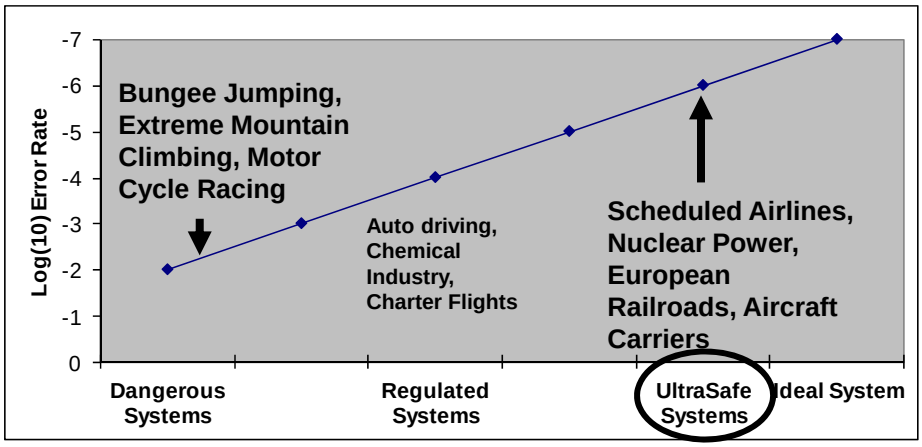
Engaging the team:

Steps to Reduce Complications

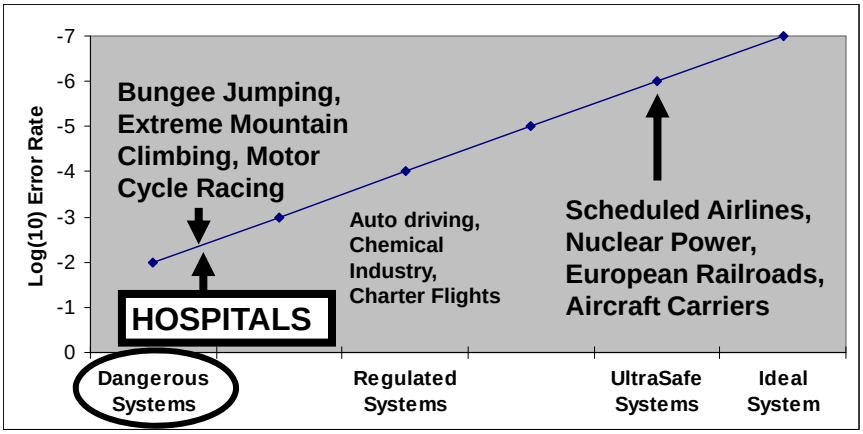
Susan Moffatt-Bruce, MD, PhD
Chief Quality and Patient Safety Officer
Associate Professor of Surgery
The Ohio State University's Wexner Medical Center

