

Is My Patient Safe in the Operating Room?

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Consent to Operate and “Never Events”

- Surgeon to patient (always):
 - “You must accept risk of bleeding, perforation, and infection -- things that are not totally under our control.”
- Surgeon to patient (never):
 - “I promise you that I will not do the wrong operation, start a fire, or leave something behind unintentionally -- things that are under our control.”

Consent to Operate and “Never Events”

- Surgeon to patient (always):
 - “You must accept risk of bleeding, perforation, and infection -- things that are not totally under our control.”
- Surgeon to patient (never):
 - Do the wrong operation -- 34 times/yr. in PA
 - Start a fire or burn the pt. -- 131 times/yr. in PA
 - Leave something behind -- 98 times/yr. in PA

At-risk Behavior in the OR

- Not checking equipment before use
- Surgeon entering after prep and drape
- Surgeon running 2 rooms
- Multi-tasking from O.R.
- Relying on memory about the pathology
- Unlabelled clear solutions on back table
- Using Bovie in O₂-rich environment
- Unannounced substitutions in mid case
- Continuing to close during sponge search

O.R. Team Should Be Patient-focused

Not surgeon-focused

Not workflow-focused

Not specialty-focused

Not budget-focused

Not break-focused

A High-Speed Tour of Unsafe Events in the OR

O.R. Adverse Events and Errors

Delays Under Anesthesia

- Surgeon running two rooms
- Surgeon covering E.D., L&D, or trauma
- Assistant not available
- Surgeon learning how to use new equipment
- Wrong surgeon listed on schedule
- Known equipment needs not available
- Surgeon did procedure incorrectly - had to redo

O.R. Adverse Events and Errors

Wrong Patient, Op, Side, Part

- Inadequate history (repeat cholecystectomies)
- Path or x-ray wrong
- Scheduled wrong (R/L - THR/TKR)
- Confirming info not available / not used
- Patient misidentified (Ms. Thomas/Thompson)
- Patient's understanding is wrong

(continued)

O.R. Adverse Events and Errors

Wrong Patient, Op, Side, Part

(continued)

- Marked incorrectly from memory
- Anesthesia blocks wrong side before time out
- Patient turned over after time out
- Failure of proper time out 2° confirmation bias
- Wrong size or side prosthesis (IOL - R/L TKR)
- Failure to complete operation
(anastomosis forgotten)

O.R. Adverse Events and Errors

Medication Orders

- Problems with orders to hold meds
- Problems with intra-op verbal orders
- Unlabelled containers of clear fluids on the back table

O.R. Adverse Events and Errors

Preparation of the Operative Site

- Betadine burns
- Alcohol prep catching fire with Bovie
- Skin injuries from adhesives
- Towel clips into earlobe, eyelid, nose, lip, nipple, penis, etc.

O.R. Adverse Events and Errors

Fires and Burns

Bovie fires and burns with :

- Alcohol-based preps
- O₂ tenting around head and neck
- Tracheostomy
- Dry sponges
- Methylmethacrylate (vaporizes acetylene)
- Activation of unattended Bovie on drapes
- Improperly secured Bovie pad

Disconnected light source sets fire to drapes

O.R. Adverse Events and Errors

Unintended Lacerations

- Skin lacerations with bandage scissors
- Skin lacerations from activation of unattended Bovie on drapes
- Perforations with colonoscopy
- GU injuries with hysterectomy
- Newborn lacerations with C-section

O.R. Adverse Events and Errors

Retained Foreign Bodies

- Inappropriately timed counts when surgeon distracted
- Surgeon ignoring “nurse’s problem”
- Unmarked “blue towels” into body cavity
- Unmarked endovascular sponges into open procedure
- “Inconsequential” sponges mouth or vagina
- No tag on small needles
- Bits and pieces
- Endovascular guidewires

O.R. Adverse Events and Errors

Tubes and Wires

- Unsecured endotracheal tubes
- Chest tubes not secured
- Guidewires left in place
- Improperly placed temporary epicardial pacemaker wires => tear of the heart

O.R. Adverse Events and Errors

Miscellaneous

- Loss of critical specimen (r/o ca in lost ovary)

O.R. Adverse Events and Errors Ambulatory Surgical Centers

- Inadequate discharge instructions
- Inability to respond to unexpected problems
- Inadequate transfer procedures

In summary: When is my patient
safe in the OR?

Never --
errors occur in
every step of an
operation!

Making the O.R. Safer for Your Patient

High Reliability Organization

CARES

- C ommitment by the Leaders
- A ttention to the Task
- R espond as a Team
- E ffective Communication
- S tandardized System

Effective Communication

Expanded “Time Out” Pre-operative Briefing

(ref: Johns Hopkins)

- Flatten Hierarchy
- Shared Mental Model
- Contingency Plans
- Patient Risk Factors
- Allergies – including iodine and latex
- Equipment & supply check
- Planned breaks and counts

Expanded “Time Out” Post-op Debriefing

(ref: Johns Hopkins)

- Patient condition assessed
- Any contamination addressed
- Lines secured
- Pathology addressed
- Orders planned
- Possible improvements discussed

Assertive Communication

CUSS

C - “*I’m concerned / need clarification*”

