Utilizing Communication & Teamwork in the Operating Room to Prevent Errors

Karol A Gutowski, MD

ASPS Annual Meeting 2012
Instructional Course

plastic surgery
THE MEETING

AMERICAN SOCIETY OF PLASTIC SURGEONS
THE PLASTIC SURGERY FOUNDATION
ASMS

October 26-30, 2012 ✦ New Orleans

Disclosures

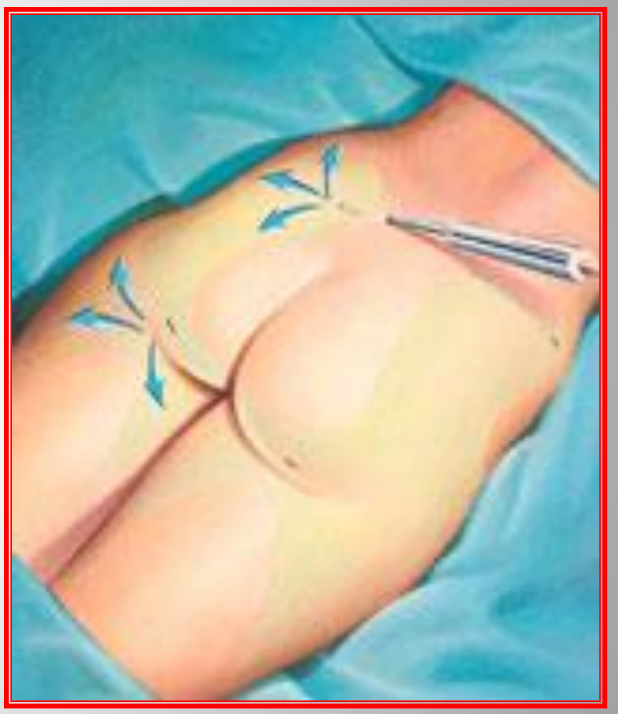
Speaker's bureau Angiotech Pharmaceuticals

Speaker's bureau Suneva Medical

Advisor The Doctors Company

Communication Problem

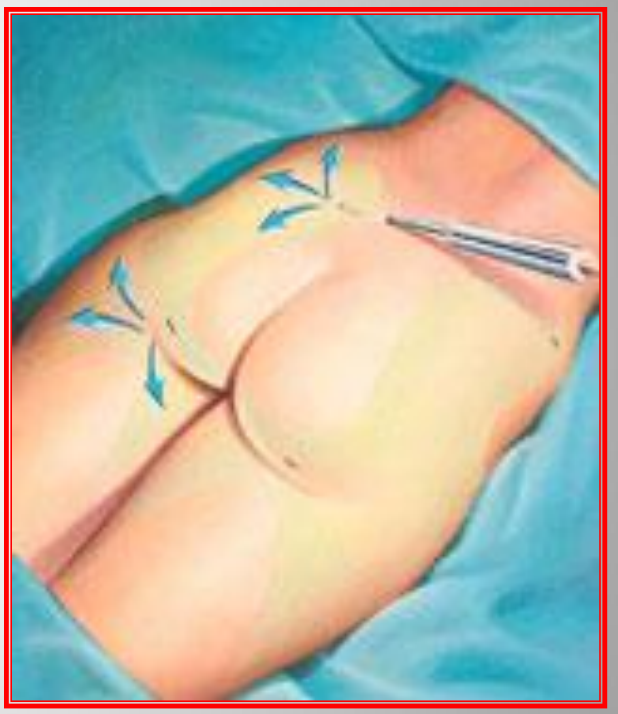
- Routine trunk liposuction
- Same OR team