Safety Results



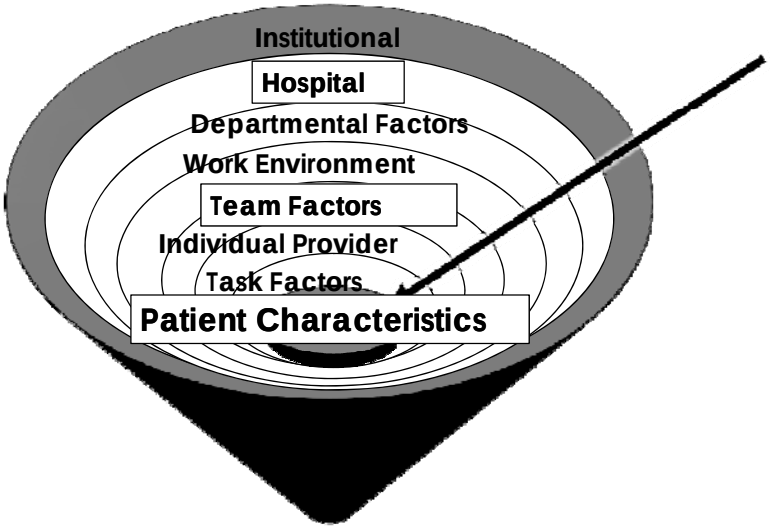
Amalberti, R. *Safety Science*, 2001

Safety Results



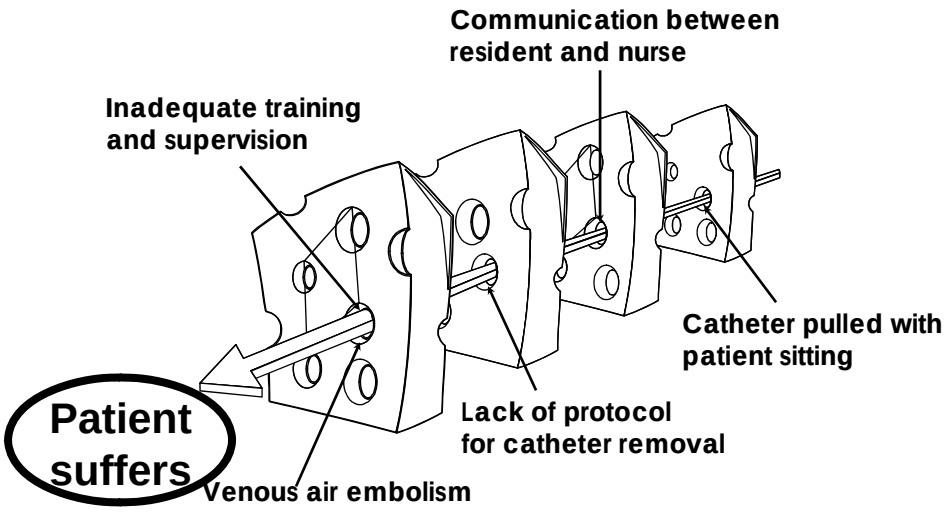
Amalberti, R. *Safety Science*, 2001

System Factors Impact Safety



Adopted from Vincent

System Failure Leading to Error



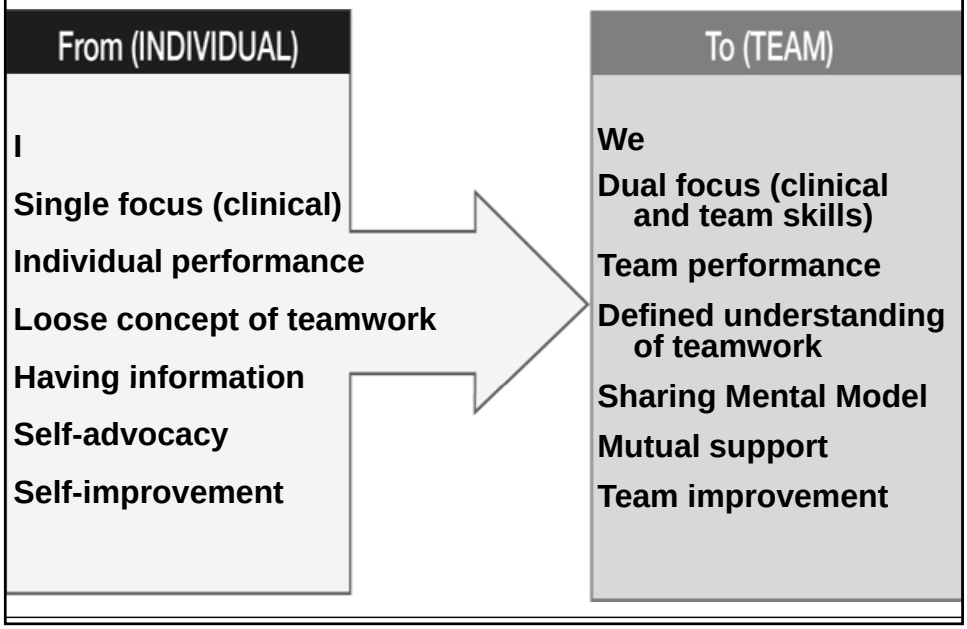
Pronovost Annals IM 2004; Reason

Health care providers compromise an example of a "high risk organization"

↓

Significant safety improvements in other high risk organizations (aviation) have lead to "high reliability organization"

Shift to a Team Paradigm



A Cohesive Team

- **Active process**
- **Defined by the members**
- **Physicians**
- **Nurses**
- **Support staff**

PATIENT

PATIENT FAMILY

Barriers to an Effective Team

- Preconceptions & assumptions
- Ambiguous terms
- Workload, stress & fatigue
- Distraction & noise
- Silos

Medical Errors

-1,000,000 people injured / year in US

-7,000 deaths annually from medication errors

-2000 to 10,000 deaths annually from anesthesia

-1.7 errors/patient/day in the ICU

- **Every 100-300 times a nurse will forget to read a label or read it incorrectly**
- **Every 100-300 times a physician will off the prescription or write it incorrectly**

System Quality and Safety Scorecard

Type of Event
Retained Foreign Bodies
Wrong procedure/site/person events
Medication Events with Harm (Severity E-I)
Severe Injury Falls (Resulting in Change in Patient Outcome)
Hospital Acquired Decubitus Ulcer
Central Line Blood Stream Infections
Ventilator Associated Pneumonia
Hospital Acquired Surgical Site Infections
Hospital Acquired Clostridium Difficile Infection
Total Potentially Avoidable Events

Error Reducing Strategies

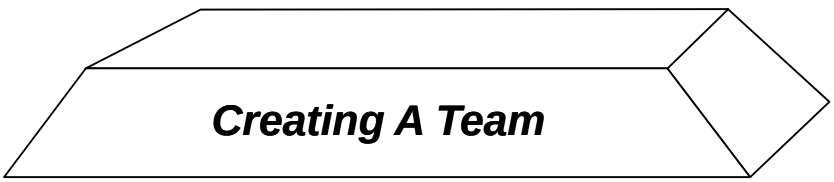
- 1) Team Training
- 2) Checklists and Visual Management
- 3) Standardization of Processes
- 4) Transparency
- 5) Celebrate the success

