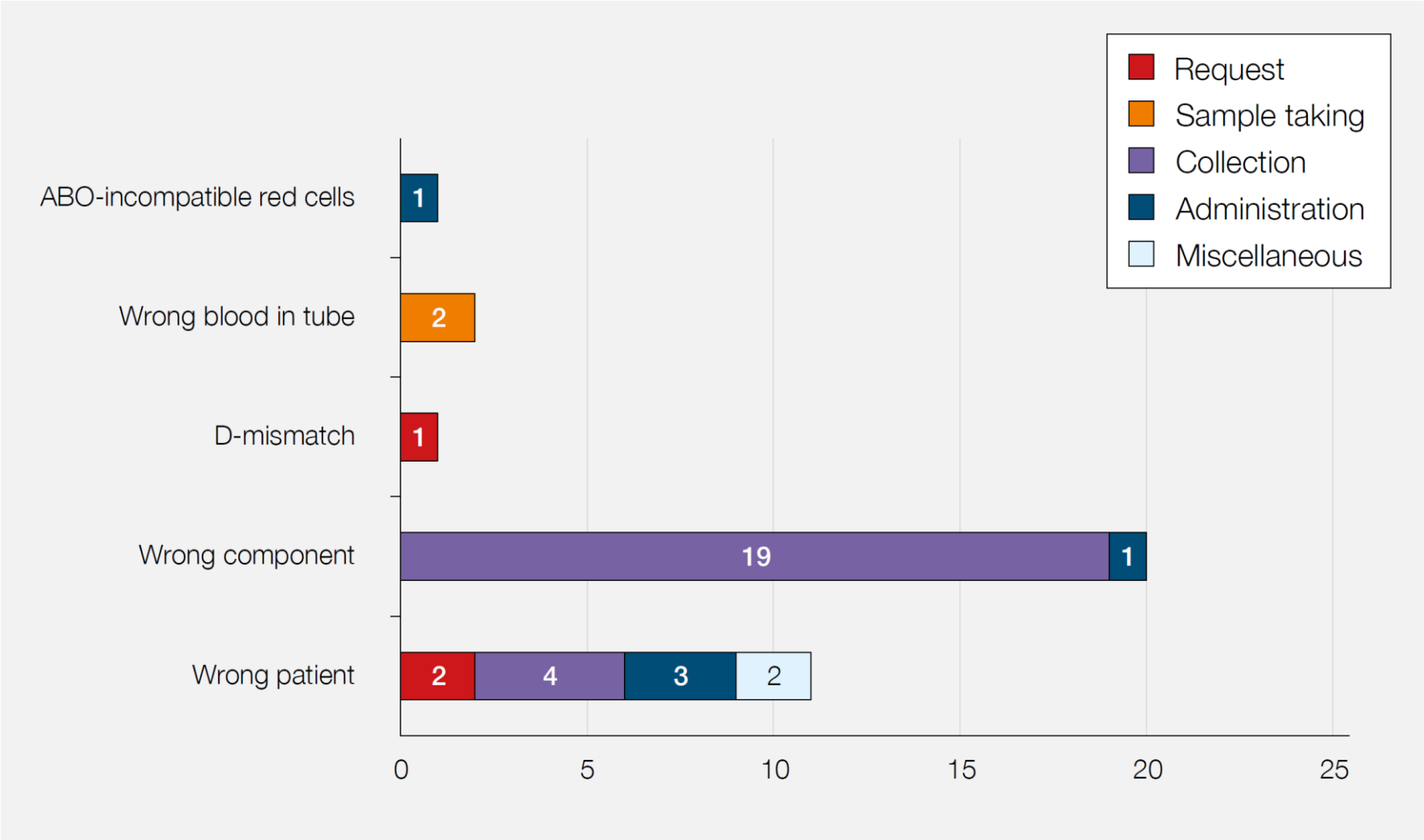


Points in the process where the first mistake occurred (clinical and laboratory) leading to wrong component transfusion or specific requirements not being met in 2017 n=307

