



The Knowledge Imperative

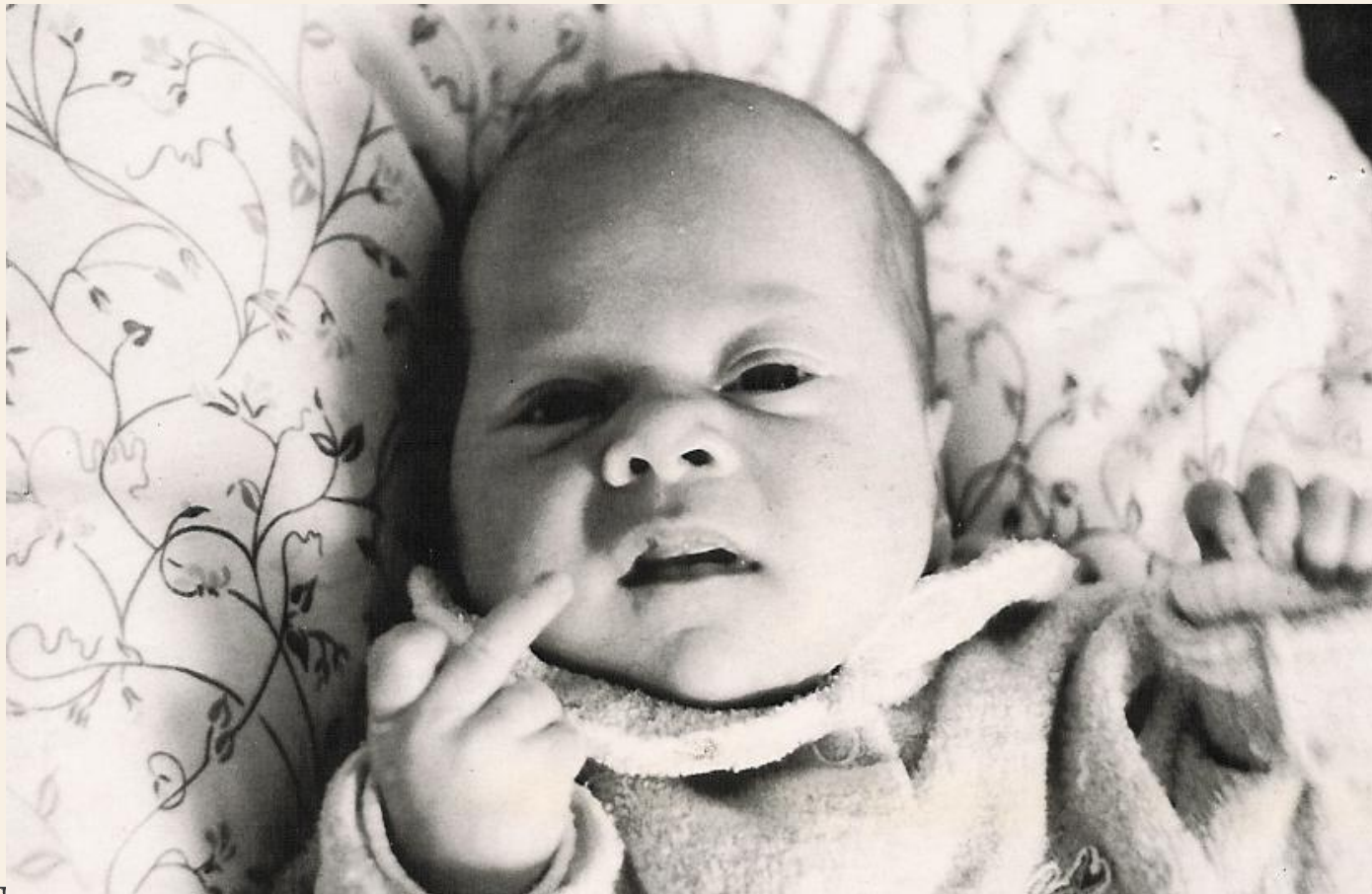
Timothy B McDonald, MD JD

September 7, 2012

SESSION DESCRIPTION

- Interactive session on the role of science in patient safety that will address how knowledge, skills and behavioral competencies are critical to reducing errors.
- Implications and opportunities for medical students

