Role of the Transfusion Safety Nurse Manager
This isn't rocket science?

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Transfusion Safety Officer Current Demographics

- ~40 Transfusion Safety Officers currently identified throughout U.S.
  - AABB
- ~100 Blood Management Coordinators
  - Society for the Advancement of Blood Management (SABM)

Objectives

Create a culture change regarding transfusion

Develop clinical nurses as transfusion experts at the bedside

Actual Chart Note

- "Discussed with patient their hemoglobin value of 5.8. Patient denied symptoms including lightheadedness, dizziness, shortness of breath, chest pain, palpitations, weakness. I discussed the reasons why blood transfusion was recommended at this point, as well as the multiple serious complications that can arise as hemoglobin level drops."

What will we cover today?

- Role of the Transfusion Safety Nurse Manager

  Clinical Safety

  - Quality of patient care – failure to rescue
  - Indications for transfusion
  - Blood Administration
  - Transfusion Reactions
  - Policies/procedures/protocols/EMR
  - Education/Pathology Resident Review

Safety of PRODUCT

Safety of PATIENT

Safety of DELIVERY

GOAL: Reduce harm from deterioration.

Prevent "Failure to Rescue" from a complication stemming from an underlying illness - on our watch.

A PATIENT SAFETY ISSUE

Regulatory Agencies

- College of American Pathologists (CAP)
- The Joint Commission (TJC) – lab accreditation
- AABB - lab accreditation
- Food and Drug Administration (FDA)

5.27 Medical Record Documentation - AABB

5.27.1 The patient's medical record shall include: transfusion order, documentation of patient consent, the name of the component, the donation identification number, the date and time of transfusion, **pre- and posttransfusion vital signs,** the amount transfused, the identification of the transfusionist, and, if applicable, transfusion-related adverse events.

- How are transfusions documented in the medical record? (including vital signs, amount transfused, adverse reactions, etc.)
  - Assessor: Review a sample of medical records for patients transfused, recipients of tissue, and recipients of derivatives.

TRM.41000 **Transfusion Protocol - CAP** **Phase II**

There is a procedure for blood administration, including positive identification of transfusion recipients and blood components and observation of recipients.

NOTE: Because acute significant harm from transfusion frequently results from patient or blood component misidentification, from undetectable incompatibilities between the donor and recipient or inapparent defects (e.g. bacterial contamination), patients must be closely observed during and for a period of time after blood administration. Changes in vital signs or patient communication may signal an unintended adverse event.

TRM.41450 **Blood Administration Record** **Phase II**

There is documentation on the patient chart of the identity of the transfusionist, the blood component and unit number transfused, date and time of transfusion, evidence of patient monitoring before, during and after transfusion, and any adverse effects.

CIRCULAR OF INFORMATION –

FOR THE USE OF HUMAN BLOOD AND BLOOD COMPONENTS

Periodic observation and recording of vital signs should occur before, during, and after the transfusion to identify suspected adverse reactions. If a transfusion reaction occurs, the transfusion must be discontinued immediately and appropriate therapy initiated. The infusion should not be restarted unless approved by transfusion service protocol.

AABB Primer of Blood Administration

Patient Assessment Thorough assessment of the patient's condition should be the final step before initiating transfusion therapy.

Baseline Measurements

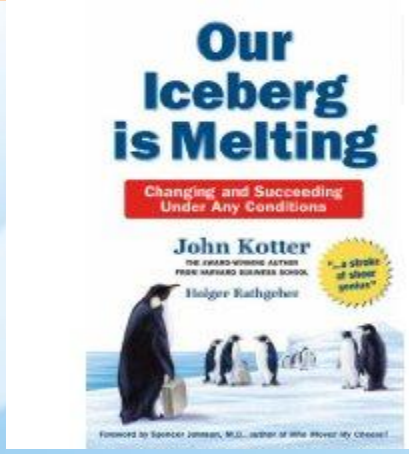
- Immediately before initiating transfusion, obtain vital signs:
  - Temperature.
  - Pulse.
  - Respirations.
  - Blood pressure.
- These provide a baseline measurement against which any changes during the transfusion can be compared.
- Measurements of all vital signs should be recorded in the patient record and be available for comparison.

REGULATORY

What would make you change your practice?

- DATA
- LITERATURE

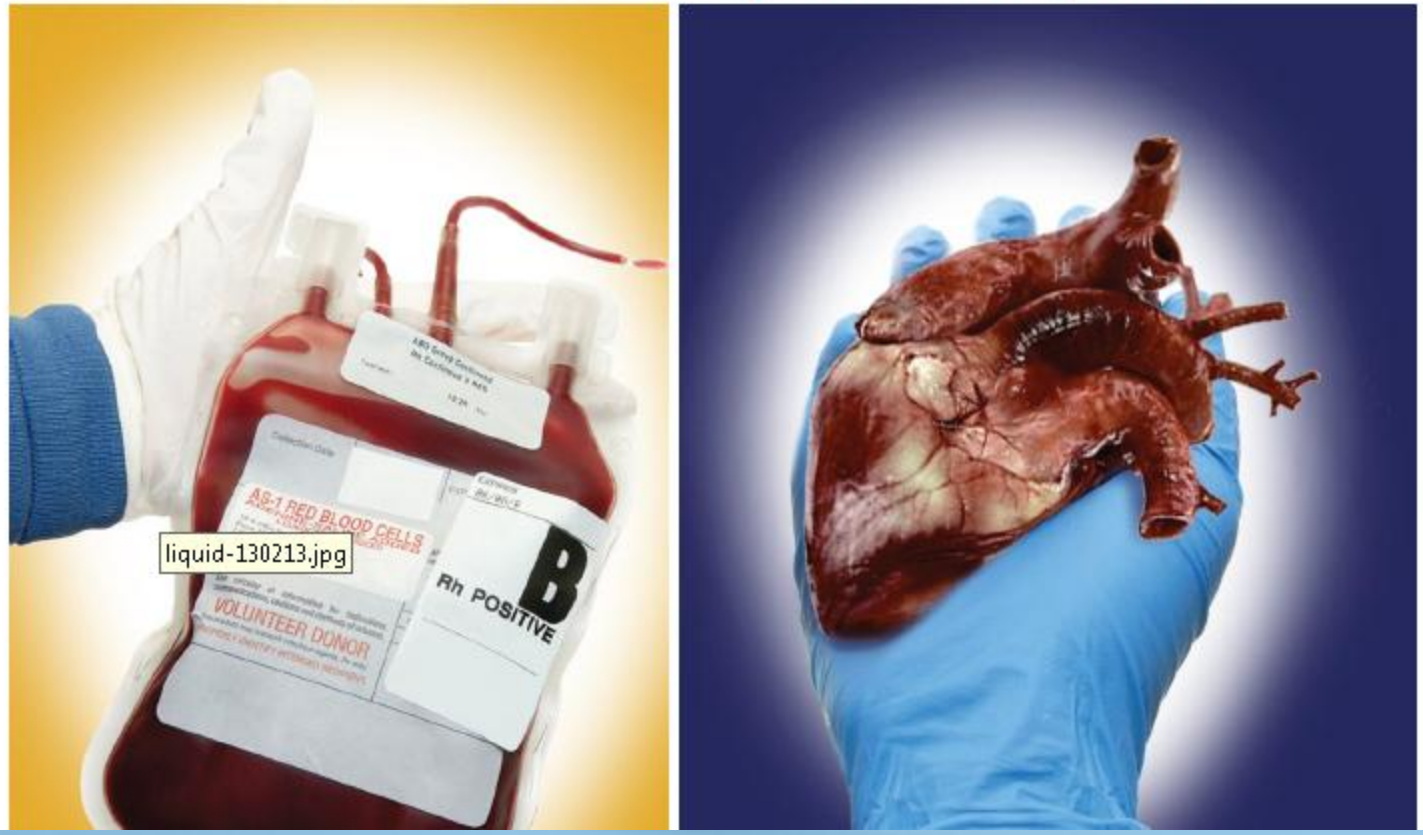
Implementing Successful Change Using Kotter Principles