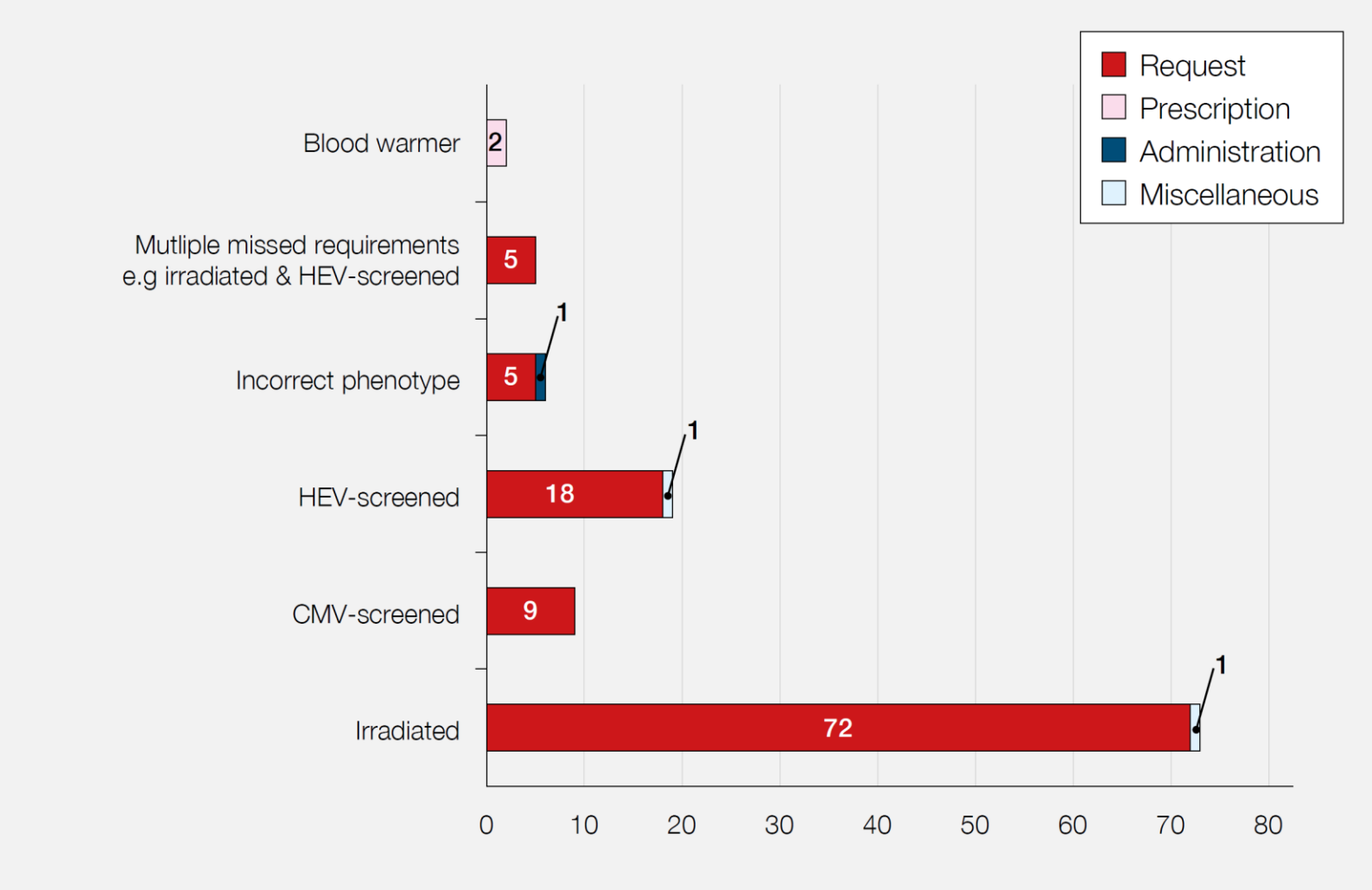


WCT=wrong component transfused; SRNM=specific requirements not met

Clinical errors resulting in wrong component transfused in 2017 n=35

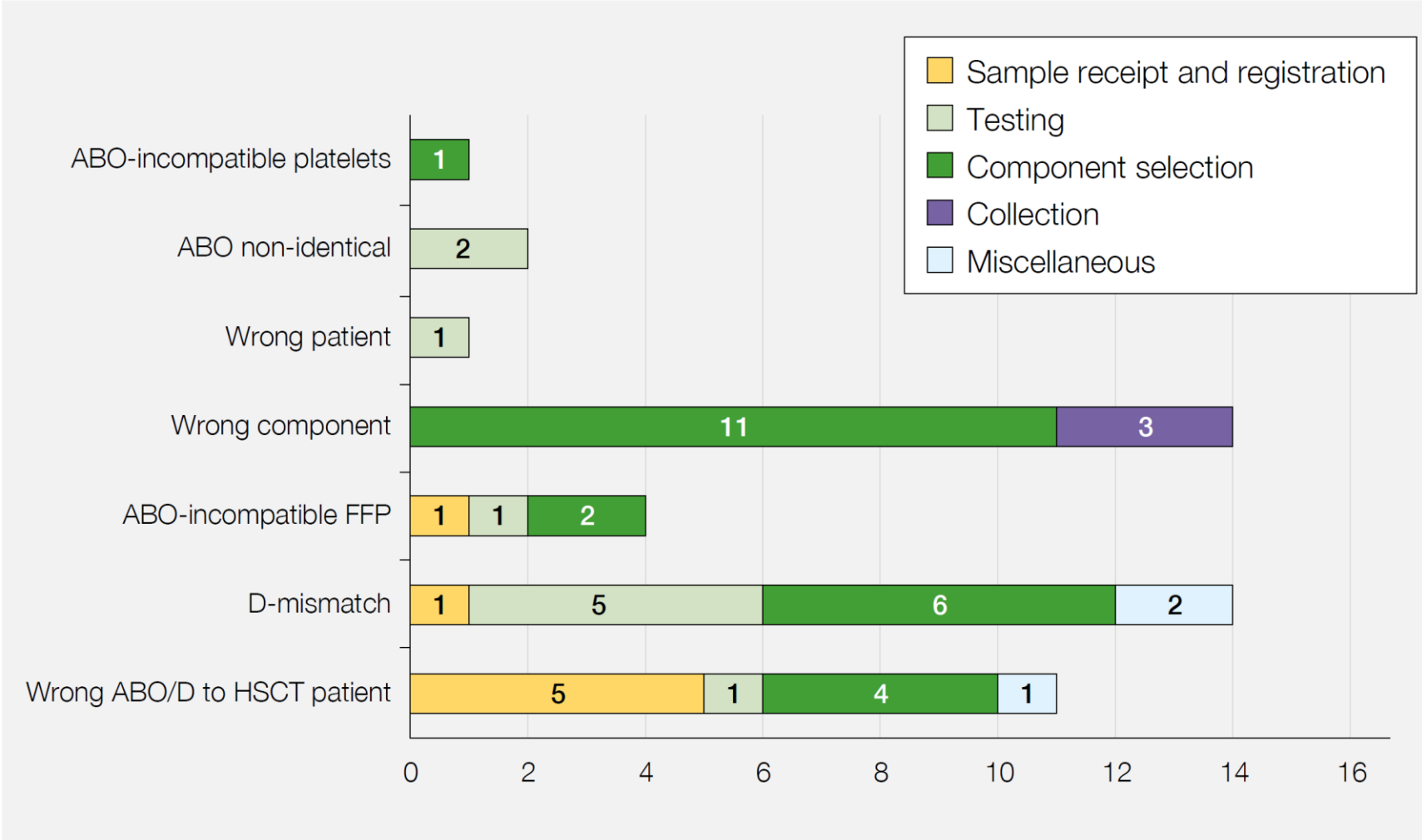


Clinical errors leading to specific requirements not being met in 2017 n=114



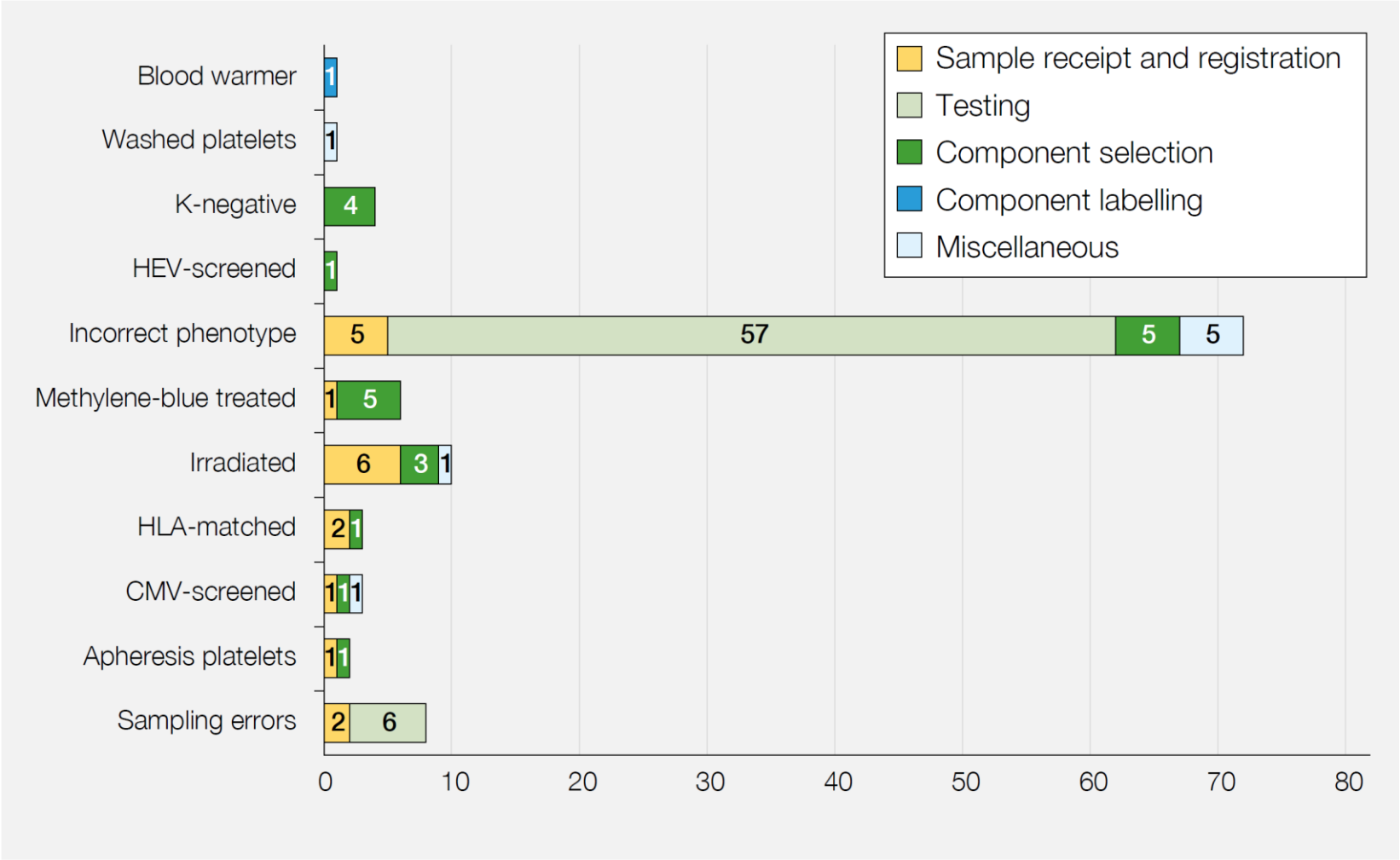
HEV=hepatitis E virus; CMV=cytomegalovirus

Laboratory errors resulting in wrong component transfused in 2017 n=47



FFP=fresh frozen plasma; HSCT=haemopoietic stem cell transplant

Laboratory errors leading to specific requirements not being met in 2017 n=111



HEV=hepatitis E virus; HLA=human leucocyte antigen; CMV=cytomegalovirus

Example of blood group compatibility chart for use at the bedside, Guys and St Thomas' hospital NHS Foundation Trust

PRE-TRANSFUSION ADMINISTRATION ABO D BLOOD GROUP CHECK

Group O FFP/ Octaplas / Cryoprecipitate
MUST only be administered to Group O Patients

Compatibility of plasma components differs from red cells

When performing the pre-transfusion bedside check, you must check the blood component (Red Cells, Fresh Frozen Plasma, Octaplas, Cryoprecipitate, or Platelets) is compatible.

If the blood component blood group is **not** the same as the blood group of the patient, you must check the compatibility table below or contact the transfusion laboratory if unsure (STH ext 84774, Guy's ext 82766, bleep 0201).

This check is only one part of the full bedside pre-transfusion checks – see overleaf

Patient ABO D blood group	Compatible RED CELLS	Compatible FRESH FROZEN PLASMA / OCTAPLAS / CRYOPRECIPITATE	Compatible PLATELETS
Unknown	O	AB, A*, B*	AB, A*, B*, O*
O	O	O, A, B, AB	O, A, B, AB
A	A, O	A, AB, B*	A, AB, B*, O*
B	B, O	B, AB, A*	B, AB, A*, O*
AB	AB, A, B, O	AB, A*, B*	AB, A*, B*, O*
Pos	Pos or Neg	Not applicable	Pos or Neg
Neg#	Neg#	Not applicable	Neg#

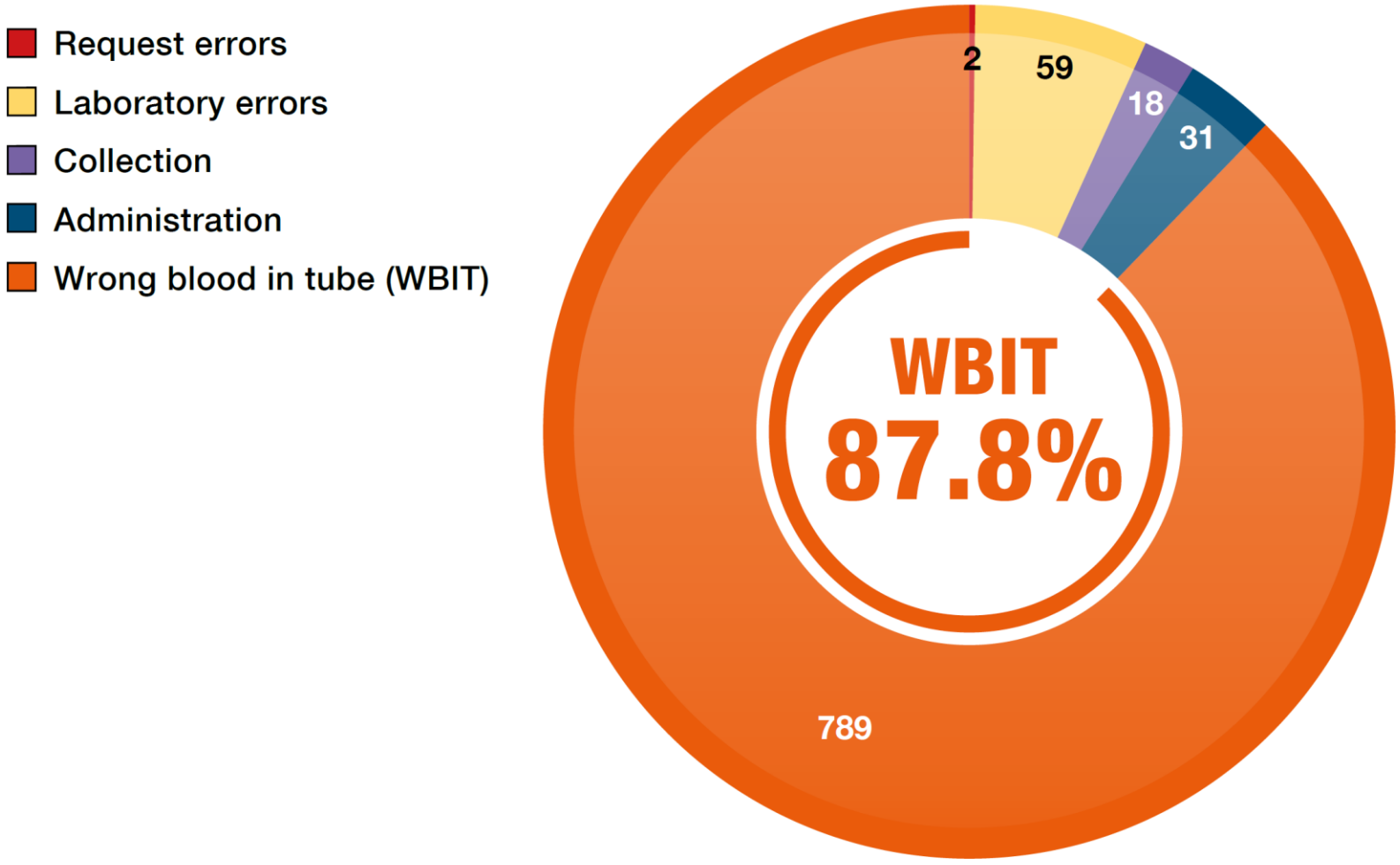
Compatible blood groups are listed in order of preference