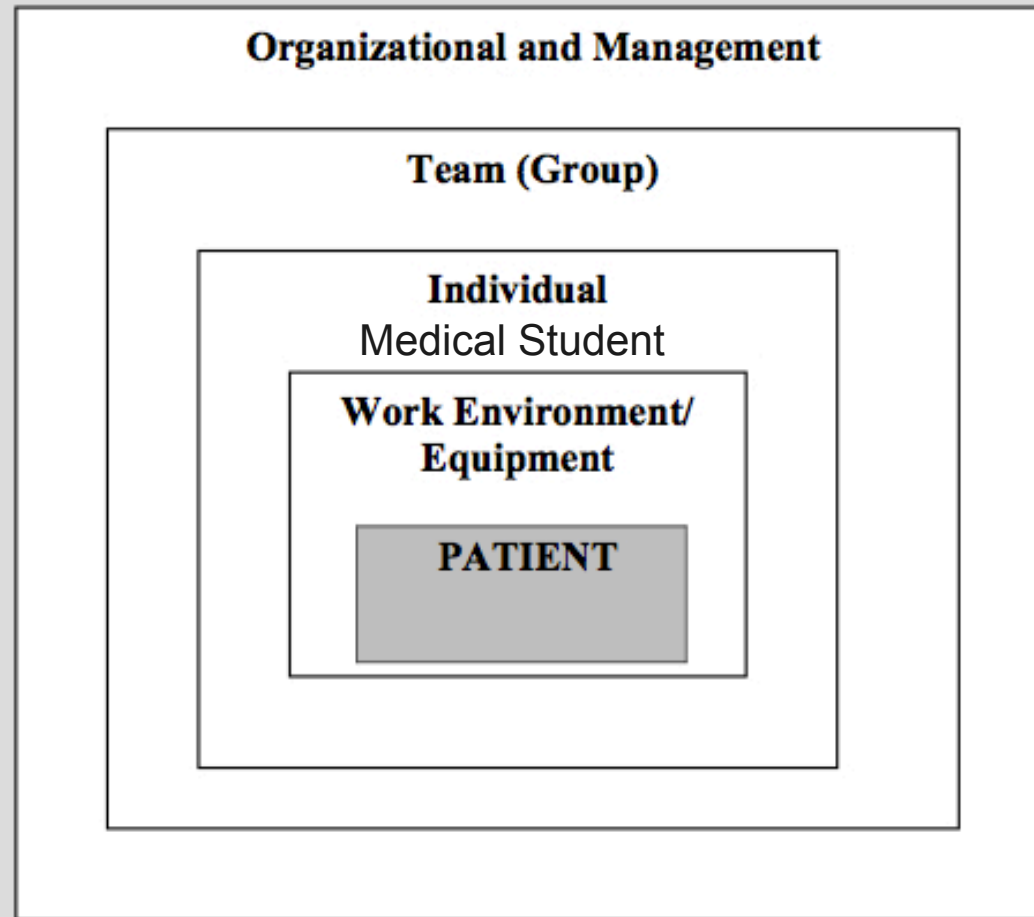
HOW SONIA HAS ALWAYS FELT ABOUT LAWYERS



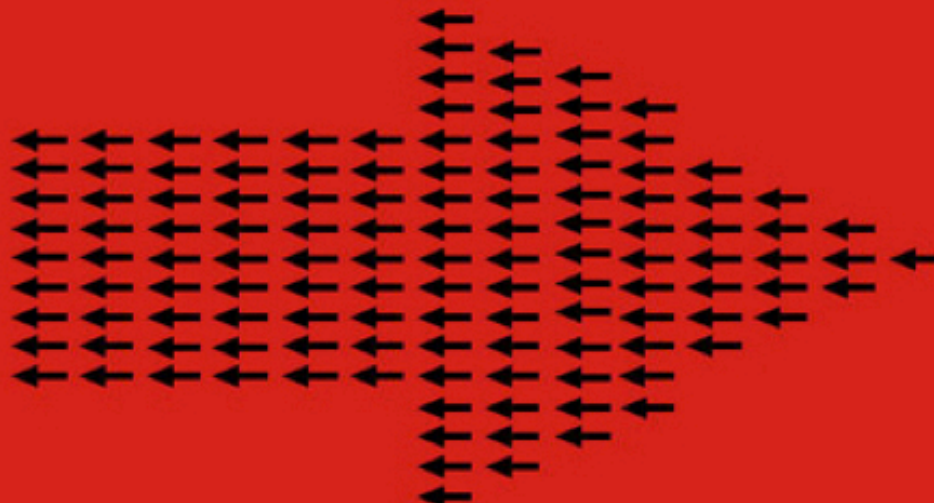
UNIVERSITY OF ILLINOIS
Hospital & Health Sciences System
— Changing medicine. For good. —

- Human factors science research examines the environmental, organizational and job factors of humans interacting with systems, as well as the physiological and psychological characteristics which influence behavior at work.

