NoThing Left Behind®
Prevention of Retained Surgical Sponges: The Pediatric and Perinatal Project

Verna C. Gibbs M.D.
Director, NoThing Left Behind®
Professor of Surgery UCSF
Staff Surgeon, SFVAMC

www.nothingleftbehind.org

September 2014
You’re the reason we launched the Patient Safety First program, where we work hand-in-hand with local hospitals to help save lives and lower costs. In fact, the program has helped prevent 3,500 deaths and avoid $63 million in costs. Because of these efforts, Patient Safety First ... a California Partnership for Health won the respected 2013 John M. Eisenberg Patient Safety & Quality Award. Congratulations to Anthem Blue Cross, the National Health Foundation, the Hospital Association of San Diego and Imperial Counties and all the hospitals who work together to make you safer.

To learn more about Patient Safety First ... a California Partnership for Health, visit nhfca.org/psf.

Congratulations and thank you to these participating hospitals:

El Centro Regional Medical Center
Kindred Hospital San Diego
Palomar Medical Center
Peninsula Memorial Healthcare District
Pomona Hospital
Rady Children’s Hospital - San Diego
Scripps Green Hospital
Scripps Memorial Hospital Encinitas
Scripps Memorial Hospital La Jolla
Scripps Mercy Hospital
Scripps Mercy Hospital Chula Vista
Sharp Chula Vista Medical Center
Sharp Coronado Hospital
Sharp Coronado Hospital for Women & Newborns
Sharp hospital
Tri-City Medical Center
UC San Diego Healthcare System
Vista Medical Center

To learn more about Patient Safety First ... a California Partnership for Health, visit nhfca.org/psf.

Special Thanks to: Julia Slininger RN, Jenna Fischer, Alicia Munoz, Dominique Diaz
Pediatric Surgery

- Surgical care from birth to age 18
- Similar equipment, procedures, concerns and risks in OR environment
- Similar policies and procedures to prevent retained surgical items
Case
Root Cause Analysis

• Maybe 20 laps used in entire case
• Nurses “sure” they counted
• Counts called correct
• Concluded that a white towel on which instruments had been placed was “mistaken” for a lap and inadvertently included in the count
Root Cause Analysis

• Hmmmmmmmmmmmmm
• Really? We will come back to this

• However if the surgeon performed a “Sweep” it was clearly inadequate
Surgeon’s Role

• The surgeon strives to perform a methodical wound exam in every case as the first step before wound closure

• The surgeon creates an OR environment that encourages the exchange of knowledge and information

• The surgeon has to be part of the change effort so liability concerns need to be addressed
A MWE

• A MWE is a cognitive effort performed at the closing count before closing suture is passed

• This is a natural pause point in an operation

• The surgeon has to get the sponges out so the nurses can then count them
Seeing vs looking
Was it good or evil?

GOOD
Seeing vs Looking
A face or the word liar?
Seeing vs Looking
Did you see the arrow?
Look for a man’s face
Knowing what to look for
Where is the sponge?
Between bowel loops
Don’t Just “Swish or Sweep”, perform a Methodical Wound Examination (MWE)

The goal is to get all the sponges OUT so they can be accounted for

1. A methodical exploration of the operative wound must be conducted prior to closure in every operation. The space to be closed must be carefully examined. Special focus should be given to closure of a cavity within a cavity (i.e., heart, major vessel, stomach, bladder, uterus, and vagina). Surgeons should strive to SEE and TOUCH during the exploration whenever possible; reliance on only one element of sensory perception is usually insufficient. Before closing, the surgeon should first make a best effort to remove all sponges, then the nurse and scrub person will count them and feedback to the surgeon if all have been accounted for.

2. The general process is to look and feel in the recesses of the wound and examine under fatty protuberances and soft-tissue appendages. Unless clinically contraindicated for a specific patient, the following steps should be taken for procedures performed in the abdomen or pelvis:
   a. Examine all four quadrants of the abdomen with attention to:
      i. Lifting the transverse colon
      ii. Checking above/around the liver and above/around the spleen
      iii. Examining within and between loops of bowel
      iv. Inspecting anywhere a retractor or retractor blades were placed
   b. Examine the pelvis:
      i. Look behind the bladder, uterus (if present) and around the upper rectum.
      ii. The vagina should be examined if it was entered or explored as part of the procedure.

3. Unless clinically contraindicated for a specific patient, the following general steps should be taken for procedures performed in the mediastinum or thorax:
   a. In a mediastinal procedure, if the mediastinal pleura were opened, examine the ipsilateral pleural cavity.
   b. In a cardiac procedure, elevate the apex of the heart and examine the retrocardiac space. Examine the transverse sinus to the right and left of the aorta and pulmonary artery.
   c. In a thoracic procedure, examine the thoracic cavity with attention to the thoracic apex and base of the lungs, paravertebral sulci, and inferior recesses of the diaphragm. Place a hand or finger behind the lung and palpate from apex to base.

FINAL COUNT

SHOW ME
Case
Root Cause Analysis

• 10 raytex for laparoscopic portion
• 1 package of lap pads opened when converted
• Nurses counted the sponges per policy
• Documented 5 laps; 10 raytex
• Documented a correct count....
• Except there were 5 laps out but 1 in the patient so likely 6 lap pads in pack
Pandora’s Box

The Practice of Counting
Frights of Counting

"UNIT OF ISSUE"

"WHERE THEY LAY"

"BAGGING SPONGES"

WRITING COUNTS ON PIECES OF PAPER
Nurses use a standardized process to put sponges in hanging plastic holders and document the counts on a wall-mounted dry erase board in every OR.

Surgeons perform a methodical wound exam in every case and before leaving the OR - verify with the nurses that all the sponges (used and unused) are in the holders.