*Issued when permitted due to component availability

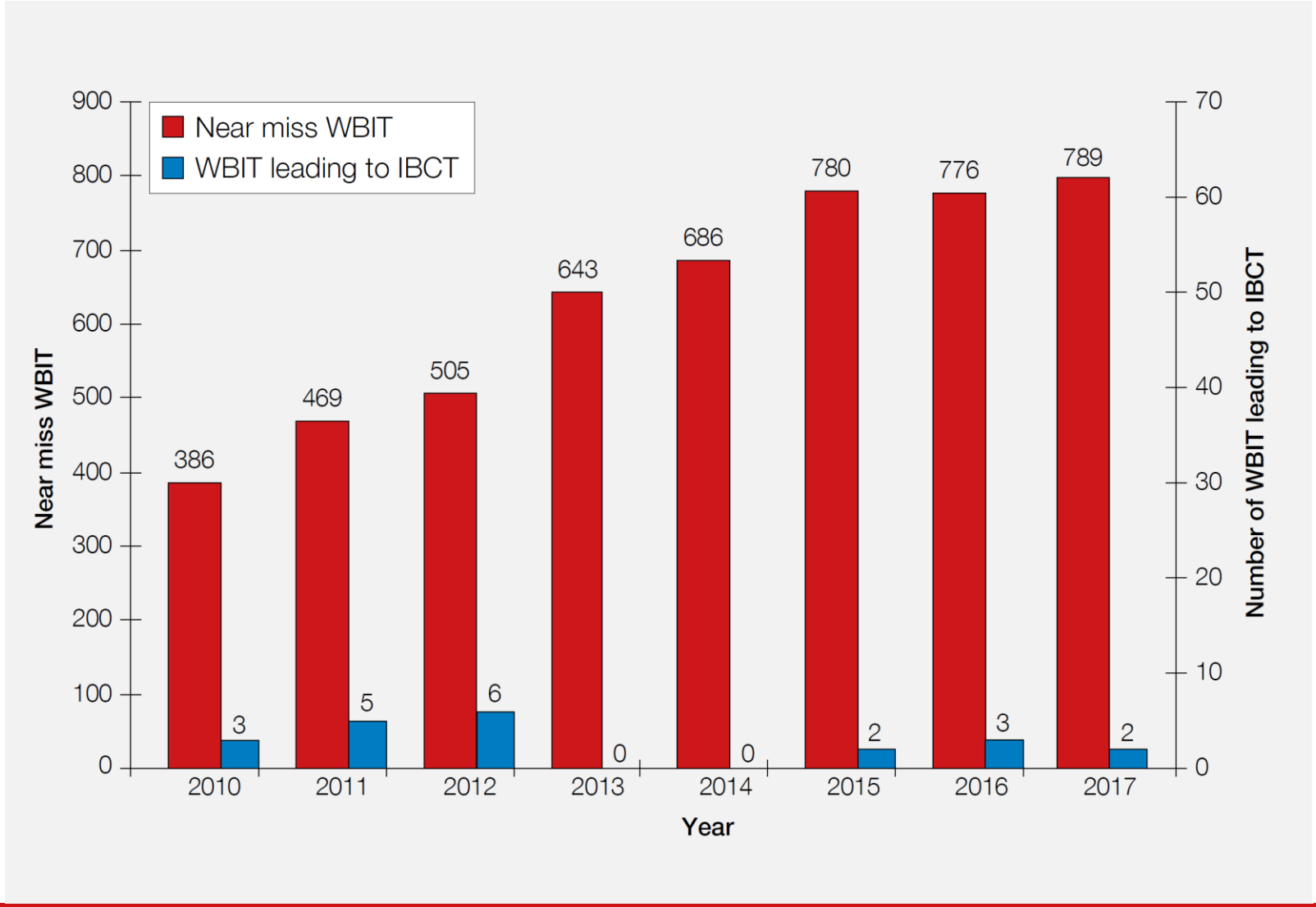
D positive red cells & platelets may be issued for D negative women over the age of 50yrs and D negative males of any age according to availability and urgency of transfusion

Version 1.2 February 2018 Review Date: May 2018

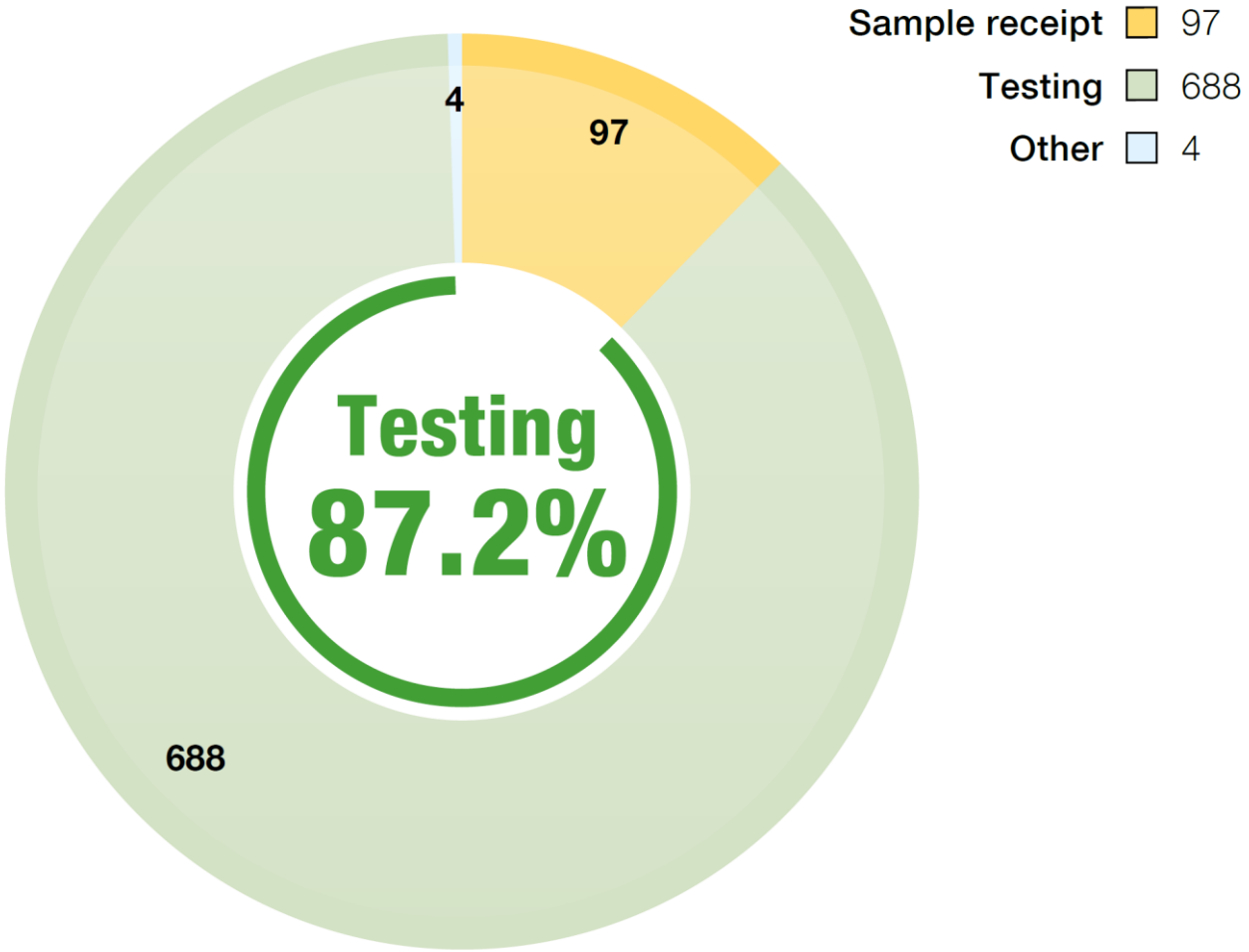
Most near miss IBCT were WBIT in 2017



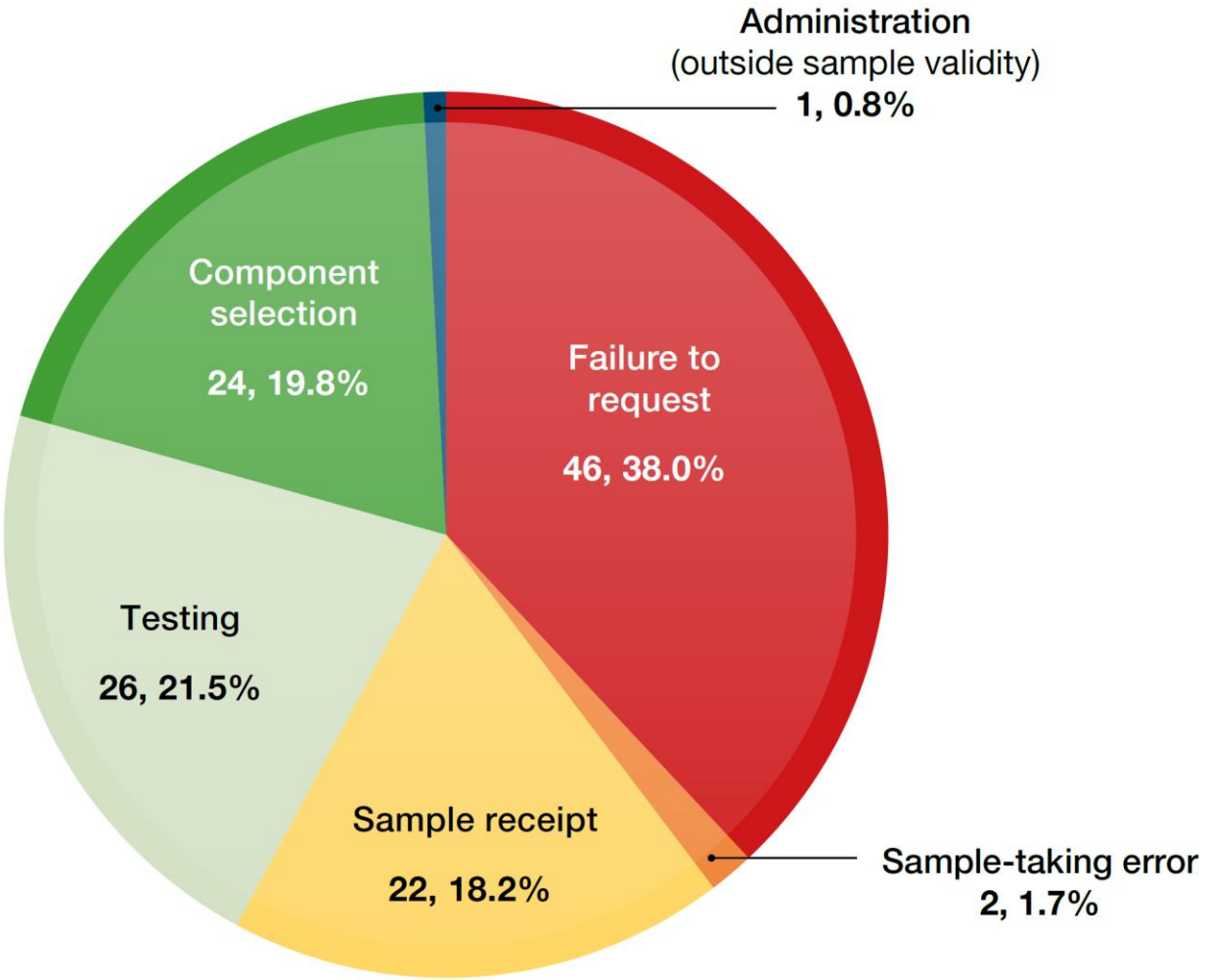
Cumulative comparison of near miss WBIT and those leading to IBCT