Societal, Cultural and Regulatory Influences



Culture eats strategy for breakfast

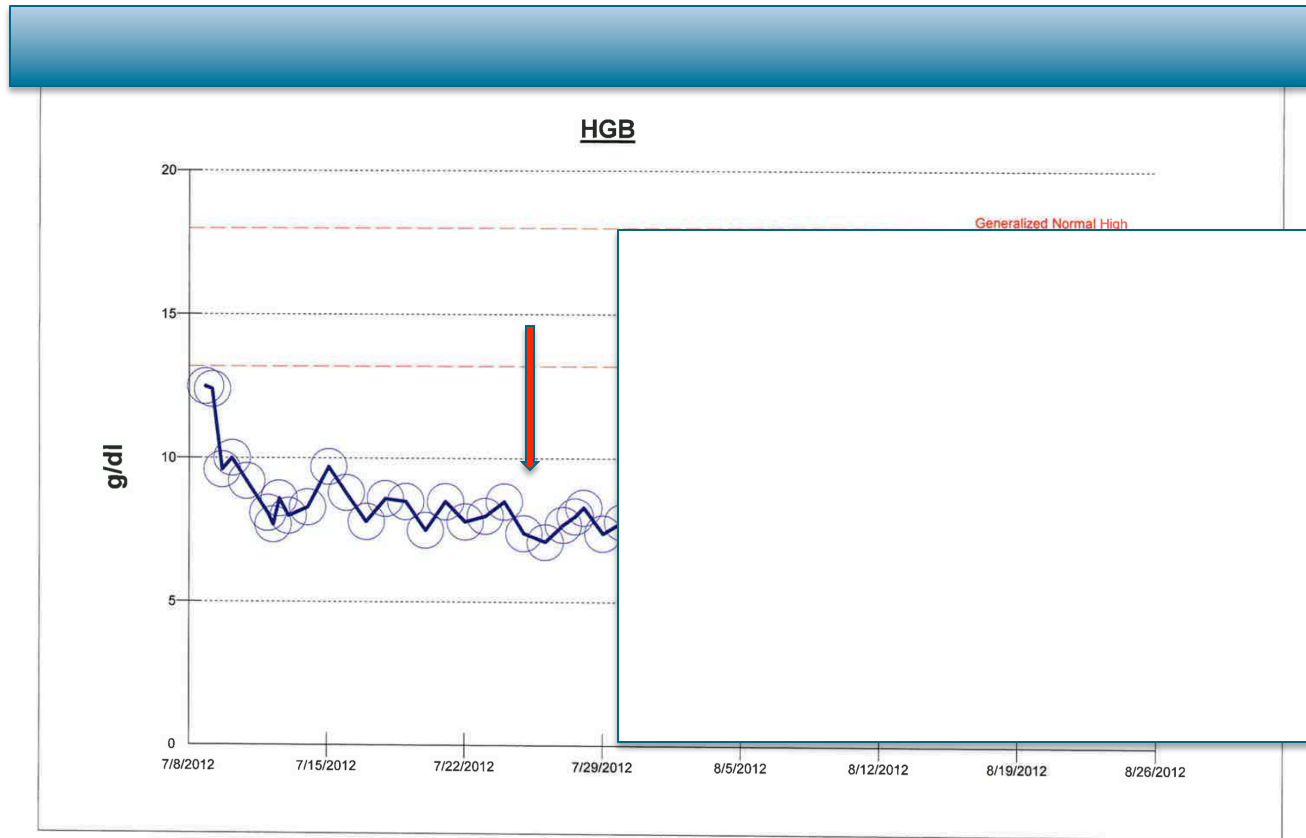


UNIVERSITY OF ILLINOIS
Hospital & Health Sciences System
Changing medicine. For good.

A CASE TO ILLUSTRATE THE IMPORTANCE OF KNOWLEDGE, SKILLS, AND BEHAVIORAL COMPETENCIES IN ERROR REDUCTION

- July 17, 2012
- Post-operative patient has “routine labs” drawn at midnight
- At 2 am -hemoglobin reported as 7.1 gms/dL
- First year resident physician called
- Orders patient to receive one unit pRBCs
- Concerns?

TIMELINE 7-9 THRU 7-17



Page 1



A CASE TO ILLUSTRATE THE IMPORTANCE OF KNOWLEDGE, SKILLS, AND BEHAVIORAL COMPETENCIES IN ERROR REDUCTION

- On July 9, 2012 patient was admitted with altered mental status and unable to communicate.
- Discussion with patient's mother revealed that patient was a Jehovah's Witness.
- Consented to the administration of fresh frozen plasma, platelets.
- Refused to consent to pRBCs
- New concerns or questions?

A CASE TO ILLUSTRATE THE IMPORTANCE OF KNOWLEDGE, SKILLS, AND BEHAVIORAL COMPETENCIES IN ERROR REDUCTION

- Back to July 17, 2012
- 2 am bedside nurse sends clot to blood bank
- 5 am blood bank sends unit of pRBCs
- Bedside nurse asks charge nurse to “double check” consent
- Charge says to “go ahead” – consent in order
- Nurse begins to administer blood
- 7 am next shift arrives, alarmed to see blood hanging
- Concerns, questions, what next?

A COMPREHENSIVE RESPONSE TO PATIENT INCIDENTS: THE SEVEN PILLARS.

