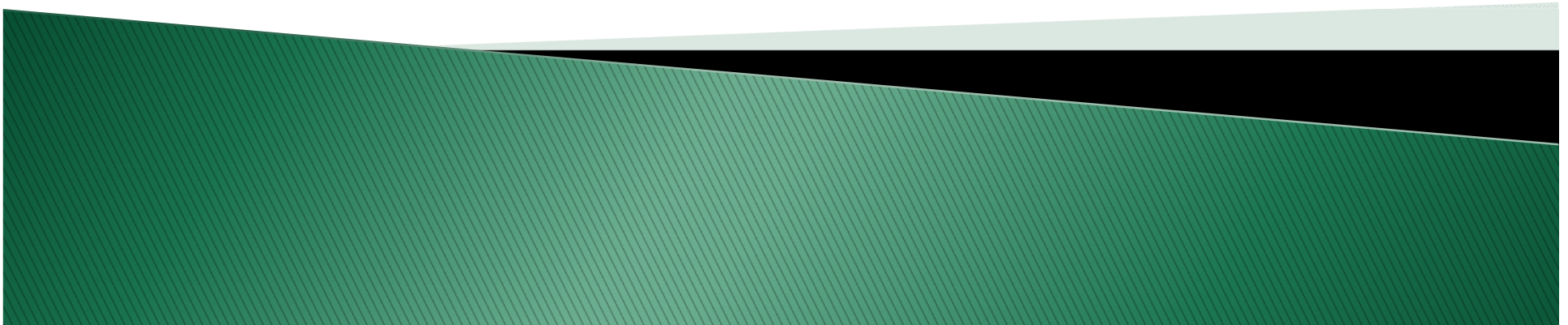


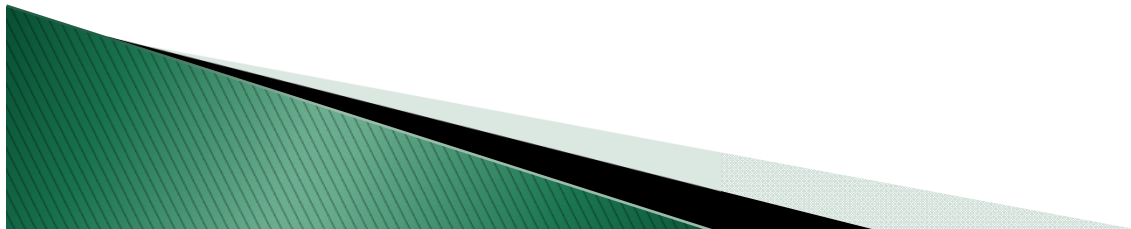
# IBCT

Raewyn Cameron  
Laboratory Services Rotorua  
New Zealand



# Our Incident

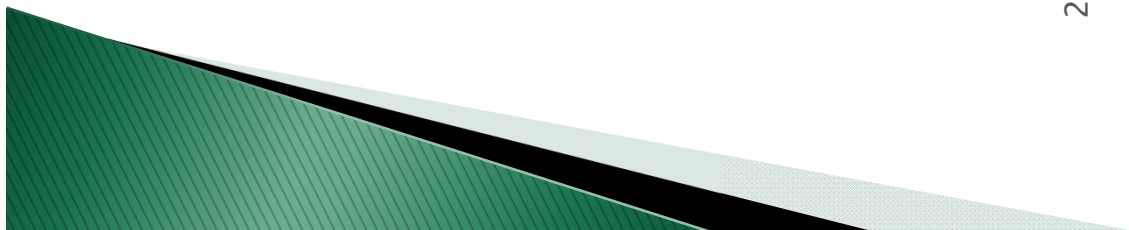
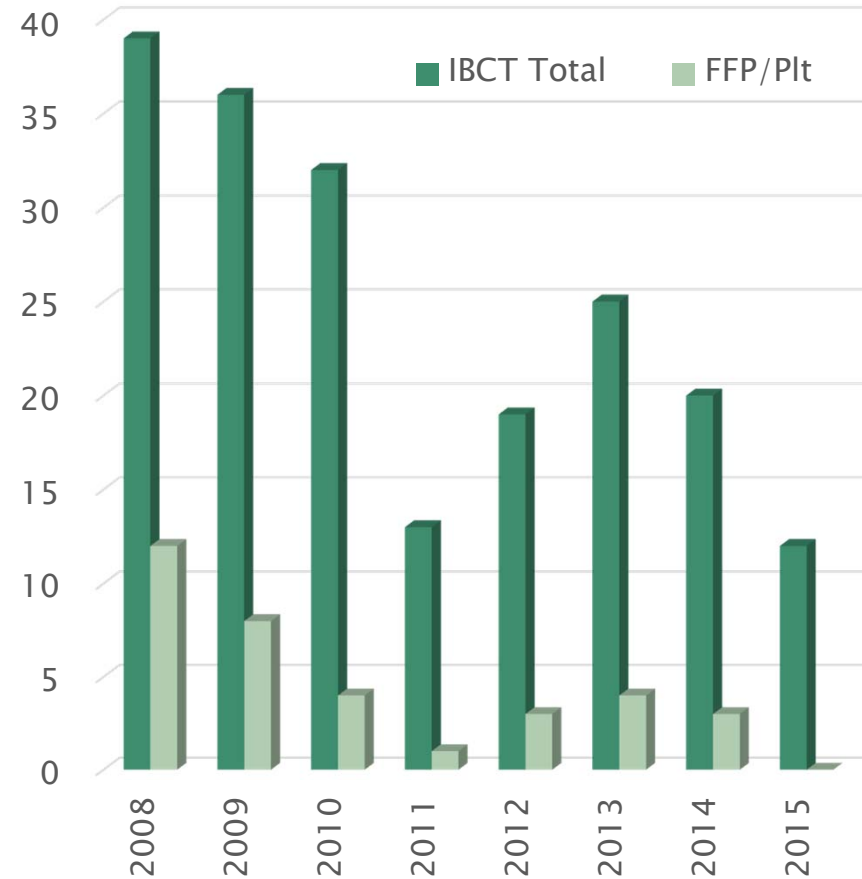
- ▶ **I**ncorrect **B**lood **C**omponent **T**ransfused
  - *The transfusion of a blood component or product that was intended for another patient or one that did not meet the patient's requirements.*
- ▶ Patient transfused 2 units of Fresh Frozen Plasma instead of 2 units of Platelets