1. Create a sense of urgency
2. Put together a strong team
3. Create an appropriate vision
4. Communicate the new vision broadly
5. Empower employees to act
6. Produce short-term results to give efforts credibility
7. Build momentum and use to tackle the tougher change problems
8. Anchor the behavior in department culture

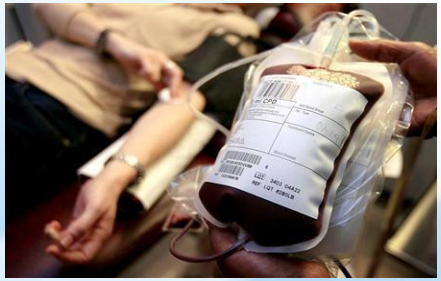
Our Iceberg Is Melting -John Kotter

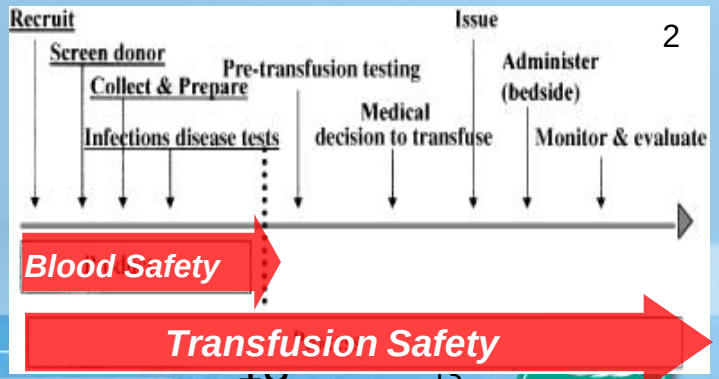
Transfusion is a liquid transplant!



Re-engineering the transfusion process: Ensuring the safe utilization of blood products[1]

- "Blood donor centers have done a remarkable job of making the blood in the bag safer than it has ever been."
- "The actual process of transfusion, however, is an area that has languished while public attention and healthcare resources have been focused on blood centers."
- "The most significant risks associated with blood transfusion reside with the transfusion process rather than the unit of blood."





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[1] Brooks, Transfusion 2005;45S
[2] Dzik, Transfusion 2003;43

First Publication

- 2003

Dzik, et al (Transfusion Medicine Reviews)

Patient safety and blood transfusion: new solutions.

"A new position, the transfusion safety officer (TSO), has been developed in some nations to specifically identify, resolve, and monitor organizational weakness leading to unsafe transfusion practice."

Additional Publication

- 2008

  Eckert, et al (AABB News)

  How Transfusion Safety Officers Improve Patient Care in Canada


How Transfusion Safety Officers Improve Patient Care in Canada

PRE-TRANSFUSION TESTING

National Patient Safety Goals

2014 Hospital National Patient Safety Goals

The purpose of the National Patient Safety Goals is to improve patient safety. The goals focus on problems in health care safety and how to solve them.

Identify patients correctly

NPSG.01.01.01	Use at least two ways to identify patients. For example, use the patient's name *and* date of birth. This is done to make sure that each patient gets the correct medicine and treatment.
NPSG.01.03.01	Make sure that the correct patient gets the correct blood when they get a blood transfusion.

Improve the accuracy of patient identification - Goal 1

- **NPSG.01.01.01 – The Joint Commission**

  Use at least two patient identifiers when providing care, treatment, and services.

  Rationale for NPSG.01.01.01

  – Wrong-patient errors occur in virtually all stages of diagnosis and treatment. The intent for this goal is two-fold: first, to reliably identify the individual as the person for whom the service or treatment is intended; second, to match the service or treatment to that individual.

  – Acceptable identifiers may be the individual's NAME, an assigned identification number MRN, telephone number, or other person-specific identifier.

- **Elements of Performance for NPSG.01.01.01**

  – Use at least two patient identifiers when administering medications, blood, or blood components; when collecting blood samples and other specimens for clinical testing; and when providing treatments or procedures.

  – The patient's room number or physical location is not used as an identifier.

  – Label containers used for blood and other specimens in the presence of the patient. (See also NPSG.01.03.01, EP 1)