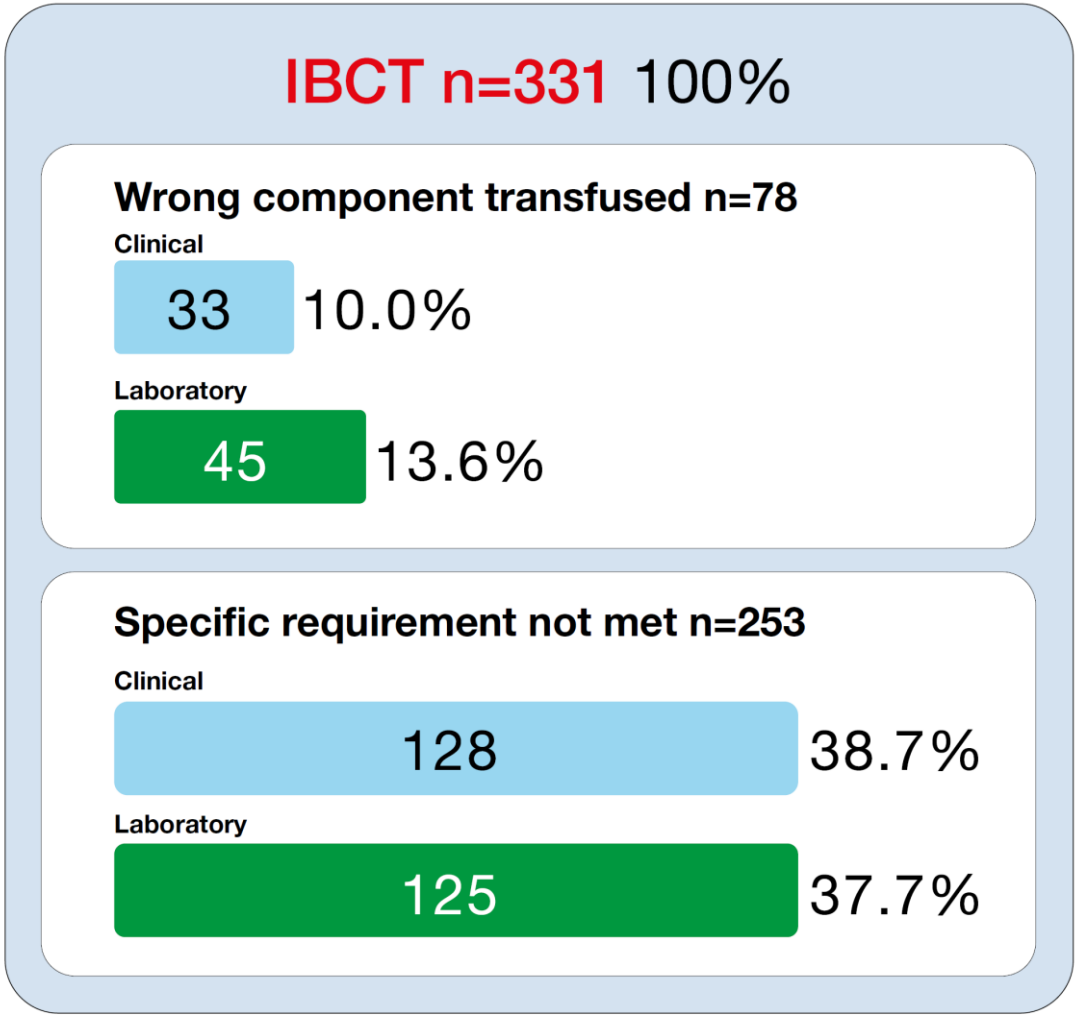
Point in the process where a wrong blood in tube (WBIT) incident was detected 2017



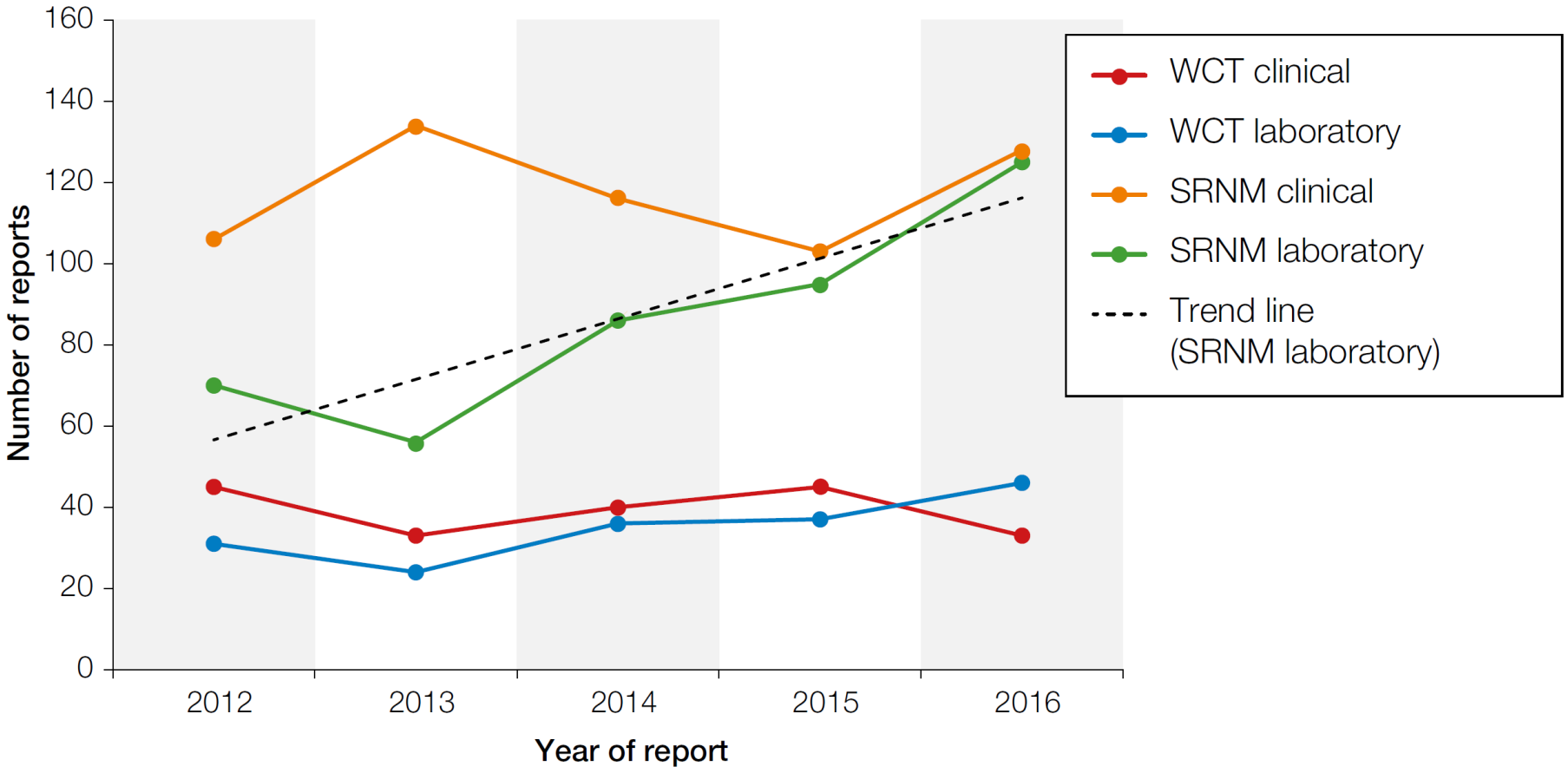
Near misses that could have led to IBCT-SRNM in 2017 n=121