Strategy 1

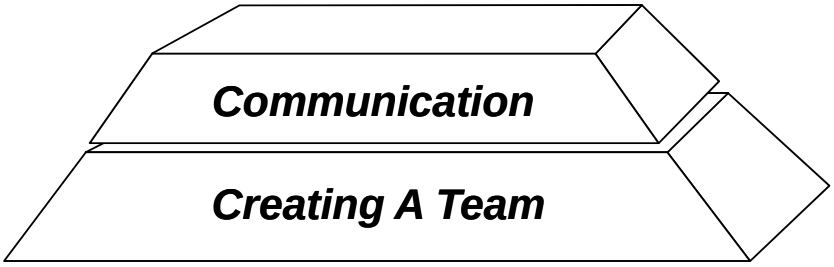
Team Training

Team Skills Workshop

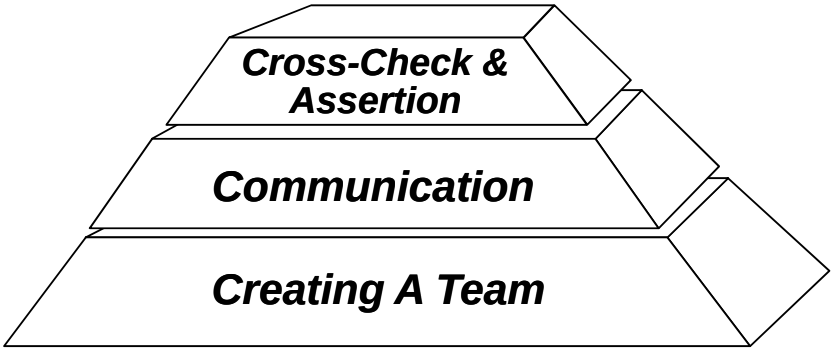
Team Skills Workshop



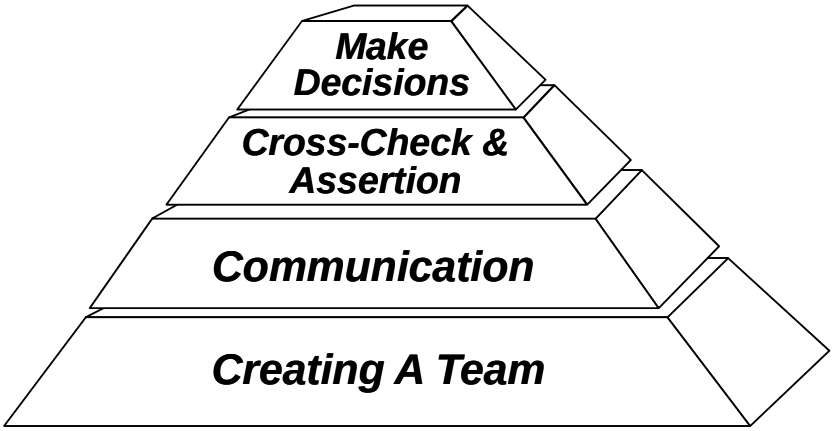
Team Skills Workshop



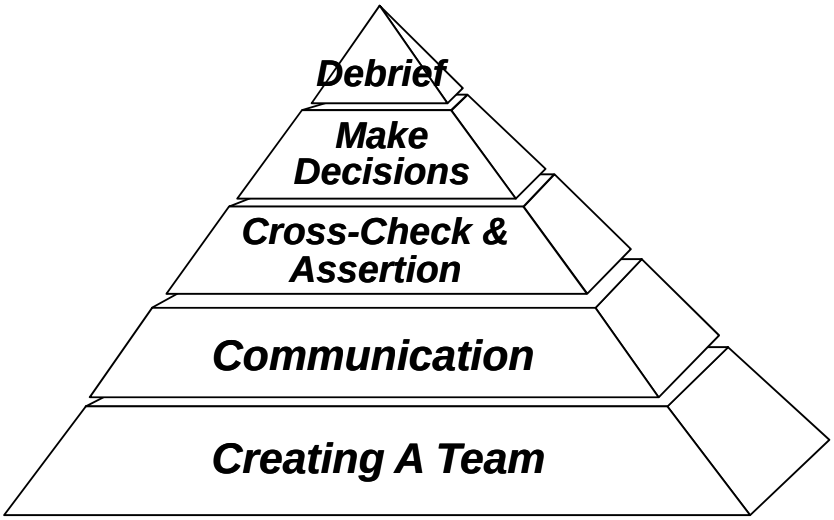
Team Skills Workshop



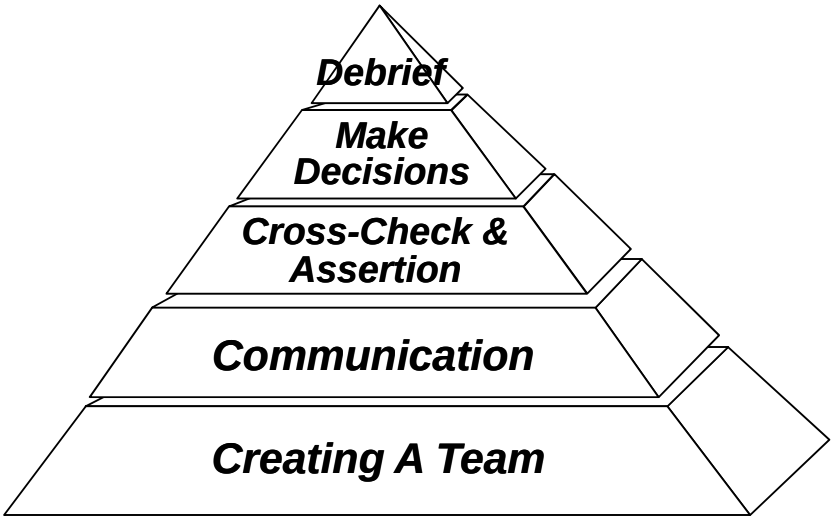
Team Skills Workshop



Team Skills Workshop



Reduced Errors, Increased Safety & Quality Care



Medical Center

OSU SURGICAL TEAM SAFETY CHECKLIST

SIGN IN
(Before Induction)
Initiated/Led by Anesthesia Attending

- ❑ **Team Members Introduce Themselves and Confirm Attending Surgeon In-House**
- ❑ **Patient Identification**
  - Procedure
  - Site
  - Confirmed Consent
  - Blood Band
  - Allergies
- ❑ **Confirmation of Site Marking, When Applicable**
- ❑ **Anesthesia Assessment**
  - Anesthesia Machine Check
  - Monitors Functional
  - Difficult Airway
  - Suction Available
  - Patient's ASA Status
  - Beta Blocker Given, if Indicated
  - Oxygen Level/Fire Safety
- ❑ **Blood Available**
- ❑ **Equipment Available**
- ❑ **What Questions Do You Have?**

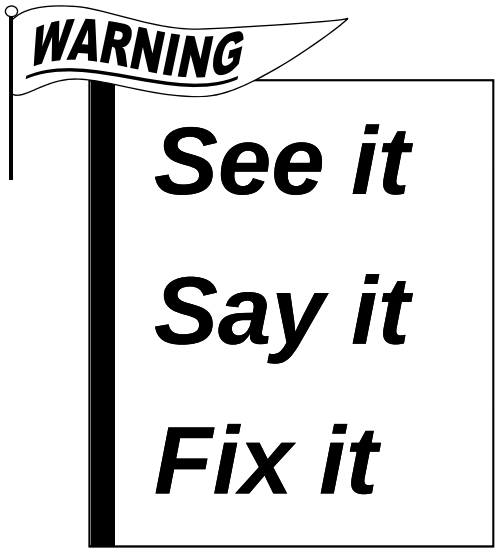
TIME OUT
(Before Skin Incision)
Initiated/Led by Surgeon