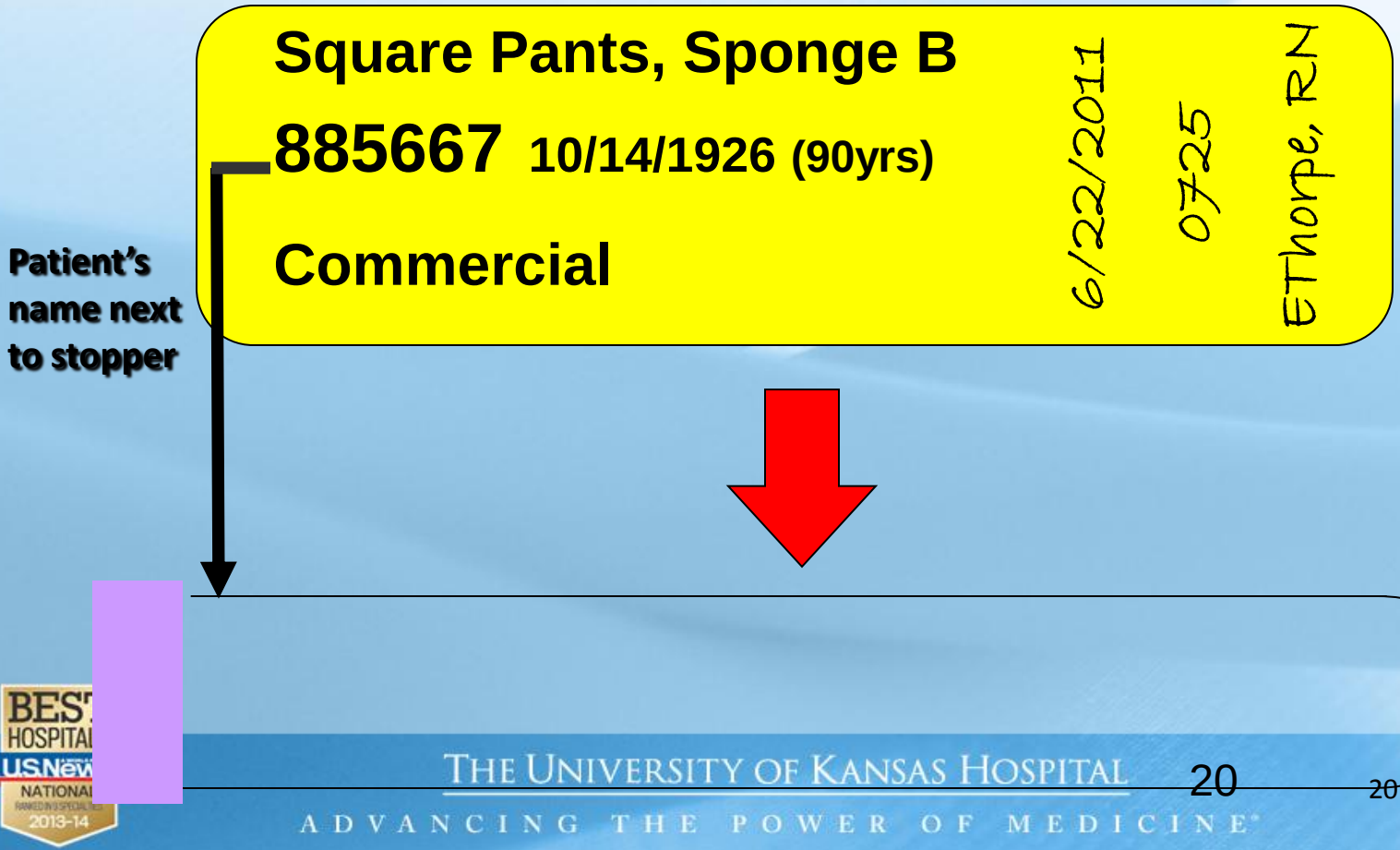
Improve the accuracy of patient identification – Goal 1

- **NPSG.01.03.01 – The Joint Commission**

  Eliminate transfusion errors related to patient misidentification.

- **Elements of Performance for NPSG.01.03.01**
  - Before initiating a blood or blood component transfusion:
    - Match the blood or blood component to the order.
    - Match the patient to the blood or blood component.
    - Use a two-person verification process or a one-person verification process accompanied by automated identification technology, such as bar coding.
- When using a two-person verification process, one individual conducting the identification verification is the qualified transfusionist who will administer the blood or blood component to the patient.
- When using a two-person verification process, the second individual conducting the identification verification is qualified to participate in the process, as determined by the hospital.

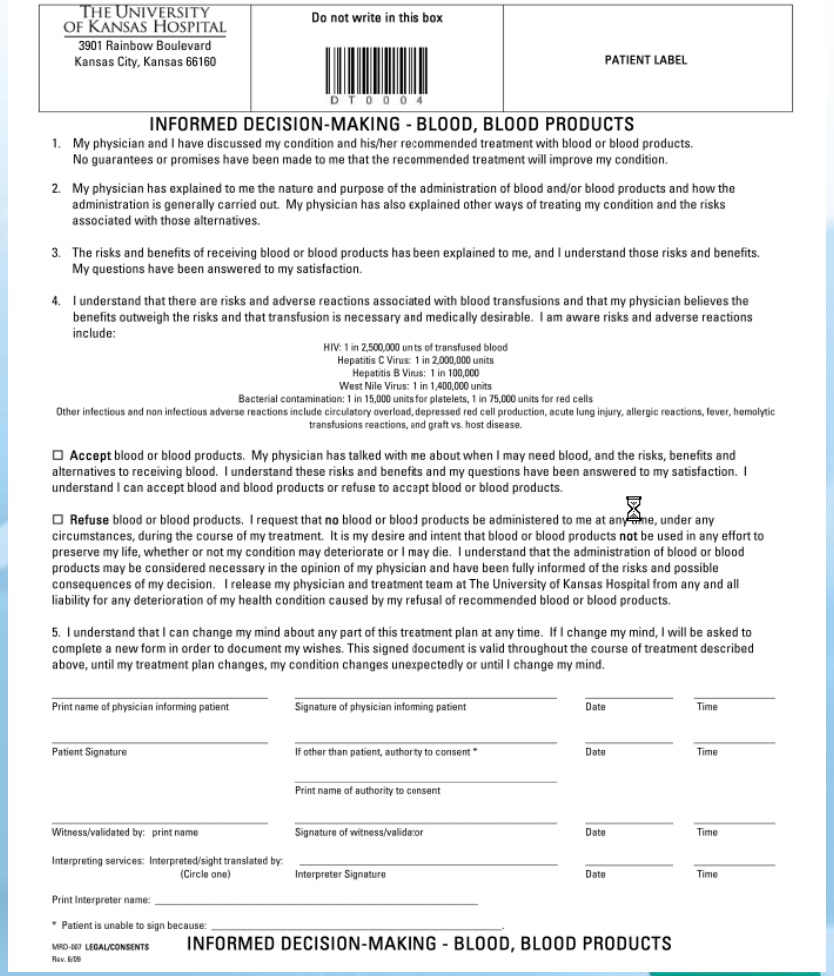
Specimen Labels



MEDICAL DECISION TO TRANSFUSE

Transfusion Hazards – Patient Consent is required

- Blood transfusion is one of the most dangerous procedures a nurse will ever perform in their career at the bedside
- *Number 1 procedure performed in the hospital*



THE UNIVERSITY OF KANSAS HOSPITAL
3901 Rainbow Boulevard
Kansas City, Kansas 66160