Overview of reports where an incorrect blood component was transfused in 2016

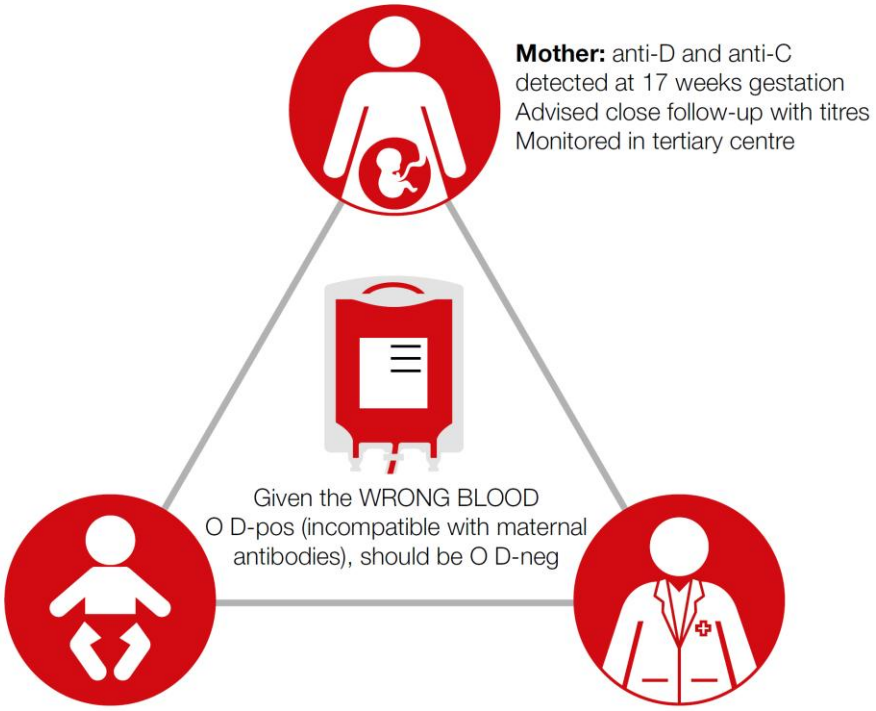


Incorrect blood component transfused 2012 to 2016

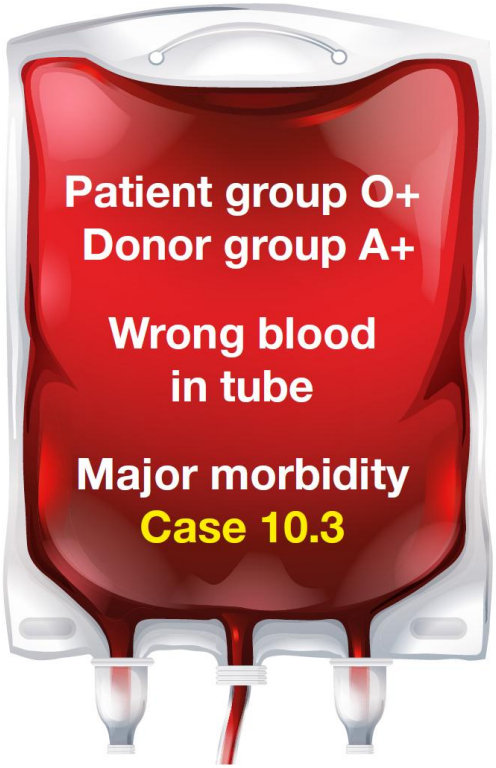


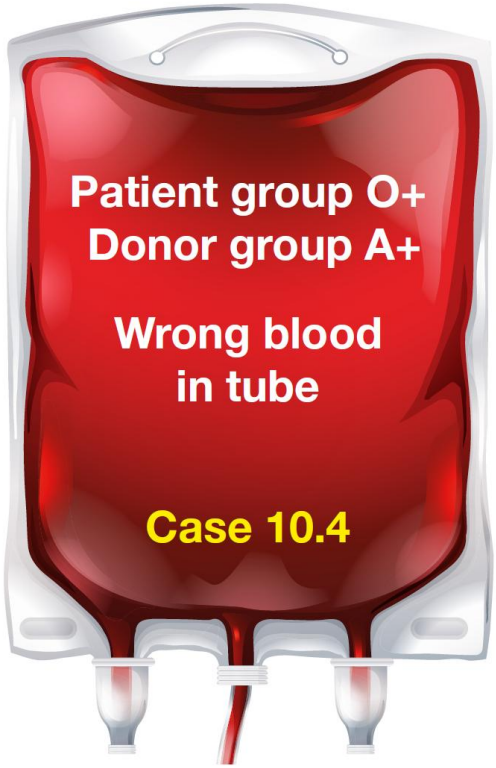
Combination of errors resulting in D-incompatible exchange transfusion

Laboratory error and poor communication

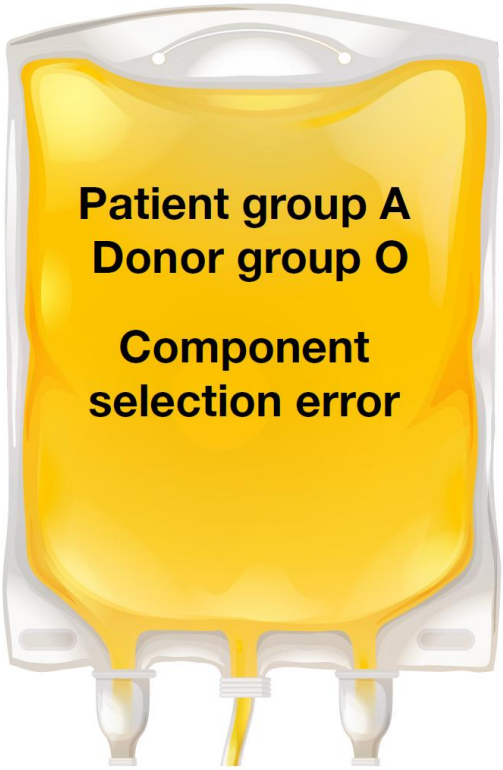


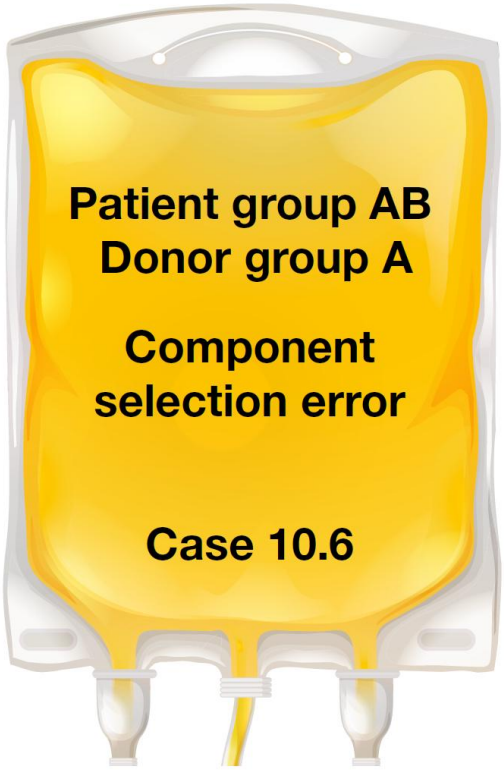
ABO-incompatible red cell transfusions in 2016

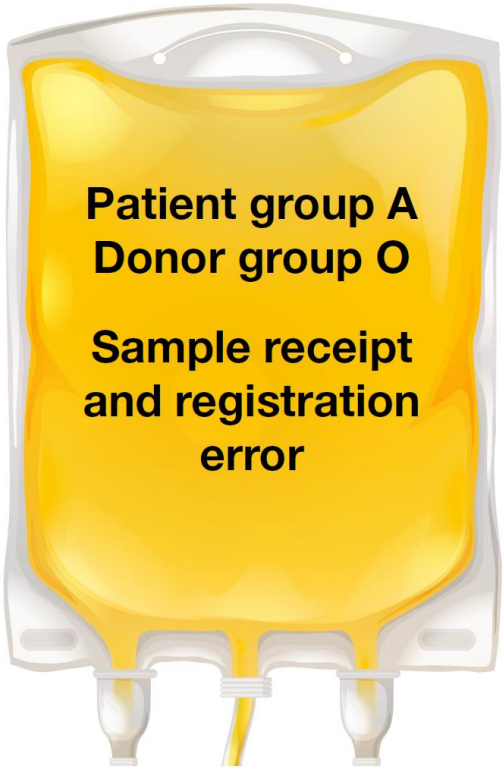




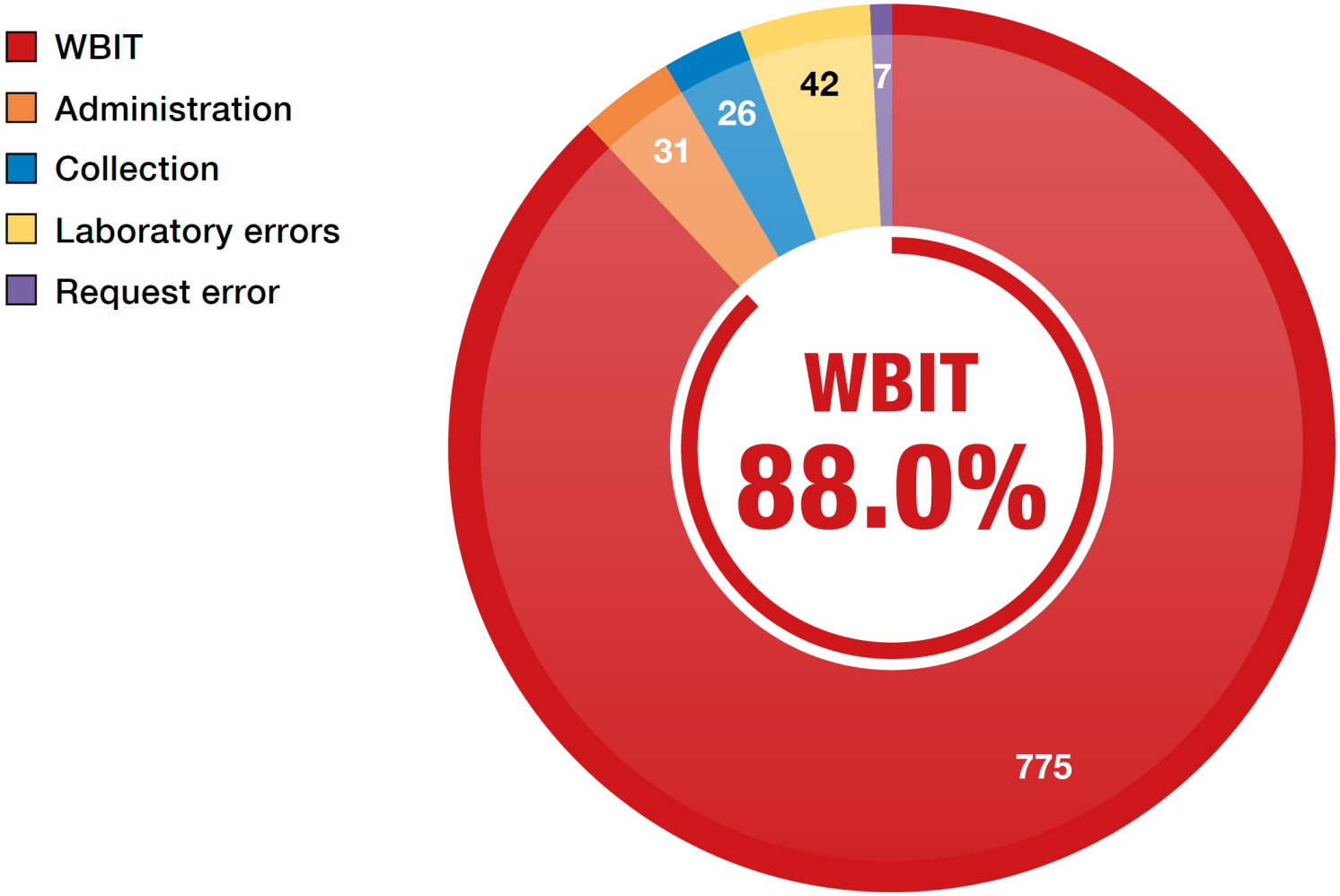
Incompatible FFP transfusions n=2 (O to A) and mismatched n=1 in 2016