SPONGE ACCOUNTING SYSTEM
Monitoring "Sponge Traffic"

50 lap pads accounted for
The one minute brief

All free sponges are managed in multiples of 10. Two people “see, SEPARATE & say” for all IN counts. The counts are written on a white board in a standardized format which is the same in all rooms. Sponges are placed in hanging blue-backed plastic sponge holders starting with the bottom pocket and moving horizontally up. At the CLOSING count there is a “pauze for the gauze” where the surgeon does a methodical wound exam before starting closure while the staff perform a closing count. At the FINAL COUNT all sponges must be in the holders and there is a “show me” step where the RN and surgeon look at the hanging holders to VERIFY there are NO EMPTY POCKETS.
Trust but Verify

In Count

Operation

Closing Count

Final Count

3 S's: See, Separate, and Say

SCRUB

RN

Verify

SCRUB

Correct: Found the Sponge

Radiologist Verify

X-Rays

AP

Oblique

Correct: Found the Sponge

MISSING SPONGE

RN

Look in Trash

MD

Surgeon

Alert

RN

MD

Administration

Patient

Incorrect: Didn’t Find the Sponge
Sponge Safety Rules

WHERE ARE THE SPONGES?

EASY AS

1. @ IN COUNT(S) ALWAYS
   CHECK SPONGES
   ...for packaging errors.

2. @ CLOSING COUNT TAKE A
   PAUZE FOR THE GAUZE
   ...to perform the Methodical Wound Exam.

3. @ FINAL COUNT SAY
   SHOW ME
   ...that ALL sponges are in the holders.

SPONGE ACCOUNTING
At the IN Count:

- Did you know that the sponges have never been counted?
- They are WEIGHED before packaging
- SEPARATE the sponges
  - Confirm how many
  - Look for tag or marker
  - r/o manufacturing errors
- Use audible and visual 2 person review, “see, SEPARATE and say”

EACH UNOPENED PACK IS A BLACK BOX
IN count errors

- Video clip
Separate the sponges!
Closing Count

- Surgeon performs a methodical wound exam to get all the sponges out
- Nurses perform accounting practice between field, table and holders. No sponges in kick buckets or basins
  - Give surgeon closing suture while you continue count
  - Respond back to surgeon “We think the count is correct; We think we’ve got all the sponges” (or NOT!)
- Keep on the field some sponges to use for closing. How many?
Don’t Just “Swish or Sweep”, perform a Methodical Wound Examination (MWE)

The goal is to get all the sponges OUT so they can be accounted for

1. A methodical exploration of the operative wound must be conducted prior to closure in every operation. The space to be closed must be carefully examined. Special focus should be given to closure of a cavity within a cavity (i.e., heart, major vessel, stomach, bladder, uterus, and vagina). Surgeons should strive to SEE and TOUCH during the exploration whenever possible; reliance on only one element of sensory perception is usually insufficient. Before closing, the surgeon should first make a best effort to remove all sponges, then the nurse and scrub person will count them and feedback to the surgeon if all have been accounted for.

2. The general process is to look and feel in the recesses of the wound and examine under fatty protuberances and soft-tissue appendages.

   a. Examine all four quadrants of the abdomen with attention to:
      i. Lifting the transverse colon
      ii. Checking above/around the liver and above/around the spleen
      iii. Examining within and between loops of bowel
      iv. Inspecting anywhere a retractor or retractor blades were placed

   b. Examine the pelvis.
      i. Look behind the bladder, uterus (if present) and around the upper rectum.
      c. The vagina should be examined if it was entered or explored as part of the procedure.

3. Unless clinically contraindicated for a specific patient, the following general steps should be taken for procedures performed in the mediastinum or thorax.

   a. In a mediastinal procedure, if the mediastinal pleura were opened, examine the ipsilateral pleural cavity.
   b. In a cardiac procedure, elevate the apex of the heart and examine the retrocardiac space. Examine the transverse sinuses to the right and left of the aorta and pulmonary artery
   c. In a thoracic procedure, examine the thoracic cavity with attention to the thoracic apex and base of the lungs, paravertebral sulcus, and inferior recesses of the diaphragm. Place a hand or finger behind the lung and palpate from apex to base.

FINAL COUNT

Show me
At the FINAL Count:

- All the sponges (used and unused) MUST be in the sponge holders.
- Before MD leaves the room they say “show me”; or you say “let me show you”.
- Each pocket should be full - 10 sponges per holder.
- Team based verification.
Correct Final Count
Analysis of Cases

• I think in the first case it was highly unlikely that they mistook a towel for a lap pad. Instead I think they missed an extra lap pad and really had 6 laps in one package

• The importance of separation on the IN and on the OUT counts is a fundamental principle

• Even in children and in low sponge count cases retained sponges have occurred
Pediatric OR
Always Multiples of 10

• Only one system for staff to manage
• Ten sponges no matter if laps or raytex
• Running total count on board; easy math; easily see how many are out
• Ten pockets in holder means only one sponge per pocket
• Final count has no empty pockets, easy visual
• Show me step proves no sponges are in the patient!
Yes, Always in Tens

• This is the most important and difficult concept for nurses to wrap their heads around
• Reduces the complexity of counting practice
• Reduces opportunity for error
• May reduce sponge usage over time
• Because we haven’t yet seen a case of 10 retained sponges
In Addition

• Switch out the custom packs so cases start with sponges in multiples of 10
• Reduce the number of times sponges need to be added during a case
• Don’t think that there is waste to add, look to improve or change what is being used
• Consider looking at the size and type of sponges … really need raytex AND lap pads on hernia repairs?
• Why throw off that minimally bloody sponge? Try a 4x8 raytex instead of 4x4?
Change Practice

• Just like the size of the patient can vary
• the size of the sponges used during a case can vary
Raytex 4x4 or 4x8’s
Lap pads

12”X12”
PEDI OR MINI LAP

18”X18”
STANDARD LAP
A Solution

- In small cases think don’t need 10 sponges?
- Want clean sponges at the end of the case?
- Put a few in the pockets at the beginning of the case
The New Easy as 1-2-3

• The 3 most important things to do to prevent retained surgical sponges
  ➤ 1. SEPARATE the sponges – on the IN and on the OUT
  ➤ 2. Surgeons have to actually look during the MWE
  ➤ 3. Get all the sponges in one place to make sure they are all ACCOUNTED for
Questions
Fetal Surgery ➔ Birth
Case
Sponges were “counted” in the various places in the birthing room. No explanation for how with only 10 raytex 4x4 used one managed to be left behind. No practice to separate the sponges when counting in, counted them as they lay, everything went into biohazard bags, no place to even record counts.
Ob/Gyn and CRNM

- Not established in the practice of sponge “counting”
- Delayed acceptance by MD’s of patient harm
- Fever, foul discharge, antibiotics, potential toxic shock, migrate to uterus
- Think will find sponges with a “sweep”….. And they don’t
RNs: Who’s on First?