Communication Problem

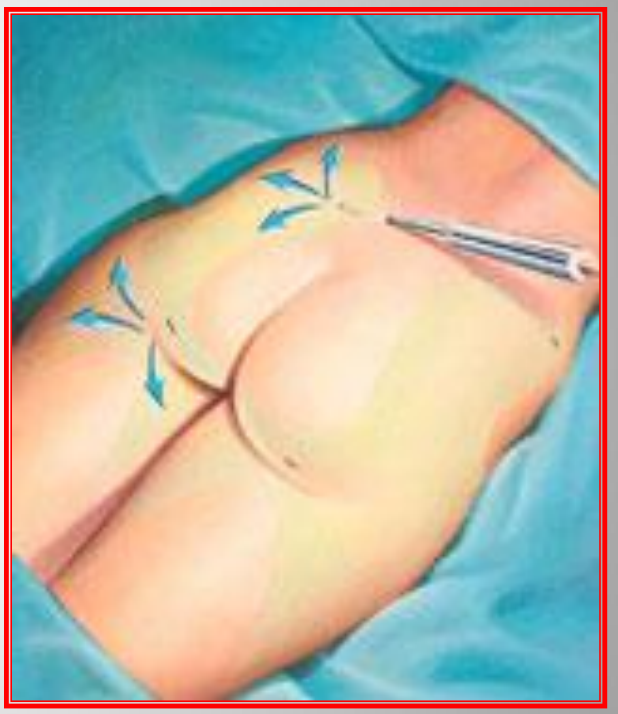
- Routine trunk liposuction
- Same OR team

- Bloody lipoaspirate



Communication Problem

- Routine trunk liposuction
- Same OR team
- Bloody lipoaspirate
- **No epinephrine added to infiltration fluid**



Importance of Teamwork & Communication

- Essential to deliver high quality & safe patient care
- Failure a common cause of patient harm
- Complexity of medical care & limitations of human performance require clinicians to:
  - Have standardized communication tools
  - Create environment allowing freedom to speak & express concern
  - Share common "critical language" to alert team of unsafe situations

Importance of Teamwork & Communication

- Effective communication is situation & personality dependent

- Other high reliability domains (commercial aviation) have shown that the adoption of standardized tools and behaviors is a very effective strategy in enhancing teamwork and reducing risk

Communication Failures & Effectiveness

- Leading cause of inadvertent patient harm
- Joint Commission analysis of 2455 sentinel events
  - Primary root cause in >70% was communication failure
  - 75% of these patients died
  - Clinicians had divergent perceptions of what was supposed to happen

- Effective communication and teamwork creates a
  - Common mental model (getting everyone in the same movie)
  - Safe environment to speak up with safety concerns
  - No surprises culture

Teams vs Individuals

- Anticipate each others needs
- Adjust to
  - Each others actions
  - Changes in environment
- Have shared understanding of
  - How procedure should happen
  - How to identify errors and correct them
- **Have shared responsibility**

Communication Obstacle: Training

- Physicians & nurses communicate differently
- Nurses
  - Taught to give broad & narrative descriptions of clinical situations
  - Told they "don't make diagnoses"
- Physicians
  - Learn to be concise, and get to the "headlines" quite quickly
- SBAR bridges differences in communication styles

Communication Obstacle: Hierarchy

- Hierarchy (power distance) inhibits free communication
- **Authoritarian leaders** reinforce large authority gradients creating unnecessary communication barrier & increase risk
- **Effective leaders** flatten hierarchy creating familiarity & safe environment to speak up and participate

Tools & Behaviors for Effective Communication

- SBAR Communication Tool
- Briefings
- Visual Communication
- Appropriate Assertion
- Critical Language
- Situational Awareness
- Debriefing

SBAR: A Situational Briefing Model

- **S**ituation
- **B**ackground
- **A**ssessment
- **R**ecommendation

SBAR Applied to Health Care

- **Situation**: What is going on with the patient?
  - Identify yourself and the patient
  - State the problem
- **Background**: What is the background on this patient?
  - Anticipate questions the receiver may have
- **Assessment**: Provide your observations & evaluations of the patient's current state
- **Recommendation**: An informed suggestion for the continued care of the patient