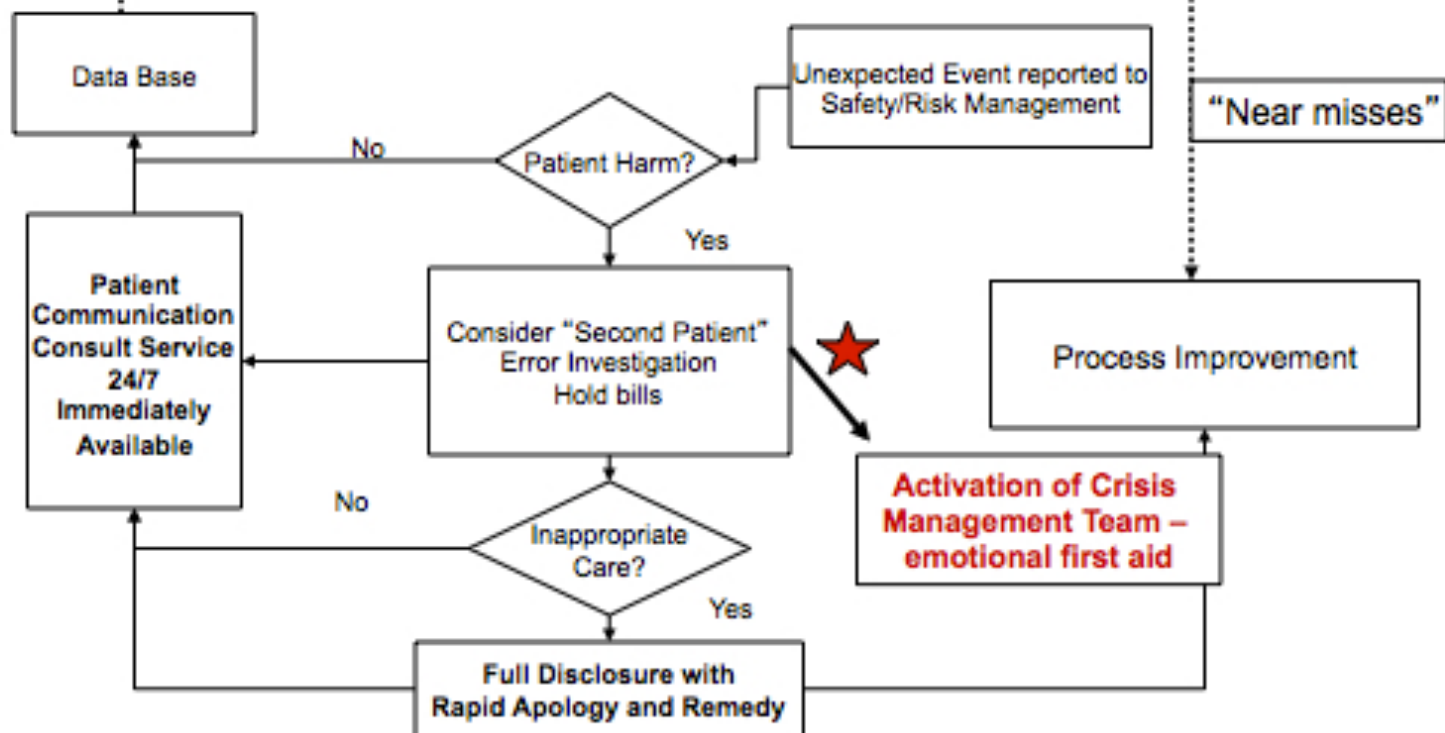
MCDONALD, MAYER ET AL. *QUALITY AND SAFETY IN HEALTH CARE*, JAN 2010

- Reporting
- Investigation
- Communication
- Apology with remediation – including waiver of hospital and professional fees
- Process and performance improvement
- Data tracking and analysis
- Education – of the entire process