- ❑ **New/Different Team Members Introduce Themselves**
- ❑ **Operation to Be Performed**
  - Anticipated Operative Course
  - Blood Loss Anticipated
- ❑ **Site of Procedure**
- ❑ **Fire Safety**
  - Oxygen, Tube, Saline in Cuff, Patient Protection, Environment Check
- ❑ **Prep Applied – Wait 3 minutes**
- ❑ **Patient Positioning**
- ❑ **Allergies**
- ❑ **Antibiotics Given**
  - Time
- ❑ **Imaging Displayed**
- ❑ **Please Speak Up With Questions and Concerns**

SIGN OUT
(Performed Immediately Following First Closing Count)
Initiated/Led by Surgeon

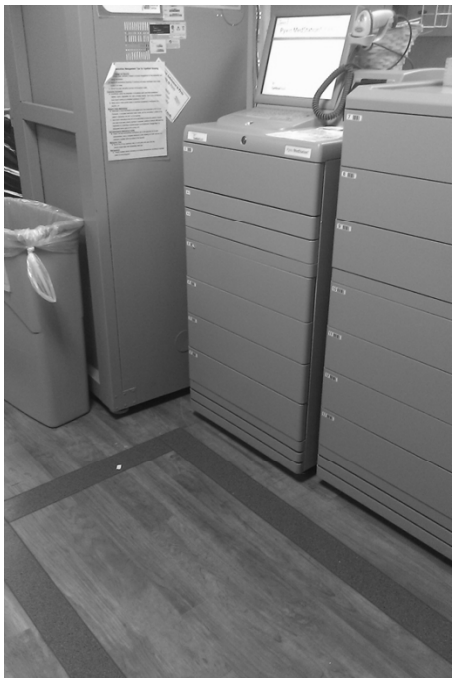
- ❑ **Performed Procedure Recorded**
- ❑ **Body Cavity Search Performed**
- ❑ **Uninterrupted Count**
  - Sponges, Sharps, Instruments
- ❑ **Counts Correct**
  - Sponges, Sharps, Instruments
- ❑ **Specimens Labeled**
- ❑ **Team Debriefing**
  - What Went Well?
  - Recommendations for Improvement
- ❑ **Sleep Apnea Order Set Needed**
- ❑ **Event Report Filed, if Indicated**
- ❑ **What Questions Do You Have?**

THANK YOU



Strategy 2

Checklists and Visual Management



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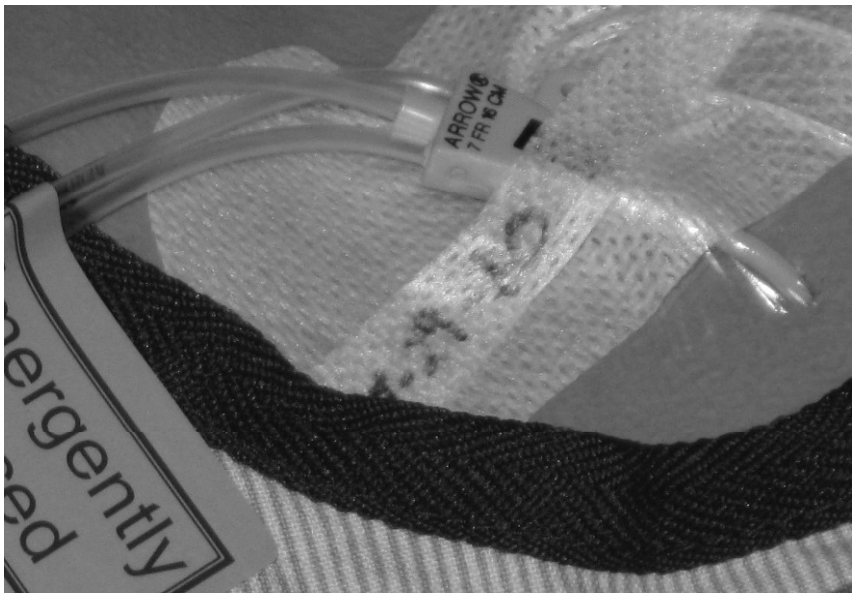
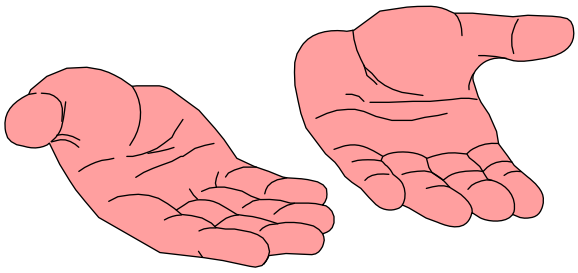


INFECTION PREVENTION



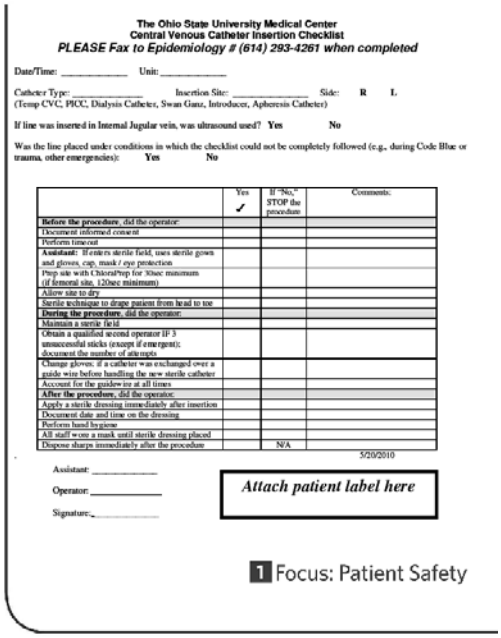
IS IN ***YOUR*** HANDS

SILENCE

FOCUS

Procedure in Progress

Wexner Medical Center



The Ohio State University Medical Center
Central Venous Catheter Insertion Checklist
PLEASE Fax to Epidemiology # (614) 293-4261 when completed