Do not write in this box

PATIENT LABEL

INFORMED DECISION-MAKING - BLOOD, BLOOD PRODUCTS

1. My physician and I have discussed my condition and his/her recommended treatment with blood or blood products. No guarantees or promises have been made to me that the recommended treatment will improve my condition.
2. My physician has explained to me the nature and purpose of the administration of blood and/or blood products and how the administration is generally carried out. My physician has also explained other ways of treating my condition and the risks associated with those alternatives.
3. The risks and benefits of receiving blood or blood products has been explained to me, and I understand those risks and benefits. My questions have been answered to my satisfaction.
4. I understand that there are risks and adverse reactions associated with blood transfusions and that my physician believes the benefits outweigh the risks and that transfusion is necessary and medically desirable. I am aware risks and adverse reactions include:

HIV: 1 in 2,500,000 units of transfused blood
Hepatitis C Virus: 1 in 2,000,000 units
Hepatitis B Virus: 1 in 100,000
West Nile Virus: 1 in 1,400,000 units
Bacterial contamination: 1 in 15,000 units for platelets, 1 in 75,000 units for red cells
Other infectious and non infectious adverse reactions include circulatory overload, depressed red cell production, acute lung injury, allergic reactions, fever, hemolytic transfusions reactions, and graft vs. host disease.

☐ **Accept** blood or blood products. My physician has talked with me about when I may need blood, and the risks, benefits and alternatives to receiving blood. I understand these risks and benefits and my questions have been answered to my satisfaction. I understand I can accept blood and blood products or refuse to accept blood or blood products.

☐ **Refuse** blood or blood products. I request that **no** blood or blood products be administered to me at any time, under any circumstances, during the course of my treatment. It is my desire and intent that blood or blood products **not** be used in any effort to preserve my life, whether or not my condition may deteriorate or I may die. I understand that the administration of blood or blood products may be considered necessary in the opinion of my physician and have been fully informed of the risks and possible consequences of my decision. I release my physician and treatment team at The University of Kansas Hospital from any and all liability for any deterioration of my health condition caused by my refusal of recommended blood or blood products.

5. I understand that I can change my mind about any part of this treatment plan at any time. If I change my mind, I will be asked to complete a new form in order to document my wishes. This signed document is valid throughout the course of treatment described above, until my treatment plan changes, my condition changes unexpectedly or until I change my mind.

Print name of physician informing patient | Signature of physician informing patient | Date | Time

Patient Signature | If other than patient, authority to consent * | Date | Time

Print name of authority to consent

Witness/validated by: print name | Signature of witness/validator | Date | Time

Interpreting services: Interpreted/sight translated by: (Circle one) | Interpreter Signature | Date | Time

Print Interpreter name: _____

* Patient is unable to sign because: _____

MRD-007 LEGAL/CONSENTS
Rev. 6/09

INFORMED DECISION-MAKING - BLOOD, BLOOD PRODUCTS

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Nursing: Target Rich Environment

- Blood Transfusion is a hazardous process
  - Associated with severe adverse events (1.5-4%)
  - Inappropriate administration practice can result in patient death
- Are nurses adequately trained and competent to perform and monitor the process?

Inappropriate Transfusion Rates

- Audit of routine transfusion orders at Brigham and Women's Hospital in Boston
  - Looked at ER, OR, PACU and emergent transfusions were excluded; pretty liberal on transfusion criteria
- Percentage of inappropriate orders was 73% for staff physicians and 72% for residents
- We looked at KU –
  - 72nd percentile for transfusion overall compared to UHC
  - 70% of transfusion met "hospital" transfusion criteria-too liberal
  - 48% of transfusions met "best practice" transfusion criteria
  - 50% of red blood cell transfusion episodes were 2 unit orders

Is Blood Utilization Optimal?

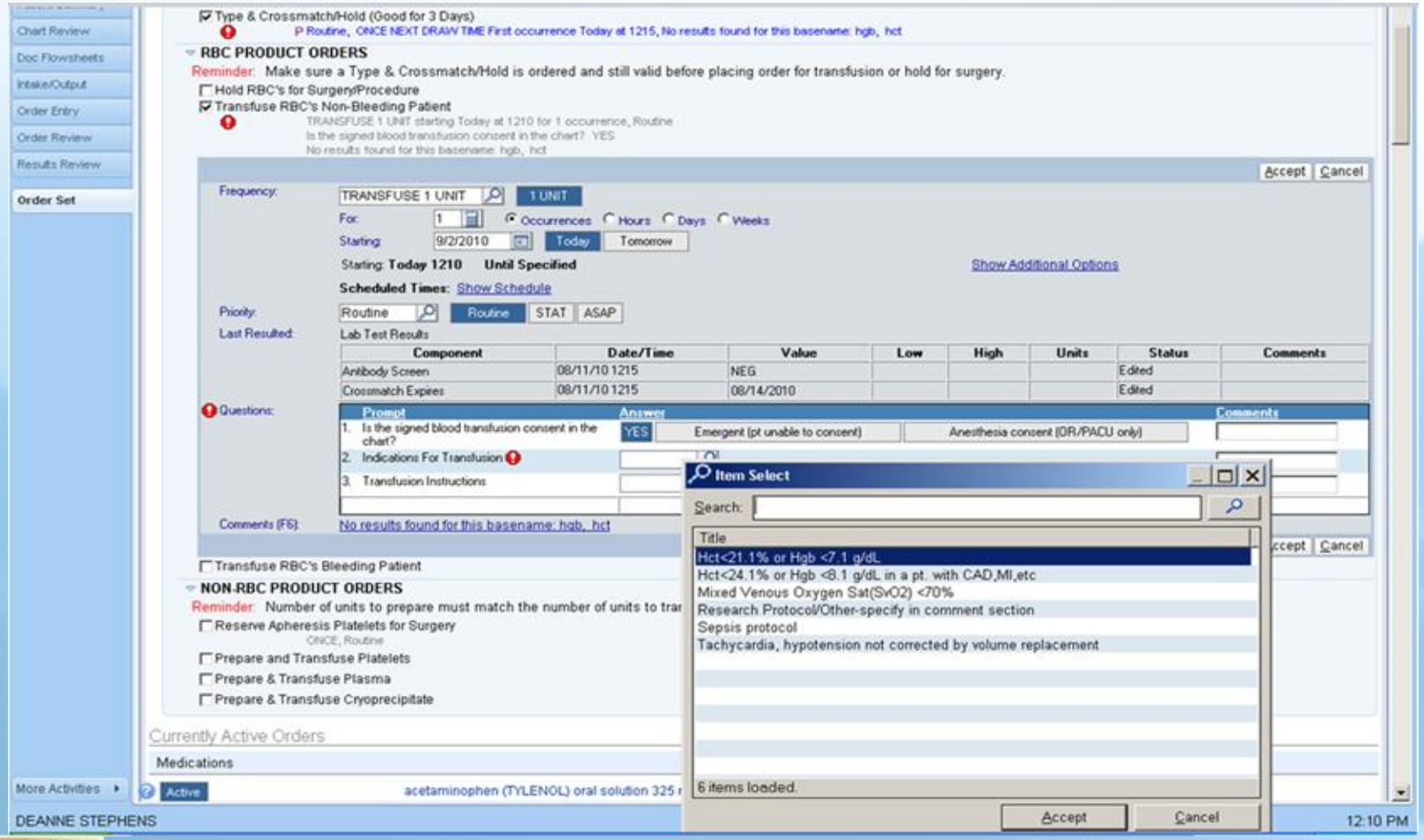
- Variation in transfusion practice when looked at 24 institutions – CABG surgery patients
  - RBC = 92%
  - Platelets = 0-36%
  - FFP = 0-36%
  - Cryo = 0-17%
- Within the hospital variation was also seen among surgeons at the same hospital
- 12 fold difference in cardiac surgery RBC transfusion practices from country to country