- ▶ SAC 2 event (*National Severity Assessment Score*)
- ▶ Reportable Haemovigilance event



# National Statistics

*(NZBS Haemovigilance Programme)*

- ▶ Lakes DHB has high reporting rate.
- ▶ IBCT involving FFP and platelets continue to occur.
- ▶ 2012 exact same incident occurred.

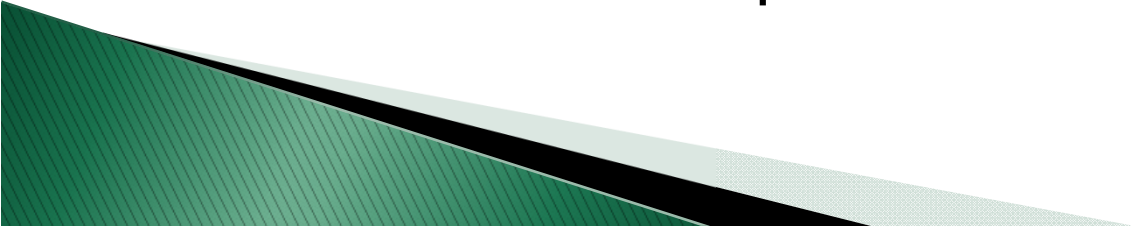




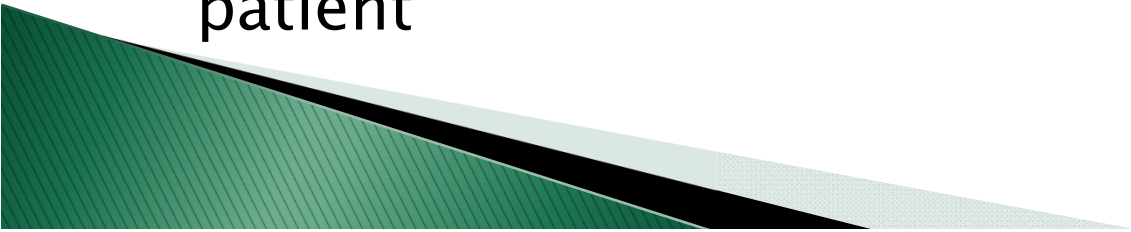
It's fine to celebrate success but it's more important to heed the lessons of failure.