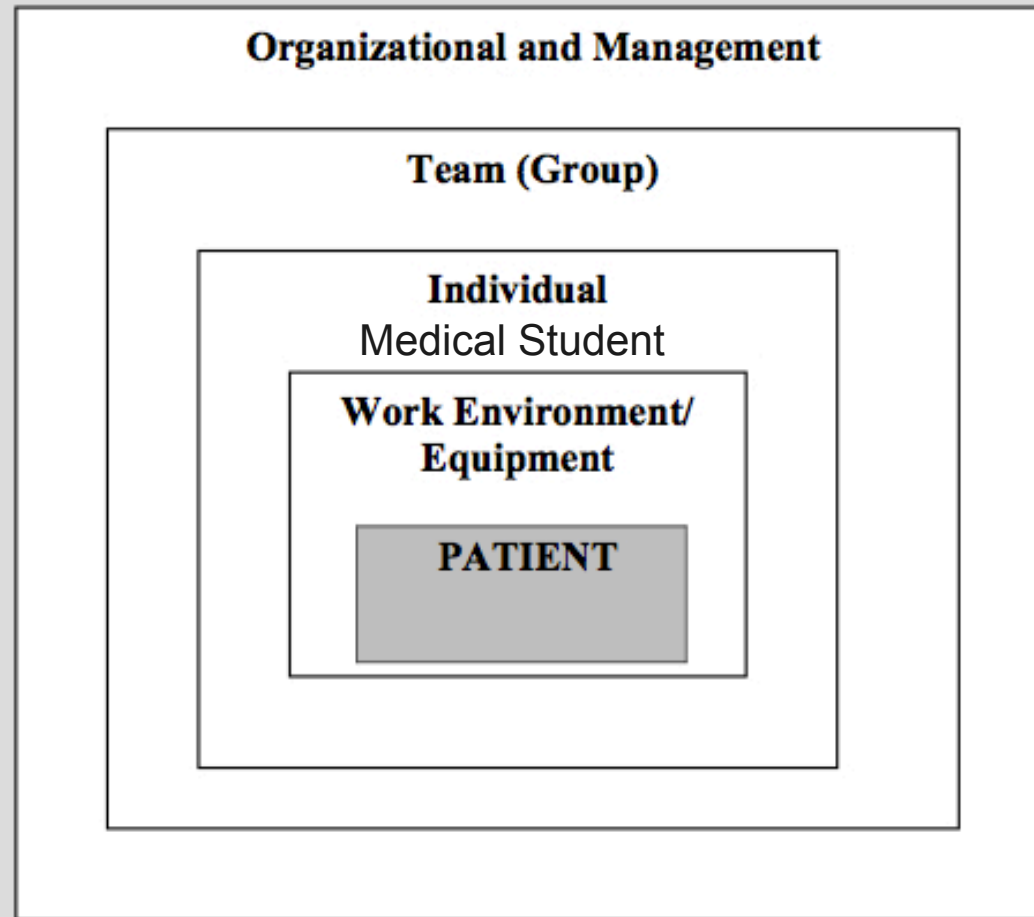


UNIVERSITY OF ILLINOIS
Hospital & Health Sciences System
Changing medicine. For good.

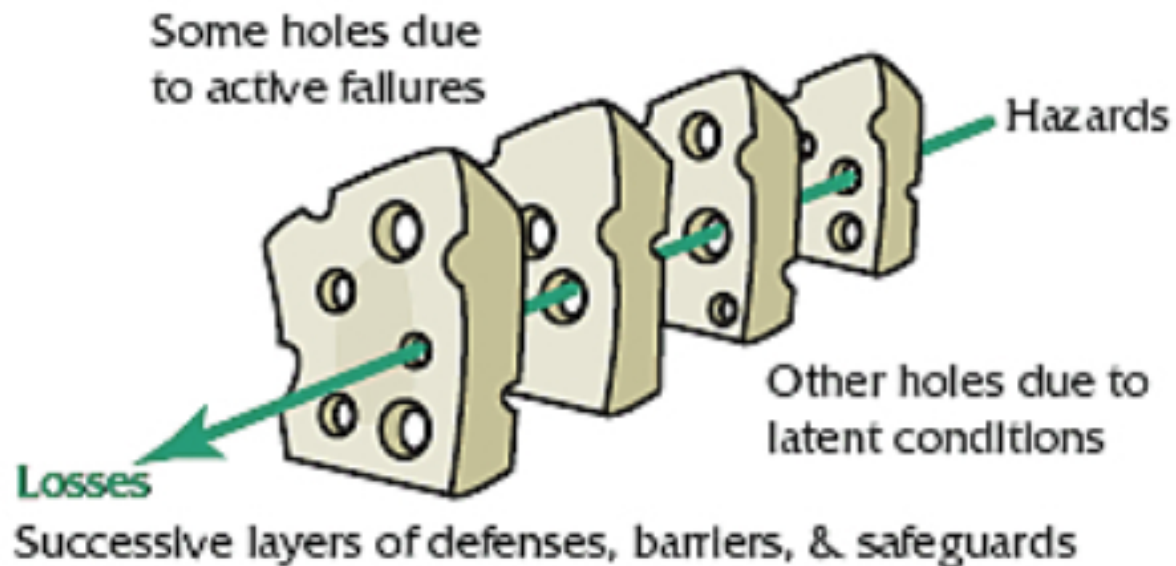
The Seven Pillars: A Comprehensive Approach to the Prevention and Response to Patient Events



Societal, Cultural and Regulatory Influences



The Swiss Cheese Model of Accident Causation



ISSUES IN THIS CASE

- Culture
- Organization
- Team
- Individual
- Work Environment
- Patient

AS BACKGROUND:

JEHOVAH'S WITNESSES AND REFERENCES TO BLOOD

- **Genesis 9:4** "*But flesh (meat) with...blood...ye shall not eat*"
- **Leviticus 17:12-14** "*...No soul of you shall eat blood...whosoever eateth it shall be cut off*"
- **Acts 15:29** "*That ye abstain...from blood...*"
- **Acts 21:25** "*...Gentiles...keep themselves from things offered to idols and from blood...*"

HUMAN FACTORS MODEL:

CREDIT TO JOHN GOSBEE



Psychomotor

- Hand
- Feet

Senses

- Vision
- Hearing

I
N
T
E
R
F
A
C
E

Input Devices

- Buttons
- Foot pedal

Output

- CRT
- Sound




IMPORTANT ISSUES

- 7-9-2012 The following note was written on 7-9-2012.
- ***“Pt is a Jehovah’s Witness and is not to receive PRBCs but is ok for plt and ffp per mother.”***
- This note is copied and pasted every day until 7-16-2012.
- Person who wrote the note admitted to being unaware of the content.
- “Push button” medicine?
- Legal implications

BLOOD CONSENT FORM

I hereby request and consent to any needed blood component transfusion being given to me.