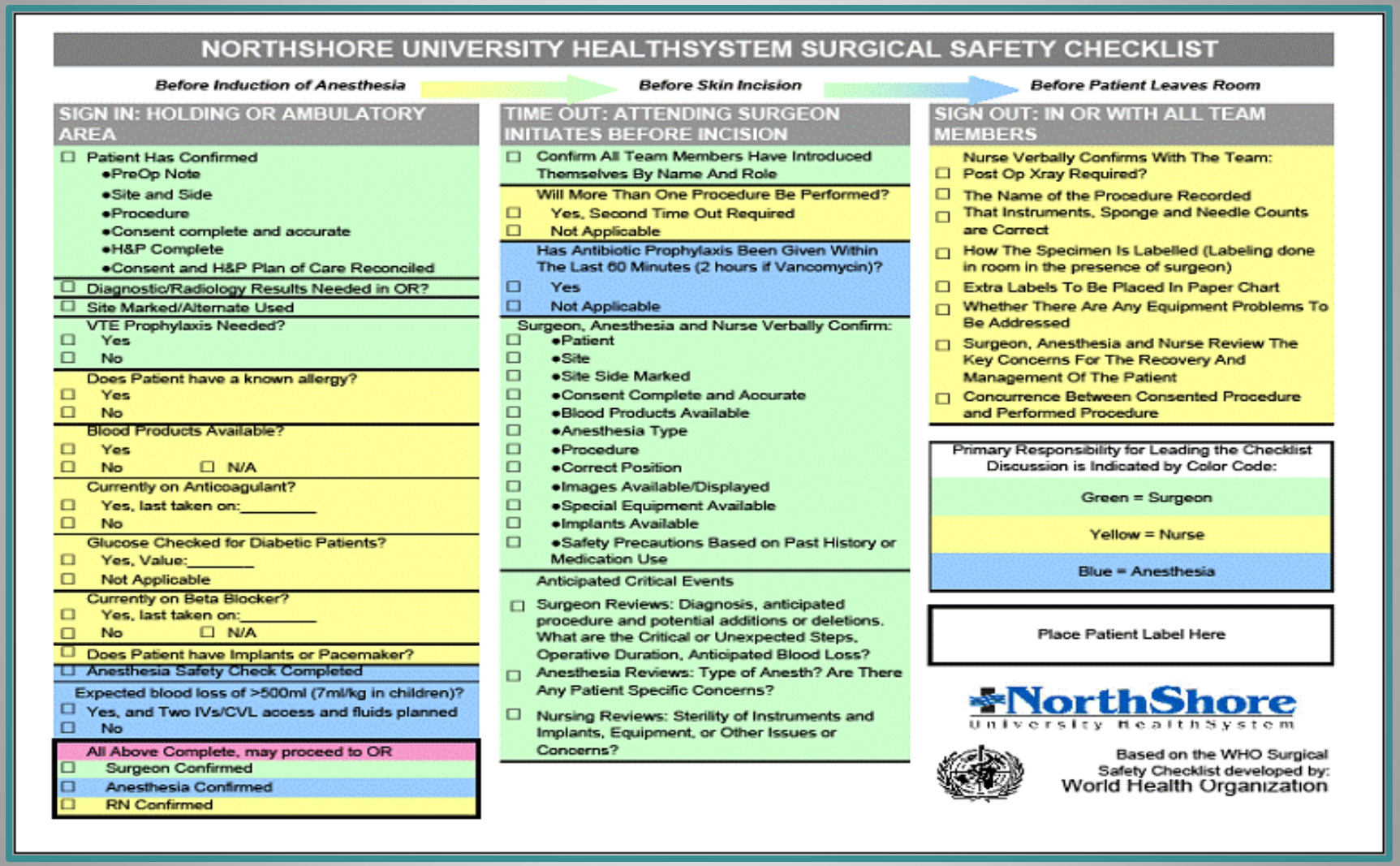
Briefings

- Standard in aviation, military, law enforcement
- Uncommon in clinical medicine
- A few minutes before surgery gets everyone at the same startpoint, avoid surprises, & positively affect how team works together
- SBAR as a briefing tool

Team Communication

- Use a **Pre Op Briefing** to get every team member to talk
- If everyone is used to talking when there isn't a problem, they will be more likely to speak up when a problem occurs

PreOp Briefing using an OR Checklist



NORTHSHORE UNIVERSITY HEALTHSYSTEM SURGICAL SAFETY CHECKLIST

Before Induction of Anesthesia → *Before Skin Incision* → *Before Patient Leaves Room*