Bill Gates

# What happened? (in ward)

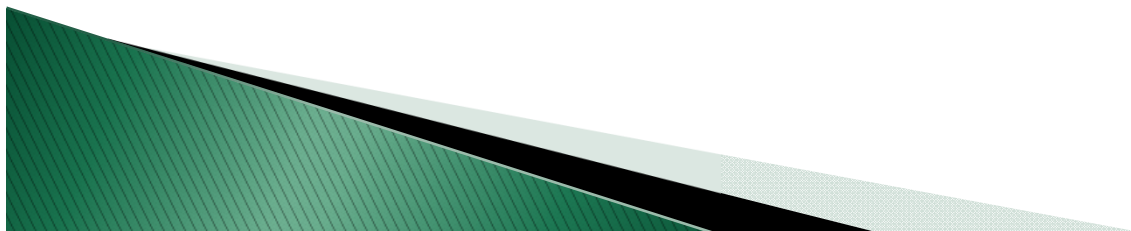
- ▶ Patient with lung cancer receiving palliative chemotherapy, with PR bleeding.
  - ▶ Platelet count  $<10 \times 10^9/L$
  - ▶ 2 units platelets prescribed
  - ▶ Nurse caring for patient was unfamiliar with platelet administration
  - ▶ Referred to protocol
  - ▶ Comfortable with procedure
- 

# What happened? (Blood Bank)

- ▶ Nurse telephoned Blood Bank and requested 2 units of Fresh Frozen Plasma.
  - ▶ Blood Bank staff questioned the request – warfarin reversal?
  - ▶ Confirmed as Plasma not for Warfarin Reversal but unwell patient
  - ▶ Blood Bank thawed FFP
  - ▶ Transfusion Record received and 2 units issued to patient
- 

# What happened? (Bedside)

- ▶ Nursing staff followed administration procedure, including reading out aloud the prescription for platelets (but not registering that this was a different product).
- ▶ 2<sup>nd</sup> staff member confirmed all details in same manner.
- ▶ Documentation was signed and FFP administered.
- ▶ Post transfusion platelet count checked.