I certify that I personally explained the above risks and benefits to the patient and obtained his/her consent. *✓ for platelets, FFP*


SIGNATURE OF WITNESS

[Signature] MD
SIGNATURE OF PHYSICIAN OBTAINING CONSENT

DATE *7/9/12* TIME *7:10*

[Signature] RN

REFUSAL TO CONSENT TO TRANSFUSION

Understanding the nature of my condition, the reasons for and risks of blood transfusion, and alternative methods of treatment including those not involving transfusion, I have decided to withhold consent for the administration of blood components. I realize I may revoke my refusal at any time and thereafter consent to the receipt of such blood components, under the conditions specified in the above form.


No RBC's

DATE *7/9/12* TIME *11:10*

Mother
SIGNATURE OF PATIENT (OR PERSON AUTHORIZED TO CONSENT FOR PATIENT)

[Signature] MD
SIGNATURE OF PHYSICIAN WHO DISCUSSED THE PROCEDURE WITH PATIENT (OR PERSON AUTHORIZED TO CONSENT FOR PATIENT)

0450
(REV. 03/02)



PATIENT FOLLOW-UP

- Team had a detailed family discussion and it was explained to them patient has critically low Hb [5 gms/dl] and due to patient being Jehovah's witness, lack of transfusion can endanger his life. Family understood the implications of not transfusing and made a decision to not transfuse him. He was also made DNR per family wishes.

HUMAN FACTORS: INFORMATION MANAGEMENT & COMMUNICATION

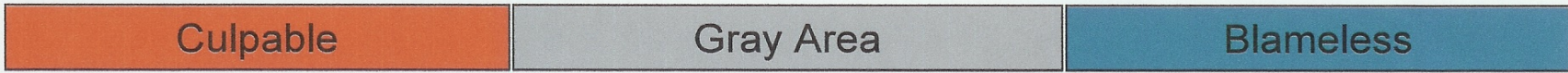
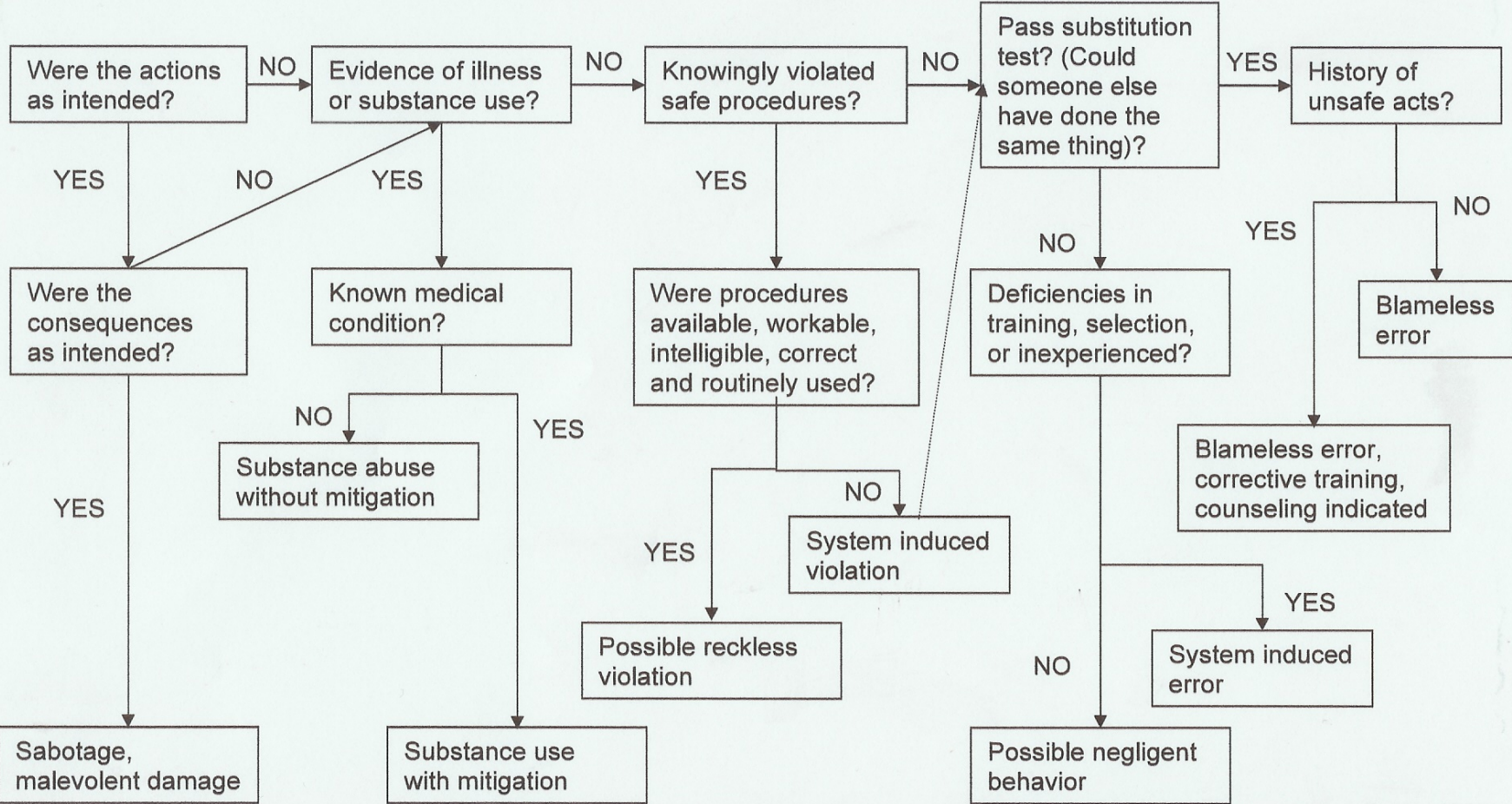
- Copy and Paste in Medical record
- Verbal orders
- Inadequate hand-off and knowledge of critical information
- Notification of blood bank of limited consent
- “Human factors” related to signed consent
- Consents in multiple areas of paper chart not in EMR as discrete documents until scanned after discharge
- Consent design – consent signature and refusal to consent on same page