Physician Transfusion Appropriateness

- Transfusion Guidelines (18 pages) do exist and were updated in July 2009
  - Recommend a concise 1-2 page summary of evidence based transfusion triggers – in process (see handout)

- Findings from the review of 56 transfusion episodes chart review
  - Transfusion ordering practices-
    - **70% of transfusions reviewed met hospital transfusion criteria**
    - 48% of transfusions reviewed met transfusion criteria using external transfusion guidelines
    - 50% of red blood cell transfusion episodes were 2 unit orders, best practice is to order one at a time and re-evaluate

Transfusion Order Set



UKH Cost Savings

THE UNIVERSITY OF KANSAS HOSPITAL
ESTIMATED INPATIENT SAVINGS

	Baseline Period Sep 08 - Aug 09	Period to Date Sept 09 - Jan 13							
	Avg # of Units per 1000 Inpatient Cases	Avg # of Units per 1000 Inpatient Cases	% Saved	Unit Savings	Purchase Cost Savings		Transfusion Cost Savings	Adverse Events Cost Savings	Total Estimated Savings
Red Blood Cells	578.69	377.26	35%	19,144	$4,141,422		$8,844,528	$23,355,680	$36,341,630
Platelets	163.63	123.22	25%	3,841	$2,072,911		$1,774,542	$4,686,020	$8,533,473
Plasma	221.25	177.89	20%	4,122	$246,825		$626,544	$1,005,768	$1,879,137
Cryoprecipitate	22.68	27.57	-22%	(465)	($159,430)		($42,780)	($56,730)	($258,940)
			TOTALS	26,642	$6,301,728		$11,202,834	$28,990,738	**$46,495,300**

Notes: *Estimated inpatient savings only

**Cryoprecipitate is reported as a base unit consisting of 5 single units

ISSUING BLOOD

THE UNIVERSITY OF KANSAS HOSPITAL

Transfusion Medicine Service Case Evaluation

Demographic and Service Information:

Patient Label

Ordering Physician: _____Pager:_____

Technician/Technologist:_____

TM Resident/Fellow: _____

	Test	Result	Time
☐ Red Blood Cells	H/H	_____	_____
☐ Platelets	PLT	_____	_____
☐ Plasma	PT	_____	_____
	INR	_____	_____
	PTT	_____	_____
☐ Cryoprecipitate	FIB	_____	_____

☐ Irradiation

☐ Anti-platelet Antibody

☐ Other _____

Technologist Comments:

Diagnosis: _____

Resident Comments:

Transfusion Form Revised: 09-Feb-2014 2016

Transfused?

☐ Yes Amount_____

☐ No

To be completed during Clinical Pathology Conference (Please Mark One)

☐ **Indicated (Approved)** ☐ **Not Indicated (Approved)** ☐ **Not Indicated (Not Approved)**

☐ **Indeterminate (Approved/not approved)**

ADMINISTRATION

Independent Double Check

- Confirmation bias says: You will see what you want to see instead of what is actually there.
- Best Practice says: 95% of errors are caught using an independent double check
- Implementation of an INDEPENDENT double check in which 2 clinicians SEPARTELY check (alone and apart from each other, then compare results) each component of prescribing, dispensing and verifying the blood before it is administered

Independent Double Check - Blood Administration

1. Primary RN:

- ☐ Review the original transfusion order and note the associated lab value within the order. Ensure consent is in the chart.
  - ☐ The name and medical record number on the order must be identical to the name and medical record number on the blood slip.
  - ☐ The blood component name match the component ordered including any special requirements such as irradiation, sickle cell negative or other.
- ☐ The recipient identification
  - ☐ The name and medical record number on the patient's ID bracelet must be identical to those on the slip attached to the blood component.
- ☐ The donor unit identification
  - ☐ The unit identification number on the blood component label must match unit identification number on the attached slip.
- ☐ ABO/Rh
  - ☐ The ABO and Rh type on the blood component unit must agree with that recorded on the blood slip attached to the unit
- ☐ Product expiration should be verified to ensure product is not expired
- ☐ Appearance of the blood component verified to be acceptable

2. Secondary RN:

- ☐ Review the original transfusion order and note the associated lab value within the order. Ensure consent is in the chart.
  - ☐ The name and medical record number on the order must be identical to the name and medical record number on the blood slip.
  - ☐ The blood component name match the component ordered including any special requirements such as irradiation, sickle cell negative or other.
- ☐ The recipient identification
  - ☐ The name and medical record number on the patient's ID bracelet must be identical to those on the slip attached to the blood component.
- ☐ The donor unit identification
  - ☐ The unit identification number on the blood component label must match unit identification number on the attached slip.
- ☐ ABO/Rh
  - ☐ The ABO and Rh type on the blood component unit must agree with that recorded on the blood slip attached to the unit
- ☐ Product expiration should be verified to ensure product is not expired
- ☐ Appearance of the blood component verified to be acceptable

3. OPTIONAL Simultaneous Double Check:

***The following process is to mirror the dual check-off nurses have always completed per the previous standard of practice.**