U - “*I’m upset / don’t understand*”

S - “*I’m scared / please*

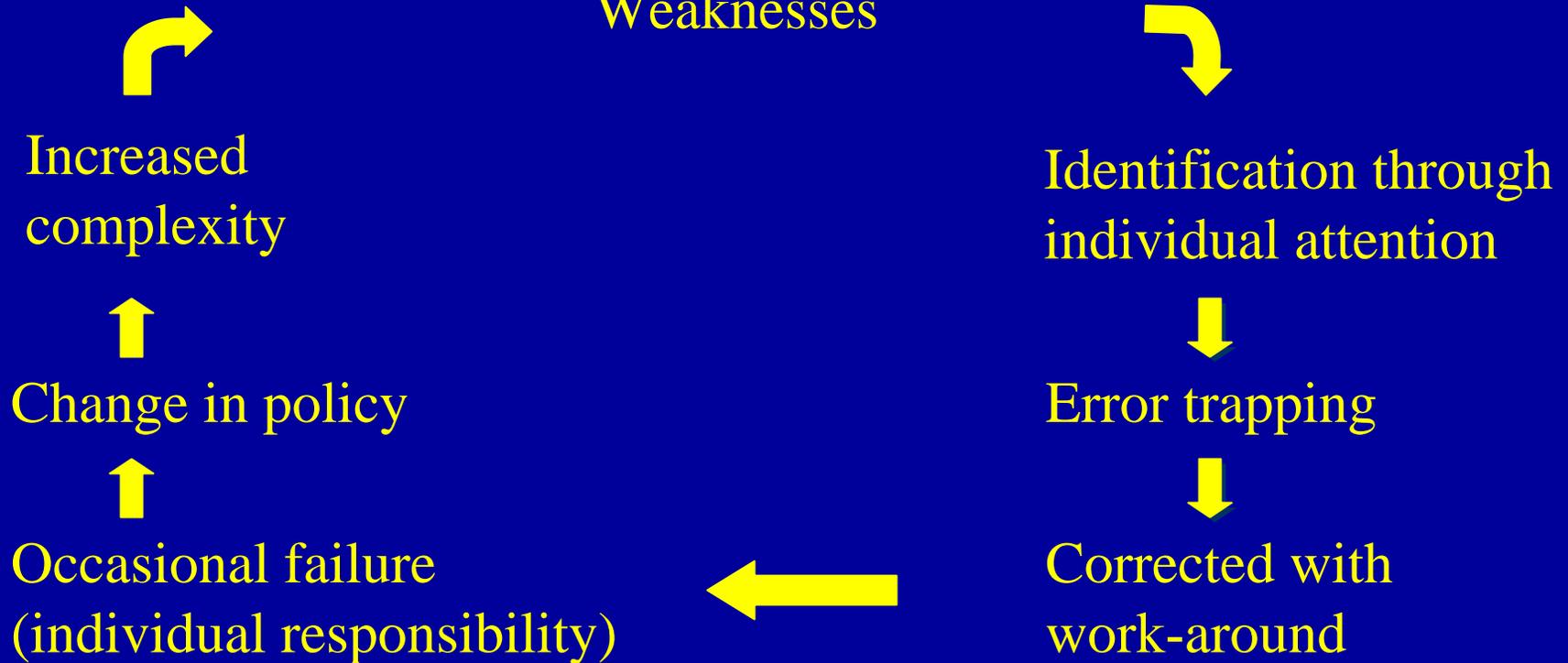
S - **STOP**”

Teamwork

- Shared goal
- Shared mental model
- Situational awareness
- Flat hierarchy
- Empowerment
- Watch out for each other
- Express concerns

Current 'Ad Hoc' System

Weaknesses



Reliable Robust Standardized System

Weaknesses



Simplification or
modification of
the system of care



Root cause analysis



Identification through
individual attention



Error trapping



Corrected, with
error reporting



Recover the Error Before or Sometimes After It Happens

- Prevention => double check, esp. re: human behavior, two people or two times.
- Mitigation => check at end, e.g.
 - ✓ Pathology adequately removed
 - ✓ Operation complete
 - ✓ Ancillary procedures done
 - ✓ No bleeding
 - ✓ No leaks or perforations
 - ✓ No blockages
 - ✓ Drains secured

Improving Patient Safety

General Priorities for Improvements

- Forcing functions
- Automation
- Standardization
- Checklists
- Rules
- Education
- Information

(Courtesy of the Institute for Safe Medication Practices)

Patient Safety Principles

- Patient safety is *improving the system by learning where people fail,*
- Not by holding people accountable for failure.

Patient Safety Principles

Solutions to patient safety problems

- Problems solved by changing human behavior will return.
- Need to change the system.

Making the O.R. Safer

Summary Points

- Lead by example
- Patient focused
- Danger with every step - no at-risk behavior
- Expand the time out into a full briefing and debriefing
- Teamwork - flatten hierarchy & empower team members
- Standardize around best practice & use checklists for compliance
- Monitor with a reporting system
- Anticipate problems pro-actively
- Change the system, not the behavior or the policy

PA-PSRS Patient Safety Advisory:
<http://www.psa.state.pa.us>

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