Date/Time: _____ Unit: _____

Catheter Type: _____ Insertion Site: _____ Side: **R** **L**
(Temp CVC, PICC, Dialysis Catheter, Swan Ganz, Introducer, Apheresis Catheter)

If line was inserted in Internal Jugular vein, was ultrasound used? **Yes** **No**

Was the line placed under conditions in which the checklist could not be completely followed (e.g., during Code Blue or trauma, other emergencies): **Yes** **No**

	Yes ✓	If "No," STOP the procedure	Comments:
Before the procedure, did the operator:			
Document informed consent			
Perform timeout			
Assistant: If enters sterile field, uses sterile gown and gloves, cap, mask / eye protection			
Prep site with ChloraPrep for 30sec minimum (if femoral site, 120sec minimum)			
Allow site to dry			
Sterile technique to drape patient from head to toe			
During the procedure, did the operator:			
Maintain a sterile field			
Obtain a qualified second operator IF 3 unsuccessful sticks (except if emergent); document the number of attempts			
Change gloves: if a catheter was exchanged over a guide wire before handling the new sterile catheter			
Account for the guidewire at all times			
After the procedure, did the operator:			
Apply a sterile dressing immediately after insertion			
Document date and time on the dressing			
Perform hand hygiene			
All staff wore a mask until sterile dressing placed			
Dispose sharps immediately after the procedure		N/A	

5/20/2010

Assistant: _____

Operator: _____

Signature: _____

Attach patient label here

1 Focus: Patient Safety

Strategy 3

Standardization of Processes

Nurse-Sensitive Indicators

- **Fall and Fall-Injury Prevention**
- **Hospital-Acquired Pressure Ulcers**

Falls Policy and Process Changes

Falls Practice Problem Group assessed and reviewed evidence-based literature to drive process improvements and reduce high-risk injury falls

Old Way

Almost all patients were identified as at-risk for falls	Attached to Equipment, History of Falls, Altered Mental Status, Altered Elimination, Medications, Altered Mobility, Sensory/Communication Deficits, Physiological Risk

New Way

Continue to identify patients at-risk and take appropriate interventions	**Focus on patients at-risk for severe-injury falls**	Susceptible to Fracture	Susceptible to Hemorrhage

Highlights

- **Pilot project conducted in 3 units initially, then expanded to UH Medical/Surgical units**
- **In the first 6 months of the pilot, the UH Medical/Surgical units had 0 severity level 2-4 falls; over the 12-month pilot, they had 2 severity level 2-4 falls**
- **New form implemented to facilitate documentation of patient risk and interventions**

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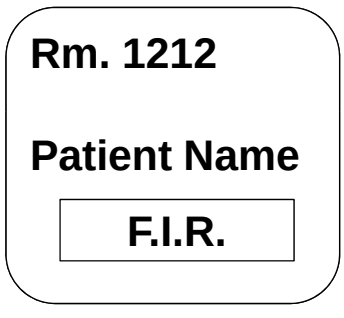
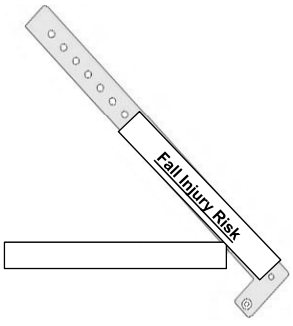
Effective Oct. 15

All patients with Fall-Injury Risk Factors (susceptibility to hemorrhage and/or fracture) must have:

- ✓ **Yellow wristband applied**
- ✓ **Yellow safety tag placed outside the patient room**

(F.I.R. = Fall Injury Risk)

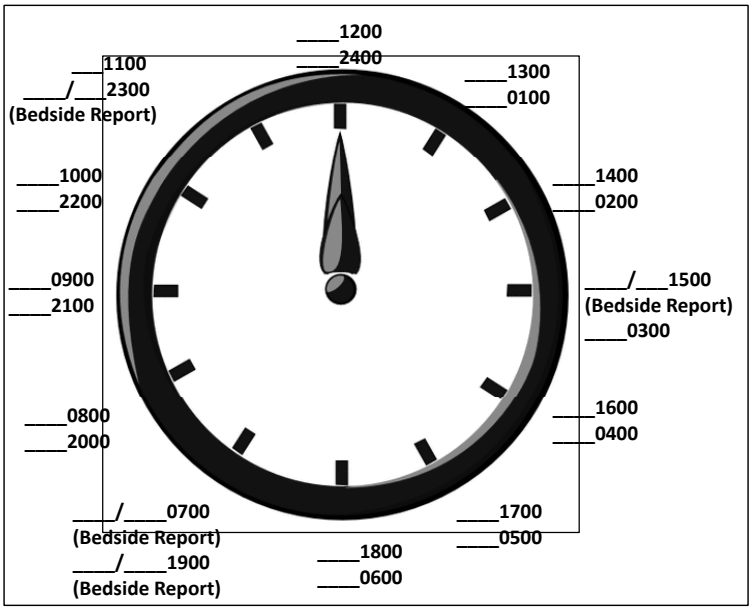




Hourly Rounds

Date: _____

Room: _____



Falls Initiative Huddle Form

Date and time of fall: _____

Was fall assessment complete? Yes / No

Was patient at risk for injury? Yes / No

Was staff present? Yes / No
If yes, who? _____

Was fall assisted or unassisted? _____

Hourly rounding documented? Yes / No

Falls Patient Education documented? Yes / No

Did anything in the environment contribute to the fall (cords on floor, IV pump plugged in across the room, furniture obstructing walkway, etc.)
Please list _____

Call light within reach? Yes / No

What caused the fall? _____
_____

What is the lesson learned? _____

For additional information or a request for someone to come to a unit staff meeting to help with education on prevent falls, please contact Jan Sirilla, Director BMT & Heme Service Lines