HUMAN FACTORS: HUMAN RESOURCES INDIVIDUAL TASK PERFORMANCE

- 41 hours of overtime in past time period
- Policies and procedures not followed
- Not patient-centered – no notification of family prior to transfusion.
- Cut and paste
- Verbal orders



UNSAFE ACTS ALGORITHM



Adapted from James Reason. (1997). Managing the Risks of Organizational Accidents.

An Assessment of an Educational
Intervention on Resident Physician
Attitudes, Knowledge, and Skills Related
to Adverse Event Reporting

BARBARA G. JERICO, MD
ROSALIE F. TASSONE, MD, MPH
NIKKI M. CENTOMANI, RN, BSN
JENNIFER CLARY, BA
CRESCENT TURNER, RN, MS
MICHAEL SIKORA, MD
DAVID MAYER, MD
TIMOTHY McDONALD, MD, JD

188 Journal of Graduate Medical Education, June 2010



UNIVERSITY OF ILLINOIS
Hospital & Health Sciences System
Changing medicine. For good.

REPORTING

- Reporting established as an expectation and part of Core Competency assessment

The Resident Physician submitting this occurrence, **MUST** make sure you select your name for the field circled below. (This will ensure that your Program Director receives the occurrence on his worklist).

Please Note: This field is not mandatory so you will have to ensure that you capture your name in order to get credit.

IDAS+ Remote Data Entry

Name: TEST,PATIENT Location: SW PICU Form: TREATMENT/INVASIVE PROCEDURE

Look

Facility *	UNIVERSITY OF ILLINOIS HOSP
Incident Date *	5/28/2008
Incident No. *	08-23
Incident Type *	
Location *	
Attributable Departments *	
Time of Incident	
Witnesses w/ ext.	
Notified Attending Physician	
HARM SCORE *	
Briefly Describe Occurrence	

If you wish to provide more information or speak directly to a Risk Manager, please provide your name and contact information below:

Occurrence Report Contact Info

Residency Core Competency (Anesthesiology Residents Only)

Resident Physician Reporting the Occurrence?