SIGN IN: HOLDING OR AMBULATORY AREA

- ☐ Patient Has Confirmed
  - •PreOp Note
  - •Site and Side
  - •Procedure
  - •Consent complete and accurate
  - •H&P Complete
  - •Consent and H&P Plan of Care Reconciled
- ☐ Diagnostic/Radiology Results Needed in OR?
- ☐ Site Marked/Alternate Used
- VTE Prophylaxis Needed?
  - ☐ Yes
  - ☐ No
- Does Patient have a known allergy?
  - ☐ Yes
  - ☐ No
- Blood Products Available?
  - ☐ Yes
  - ☐ No ☐ N/A
- Currently on Anticoagulant?
  - ☐ Yes, last taken on:_____
  - ☐ No
- Glucose Checked for Diabetic Patients?
  - ☐ Yes, Value:_____
  - ☐ Not Applicable
- Currently on Beta Blocker?
  - ☐ Yes, last taken on:_____
  - ☐ No ☐ N/A
- ☐ Does Patient have Implants or Pacemaker?
- ☐ Anesthesia Safety Check Completed
- Expected blood loss of >500ml (7ml/kg in children)?
  - ☐ Yes, and Two IVs/CVL access and fluids planned
  - ☐ No

All Above Complete, may proceed to OR

- ☐ Surgeon Confirmed
- ☐ Anesthesia Confirmed
- ☐ RN Confirmed

TIME OUT: ATTENDING SURGEON INITIATES BEFORE INCISION

- ☐ Confirm All Team Members Have Introduced Themselves By Name And Role
- Will More Than One Procedure Be Performed?
  - ☐ Yes, Second Time Out Required
  - ☐ Not Applicable
- Has Antibiotic Prophylaxis Been Given Within The Last 60 Minutes (2 hours if Vancomycin)?
  - ☐ Yes
  - ☐ Not Applicable
- Surgeon, Anesthesia and Nurse Verbally Confirm:
  - ☐ •Patient
  - ☐ •Site
  - ☐ •Site Side Marked
  - ☐ •Consent Complete and Accurate
  - ☐ •Blood Products Available
  - ☐ •Anesthesia Type
  - ☐ •Procedure
  - ☐ •Correct Position
  - ☐ •Images Available/Displayed
  - ☐ •Special Equipment Available
  - ☐ •Implants Available
  - ☐ •Safety Precautions Based on Past History or Medication Use
- Anticipated Critical Events
  - ☐ Surgeon Reviews: Diagnosis, anticipated procedure and potential additions or deletions. What are the Critical or Unexpected Steps, Operative Duration, Anticipated Blood Loss?
  - ☐ Anesthesia Reviews: Type of Anesth? Are There Any Patient Specific Concerns?
  - ☐ Nursing Reviews: Sterility of Instruments and Implants, Equipment, or Other Issues or Concerns?

SIGN OUT: IN OR WITH ALL TEAM MEMBERS

Nurse Verbally Confirms With The Team:

- ☐ Post Op Xray Required?
- ☐ The Name of the Procedure Recorded
- ☐ That Instruments, Sponge and Needle Counts are Correct
- ☐ How The Specimen Is Labelled (Labeling done in room in the presence of surgeon)
- ☐ Extra Labels To Be Placed In Paper Chart
- ☐ Whether There Are Any Equipment Problems To Be Addressed
- ☐ Surgeon, Anesthesia and Nurse Review The Key Concerns For The Recovery And Management Of The Patient
- ☐ Concurrence Between Consented Procedure and Performed Procedure

Primary Responsibility for Leading the Checklist Discussion is Indicated by Color Code:

- Green = Surgeon
- Yellow = Nurse
- Blue = Anesthesia

Place Patient Label Here

NorthShore University HealthSystem

Based on the WHO Surgical Safety Checklist developed by: World Health Organization

Visual Communication

Visual cues to promote

- Track medications
- Communication
- Surgical plan
- Safety

Inquiry, Advocacy & Assertion

Communication tools that benefit the team process

- **Inquiry:** Systematic investigation of facts, principles, or the requesting of information
  - A PA receives an order for 10 mg of a postoperative analgesic instead of the normal 5 mg for a particular patient. The PA should feel free to inquire why the dose is different than usual.