The James

Bedside Report

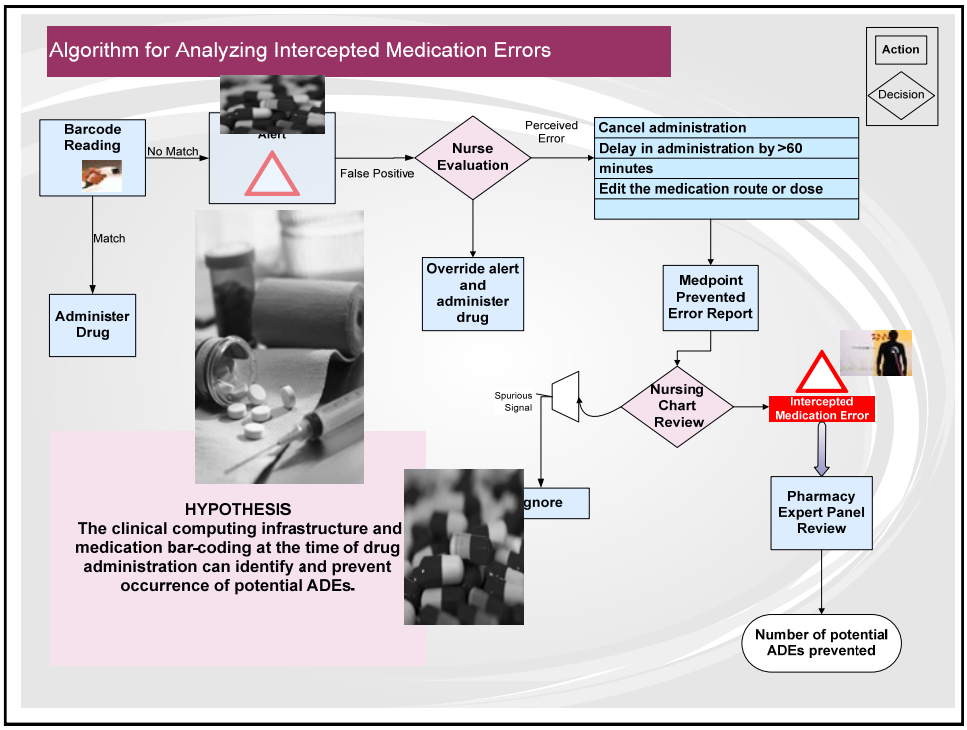
All Medical Surgical Nursing Departments

Using ISBAR for Bedside Report

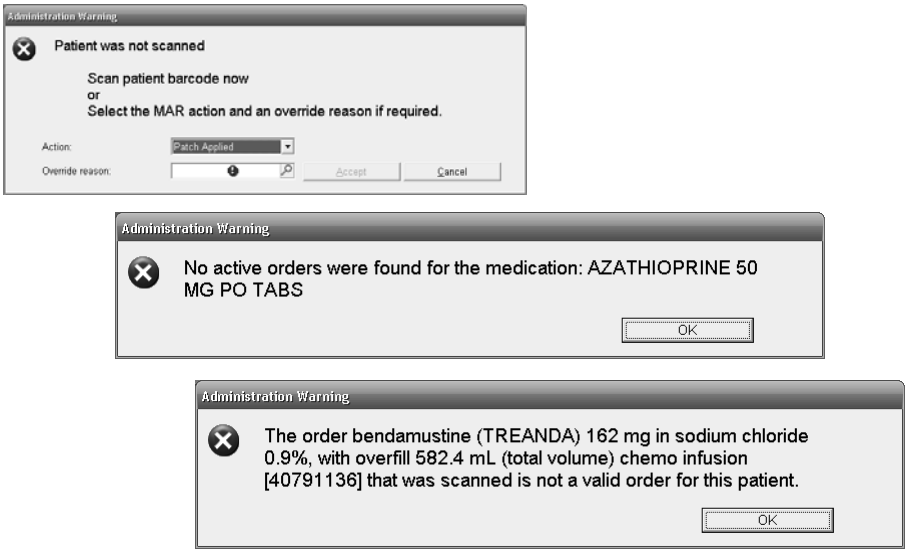
Introduction	Patient Name, Room #, Service and Pager
Situation	Diagnosis, Acuity #, Code Status, Isolation Type, Allergies, Risk for Injury, Activity, Diet and Consults
Background	History pertinent to diagnosis
Assessment	Neuro, Cardio, Resp, GI/GU, Tubes and Drains, Diet, IV Lines, Pain and Labs
Recommendation	Review plan of care, discharge plan, new orders / procedures and update white board.

Barcoding


Brand Name
(Generic Name)
120mg
NDC: 12345678901
LOT: 8675309
EXP: 02/25/25


Algorithm for Analyzing Intercepted Medication Errors
Action
Decision
Barcode Reading
No Match
Alert
False Positive
Nurse Evaluation
Perceived Error
Cancel administration
Delay in administration by >60 minutes
Edit the medication route or dose
Match
Administer Drug
Override alert and administer drug
Medpoint Prevented Error Report
Spurious Signal
Nursing Chart Review
Intercepted Medication Error
Pharmacy Expert Panel Review
Number of potential ADEs prevented
HYPOTHESIS
The clinical computing infrastructure and medication bar-coding at the time of drug administration can identify and prevent occurrence of potential ADEs.