- Final count “correct”
- That’s 8 + 2 in the vagina
- Is that correct?
- Yes, there are two
- No, 8+2 that’s 10, the count is 10
- Oh, yes, count correct

But there were two sponges left in the vagina!
The California Story

CDPH reports from 10/25/2007 – 10/24/2013 (7 years) where hospitals received administrative penalties of $25,000 - $100,000

75 Retained Surgical Item cases

43 cases involving Soft Goods

28 laps; 12 raytex; 3 towels (1 ROT)

23 cases of Small Miscellaneous Items

9 cases of a retained Instrument

(56% are visceral retractors)
California AP events

- 7 years of public reporting currently includes cases from only 5 years - 2007 - 2011
- 75 reports = 15 cases/year
  - 43 cases (57%) soft goods
    - 11/43 (26%) Ob 7 > Gyn 4 cases
    - 28 laps; 12 raytex; 3 towels
  - 23 cases (31%) SMI
  - 9 cases (12%) instruments
  - 0 cases sharps
CDPH 2011- sponges

- 23 cases
  - 8 lap pads, 8 raytex, 1 towel, 2 vag packs, 4 other types of sponges
  - 11 retained in abdomen/abd wall
  - 9 retained in the vagina
  - 3 other sites (pacemaker pocket, back)
  - 13 cases (57%) were OB/GYN procedures
  - 2 cases involved Technology Adjuncts
The Vagina

• Second most common site for sponge retention
  ➤ Usually after vaginal birth

• Have a reliable sponge management practice used in L&D
1. Signs

WHERE ARE THE SPONGES?
ALL SPONGES (used and unused) ARE HERE

WHERE ARE THE SPONGES?
EASY AS

1. ✅ IN COUNT(S) ALWAYS
   - CHECK SPONGES
   - ...for packaging errors.

2. ✅ CLOSING COUNT TAKE A
   - PAUSE FOR THE GAUZE
   - ...to perform the Methodical Wound Exam.

3. ✅ FINAL COUNT SAY
   - SHOW ME
   - ...that ALL sponges are in the holders.

YIELD AND TAKE TIME TO RECONCILE AN INCORRECT COUNT
© CLOSING COUNT TAKE A

SURGEONS
- STOP CLOSING THE WOUND!
  - Remove facial sutures and place retractor
- Repeat the methodical wound examination
- Actively look and feel for missing sponge
- NURSES
  - Tell surgeon what type of sponge is missing
- Ask surgeon to repeat methodical wound exam
- Additional help:
  - Consider getting "another set of hands" to feel
  - Cover the wound with towel or plastic drape
  - Call for X-rays, get an AP and oblique view
  - Tell radiologist what type of sponge is missing
  - A radiologist should review the film before it is called negative especially if sponge not found
  - Scrub person search fluid and drapes
  - Call for X-rays, include call back info on requisition

IF SPONGE NOT FOUND:
- RECORD EVENT AT INTEGRITY
- REPORT TO ADMINISTRATION
- DOCUMENT FOR THE PATIENT
Principles

• Multi-stakeholder

• Nurses – use the 3S’s on the IN count and put all the sponges in the holders in all cases

• Obstetricians/CRNM –
  ➤ perform a MWE – not a vaginal sweep
  ➤ do a “show me” step at the end of the birth with the RN

• Together - follow incorrect count checklist when missing a sponge
Principles

- Structure
- Process
- Outcome – with the use of the above two defined elements the expected outcome is ZERO retained sponges
- If you use a different structure or employ a different process you cannot expect to have the same outcome
NECESSARY EQUIPMENT
Birthing Room Setup
Rack Option

Single double sided

Side view
Bag vs Holder

- Even if they are labeled “counter bags” or “sponge bags” we call them holders in SA
- Can you tell how many sponges?
- Which is more reliable?
Small Dry Erase Boards
Glass-front “white” board
Another option

- Use the laminated “rack sign” as a mini white board
- Make/purchase a mini white board the same size as the rack sign and slide it in front of the holder box
- Has to be done right!
Small Dry Erase Board
Line buckets with clear bags

UNUSED SPONGE IN WHITE BAG

CLEAR PLASTIC BAG

BLOODY SPONGE IN RED BAG
Biohazard Waste Disposal

- Hanging sponge holder full of bloody sponges can be disposed of in RED biohazard bags
- This removes sponges from the room so they can’t confound subsequent cases
Structure

TYPE OF SPONGES TO USE
What’s wrong with this?
What’s wrong with this?
Good Sponge Options

- 4x18 “baby” lap
- 4x8 raytex
- 4x4 raytex
Pre-ordered Case packs

• L&D Birthing packs frequently have a singlet vaginal sponge
• **Remove this sponge!!!!!!**
• Order packs that have either NO sponges or the specific type of sponge (in 10’s) that you want
• Many physicians and CRNM don’t use any sponges during a birth
OB Birthing packs

Vaginal bundle contents

- back table cover
- set up cover
- surgical gown with towel
- 2 absorbent towels
- 1 baby blanket
- under buttock drape
- 2 leggings
- abdominal drape
- peri pad
- cord clamp
- 1 vaginal packing sponge
- 2 oz bulb syringe
- 3 oz bulb syringe
- 10 sponges 4X4
- placenta basin

“Tail Sponge”; “Singlet”; “vaginal packing sponge”
Reason to remove

- Having the “tail sponge” or singlet on the delivery table sets the team up for failure because it is too easy for the MD to just “grab” and insert
- Past case scenarios cite this as the most common contributing factor
- There has been no visible and reliable means to account for it
- Just saying “don’t forget to take this out” doesn’t work
Used Sponges

- Consensus from all L&D team members, where used sponges will be placed.
- Delivery cart is clean, not sterile
- Basin, bowl, plastic bag, ring stands, designated spot on cart or OB puts directly into holder pockets
- Down in the kick bucket between the legs is really NOT an option
Used Sponge Options