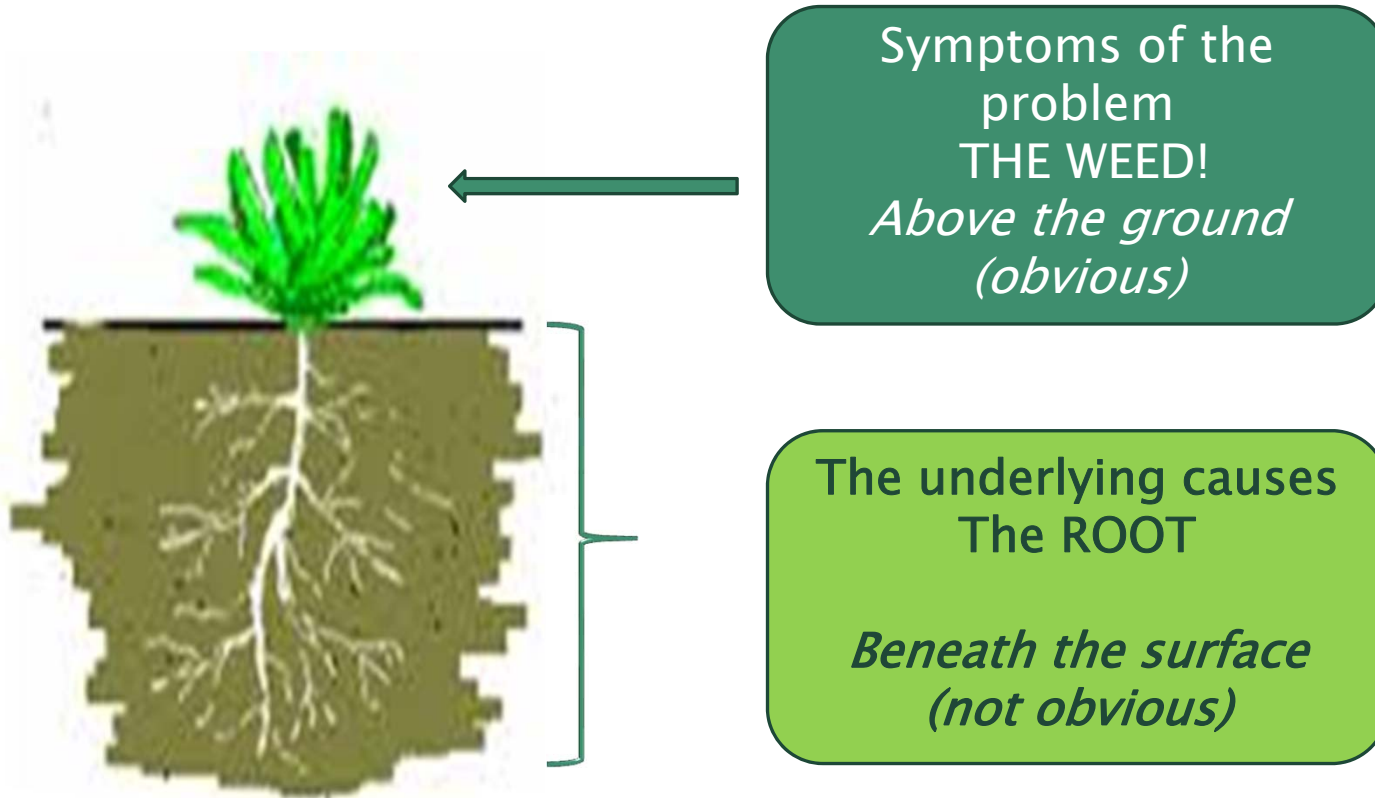
# The Discovery

- ▶ Plt count still  $<10 \times 10^9/L$
- ▶ More Platelets ordered
- ▶ Night nurse noticed previous labels for Plasma
- ▶ Platelets administered
- ▶ Platelet count  $83 \times 10^9/L$
- ▶ Patient did not suffer ill effects and was informed of incident prior to discharge





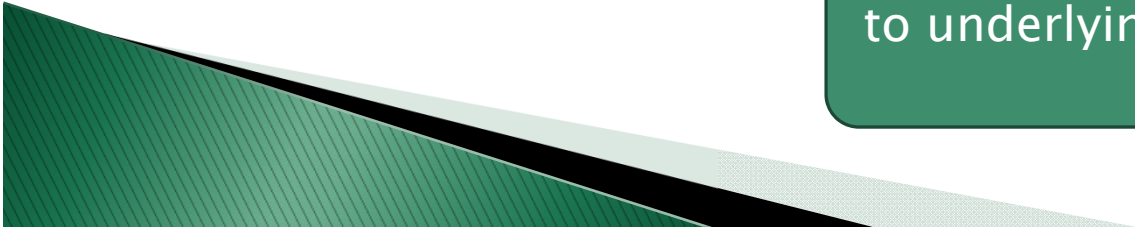
# Root Cause Analysis Basics



Symptoms of the problem  
**THE WEED!**  
*Above the ground  
(obvious)*

The underlying causes  
**The ROOT**  
*Beneath the surface  
(not obvious)*

The word root in this context relates to underlying causes and not the ONE cause



# Root Cause Analysis / Case review




• Establish what happened and why.