Barcoding Warnings

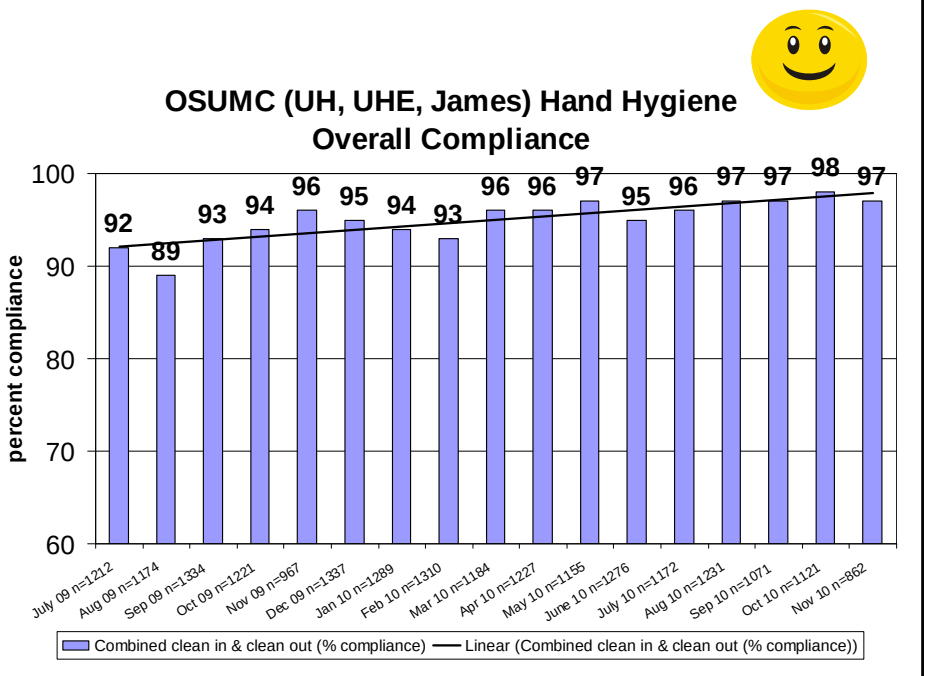


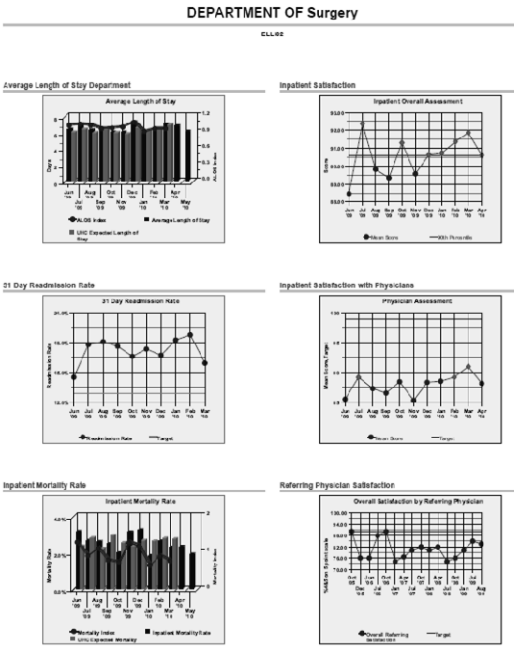
Strategy 4

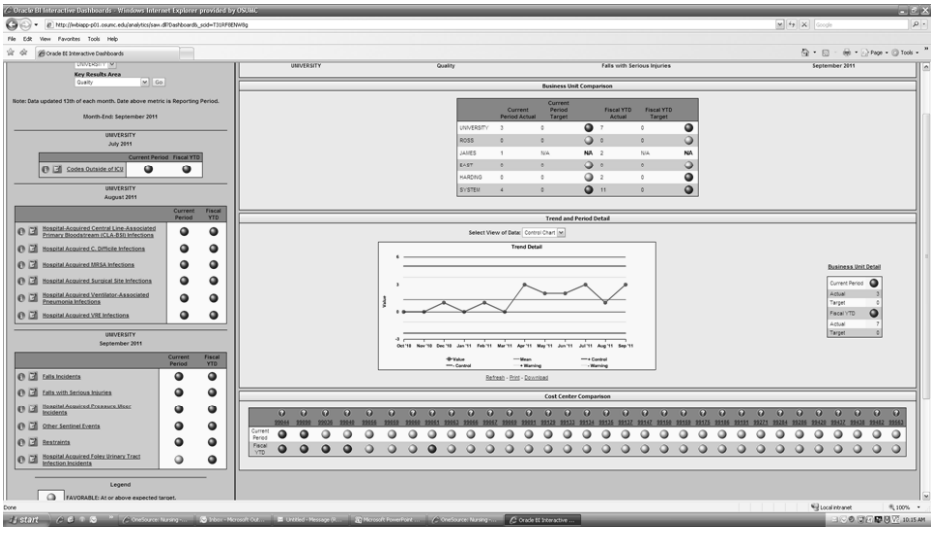
Transparency

System Quality and Safety Scorecard

Type of Event
Retained Foreign Bodies
Wrong procedure/site/person events
Medication Events with Harm (Severity E-I)
Severe Injury Falls (Resulting in Change in Patient Outcome)
Hospital Acquired Pressure Ulcer
Central Line Blood Stream Infections
Ventilator Associated Pneumonia
Hospital Acquired Surgical Site Infections
Hospital Acquired Clostridium Difficile Infection
Total Potentially Avoidable Events