- Video clip
Process

STANDARDIZED TABLE SET UP
L&D Specified Practice

- Pole and rack in each room
  - No IV hooks, single rack ok
- Small dry erase board
- Evaluate type of sponge
  - Raytex 4x8 or Baby lap 4x18 instead of 4x4’s
- Decide on process for setting up delivery carts
  - Open with table set up, 2 person count, cover
  - Unopened sponges, 2 person count when open at time of birth
- Determine where used sponges will be placed
Delivery Table Pre-Birth

• No sponges in custom pack
• Have 1 unopened package of 10 sponges or 2 packs of five
• Move table into L&D room
• Two people open and count sponges
• Record on dry erase board
• Cover table until birth
Delivery Table at Birth

• No sponges in custom pack
• Have 1 unopened package of 10 sponges or 2 packs of five
• Move table into L&D room at time of birth
• OB and RN open and count sponges if needed
• Record on dry erase board
Table Set Up Options

- Video clip
A System-Wide Initiative to Prevent Retained Vaginal Sponges

Brenda A. Chagolla, MSN, RN, CNS; Verna C. Gibbs, MD; John P. Keats, MD; and Barbara Pelletreau, MPH, RN

Abstract
As any perinatal nurse knows, retained vaginal sponges are an obstetrical and postpartum patient safety problem. As surgical sponge counts are not routine in some obstetrical units for vaginal births, our healthcare system chose to institute a rigorous process to eliminate retained sponges in all vaginal births. This article describes this process, along with the lessons learned, when Catholic Healthcare West implemented the Sponge ACCOUNTing System in its 32 hospitals in California, Arizona, and Nevada. Implementation of this process involved the standardization of practice for obstetricians, certified nurse midwives, nurses, obstetric technicians, radiologists, and radiology technicians in the management and accounting of surgical sponges.

Key Words: Labor and delivery; Perinatal patient safety; Retained vaginal sponge; Vaginal birth.

A System-Wide Retained Vaginal Sponges Initiative to Prevent

This article describes system-wide lessons learned during implementation of a Quality Improvement (QI) project put into place to prevent retention of sponges during vaginal births.

One of the Ten Original “Never Events”
As part of patient safety and “never event” initiatives, states have promulgated regulations that mandate reporting of specific hospital events, including the retention of a foreign body after surgery. The National Quality Forum (NQF) first established a list of 10 “never events” adopted and enhanced by individual states. NQF identified the inadvertent retention of a foreign body after surgery as one of its initial 10 serious reportable events (NQF, 2007).

The Joint Commission and most other state and hospital regulatory agencies have adopted the NQF definition and interpretation of the retention of a foreign body. The definition reads:

“Unintended retention of a foreign object in a patient after surgery or other procedure is a serious reportable event.”

Confusion exists about exactly what “after surgery” means, and whether vaginal birth fits into that description because vaginal birth is considered to be a procedure as defined by the Joint Commission.

Figure 1. Sponge ACCOUNTing System for Vaginal Births

- Sponges are added to the delivery table when the physician/CNM is present in the delivery room. Sponges are counted by two individuals “see, separate and say,” and entered into the field in groups of 10. OR sponges are added to the delivery table when the table is set up in the delivery room. Sponges are counted by two staff members.
- The number of sponges must be documented on the dry-erase board in the delivery room. Once the sponges are added to the delivery table and the initial count is written on the dry-erase board, the table should not be moved from the delivery room.
- The circulating nurse ensures that ALL used and unused sponges are placed in the holder.
- The physician, CNM or second staff person must verify with the circulating RN that ALL pockets are filled and they match the number of sponges documented on the dry-erase board (always groups of 10).
- The holder with the sponges inside is discarded into a red biohazard bag.

Source: Catholic Healthcare West, Patient Safety

September/October 2011
NURSES

USE PLASTIC HANGING SPONGE-HOLDERS
FOR LAPS AND RAYTEX

This process involves the use of plastic hanging blue-backed sponge-holders which each contain 5 pouches. Each pouch has a thin center-divider which separates each pouch into 2 pockets. One sponge per pocket means that each holder can accommodate 10 sponges. We recommend that each holder always be set up to hold 10 sponges be they laparotomy pads or raytex and different types of sponges should not be mixed within one holder. The sponge holders are held on racks mounted to IV poles. A wall-mounted dry erase board to record operative information and the IN counts should be easily visible in each room. This process should be standardized for use throughout all operating rooms to provide consistency in all types of operative cases.

The single most important element in the use of the hanging sponge-holders is to make sure that “the final count” is taken when all the sponges that have been opened during the case (used and unused) have been placed in the holders. The surgeon and nurse can then visually verify that all sponges have been accounted for and none remain in the patient.

1. Use blue-backed sponge holders on all cases that use surgical sponges. Add laps and raytex in groups of 10. At the IN count “see, verify, and tag” individual sponges within each pack.
2. Hang the holders on the special racks attached to designated IV poles. Use a separate holder for each sponge type e.g., one for laps, one for raytex.
3. Used sponges coming from the operating field should be placed into a CLEAR plastic bag (e.g., kick buckets or ring stands).
4. Take each used sponge from the receptacle. Make sure you have only one sponge. Open it up to its full length and then fold it up into an oval. Place one (1) sponge per pocket, two (2) sponges per pouch, ten (10) sponges per holder.
5. Put the first sponge in the LAST pocket in the bottom of the holder. Load the holder horizontally from the bottom row to the top row, filling first the bottom (two pockets and continuing upwards. This process (going from the bottom to the top) will make visual determination of the filled holder easier to see from the OR table. Once a holder is full with 10 sponges, visual confirmation with the scrub person should occur before hanging the next empty holder.
6. Place the folded sponge inside the pocket with the blue tag or stripe visible but not dangling out. The blue stripe must be visible because this is what differentiates a sponge with a radiograph. Mark the sponge with a dot using a marker.
7. At the time of the final count, ALL sponges MUST be in the sponge holders and the final verification must be taken by two people viewing the sponge holders. There should be NO EMPTY POCKETS.
8. Keep a running total of the sponges added to the surgical field on the dry erase board using the same format that is used to count needles. The last number should always be the total number of sponges opened during the case.
9. At a permanent change of relief, the number of sponges in the holders should be physically reviewed using visual and audible communication between the circulating nurses changing positions before the relieved nurse departs the OR.
10. Sponge holders should remain hanging in their racks from the IV poles. At the completion of the case the holders can be disposed of in a red biohazard bag thus removing all the sponges from the case so there will be “nothing left behind” to confound the counts on a subsequent case.