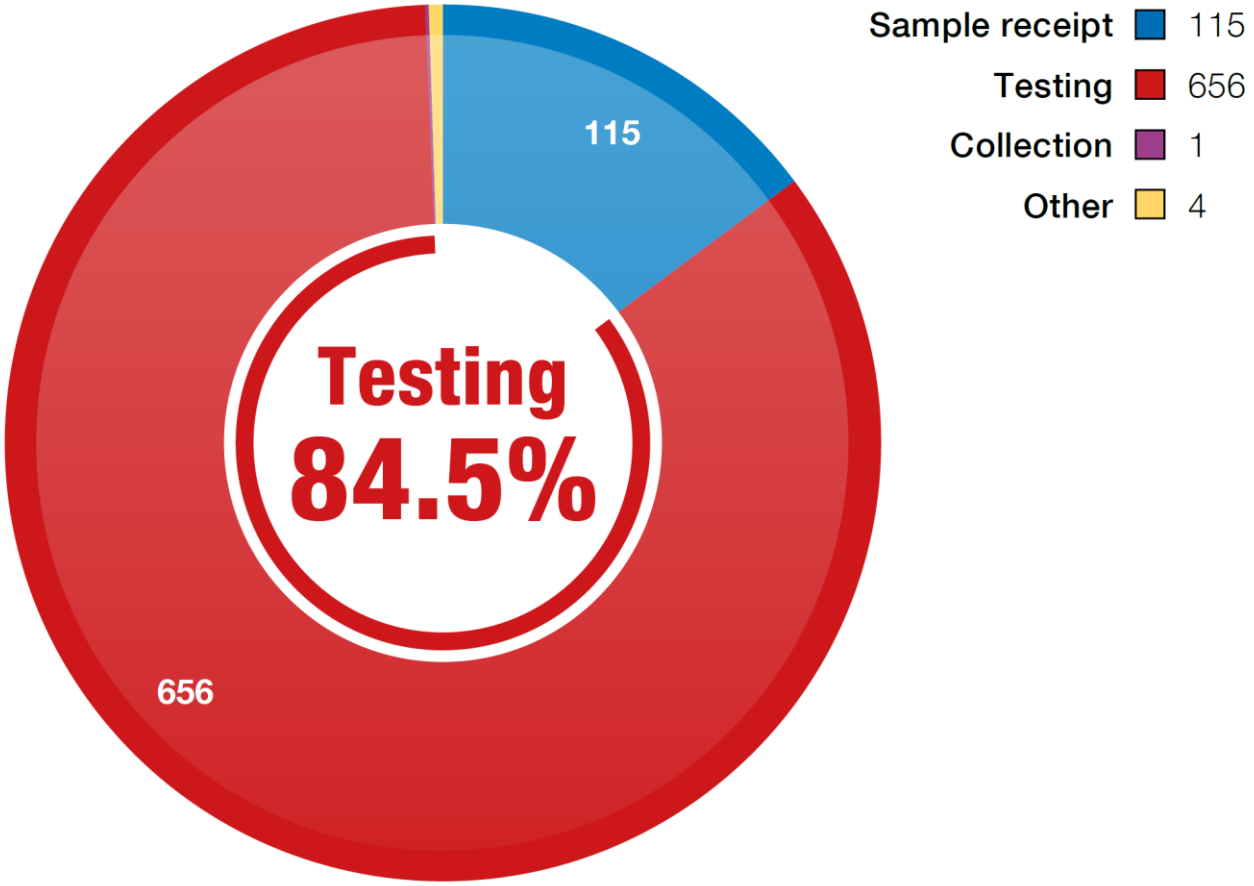




Most near misses were WBIT in 2016

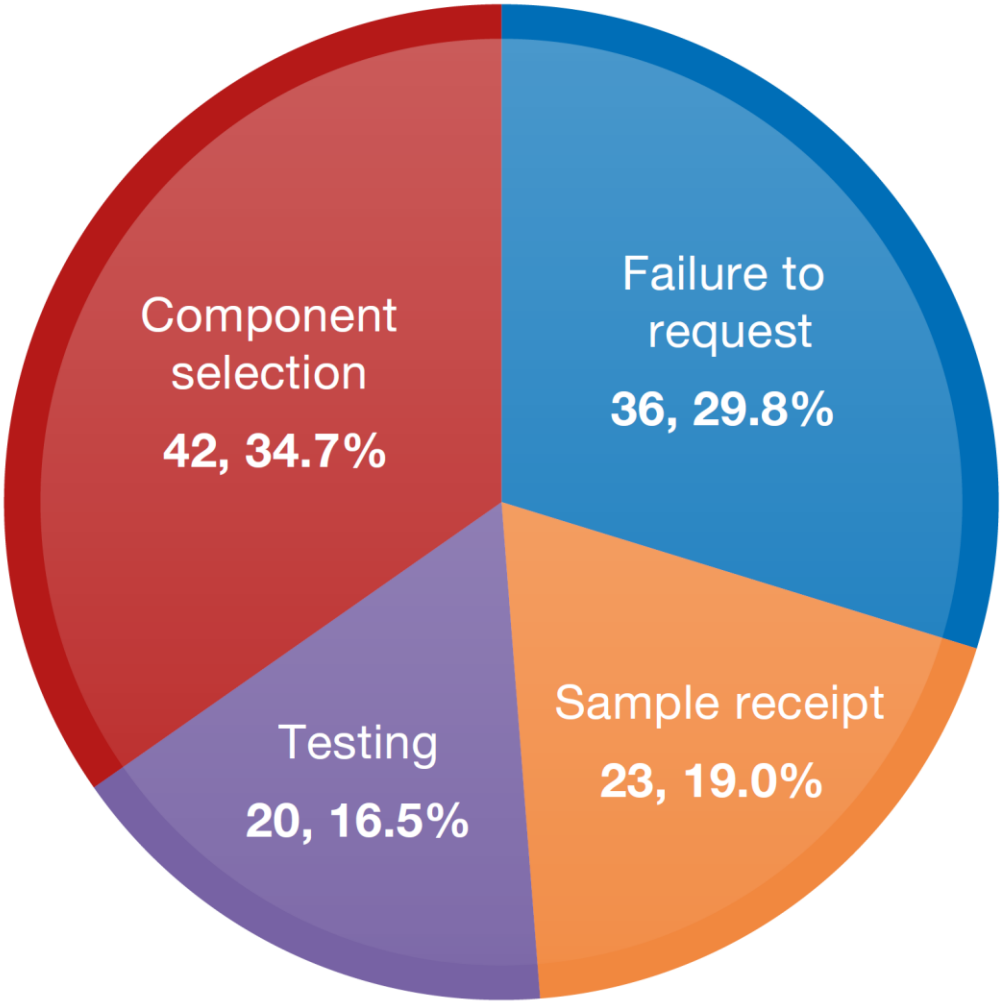


Point in the process where a wrong blood in tube incident was detected* in 2016

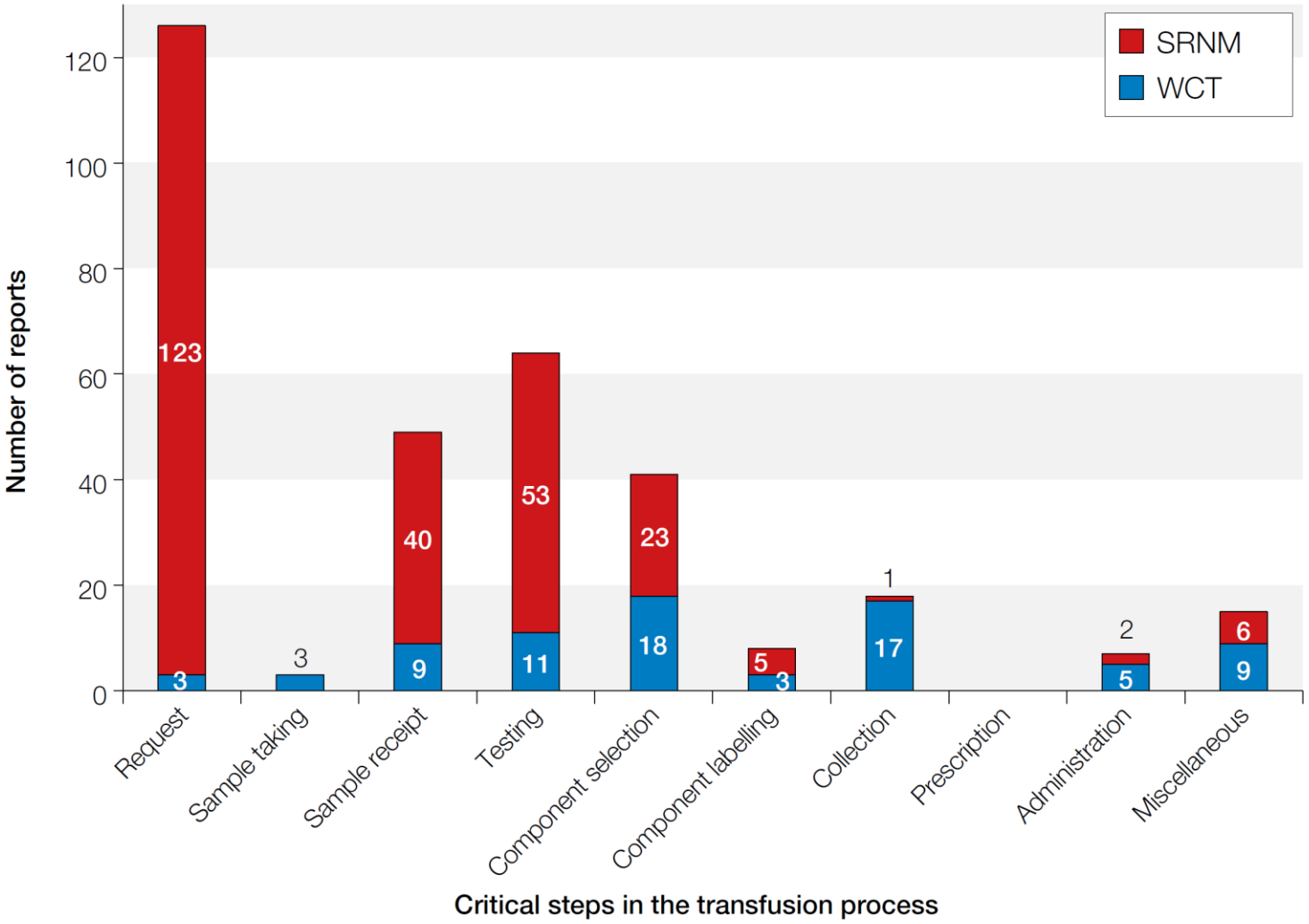


*includes 1 WBIT incident that could have led to avoidable transfusions and is included in Chapter 11b, Avoidable transfusion