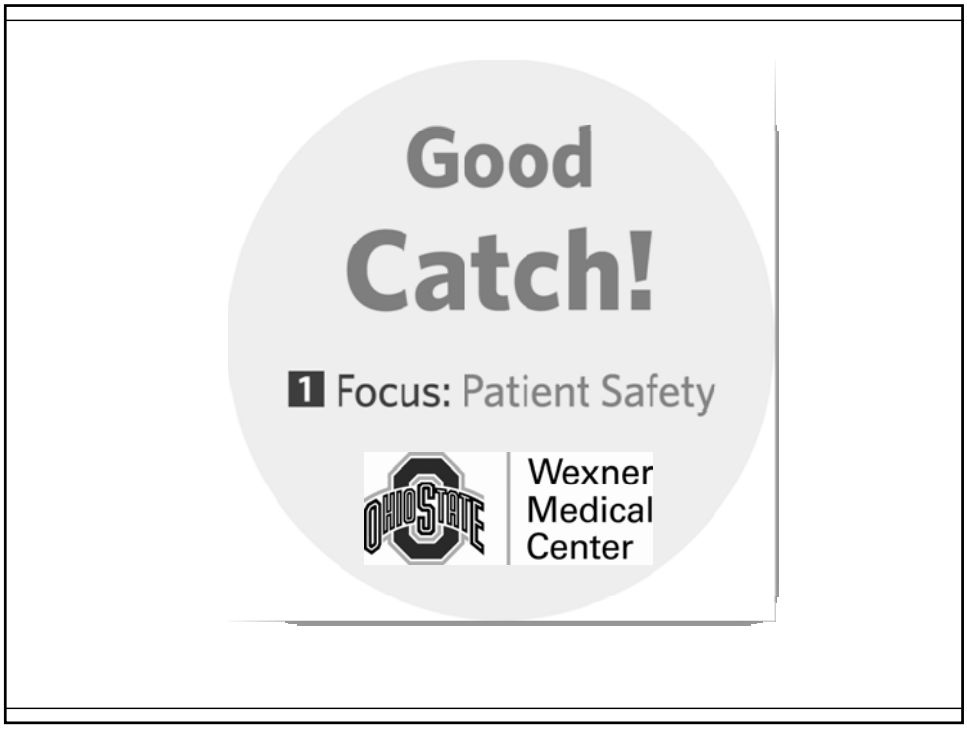

DEPARTMENT OF Surgery
CLL02
Average Length of Stay Deparmest
Average Length of Stay
Inpatient Satisfaction
Inpatient Overall Assessment
21 Day Readmission Rate
21 Day Readmission Rate
Inpatient Satisfaction with Physicians
Physician Assessment
Inpatient Mortality Rate
Inpatient Mortality Rate
Referring Physician Satisfaction
Overall Satisfaction by Referring Physician

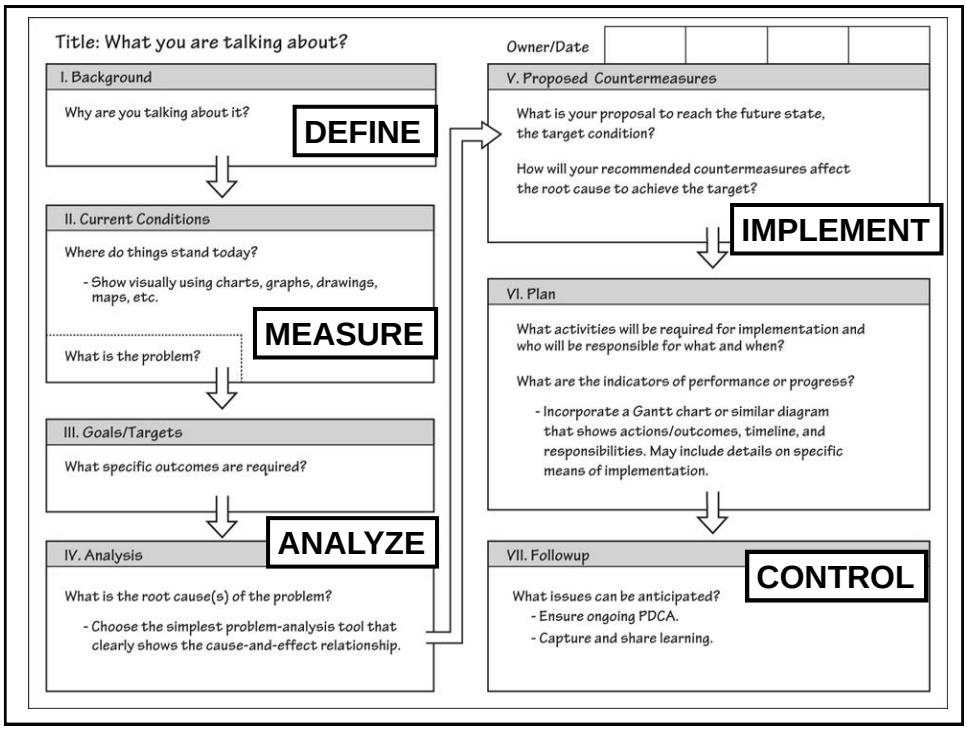

Oracle BI Interactive Dashboards - Windows Internet Explorer provided by OSUMC
Oracle BI Interactive Dashboards
Key Results Area
Quality
Falls with Serious Injuries
September 2011
Business Unit Comparison
Trend and Period Detail
Trend Detail
Business Unit Detail
Cost Center Comparison
Legend
FAVORABLE: At or above expected target.

Strategy 5

Celebration

Celebrate the Success


Good
Catch!
1 Focus: Patient Safety
Wexner
Medical
Center


Title: What you are talking about?
Owner/Date
I. Background
Why are you talking about it?
DEFINE
II. Current Conditions
Where do things stand today?
- Show visually using charts, graphs, drawings, maps, etc.
What is the problem?
MEASURE
III. Goals/Targets
What specific outcomes are required?
IV. Analysis
What is the root cause(s) of the problem?
- Choose the simplest problem-analysis tool that clearly shows the cause-and-effect relationship.
ANALYZE
V. Proposed Countermeasures
What is your proposal to reach the future state, the target condition?
How will your recommended countermeasures affect the root cause to achieve the target?
IMPLEMENT
VI. Plan
What activities will be required for implementation and who will be responsible for what and when?
What are the indicators of performance or progress?
- Incorporate a Gantt chart or similar diagram that shows actions/outcomes, timeline, and responsibilities. May include details on specific means of implementation.
VII. Followup
What issues can be anticipated?
- Ensure ongoing PDCA.
- Capture and share learning.
CONTROL

Error Reducing Strategies

- 1) Team Training
- 2) Checklists and Visual Management
- 3) Standardization of Processes
- 4) Transparency
- 5) Celebrate the success

Continuously Improving, Continuous Improvement

- Safe
- Simple
- Reliable
- Error proof
- Standard
- Wasteless Care

- Engagement of the whole team: paradigm switch

- Culture shaping

Weak Safety Culture

A team that does not communicate, responds to mistakes with blame and more training and use them to complain and vent their frustrations

Strong Safety Culture

A clinical area that has effective coordination of care, engaged caregivers, proactive identification of problems and solutions

Best care every time, every procedure, every patient, provided by everyone


The Ohio State University
Announcing
The Wexner
Medical Center At
The Ohio State University
Thank you, Les!
Wexner
Medical
Center