10 LAPS / 10 RAYTEX / 10 POCKETS / 10 STEPS...
Sponge Safety Rules

WHERE ARE THE SPONGES?

EASY AS

1
@ IN COUNT(S) ALWAYS
CHECK SPONGES
...for packaging errors.

2
@ CLOSING COUNT TAKE A
PAUZE FOR THE GAUZE
...to perform the Methodical Wound Exam.

3
@ FINAL COUNT SAY
SHOW ME
...that ALL sponges are in the holders.

SPONGE ACCOUNTING
At the IN Count:

• Did you know that the sponges have never been counted?
• They are WEIGHED before packaging
• SEPARATE the sponges
  ➤ Confirm how many
  ➤ Look for tag or marker
  ➤ r/o manufacturing errors
• Use audible and visual 2 person review, “see, separate and say”

EACH UNOPENED PACK IS A BLACK BOX
Sponge Safety Rules

WHERE ARE THE SPONGES?

EASY AS

1. @ IN COUNT(S) ALWAYS
   - CHECK SPONGES
   - ...for packaging errors.

2. @ CLOSING COUNT TAKE A
   - PAUZE FOR THE GAUZE
   - ...to perform the Methodical Wound Exam.

3. @ FINAL COUNT SAY
   - SHOW ME
   - ...that ALL sponges are in the holders.

SPONGE ACCOUNTING
Closing Count

- Surgeon performs a methodical wound exam to get all the sponges out
- Nurses perform accounting practice between field, table and holders. No sponges in kick buckets or basins
  - Give surgeon closing suture while you continue count
  - Respond back to surgeon “We think the count is correct; We think we’ve got all the sponges” (or NOT!)
- Keep on the field some sponges to use for closing. How many?
Don’t Just “Swish or Sweep”, perform a Methodical Wound Examination (MWE)
The goal is to get all the sponges OUT so they can be accounted for

1. A methodical exploration of the operative wound must be conducted prior to closure in every operation. The space to be closed must be carefully examined. Special focus should be given to closure of a cavity within a cavity (i.e., heart, major vessel, stomach, bladder, uterus, and vagina). Surgeons should strive to SEE and TOUCH during the exploration whenever possible; reliance on only one element of sensory perception is usually insufficient. Before closing, the surgeon should first make a best effort to remove all sponges, then the nurse and scrub person will count them and feedback to the surgeon if all have been accounted for.

2. The general process is to look and feel in the recesses of the wound and examine under fatty protuberances and soft-tissue appendages.
   - Unless clinically contraindicated for a specific patient, the following steps should be taken for procedures performed in the abdomen or pelvis.
     a. Examine all four quadrants of the abdomen with attention to:
        i. Lifting the transverse colon
        ii. Checking above/around the liver and above/around the spleen
        iii. Examining within and between loops of bowel
        iv. Inspecting anywhere a retractor or retractor blades were placed
     b. Examine the pelvis
        i. Look behind the bladder, uterus (if present) and around the upper rectum.
        c. The vagina should be examined if it was entered or explored as part of the procedure.

3. Unless clinically contraindicated for a specific patient, the following general steps should be taken for procedures performed in the mediastinum or thorax.
   a. In a mediastinal procedure, if the mediastinal pleura were opened, examine the ipsilateral pleural cavity.
   b. In a cardiac procedure, elevate the apex of the heart and examine the retrocardiac space.
      Examine the transverse sinuses to the right and left of the aorta and pulmonary artery.
   c. In a thoracic procedure, examine the thoracic cavity with attention to the thoracic apex and base of the lungs, paravertebral sulcus, and inferior recesses of the diaphragm. Place a hand or finger behind the lung and palpate from apex to base.

FINAL COUNT SHOW ME
Pelvis and Vagina

• Look behind and around the bladder, uterus, rectum
• If something was inserted or placed inside the rectum make sure “it” and all of its parts have been accounted for
• Examine the retroperitoneum
• If the vagina was entered, re-examine it
• If something was inserted or placed inside the vagina make sure “it” and all of its parts have been accounted for
Sponge Safety Rules

WHERE ARE THE SPONGES?

EASY AS

1. @ IN COUNT(S) ALWAYS
   - CHECK SPONGES
   - ...for packaging errors.

2. @ CLOSING COUNT TAKE A
   - PAUZE FOR THE GAUZE
   - ...to perform the Methodical Wound Exam.

3. @ FINAL COUNT SAY
   - SHOW ME
   - ...that ALL sponges are in the holders.

SPONGE ACCOUNTING
At the FINAL Count:

- All the sponges (used and unused) MUST be in the sponge holders.
- Before MD leaves the room they say “show me”; or you say “let me show you”.
- Each pocket should be full - 10 sponges per holder.
- Team based verification.
Correct Final Count
A Best Practice

• Video clip
Case
Incorrect Count Retention Case

Correctly identified that a sponge was missing, inadequate vaginal exam, poor communication between nurse, doctor and tech, sponge was never found, incorrect documentation, no nurse manager notification, no xray taken, when finally considered, wrong view recommended by radiologist
Something’s Missing?

• In the setting of an incorrect count
  ➤ STOP!
  ➤ Look and feel
  ➤ Examine the vagina, don’t just sweep

• Follow the safe actions as outlined on the incorrect count safety checklist
MSI Imaging Guidelines

- Region of Interest specifics
- Instructions for radiology techs to take correct images
- Information to help get it right
- Is pt stable enough to go to x-ray dept rather than trying to take in bed?

### Missing Surgical Item (MSI) - Radiographic Exams

Upon identification of a missing surgical item, the surgeon or nurse will order STAT X-Rays for the specific region of interest (ROI) as listed below. The radiology technologist can use this guidelines for planning optimal image quality.