- ☐ Discuss the original transfusion order with correlated lab values
  - ☐ The name and medical record number on the order must be identical to the name and medical record number on the blood slip.
  - ☐ The blood component name match the component ordered including any special requirements such as irradiation, sickle cell negative or other.
- ☐ The recipient identification
  - ☐ The primary RN reads the name and medical record number aloud from the patient's ID bracelet. The secondary RN ensures they are identical to those on the tag attached to the blood component
- ☐ The donor unit identification
  - ☐ The secondary RN reads the identification number, ABO/Rh and product expiration on the blood component label while the primary RN verifies it is identical to the blood component slip.
- ☐ Both RNs will verify the appearance of the blood product is acceptable
- ☐ Sign the blood product slip as you have always done
- ☐ Ensure the blood product slip remains attached to the unit throughout the transfusion

Expectations for Vital Signs

Document vital signs:

- Within **30 minutes prior** to administration
- **15 minutes after** transfusion initiation
- Every **1 hour throughout** the transfusion
- At transfusion **completion**

	1523	1538	1545
Vitals			
Temp	37.1 (98.8)	37 (98.6)	37.1 (98.8)
Temperature Source	0	0	0
Pulse	79	81	83
Respirations	12	11	12
BP	123/82	121/80	125/79
Mean NBP (Calculated)	96	94	94
SpO2	99	100	100

Patient Monitoring

- Pre-transfusion patient assessment
  - Vital signs
  - RN baseline assessment of the patient
    - Skin Inspection
    - Lung Sounds
    - Urine color

Vital Sign Monitoring Audit

- CAP quality improvement program in 2003
- 660 institutions mostly in the US
- Patient identification and VS monitoring
- 16,494 transfusions
- Vital sign monitoring did not meet accreditation standards
- 81.6%

(Novis etal. ArchPathol Lab Med 2003;127:541-548)

Documentation
3rd quarter 2013

Blood Product Administration Documentation Chart Audits

	Vital Sign Documentation							Infusion Time Appropriate	All parts compliant
	Within 30 min prior to start	15 min after start	1 hour	2 hour	3 hour	4 hour	Completion		
Number Compliant	34	28	22	10	1	0	23	39	8
Total Number Counted	45	45	43	19	1	45	45	45	45
Number Unknown (Due to either no start or stop time documented)	0	0	0	0	0	2	2	2	
% Compliance	76%	62%	51%	53%	100%		51%	87%	18%

Documentation
4th quarter 2013

Overall Audit Summary: 312 Blood Product Audits

Joint Commission Goal is ≥ 90% compliant with policy

Overall Vital Sign Documentation Compliance	Within 30 minutes prior (EPIC)	15 minutes after start (EPIC)	Hourly (EPIC), yes, no, unknown if no documented END time, n/a if transfused <1 hour	End (EPIC) Yes, No, UNKNOWN due to no END time documented	Transf. ≤ Minimum Recommend. Rate or > 4hrs
34.3%	69.2%	74.4%	64.8%	58.7%	38.5%
Compliant = 107	Yes = 216	Yes = 232	Yes = 199	Yes = 183	Yes = 120
NonCompliant = 204	No = 95	No = 79	No = 88	No = 95	No = 141
			N/A = 5	UNKNOWN = 33	UNKNOWN = 50
			UNKNOWN = 19		

Vital Sign Documentation

34.3%

Hemolytic transfusion reactions are often the result of failure to follow established identification and monitoring procedures.

AUDIT OF TRANSFUSIONS

"Observations or measuring vital signs is increasingly seen as a task-based activity rather than the gathering of clinical information"

NURSING TIMES

MONITOR AND EVALUATE

TRANSFUSION PROCESS QUALITY AUDIT

PATIENT_____ **MRN**_____ **LOCATION**_____**DATE**_____

Type of Product: ☐RBC ☐Platelet ☐Plasma ☐Cryo **Time issued from BB** _____ **Time started**_____

Component ID_____ **Transfusionist**_____ **Time stopped**_____

Blood Component Delivery Request	**Met**	**Not Met**	
1. The blood component delivery was placed on the correct patient for the correct product.	☐	☐	
Informed Consent			
2. The correct consent for transfusion was properly signed and placed on the patient's chart. ☐MRD-007 7/09 ☐ANES-004 11/07 (OR/PACU use only) ☐ NA – emergent need documented	☐	☐	
Physician Order			
3. Verified written/electronic order for blood component administration exists.	☐	☐	
Patient Preparation			**NA**
4. Patient was pre-medicated (if ordered by provider). Select NA if no orders for pre-medications	☐	☐	☐
5. RN baseline assessment completed: ☐Vital signs within 30 minutes of start of transfusion ☐skin ☐lung sounds	☐	☐	
Pre-transfusion Verification Checks			
6. Review the original transfusion order and note that the associated lab value matches the product	☐	☐	
7. Name and MRN on the order must be identical to the name and MRN on the patient ID bracelet	☐	☐	
8. Name and MRN on the patient's ID bracelet match the name and MRN on the transfusion slip	☐	☐	
9. Unit identification number on the blood component label matches the unit identification number on the transfusion slip	☐	☐	
10. ABO and Rh type on the blood component label match what's recorded on the blood slip attached to the unit	☐	☐	
11. Verify blood product is not expired	☐	☐	
12. Verify blood component appearance is within normal limits	☐	☐	
13. Two licensed personnel signed the Transfusion slip	☐	☐	
Blood Administration			
14. Verify vital signs were checked 15 minutes after start of transfusion or after 50mL transfused ☐ documented	☐	☐	
15. Verify 0.9 sodium chloride is the fluid hanging with the blood or administered via the same IV line	☐	☐	
16. Blood component was transfused at standard rate.	☐	☐	
17. Verbalize signs/symptoms of transfusion reaction	☐	☐	
18. Verbalize actions in the event of a "suspected" transfusion reaction	☐	☐	
Post-transfusion Checks			
19. Vital signs were checked at completion of transfusion. ☐ documented	☐	☐	
20. Transfusion slip remains attached to the blood unit during administration	☐	☐	
21. Verbalize the location of the policy, procedure and protocol for blood administration	☐	☐	

Note directions on the back of this form

Transfusion Reaction Categories

Non-hemolytic - Febrile[1]	45/88 (51%)
Allergic[2]	3/88 (3%)
Hemolytic[3]	2/88 (2%)
Bacterial Contamination/Sepsis[4] (strong suspicion)	3/88 (3%)
Pulmonary Complications[5]	30/88 (34%)
Other[6]	5/88 (6%)