Inquiry, Advocacy & Assertion

Communication tools that benefit the team process

- **Inquiry:** Systematic investigation of facts, principles, or the requesting of information
  - A PA receives an order for 10 mg of a postoperative analgesic instead of the normal 5 mg for a particular patient. The PA should feel free to inquire why the dose is different than usual.
- **Advocacy:** Individuals must advocate the course of action that they feel is best, even if it involves conflict with others
  - A nurse speaks up to protect a patient's privacy when the patient is under general anesthesia and cannot advocate for herself

Inquiry, Advocacy & Assertion

Communication tools that benefit the team process

- **Inquiry:** Systematic investigation of facts, principles, or the requesting of information
  - A PA receives an order for 10 mg of a postoperative analgesic instead of the normal 5 mg for a particular patient. The PA should feel free to inquire why the dose is different than usual.
- **Advocacy:** Individuals must advocate the course of action that they feel is best, even if it involves conflict with others
  - A nurse speaks up to protect a patient's privacy when the patient is under general anesthesia and cannot advocate for herself
- **Assertion:** Positively stating or declaring something in anticipation of denial or objection
  - A resident points out that it is in a patient's best interest to wait for an intra-operative x-ray when the instrument count is not correct

Inquiry, Advocacy & Assertion

Communication tools that benefit the team process

- **Inquiry:** Systematic investigation of facts, principles, or the requesting of information
  - A PA receives an order for 10 mg of a postoperative analgesic instead of the normal 5 mg for a particular patient. The nurse should feel free to inquire why the dose is different than usual.
- **Advocacy:** Individuals must advocate the course of action that they feel is best, even if it involves conflict with others
  - A nurse speaks up to protect a patient's privacy when the patient is under general anesthesia and cannot advocate for herself
- **Assertion:** Positively stating or declaring something in anticipation of denial or objection
  - A resident points out that it is in a patient's best interest to wait for an intra-operative x-ray when the instrument count is not correct

Surgeons may not feel comfortable with this communication style

Appropriate Assertion

- Ability to speak up & express concerns
- State problem politely & persistently until resolved
- Avoid speaking indirectly (don't hint and hope)
- Focus on the problem (not who's "right & wrong")
- Nurses have license to say: "I need you to …"

Critical Language: CUSSing

- Medicine's hierarchy, power distances, lack of psychological safety, cultural norms, & uncertainty in the plan of action make language interpretation difficult

Critical Language: CUSSing

- Medicine's hierarchy, power distances, lack of psychological safety, cultural norms, & uncertainty in the plan of action make language interpretation difficult
- **CUS program** (United Airlines)
  - I'm **c**oncerned, **u**ncomfortable, **s**cared, this is not **s**afe
  - I'm meaning: "We have a problem, stop & listen to me"
  - Tell your team it is OK to CUSS in the OR!

Critical Language: CUSSing

- Medicine's hierarchy, power distances, lack of psychological safety, cultural norms, & uncertainty in the plan of action make language interpretation difficult
- **CUS program** (United Airlines)
  - I'm **c**oncerned, **u**ncomfortable, **s**cared, this is not **s**afe
  - I'm meaning: "We have a problem, stop & listen to me"
  - Tell your team it is OK to CUSS in the OR!
- Creates a clear communication model
- Avoids tendency to speak indirectly & deferentially

Situational Awareness

- Surgical team
  - Maintains the "big picture"
  - Thinks ahead to plan & discuss contingencies
- Ongoing dialogue
  - Keeps team up to date with what is happening
  - Promotes proper response if situation changes

Debriefing

- Process of assessing:
  - What the team did well
  - What were the challenges
  - What they will do differently the next time
- Opportunity for both individual & team learning
  - Events are still fresh
  - Input from junior team members
  - Opportunity for surgeon to get feedback

OR Video Recording

- 10 high-acuity operations (44 hours patient care)
- 33 deviations from care
  - 17 safety compromises
- 1 every 80 minutes
- Deviations were multifactorial
  - Mean 3 factors

Results of OR Video Recording

Communication & organizational structure at root of deviations

Deviations result from poor organizational and environmental design and suboptimal team dynamics, with caregivers compensating to avoid patient harm

Outcomes in OR

- Wrong site surgeries eliminated
- Decreased nursing turnover
- Increased employee satisfaction
- Increased perception of safety climate
- Improved teamwork climate & communication
- Personnel taking responsibility for patient safety
- Medical errors being handled appropriately
- Nurses feeling their input is well received

Perioperative Briefing Application

OR team challenges in MWL body contouring

- Academic institution
- Multiple procedures
- Patient position changes
- Long operative time
- New equipment
- Multiple concurrent surgical sites
- Residents & students
- Not doing the same way twice
  - "Refining the technique"