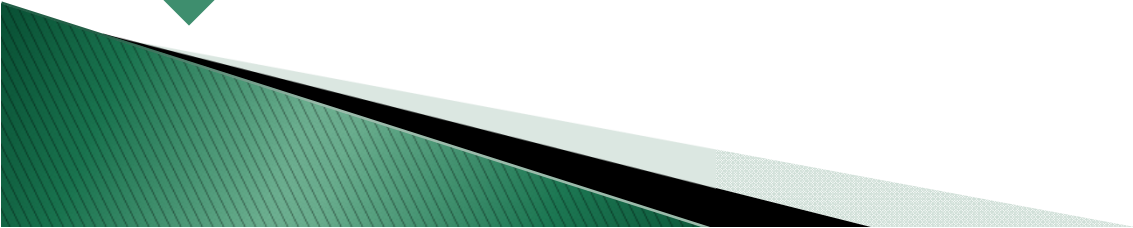
• Identify system contributing factors and root causes of the incident.



• Formulate recommendations and a final report once RCA complete.

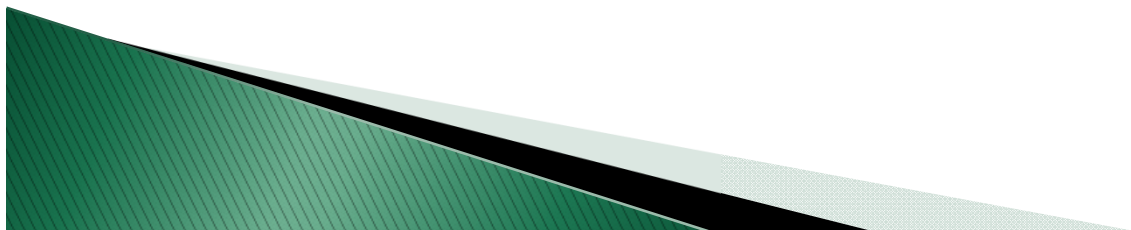


• Present final report to Hospital Transfusion Committee, Clinical Governance Group and NZBS Haemovigilance team



# Contributing Factors

- ▶ Staff involved
- ▶ Policies and procedures
- ▶ Documentation
- ▶ Common Practice
- ▶ Recognition and Perception



# Staff

- ▶ Senior staff
- ▶ Well experienced
- ▶ Consulted protocol
- ▶ Double checked

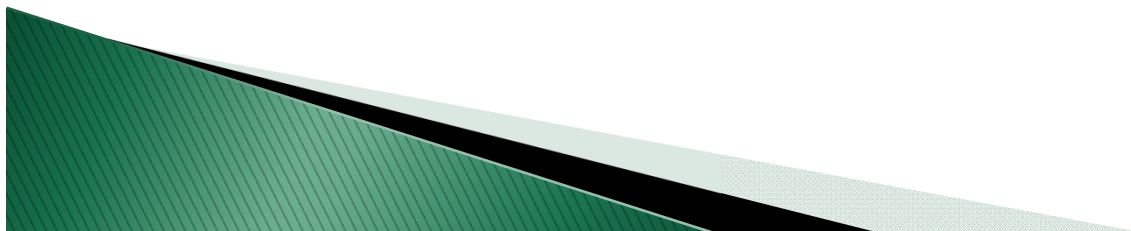


The older I grow, the more I distrust the familiar doctrine that age brings wisdom!

H. L. Mencken

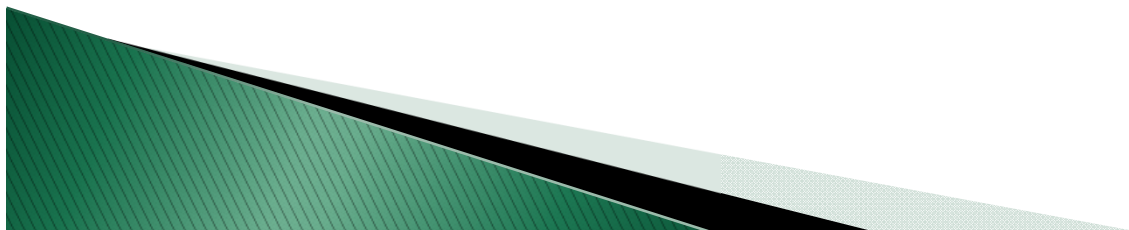
# Policies and Procedures

- ▶ Consent, requisition and collection of blood and blood products
- ▶ Blood and Blood Product Administration Protocol
- ▶ Blood Issue Protocol
- ▶ Telephone Request