[1]1°C rise in temperature from baseline
[2]Hives, rash, uticaria, angioedema
[3]Clinical S/S verified by blood bank workup
[4]Rapid rise in temperature (>2°F) with hemodynamic instability during platelet transfusion – neither case was reported promptly to the blood bank; therefore, the blood bag was not evaluated
[5] Onset on dyspnea, shortness of breath, and/or hypoxia (O2 sat <90%) within 6 hours of transfusion and no other clear explanation
[6]Significant clinical changes (e.g. hemodynamic change, hematuria) during blood administration with no other clear explanation other than transfusion

Transfusion Reaction Reporting

	Yes	No
Reported to a Physician	52/88 (59%)	36/88 (41%)
Reported to the Blood bank	15/88 (17%)	73/88 (83%)

[1]Overall transfusion related adverse event rate from SHG medical record review was 2.8%
[2] The hospital criteria for a transfusion reaction was clinically met during, or immediately after blood administration (within 6 hours for pulmonary complications)

Formulation Date: 4/11 Review Date: Revision Date: Effective Date: 6/1/11 Page 1 of 1	THE UNIVERSITY OF KANSAS HOSPITAL **PROTOCOL**	Unique Identification Number: Sponsoring Area: Blood Bank Sponsor: Transfusion Safety Manager Approved by:

Suspected Transfusion Reaction

NOTE: Requires order for Implementation

Patient Outcomes:
The patient undergoing transfusion will be monitored closely for possible transfusion reaction, and have issues addressed in a timely fashion.

Non-physician Licensed Professionals authorized to implement role-appropriate aspects of this protocol:

☑Registered Nurse ☐ Respiratory Therapist ☐ Pharmacist ☐ Physical Therapist ☐ Speech Therapist

☐ Occupational Therapist ☐ Registered Dietitian ☐ Imaging Technician ☐ Other (list)_____

Protocol:
In the care of a patient receiving blood/blood products the nurse will quickly identify a possible transfusion reaction. When a possible reaction is identified the nurse will:

- Immediately STOP transfusion.
- Check the blood product to make sure it correctly matches patient.
- Obtain a set of vital signs (temperature, pulse, respirations, B/P, SVO_2)
- Notify the physician who ordered the blood.
- Notify Transfusion Service (Blood Bank) @ 8-1760.
- Even if the transfusion is continued, order in O2:
  - Transfusion Reaction Evaluation sample (submit to Transfusion Services).
    - For Neonates use 0.5 ml lavender EDTA tube
    - For Peds/Adults use 6 ml pink EDTA tube
  - Print and complete *Investigation of Suspected Transfusion Reaction* Form and send to Transfusion Service (Blood Bank).
    - Urine HGB for transfusion reaction (submit to Lab).
- After discontinuation of transfusion, hand deliver blood bag and administration set to Transfusion Service (Blood Bank).
- If symptoms do not resolve or additional symptoms develop within 6 hours following transfusion, notify Transfusion Service (Blood Bank).

Supporting Order Set(s)
None

Approved by:
Blood Utilization Committee 4/2011
Medical Director, Pathology and Laboratory Medicine
ECMS 5/2011

Additional Contributing Departments/Areas/Committees:
Laboratory

Key Words:
Reaction
Hemolytic

Note: University of Kansas Hospital protocols are maintained electronically and are subject to change. Printed copies may not reflect the current official protocol.

Transfusion Reaction Reporting

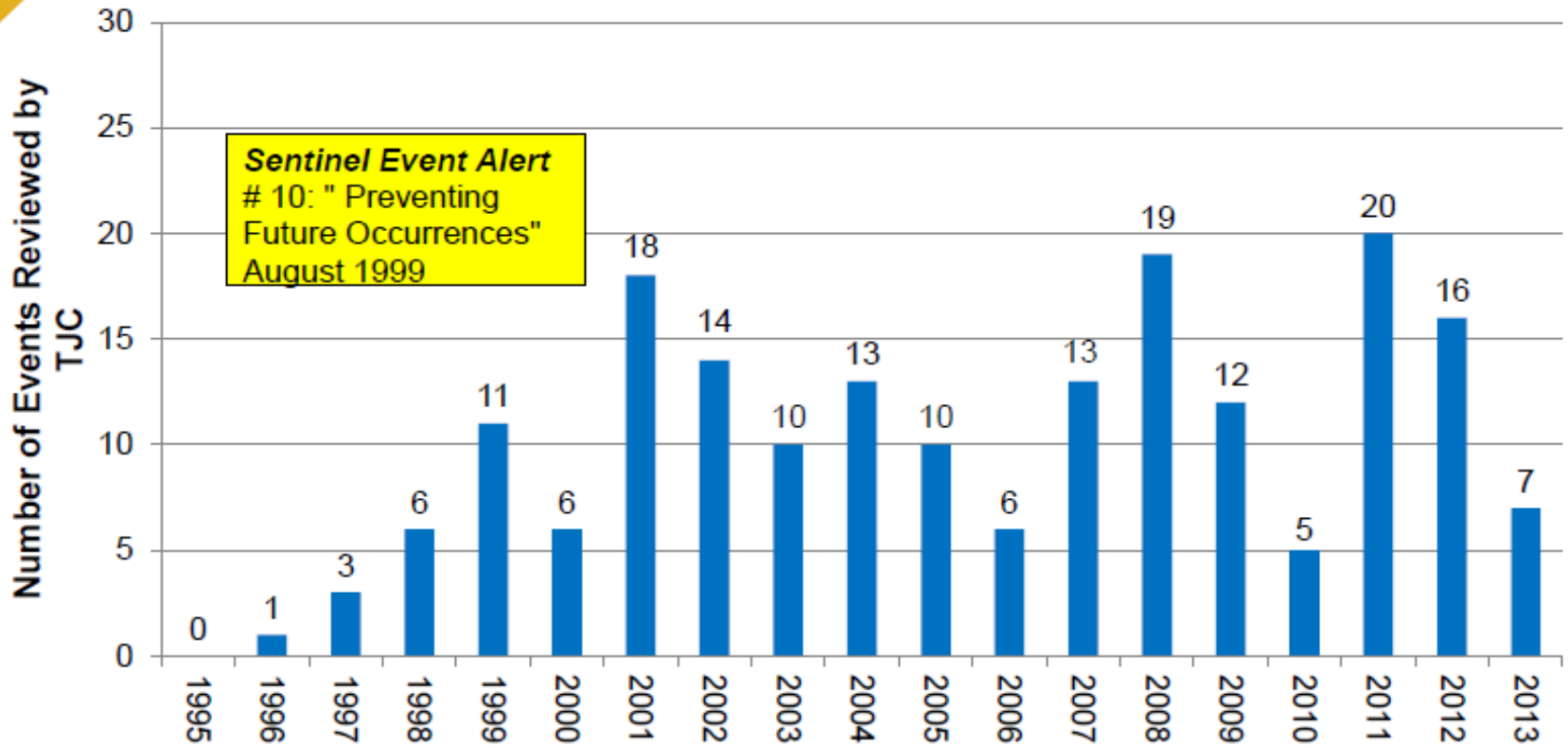
REACTION DESCRIPTION	PATIENT INFORMATION
Reaction Date:_____ Time: _____ Blood Component Unit #_____ Component: ☐ RBC ☐ PLT ☐ FFP ☐ Other:____ Amount transfused: _____ Check Reaction Symptom(s) Observed: ☐ Elevated temp > 1°C or 2°F ☐ Chills ☐ Hives/Local Erythema ☐ Hypotension ☐ Dyspnea ☐ Jaundice ☐ Hematuria/Dark Urine ☐ Anaphylaxis ☐ Failure to clot ☐ Flank/lumbar pain ☐ Cough ☐ Restlessness/Anxiety ☐ Excessive bleeding from operative site ☐ Pain/Other (describe type & location if applicable): _____	Diagnosis:_____ _____ IV Solutions/Medication in-line with blood component? ☐ No ☐ Yes *If yes, what?*_____ **Vitals** **Pre-Reaction** **Post-Reaction** Temp: _____ _____ B/P: _____ _____ Pulse: _____ _____ SVO2 _____ _____ Highest Temp 24hr prior to transfusion:_____

