Technology for Enhanced Transfusion Safety
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Báo cáo viên:
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Case Summary

Mary Johnston  48-year-old woman, underwent surgery for removal of a 2 cm, right pararenal mass.


Post-operatively, Hct = 24%  given one unit of group A packed RBCs over 2 hours

End of the transfusion: a shaking chill, temperature rose from 99°F to 101°F, red urine, hemolyzed, Hct = 24%

Empty blood bag and  freshly drawn post-transfusion specimen

blood bank  “wrong blood transfusion”
What happened?

name and medical record number attached to the empty blood bag

Mary Johnson, MRN 2395783
blood bank sample drawn 2 days earlier : A-positive
a follow-up sample : O-positive

Mary Johnston, MRN 2395837
pre-op sample : no
post-transfusion sample: group O-positive
Transfusion safety

SHOT: Cumulative Data 1996-2003

- TRALI (7%)
- Post-tx Purpura
- Delayed reaction
- Acute reaction
- GVHD
- Infectious (2%)
- Mis-transfusion (66%)

n = 1451

SHOT Annual Report, April 2004: www.shot.demon.co.uk

Serious Hazards of Transfusion national data from the United Kingdom
Transfusion safety
Administer (bedside)

Non-computerized Technology

Bar code check prior transfusion

Radiofrequency indentification
Non-computerized Technology

§ Cheap

§ 10 years of use: prevent 3 cases of mis-transfusion

§ Do not contain the patient’s information
Bar Code Check Prior to Transfusion

Result of matching or non matching
Radiofrequency Identification

More information
Read and write function
Pre-transfusion testing

Non-computerized Technology

Bar Code Check Prior Transfusion

Radiofrequency Identification
Non-computerized Technology
Bar code check prior transfusion
Radiofrequency Identification
What happened?

Donor: Mary Johnson, MRN 2395783

- blood bank sample drawn 2 days earlier: A-positive
- a follow-up sample: O-positive

Recipient: Mary Johnston, MRN 2395837

- Hct 24%
- well-perfused 48-year-old e
- no known coronary disease
- not under conditions of increased oxygen demand