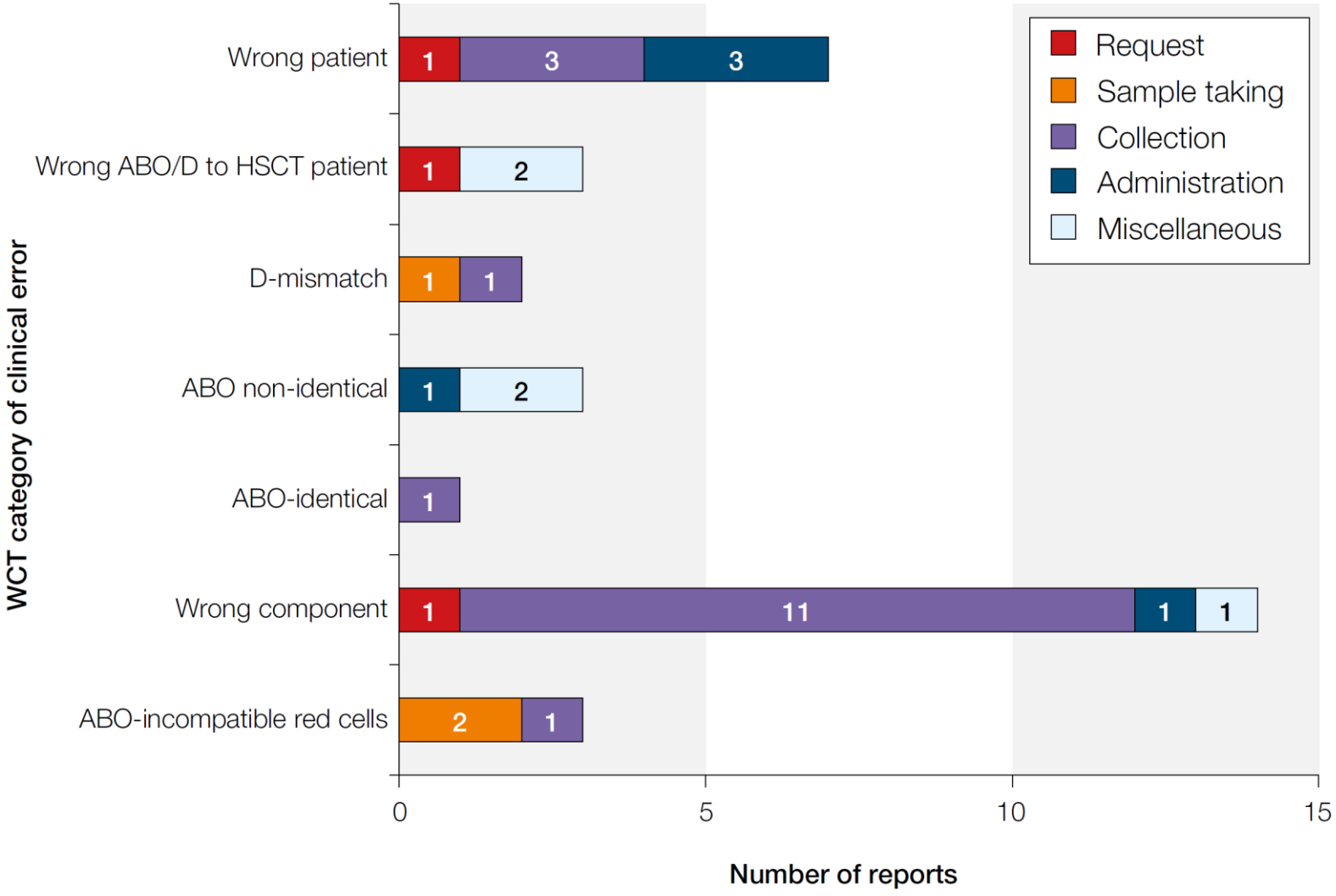
Near misses that could have led to IBCT-SRNM n=121 in 2016



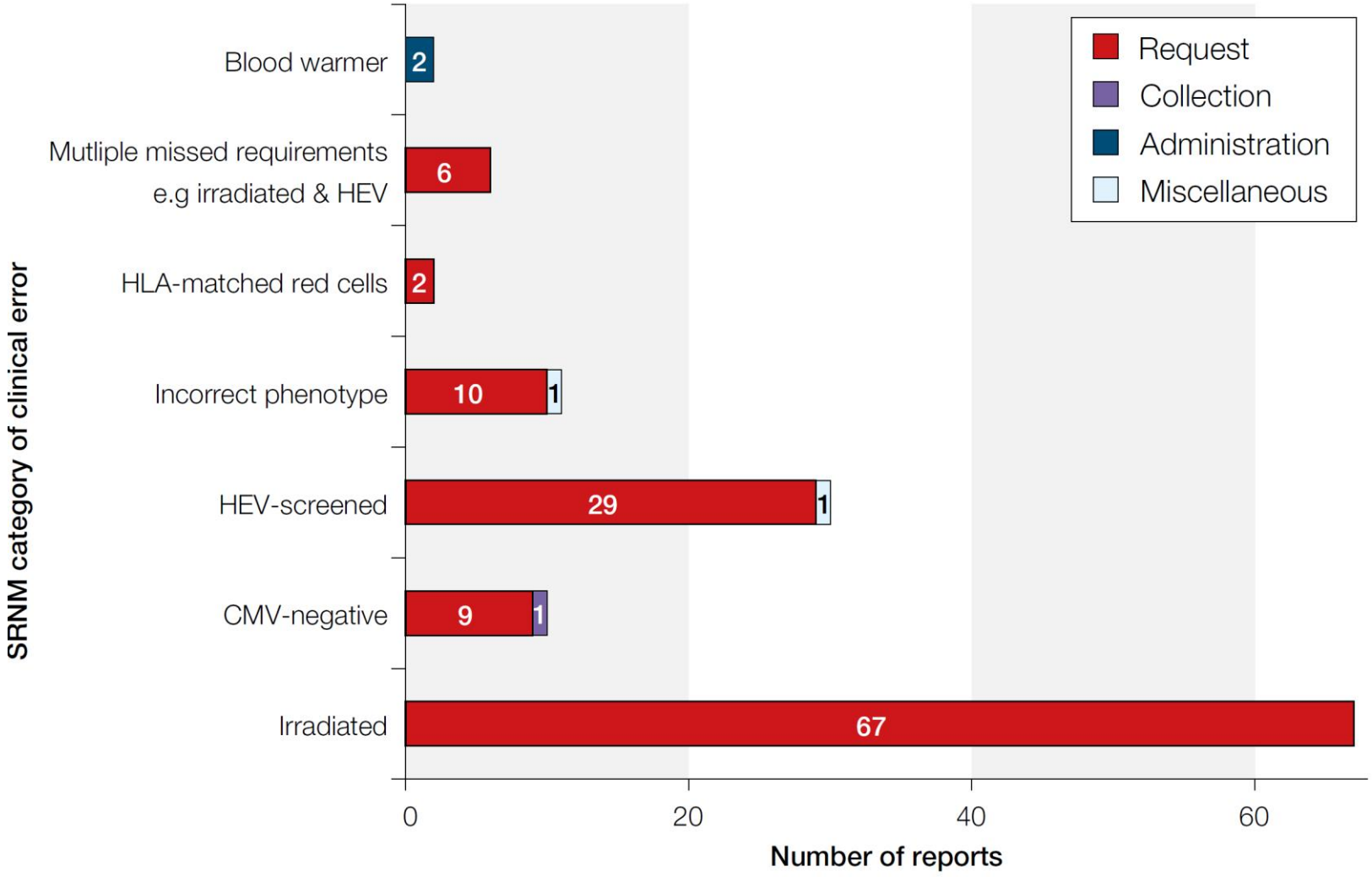
Errors where the wrong component was transfused or specific requirements were not met in the transfusion process n=331 in 2016