# Documentation

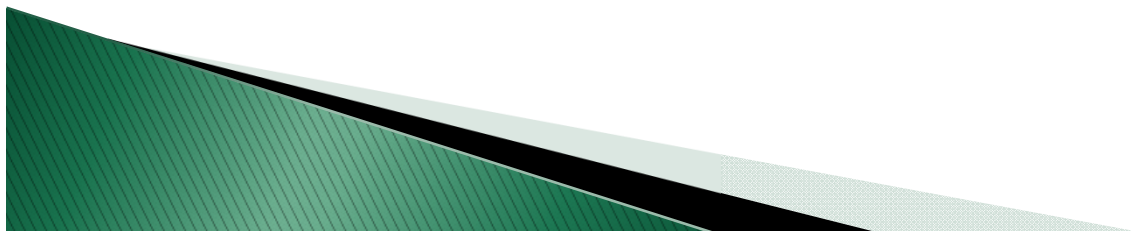
- ▶ Patient's clinical record
- ▶ Laboratory results
- ▶ Prescription Chart
- ▶ Transfusion Record
- ▶ Bedside checks



# Recognition and Perception

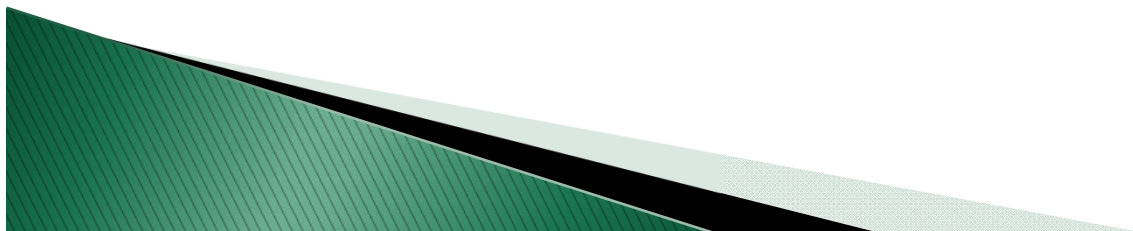
## ▶ Word Recognition

- Bouma shape – overall outline or shape of a word
- Parallel letter recognition – letters in a group perceived simultaneously
- Frequency effect – words that appear the most are easier to recognise