<table>
<thead>
<tr>
<th>Exam</th>
<th>Views</th>
<th>ROI</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSI Cranium</td>
<td>AP &amp; Lateral (2V)</td>
<td>Top of Skull to below Mandible and bilateral skin borders.</td>
<td>Include face and neck if ENT surgery</td>
</tr>
<tr>
<td>MSI Chest</td>
<td>AP &amp; Oblique (2V)</td>
<td>Apices to Costophrenic Angles (CPA) and bilateral skin borders.</td>
<td>This may require more than one film for the AP projection. The Oblique may be a single 14x17 of the ROI</td>
</tr>
<tr>
<td>MSI Abdomen/Pelvis</td>
<td>AP &amp; Oblique (2V)</td>
<td>Diaphragm to Pubis and bilateral skin borders.</td>
<td>This may require more than one film for the AP projection. The Oblique may be a single 14x17 of the ROI</td>
</tr>
<tr>
<td>MSI Vagina</td>
<td>AP &amp; Inlet (2V)</td>
<td>Inferior gluteus to above crest and bilateral skin borders. Inlet must show the pelvic ring.</td>
<td>Inlet: Place 14x17 vertical with 25 degree caudal angulation. Special attention needed to avoid grid cut-off</td>
</tr>
<tr>
<td>MSI Sacral</td>
<td>AP/PA &amp; Lateral</td>
<td>C-spine: Neck</td>
<td>T-spine: Chest L-spine: Abdomen</td>
</tr>
<tr>
<td>MSI Extremity</td>
<td>AP &amp; Lateral</td>
<td>Include above and below ROI and bilateral skin borders.</td>
<td>Use large films. Order must be specific to ROI: LUE or LLE RUE or LLE</td>
</tr>
</tbody>
</table>

Most portable units have a maximum kVp of 90 – 120 and maximum mAs of 320. The x-ray source must be set at the safest distance to preserve the sterile field. Because of these limitations adequate images may be impossible to obtain in the morbidly obese patient. Image quality should be discussed with a radiologist.
Case
The Vagina

- Most common site of retained packing
- Use only radiopaque material
  - So can be discovered with x-ray
- The packing is considered a dressing
- Strong handoff practices to ensure removal
  - 1) MD order
  - 2) RN handoff
  - 3) Inform the patient
Vaginal Pack Process

• Have unopened package of a vaginal pack readily available

• Open if needed and then:
  ➤ 1. Obstetrician has to write an order for how/when pack is to come out
  ➤ 2. Nurses do an formal handoff when patient moves to next level of care
  ➤ 3. Tell the patient she has a pack in and it must come out before she goes home

• Process to get the pack out
  - try the Packer Tracker
Vaginal Packing

Must have a radiopaque marker
Always + X-ray marker

**GAUZE SPONGES**

Vaginal & Perineal Packing

- Pre-washed, 4-ply gauze
- Vaginal packing complete with the exclusive x-ray detectable radiopaque element
- Folded and packaged in peel pouch
- Not made with natural rubber latex
- Sterile

<table>
<thead>
<tr>
<th>Product No.</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-136</td>
<td>Vaginal Packing, w/X-Ray Element, 1&quot; x 36&quot;</td>
<td>1/Pk, 100 Pks/Cs</td>
</tr>
<tr>
<td>1-237</td>
<td>Vaginal Packing, w/X-Ray Element, 2&quot; x 36&quot;</td>
<td>1/Pk, 50 Pks/Cs</td>
</tr>
<tr>
<td>1-272</td>
<td>Vaginal Packing, w/X-Ray Element, 2&quot; x 72&quot;</td>
<td>1/Pk, 50 Pks/Cs</td>
</tr>
<tr>
<td>1-424</td>
<td>Vaginal Packing, w/X-Ray Element, 4&quot; x 96&quot;</td>
<td>1/Pk, 20 Pks/Cs</td>
</tr>
<tr>
<td>1-472</td>
<td>Vaginal Packing, w/X-Ray Element, 4&quot; x 72&quot;</td>
<td>1/Pk, 100 Pks/Cs</td>
</tr>
<tr>
<td>1-412</td>
<td>Vaginal Packing, w/X-Ray Element, 4&quot; x 48&quot;</td>
<td>1/Pk, 20 Pks/Cs</td>
</tr>
<tr>
<td>1-436</td>
<td>Vaginal Packing, w/X-Ray Element, 4&quot; x 36&quot;</td>
<td>1/Pk, 100 Pks/Cs</td>
</tr>
<tr>
<td>1-250</td>
<td>Perineal Packing, w/o X-Ray Element, 2&quot; x 5 Yds</td>
<td>1/Pk, 50 Pks/Cs</td>
</tr>
<tr>
<td>1-230</td>
<td>Perineal Packing, w/o X-Ray Element, 2&quot; x 3 Yds</td>
<td>1/Pk, 50 Pks/Cs</td>
</tr>
<tr>
<td>1-150</td>
<td>Perineal Packing, w/o X-Ray Element, 1&quot; x 5 Yds</td>
<td>1/Pk, 25 Pks/Cs</td>
</tr>
<tr>
<td>1-554</td>
<td>Perineal Packing, w/o X-Ray Element, ½&quot; x 54&quot;</td>
<td>1/Pk, 50 Pks/Cs</td>
</tr>
</tbody>
</table>
## Packer Tracker

- This is difficult to use
- Requires entry across multiple handoffs
- Have a colored armband placed on patient “Remove packing”
- Contact me for details if interested

### Vaginal or Rectal Dressing Hand-off Communication Tool – THE PACKER-TRACKER

The presence of a vaginal or rectal dressing or pack must be communicated from placement to removal or intentional discharge of a patient with the dressing or pack in place. If the physician intends for a nurse to remove the dressing or pack, a physician order must be written for removal. Nursing staff must complete this tracking tool at each transfer of care. The patient or patient surrogate should be informed of the presence of the vaginal or rectal pack and what the plan is for removal. If a patient is to be discharged per physician order with a vaginal or rectal dressing or pack in place, instructions for care and removal of the pack must be provided to the patient and/or patient surrogate.