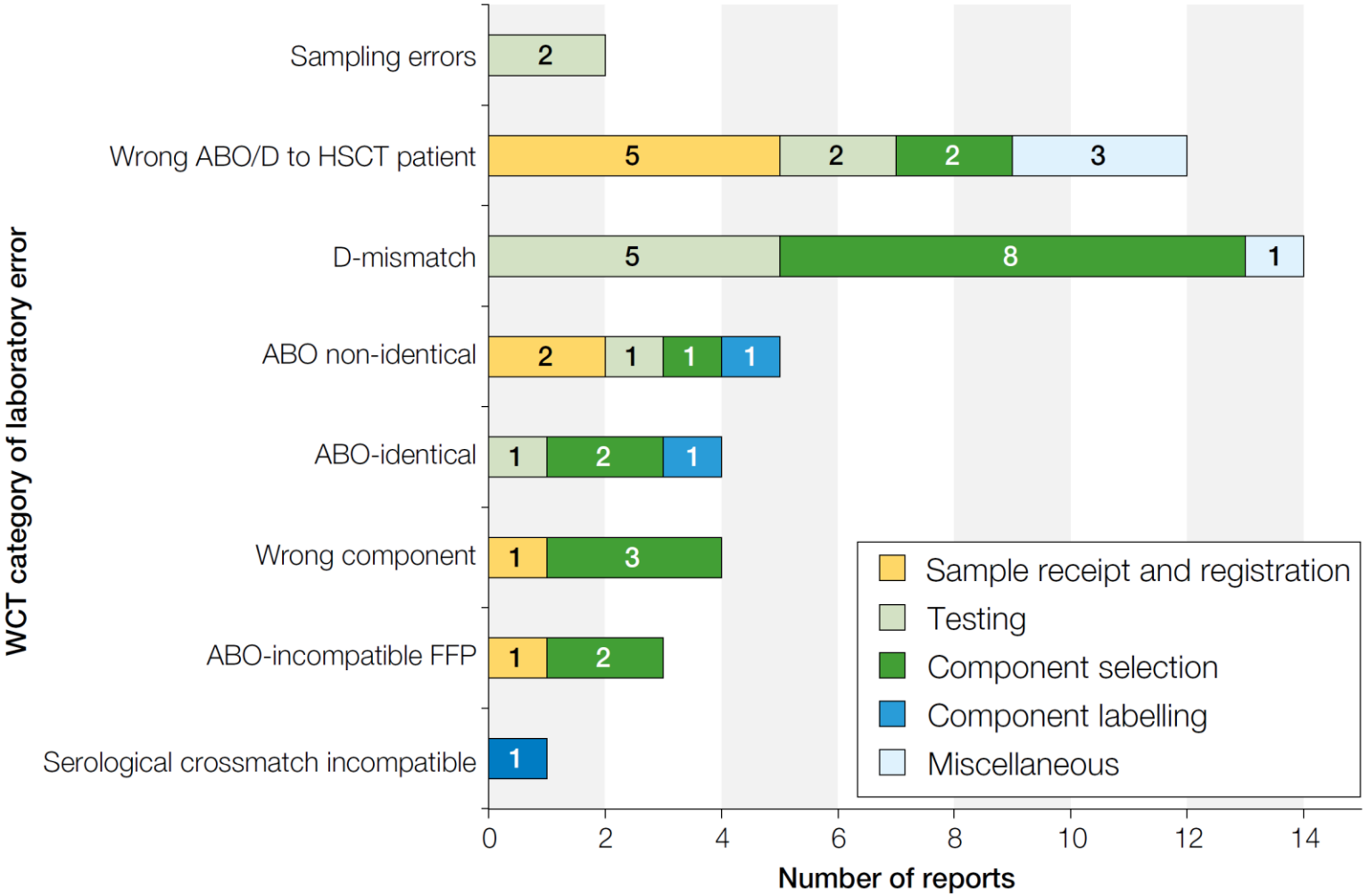
Clinical errors resulting in wrong component transfused n=33 in 2016



Clinical errors leading to specific requirements not being met n=128 in 2016

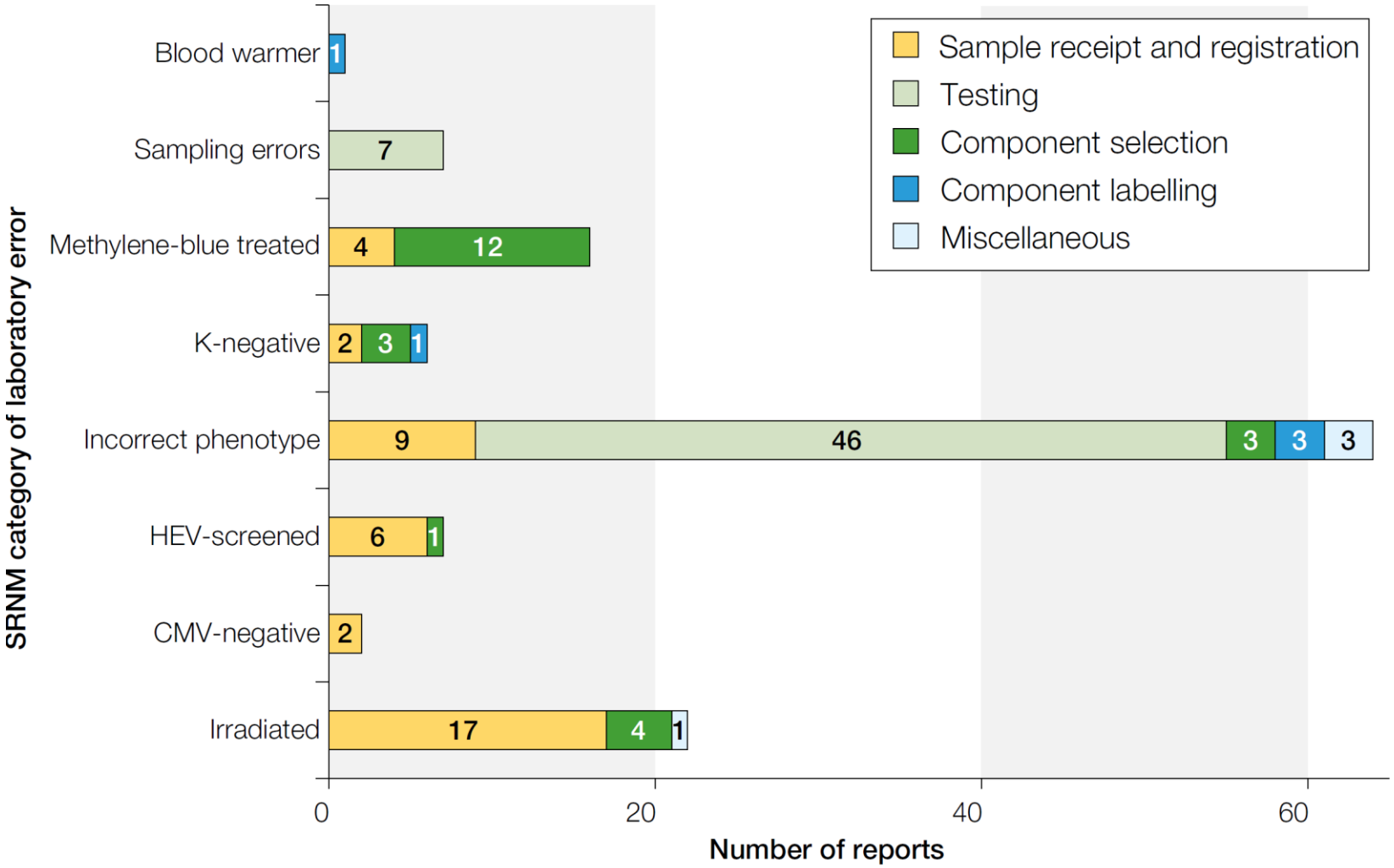


Laboratory errors resulting in wrong component transfused n=45 in 2016



Sampling errors associated with 2-sample rule or invalid sample when performing ABO/D grouping

Laboratory errors resulting in specific requirements not being met n=125 in 2016



Indications for specific Requirements included on an aide memoire card, the Therapeutic Apheresis Service, NHS Blood and Transplant

NHS Blood and Transplant

Before each unit is transfused, ensure you check If the patient requires:

Transfusion Special Requirements Checklist

- Irradiated Components (Pre HSC donation or transplant- allo donor 14 days pre and during harvest, allo recipient from conditioning and post HSC transplant on GvHD prophylaxis, auto within 7 days harvest and from conditioning to 3 months post transplant or 6 months if TBI, HLA products, neonates post IUT, Hodgkin's Disease, Aplastic anaemia on ATG (rabbit) or for HSC, Live liver and renal donors 7 days pre and during transplant. Patients who have received: Fludarabine, cladribine, nelarabine, bendamustine, deoxycoformycin, clofarabine, alemtuzumab, chlorodeoxyadenosin, ATG, ALG, alemtuzumab/campath, muromonab, SCID, DiGeorge syndrome and Wiskott Aldrich syndrome)
- CMV Negative Components (Neonate up to 28 days post delivery, pregnancy)
- HbS Negative Components (Sickle Cell Disease (SCD), Neonates)
- Kell Negative Components (Women of childbearing potential)
- HEV Negative Components (3 months pre planned SOT or date of listing, post SOT on immunosuppressants, acute leukaemia unless/until not for HSC, 3mths pre allo HSC to 6 mths post or while immunosuppressed, Extra corporeal procedures for above indications)
- High Titre Negative Components (A, B or AB patients receiving O component and AB receiving A or B)
- Methylene Blue/ Solvent Detergent Components (if born after 01/01/96)

Indications for specific requirements provided on the reverse of the transfusion prescription chart, The Christie, Manchester

The Christie NHS
NHS Foundation Trust

DOES YOUR PATIENT NEED BLOOD PRODUCTS WITH SPECIAL REQUIREMENTS?

Patient Condition/Treatment	Irradiated Blood Products Required	Commence	Additional Information
Autologous Bone Marrow Transplant/ Peripheral Blood Stem Cells	**Yes** Continue for 6 months post BMT/PBSC Or lifelong if had purine analogue chemotherapy	7 days before stem cell harvest 7 days before transplant	It is not necessary to irradiate fresh frozen plasma or cryoprecipitate **All patients requiring irradiated blood products must be given an information leaflet and card which they must carry at all times in case they require blood products at another hospital. These are available in your ward area, the transfusion lab or from the Transfusion Practitioner** Discuss with attending Haematology consultant when required.
Allogenic Bone Marrow Transplant/ Peripheral Blood Stem Cells	**Yes**	7 days before conditioning for transplant	
Hodgkin's Disease	**Yes**	From diagnosis - indefinitely	
Has received Purine Analogue Chemotherapy i.e. Fludarabine, Cladribine, Bendamustine and Deoxycoformycin, Clofarabine	**Yes**	From start of Chemotherapy - indefinitely	
Has received Alemtuzumab (MabCampath), Antithymocyte Globulin (ATG) and Antilymphocyte Globulin (ALG)	**Yes**	From start of Chemotherapy - indefinitely	
New Leukaemia Patients	**No,** unless fall into any of the above		**Pregnant patients must receive CMV - products**

Patient Condition/Treatment	Hepatitis E negative products required	Commence	Additional Information
New Leukaemia Patients	**Yes**	From diagnosis - until a decision is made not to transplant	**All patients requiring HEV negative blood products must be given an information leaflet. These are available in your ward area, the transfusion lab or from the Transfusion Practitioner.**
Allogenic Bone Marrow Transplant/ Peripheral Blood Stem Cells	**Yes**	3 months prior and 6 months post transplant - until patient is no longer immunosuppressed	
Patients awaiting solid organ transplant	**Yes**	3 months prior to transplant or the date listed for transplant	
Patients who have had solid organ transplant	**Yes**	Until stopping immunosuppressants	
Extra corporeal procedures	**Yes**	Dialysis, extra corporeal circulatory support is included if within above indications	

Any questions contact: Consultant Haematologist
Transfusion Laboratory 0161 446 3287 Transfusion Practitioner 0161 446 3055

The Hospital Transfusion Team 2016