Transfusion Reaction Reporting

- Standard testing
  - Clerical check
  - ABO/Rh
  - Direct antiglobulin test (checking for antibody coating the transfused cells)
- Additional S/S based testing
  - may also quarantine other products associated with donation
  - Temperature increase > 1°C for Plts or > 2°C other products – add gram stain and product culture
  - Dyspnea – add BNP
  - Pulmonary infiltrates – TRALI evaluation by blood supplier

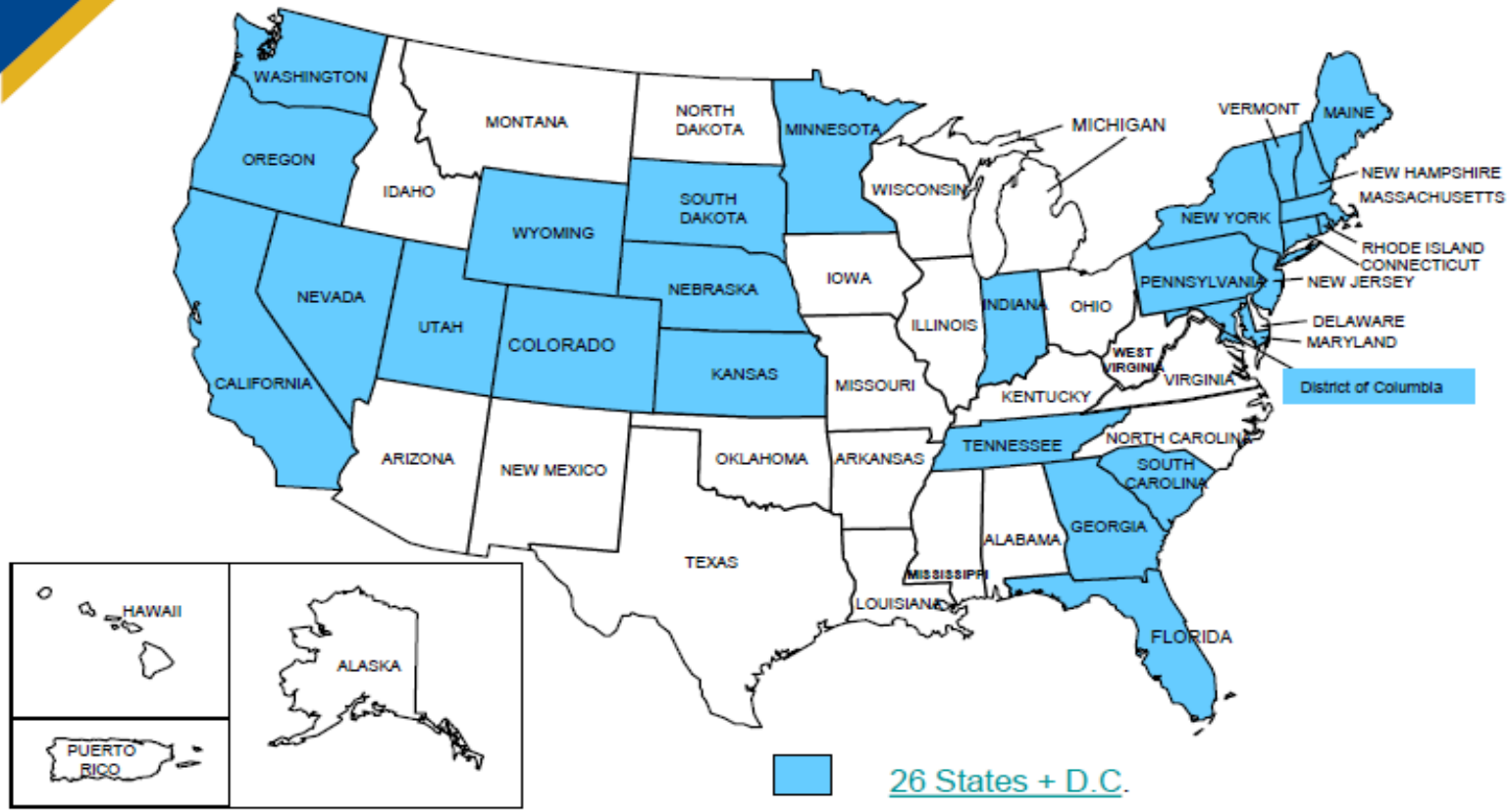
Transfusion-related Events Reviewed by The Joint Commission

(Hemolytic transfusion reaction involving administration of blood or blood products having major blood group incompatibilities)



The reporting of most sentinel events to The Joint Commission is voluntary and represents only a small proportion of actual events. Therefore, these data are not an

Adverse Event Reporting States



The Joint Commission

The r reporting of events to The Joint Commission is a voluntary process, and represents only a small proportion of actual events. Therefore, this information should not be viewed as reflecting an epidemiologic data set and no conclusions should be drawn about the actual relative frequency of events or trends in events over time.

Office of Quality Monitoring - 3

Is there really a need for a job like this…

You mean Physicians don't know….

How long before you're out of a job…

Don't they learn this in school…

Questions?

It's **QUESTION TIME!!**