Save Cancel

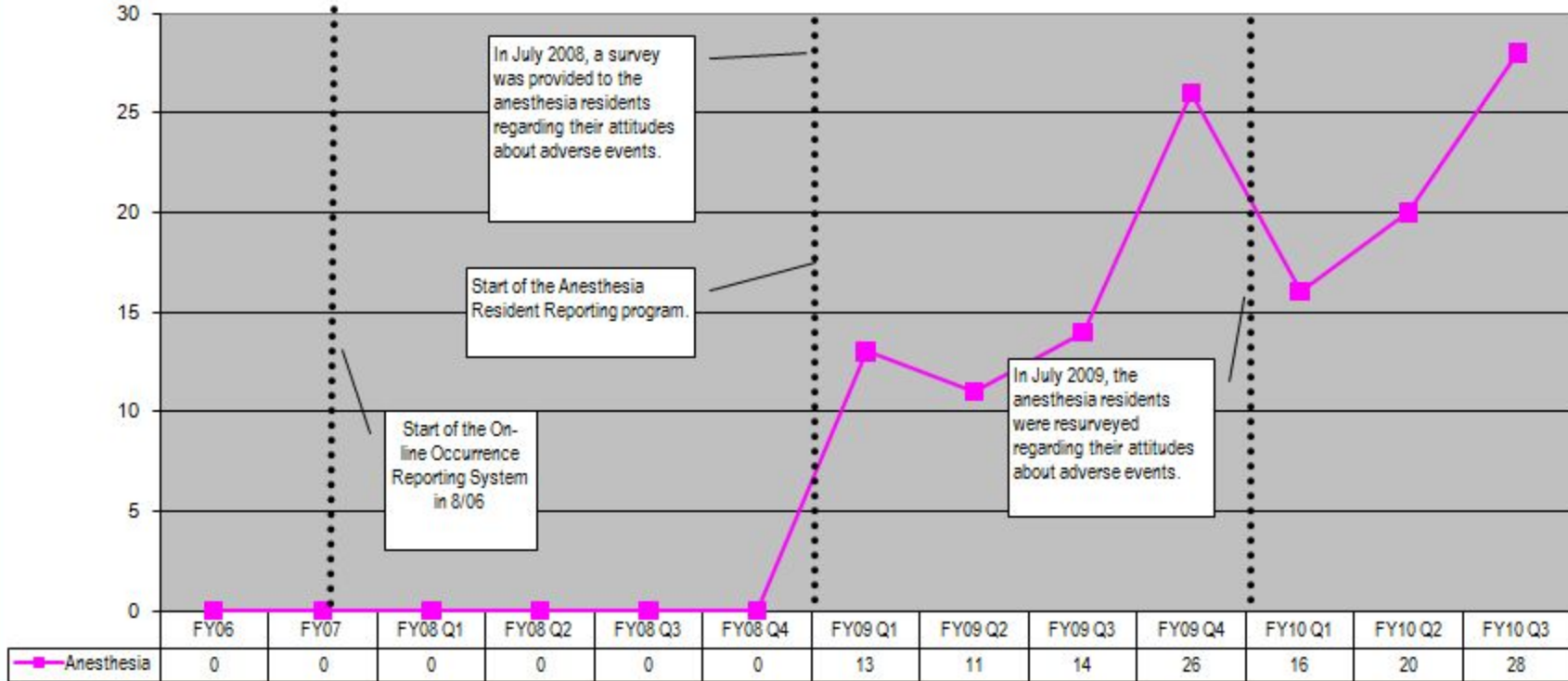
Name
ADESUYI, ABIMBOLA
AKBAR, IMRAN
AMOSON, BRIANA
APTE, ARCHANA
ARANDA, ALDO
BARTIS, CRISTINA
BECKMAN, ANA
BHATIA, NEERAV
BHATT, KUNAL
BRAR, JAS
CHANGYALEKET, BEN
CHEBES, LUKASZ
CHOI, SCOTT
FISCHER, OSCAR
GARCHA, SONNY
HARTER, SCOTT
HERSKOVIC, JOSH
JANSTYS, RIMA
KIM, FRANCES
KIM, RACHEL
KING, BREHAN
KOSHY, RUEBEN
KRISHNAMOORTHY, VIJAY
KUO, PAUL
LI, JASLYNN
LI, MIHELLE

RESIDENT PHYSICIAN OCCURRENCE REPORTING DATA

JOURNAL OF GRADUATE MEDICAL

EDUCATION, JUNE 2010

UIMCC Anesthesia Resident Reporting of Adverse Events (On-line, Hotline, Phone call, Walk-in)
FY06-FY10 Q3



UNIVERSITY OF ILLINOIS
Hospital & Health Sciences System

Changing medicine. For good.

EVENT DATA

Anesthesiology Resident Physician event reporting data:

Category of occurrence	Number	Lack of adequate supervision
Consent/Documentation	3	2 of 3
Disruptive provider	7	0 of 7
Equipment	7	0 of 7
Patient fall	2	0 of 2
Lab specimen mislabeled	2	0 of 2
Medication issues	19	3 of 19
OB anesthesia complications	3	0 of 3
Delay in treatment/service	8	0 of 8
Unplanned extubation	2	0 of 2
Patient transport issues	12	0 of 12
Treatment/procedure complications [intubation, regional block, central line placement]	17	9 of 17
Resident needlestick	2	0 of 2



ATTITUDE DATA: ATTITUDE IMPROVEMENTS [N = 50]

- “I don’ t report because I am worried about discipline”
- “I don’ t report because I am worried about litigation”
- “I don’ t report because my colleagues may be unsupportive”
- “I don’ t report because I am uncertain which incidents to report”
- “Current systems for reporting patient safety problems are adequate”
- “Hospitals adequately support providers who experience stress”

LESSONS LEARNED

- WE CANNOT FIX WHAT WE DO NOT KNOW ABOUT
- MEDICAL STUDENTS CAN GAIN **KNOWLEDGE, SKILLS AND BEHAVIORAL COMPETENCIES** IN PATIENT SAFETY AND HUMAN FACTOS SCIENCE THRU REPORTING INTO A ORGANIZATION'S PATIENT SAFETY/OCCURRENCE SYSTEM AND ENGAGING IN FOLLOWUP INVESTIGATION AND PERFORMANCE IMPROVEMENT EFFORTS

QUESTIONS?



UNIVERSITY OF ILLINOIS
Hospital & Health Sciences System
————— Changing medicine. For good. —————