### Placement of Packing Material

<table>
<thead>
<tr>
<th>Location of Dressing/Pack</th>
<th>Type of Dressing/Pack Material specify size e.g. 4” x 2” gauze</th>
<th>Date / Time</th>
<th>Signature of Staff</th>
</tr>
</thead>
</table>

Placement of cranberry armband at time pack placed RIGHT/LEFT ARM (circle one)

<table>
<thead>
<tr>
<th>Date / Time</th>
<th>Patient and/or Family Informed</th>
<th>Signature of Staff</th>
</tr>
</thead>
</table>

### Hand-off Communication (Tracking) at Transfer of Care

<table>
<thead>
<tr>
<th>Location of Dressing/Packing</th>
<th>Assessment/Status of Packing</th>
<th>Date / Time</th>
<th>Signature of Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSU</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nursing Unit</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Removal of Dressing/Packing Material or Patient Education RE: Packing and Removal Instructions:

Removal of cranberry armband at time pack removed RIGHT/LEFT ARM (circle one)

<table>
<thead>
<tr>
<th>Date / Time</th>
<th>Location of Dressing/Packing</th>
<th>Type of Dressing/Pack Material specify size e.g. 4” x 2” gauze</th>
<th>Signature of Staff</th>
</tr>
</thead>
</table>
Emergency Cases

- Your default is that you WILL BE able to use the practice
- It takes on average 1 sec per sponge to count IN therefore it takes ~10-15 seconds to count in 10 sponges
- Move the sponges out of the kick buckets into the holders
- Even if there is a plan to get an xray continue to put the sponges in the holders throughout the case
All eggs in X-ray basket

Misread x-ray
C-sxn Standard Packs

- Safer practice is to reduce opportunities for error
- Limit number of times sponges have to be added during a case (remember these are manufacturer’s packs)
- Can you standardize an OB/Csxn distributor pack? Say 20 laps so no sponges have to be added?
In Summary

• Have a standardized process to set up the tables
• S-E-P-A-R-A-T-E on the IN and on the OUT
• Designate a specific place for the used sponges
• All sponges MUST be in the holder at the end of the birth
• Use of a vaginal pack activates a process
• Use the system during emergency cases
Proof of Principle and Practice: The Dignity Health Perinatal Experience
SPONGE ACCOUNTing, It’s as easy as 1, 2, 3

IN COUNT(S)
Only use x-ray detectable sponges or towels, don’t alter them, avoid use of small sponges in large cavities.

CLOSING COUNT
“Pause for the Gauze” Perform a methodical wound exam (MWE), while the nurses perform the closing count, CALL OUT “I think all the sponges are out”, THEN ask for closing suture.

FINAL COUNT
VERIFICATION STEP
Say “show me” and look at the sponge holders. Then dictate in op report “a MWE was performed and all items were ACCOUNTED for.”

BEYOND THE SWISH & SWEEP – THE MWE
Methodical Wound Examination (MWE)

1. A methodical exploration of the operative wound must be conducted prior to closure in every operation. The space to be closed must be carefully examined. Special focus should be given to closure of a cavity within a cavity (i.e., heart, major vessel, stomach, bladder, uterus, and vaginal). Surgeons should strive to see and touch during the exploration whenever possible, reliance on only one element of sensory perception is usually insufficient. The surgeon should visually and manually make every effort to assure that no unintended surgical items have been left in body cavities.

The general process is to look and feel in the recesses of the wound and examine under fatty protuberances and soft-tissue appendages.

2. Unless clinically contraindicated for a specific patient, the following steps should be taken for procedures performed in the abdomen or pelvis. These steps should be performed before removing stationary or table mounted retractors.
   a. Examine all four quadrants of the abdomen with attention to:
      i. Lifting the transverse colon
      ii. Checking above/around the liver and above/around the spleen
      iii. Examining within and between loops of bowel
      iv. Inspecting anywhere a retractor or retractor blades were placed
   b. Examine the pelvis
      i. Look behind the bladder, uterus (if present) and around the upper rectum.
   c. The vagina should be examined if it was entered or explored as part of the procedure.

3. Unless clinically contraindicated for a specific patient, the following general steps should be taken for procedures performed in the mediastinum or thorax.
   a. In a mediastinal procedure, if the mediastinal pleura were opened, examine the ipsilateral pleural cavity
   b. In a cardiac procedure, elevate the apex of the heart and examine the retrocardiac space. Examine the transverse sinus to the right and left of the aorta and pulmonary artery.
   c. In a thoracic procedure, examine the thoracic cavity with attention to the thoracic apex and base of the lungs, paravertebral sulcus, and inferior recesses of the diaphragm. Place a hand or finger behind the lung and palpate from apex to base.

4. If the surgeon is informed of a missing object by the circulating nurse, while the OR staff are looking for the surgical item, the surgeon should STOP closing the wound and repeat the methodical wound examination.
IN COUNT(S)
Work only in multiples of ten (10).
Discover the number of sponges.
Use audible and visual 2 person review.
SEE, SEPARATE and SAY! Document count
on dry erase board.

CLOSING COUNT
“Pause for the Gauze” - Remind Surgeon
to perform a Methodical Wound Exam.
Circ and Scrub do a 2 person review
between surgical field and sponge holders.
Blue stripe is visible for each sponge in
pocket. No dangling tags. CHECK BACK
to Surgeon the status of the count.

FINAL COUNT
ALL sponges (used and unused) in the
sponge holders before the patient leaves
the OR. NO EMPTY POCKETS! Show the
Surgeon they have been ACCOUNTED for.
Document count in operative record.

Use a standardized & transparent process,
every case, every time.

NURSES: WHERE ARE THE SPONGES?
SPONGE ACCOUNTing, It’s as easy as 1, 2, 3

© 2012 VERNA C. GIBBS M.D. ALL RIGHTS RESERVED
Dry Erase Board

RN counts in 10 baby laps onto the delivery table with another RN or Tech prior to OB arrival and puts it on the white board.

Or

RN counts in with OB.

If additional baby laps are needed they are added in groups of 10.
We found this 4.5 foot small IV pole was perfect for hanging the SAS sponge holders.