Preconceived messages

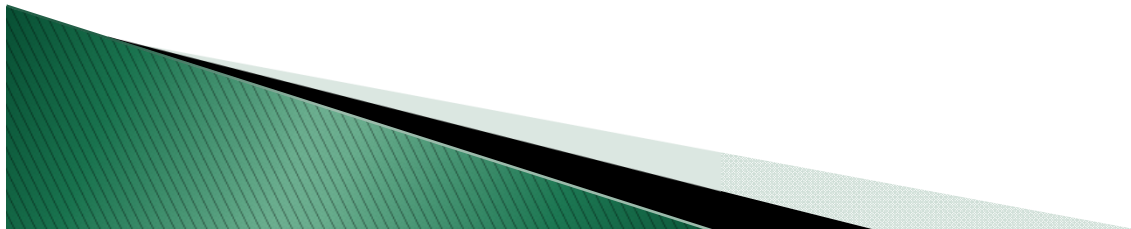
# Plasma component





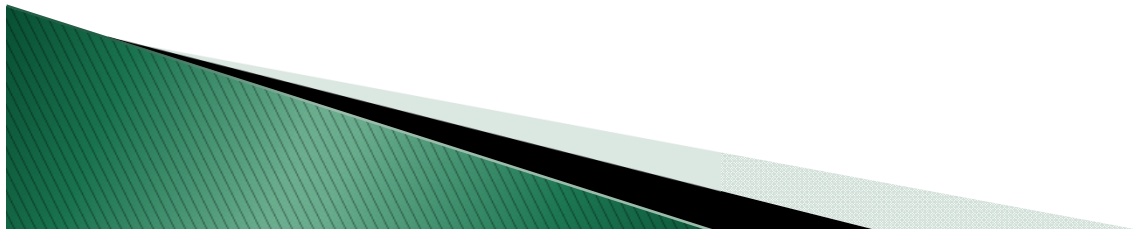
Preconceived messages

# Platelet component



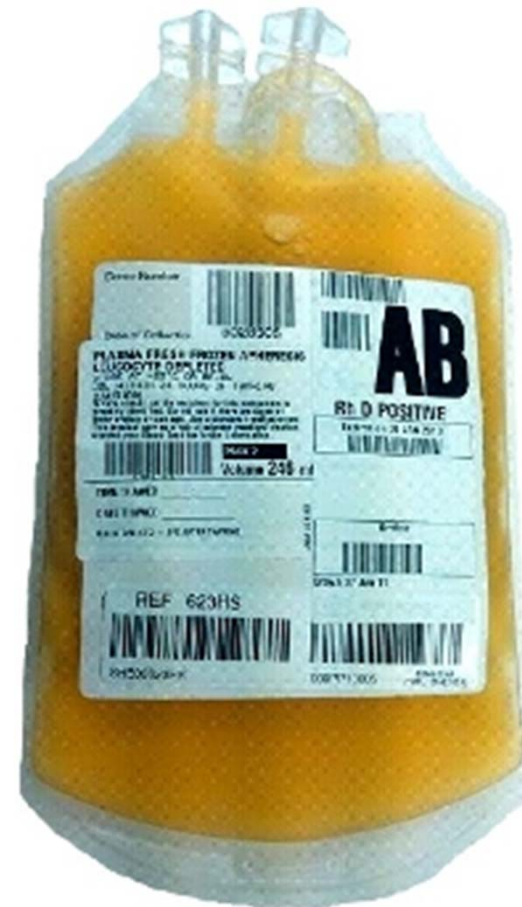
Preconceived messages

# Fresh Frozen Plasma



# Recognition and Perception

- ▶ Visual Recognition



# Recognition and Perception

## Platelet Component

 **Platelet Component**

5454266

PREPARED FOR: [REDACTED]

Forename: [REDACTED]

Dob: [REDACTED] Sex: [REDACTED]

NHI No.: [REDACTED] Pt Group: [REDACTED]


Hospital: Rotorua Hospital

Ward: Emergency Department

---

Product	Event Number
	Unit Number

## Fresh Frozen Plasma

 **Plasma Component**

5447879

PREPARED FOR: [REDACTED]

Forename: [REDACTED]

Dob: [REDACTED] Sex: [REDACTED]

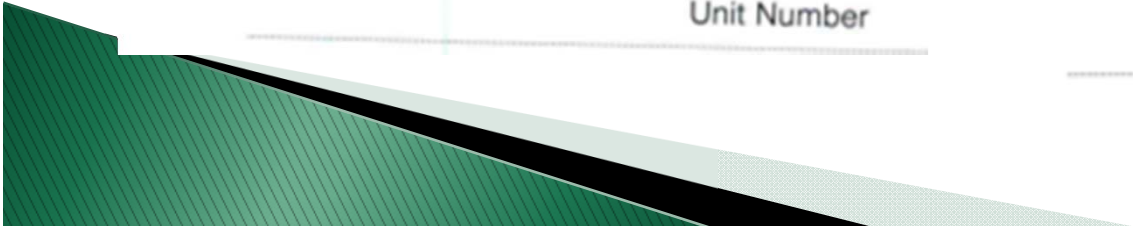
NHI No.: [REDACTED] Pt Group: [REDACTED]

Hospital: Rotorua Hospital

Ward: Emergency Department

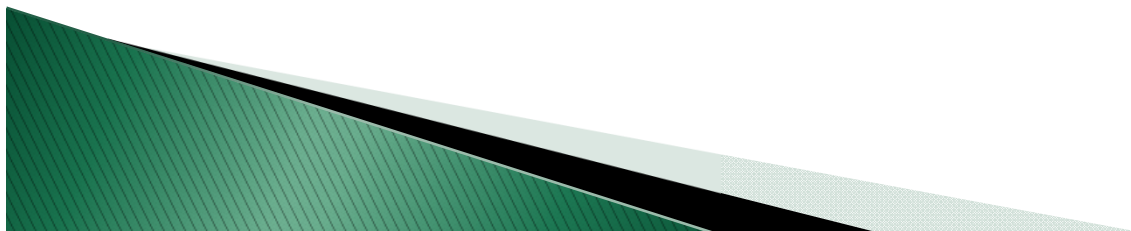
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Product	Event Number
	Unit Number