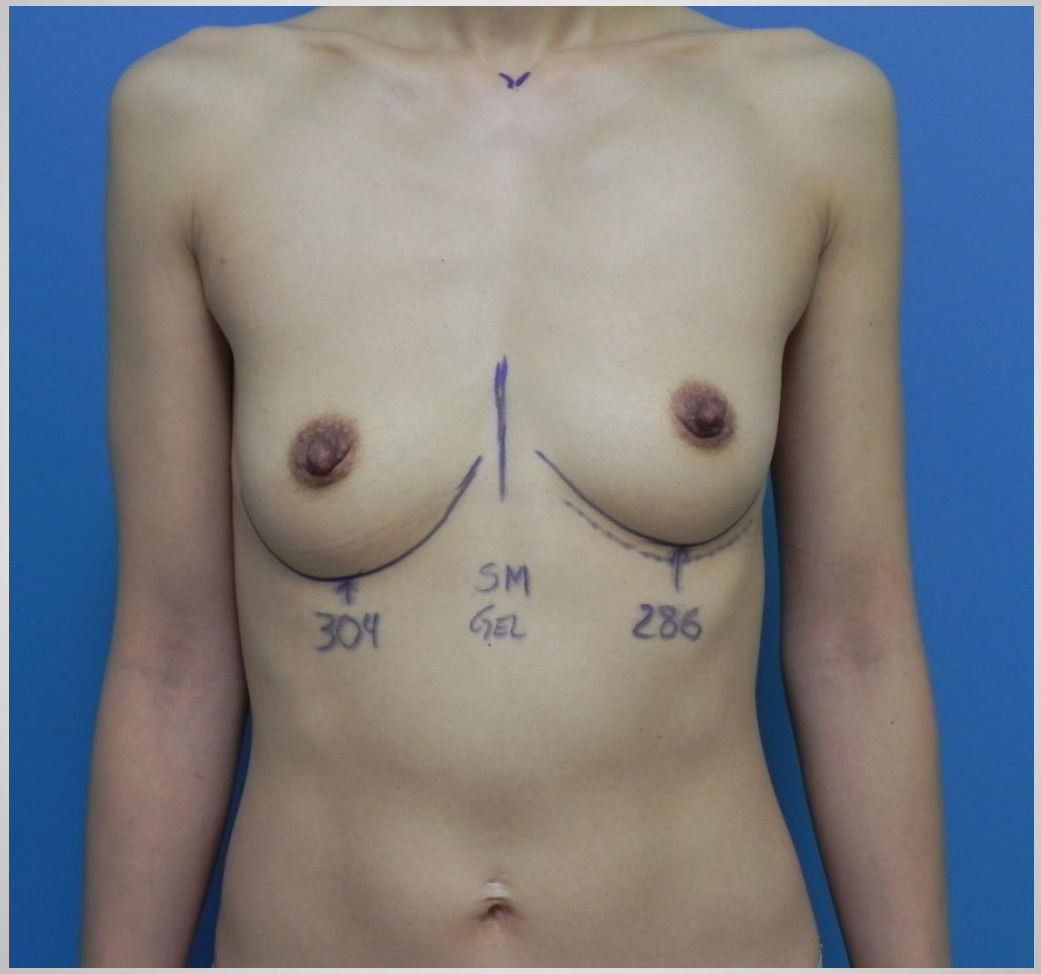
Briefing before Patient Marked

Improved process with 2-4 min discussion

- Sequence of procedures
- Estimated times for each procedure
- Timing and specifics of patient positioning
- Rational for new equipment
- How many assistants needed
- What I am going to do different today
- Potential pitfalls (hypothermia)
- Any new members on the team today?
- Any questions?

Dramatic improvement in teamwork, waiting time & frustration level

Communicate with your Patient



Utilizing Communication & Teamwork in the Operating Room to Prevent Errors

Karol A Gutowski, MD

ASPS Annual Meeting 2012
Instructional Course

plastic surgery
THE MEETING

AMERICAN SOCIETY OF PLASTIC SURGEONS
THE PLASTIC SURGERY FOUNDATION
ASMS

October 26-30, 2012 ✦ New Orleans

Add check lists