Since they are small no one is tempted to use them for an IV pole and the prongs are spaced perfectly for the holder. Usually we only use one holder during a birth and even if we need more the pole can accommodate 2 or 3 more.

At its lowest position it is a good height for the OB physician to load laps and visualize the “Show Me” step.
See, S-E-P-A-R-A-T-E and Say on the IN Count

10 4”x18” baby laps
Delivery Set up

- Bowl comes in the Basin pack and can be used to discard the used laps
- Ring stand is a convenient height
- Bowl is placed on the delivery table for RN to load Blue Sponge Holders
- Many Physician will put the sponges in the holders themselves
- Physician’s do not leave until they perform the “Show Me” step with RN
What to do if a sponge is Missing.....

<table>
<thead>
<tr>
<th>NURSES/HOSPITAL STAFF</th>
<th>PHYSICIANS</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Tell surgeon what type of sponge is missing</td>
<td>✓ STOP CLOSING THE WOUND! Remove facial sutures and place retractor</td>
</tr>
<tr>
<td>□ Ask surgeon to repeat methodical wound exam</td>
<td>□ Repeat the methodical wound examination</td>
</tr>
<tr>
<td>□ Repeat count</td>
<td>□ Actively look and feel for missing sponge</td>
</tr>
<tr>
<td>□ Check holders to make sure only one sponge per pocket</td>
<td></td>
</tr>
<tr>
<td>□ Search trash, linens</td>
<td></td>
</tr>
<tr>
<td>□ Call for personnel to search, call nurse manager</td>
<td></td>
</tr>
<tr>
<td>✓ Scrub person search field and drapes</td>
<td></td>
</tr>
<tr>
<td>□ Cover the wound with towel or plastic drape</td>
<td></td>
</tr>
<tr>
<td>□ Call for Xrays, include call back info on requisition</td>
<td>□ Call for Xrays, get an AP and oblique view</td>
</tr>
<tr>
<td>□ Check sponge “departure” opportunities (e.g. went with newborn, around a specimen, anesthesia trash)</td>
<td>□ Tell radiologist what type of sponge is missing</td>
</tr>
<tr>
<td>□ Contact visitors who may have left the room</td>
<td>□ A radiologist should review the film before it is called negative especially if sponge not found</td>
</tr>
</tbody>
</table>

**YIELD AND TAKE TIME TO RECONCILE AN INCORRECT COUNT**

@ CLOSING COUNT TAKE A

**ADDITIONAL HELP**

- Consider getting “another set of hands” to feel
- □ Check sponge “departure” opportunities (e.g. went with newborn, around a specimen, anesthesia trash)
- □ Contact visitors who may have left the room

**IF SPONGE NOT FOUND:**

- RECORD COUNT AS INCOMPLETE
- REPORT TO ADMINISTRATION
- DISCLOSE TO THE PATIENT

- The first step is to tell the MD that a baby lap is missing and to repeat the vaginal exam
- This is usually sufficient, and the sponge is found however the nurses should follow the steps on the checklist and look everywhere
- It may be necessary to obtain an x-ray but the patient is usually stable and if this is necessary the patient can go down to the x-ray department because portable x-rays in the OB birthing rooms are very difficult to take
Dignity’s Journey to Zero Retained Sponges

• Leadership

• System Change
  – Sponge ACCOUNTing System (SAS) implementation
  – Everywhere surgical sponges are used: OR’s, Perinatal Birthing Rooms, OB/ORs, Procedure Suites/Cath labs/Hybrid ORs (if an incision is made)

• Accountability
  – Holding the individuals accountable to follow the rules, use the process and work together to prevent patient harm, Just Culture remediation

• Sustainment
  – Annual training, video review with written test, competency assessments, audits of practice

Dignity Health
Results

• Sponge ACCOUNTing System implemented in 2010
• Since 2012 there have been ZERO retained surgical sponges in any OB/GYN case (C-sections, gynecology cases in the OB ORs) in all of the 32 Dignity Health hospitals that have obstetrical services. Now YTD 3.75 YEARS at zero
• In 2013 ZERO retained vaginal sponges in all 32 hospitals with labor and delivery birthing rooms.
CONGRATULATIONS!!
Thank You

For sharing lessons learned and having the courage to effect change
For taking the time in your day to attend this presentation
To the Patient Safety First Collaborative and
To our patients ........ who endure
SAFER SURGERY

www.nothingleftbehind.org
Coming Up

EDUCATIONAL WEBINAR SERIES
[July 21, 2014 - December 12, 2014]

Fundamentals on the Prevention of Retained Surgical Items (RSI)

A Free, Easily Accessible Resource for Prevention of RSI education
—these monthly webinars (6 total) will be held from July to December 2014 lead by national surgical patient-safety expert Verna C. Gibbs M.D., Professor of Surgery, UCSF, Attending Surgeon, SFVAMC and Director of the National Surgical Patient Safety Project - NoThing Left Behind®

1 Points of Confusion With the Players and The Policies: What To Do
   MONDAY, JULY 21, 2014  x  12PM – 1:30PM (PDT)

2 Surgical Sponge Management: The Before and After
   WEDNESDAY, AUGUST 6, 2014  x  9AM – 10:30AM (PDT)

3 Perinatal and Pediatric Services Surgical Sponge Management
   FRIDAY, SEPTEMBER 5, 2014  x  9AM – 10:30AM (PDT)

4 New Technology Adjuncts: A Comparison of What’s Available
   WEDNESDAY, OCTOBER 8, 2014  x  12PM – 1:30PM (PDT)

5 Therapeutic Packing, Vaginal Packing and Wound Packing: Understanding the Difference
   THURSDAY, NOVEMBER 13, 2014  x  12PM – 1:30PM (PDT)

6 SMI’s, UDFs and Needles; The Surgical Junkyard in Our Patients
   FRIDAY, DECEMBER 12, 2014  x  9AM – 10:30AM (PDT)

Contact: Dominique Diaz | ddiaz@hasc.org | (213) 538-0732

REGISTER HERE

• October ➤ Technological Adjuncts
• November ➤ Packing Issues and Towel Management
• December ➤ SMI’s, UDFs and Needles