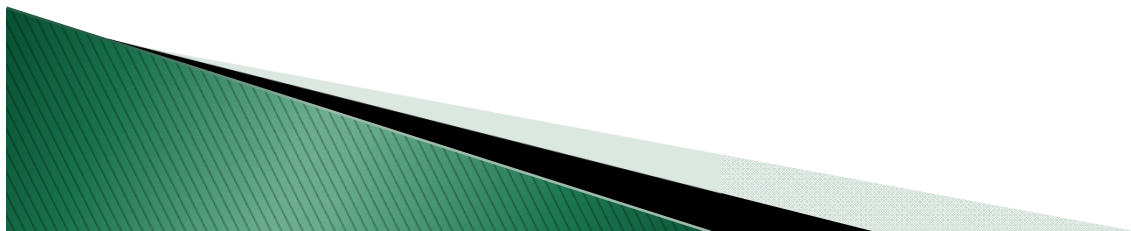
# Recommendations

- ▶ Change to telephone requesting
- ▶ Sighting of prescription in Laboratory
- ▶ Change in order of bedside checks
- ▶ NZBS consider changes to the Plasma component label



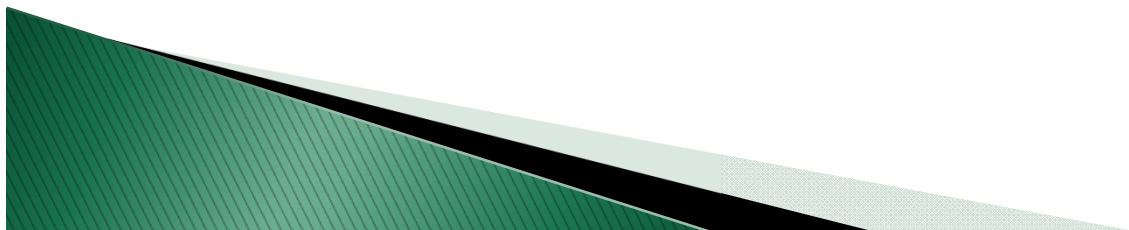
# Follow-up

- ▶ IV Transfusion Study Day (Nursing staff) 😊
- ▶ Updated Blood and Blood Product Admin protocol 😊
- ▶ Change in Blood Bank issue protocols 😊
- ▶ Notification to other DHBs (Alert) 😊
- ▶ Awaiting feedback from NZBS **Pending...**



# Is it working?

<b>COMPLIANCE TABLE</b>	33 records	43 records	39 records
Record Criteria	2011	2013	2015
Signed prescription present	80%	77%	<b>96%</b>
Signed prescription complete	80%	77%	<b>92%</b>



# References & Acknowledgements

- ▶ <http://www.hqsc.govt.nz/assets/Reportable-Events/Resources>
- ▶ Larsen, K. (2004, July). *The science of word recognition. Advanced Reading Technology, Microsoft Corporation, Retrieved from* <http://www.microsoft.com/typography/ctfonts/wordrecognition.aspx>
- ▶ *Lancet 2002; 359: 1373–78 Causes of prescribing errors in hospital inpatients: a prospective study.*
- ▶ *Davis P, Lay-Yee R, Briant R, et al. 2001. Adverse Events in New Zealand Public Hospitals: Principal findings from a national survey (Occasional Paper No. 3). Wellington: Ministry of Health.*
- ▶ *NZBS Annual Haemovigilance Reports 2010 – 2015*
- ▶ *Christopher Corkery – Transfusion Resource Nurse NZBS Waikato*
- ▶ *Charlotte Foley – Lakes DHB Quality & Risk Team*

