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AORN Convention 2018
Conference Notes

1) So in my experience at the AORN convention I learned so much information about the operating room and I also got a chance to explore the New Orleans Community. Because there was a lot to discuss I wanted to single it down to the top 3 research studies, the top lecture that i personally attended, the top 3 innovative pieces of equipment that i think that we can use here in our operating room. Then im going to end by showing you guys a few pictures from my trip.

2) In the first presentation I will discuss is on the reduction of pressure injuries due to prone position in the OR.

Description of the Team: The Vascular Service Nurse, Perioperative Nurse Educator, the Neurosurgical team of nurses, Anesthesiologists and Surgeons

The setting takes in the Central Arkansas Veterans Healthcare System which is one of the largest and busiest VA facilities. They deal with patients are primarily over the age of sixty-five with multiple comorbidities, placing them at high risk for perioperatively-acquired pressure injuries.

Assessment: An increase in these pressure injuries was noted during September 2016 when two neurosurgery patients in surgery were placed in the prone position on the jackson table for greater than six hours. The National Pressure Ulcer Advisory Panel 2014 Guidelines recommend the use of padding to offload at risk area on the face and body in the prone position.

Implementation: The Perioperative Nurse Educator and Vascular Service Charge Nurse implemented a test of change, evaluating a 5-layer soft silicone self-adherent absorbent bordered foam dressing applied to forehead, cheeks, chest and iliac crest before intubation on prone neurosurgical patients for cases lasting over 6 hours. Seventeen patients were evaluated. After the procedure, the dressings were removed, the skin was assessed and On post-op day two, an OR nurse visited the patient, assessed the skin and documented findings.

The Outcome was the Zero pressure injuries occurred on the 17 patients evaluated. The OR staff then collaborated with the supply distribution staff to develop Prone Kits to be stocked routinely.

3) The next poster that I want to talk about pertains to surgical smoke evacuation.

Electrosurgery devices, laser ablation and ultrasonic scalpels are widely recognized as major advances in surgical technology. Electrosurgery devices create a gaseous byproduct commonly referred to as surgical smoke or plume and each year, an estimated 500,000 perioperative staff are exposed. More than 150 different hazardous chemicals have been identified in surgical smoke, with the potential to cause human cell damage, cancer and infectious disease. 27-30 unfiltered cigarettes: That is the average daily impact of surgical smoke to the OR team. Perioperative nurses report twice as many respiratory issues as compared to the general population.

The potential risks of surgical smoke is asthma, sneezing, rhinitis, eye and skin irritation, carcinoma, and Nausea and vomiting just to name a few.

Smoke evacuation devices are effective for limiting exposure. However, despite AORN recommendations, smoke evacuation devices have not been implemented into routine use in most operating rooms.

The purpose of the survey was to identify the level of OR nursing knowledge regarding the risks of surgical smoke exposure, and nursing perceptions on the barriers to routine smoke evacuation system use.

Data was obtained from attendees at the 2017 AORN national conference in Boston, MA. Survey data were collected using an audience response system. OR nurse participation was anonymous and voluntary. Demographic data were limited to clinical background and facility type. All data analyses were descriptive in nature.

Results: The most common barriers were identified as surgeons dictating when smoke evacuation can be used (42%), and hospital/facility leadership not enforcing the use of smoke evacuation equipment. While most nurses (65%) strongly agreed to understanding the risks associated with surgical smoke, some nurses (12%) were not aware of the risks at all. Over half of respondents reported use of smoke

evacuation only in procedures considered high risk (53%), while 23% did not use smoke evacuation in any procedures.

Conclusion. While most OR nurses are knowledgeable on the risks of surgical smoke. This is an issue of serious concern, as current practice places perioperative nurses and all members of the team at increased risk for exposure to the health hazards associated with surgical smoke.

4) Next I want to discuss what happens to new nurses once their orientation is over. Nurses often have a high level of anxiety as they transition from orientee to staff nurse. A knowledge deficit around OR practices by new RN team members was identified. The project team explored different opportunities to make new staff RN's feel more comfortable in the perioperative environment during their first year, and partnered with perioperative education staff to develop communication and education practices to support RN's during their first year post orientation.

- **For their Preparation and Planning-** A task force was mobilized to observe and map current workflow processes and identify opportunities to increase RN knowledge and understanding. Nurses were surveyed to identify gaps in the post orientation process.

- **During their assessment** - The team assessed a need for additional education and supportive practices for RN's who completed their orientation but were not fully comfortable in their new environment

- **During the Implementation-** The team introduced post-orientation practices to the new surgical RN's and then subsequently to the Surgical Technologists and other OR staff members.

- An assessment of new staff comfort level in the perioperative environment was conducted

- An interdisciplinary committee was created to facilitate the post orientation process

- A staff in-service was conducted and designed to engage employees in the process

- Education and reference materials were provided to staff, posted in each OR and other strategic areas throughout the surgery center

- New nurses were offered more time to double scrub with experienced surgical tech's

- New nurses were given the opportunity to take buddy call with a more seasoned RN
 - Each new staff member was paired with a senior nurse of their choice to assist them as they transitioned to staff nurse
 - 1:1 mentoring of staff occurred to improve staff understanding of perioperative processes
 - Weekly meetings were held with all new staff members to give support, answer questions and reflect on their weekly progress
 - Staff assumed “ownership” of their practice and became more proficient in tasks specific to their service
- **Outcome-** A change in post orientation practices resulted in an optimized workflow, an increase in nursing satisfaction, and a better understanding of the perioperative environment

In conclusion Perioperative nursing involvement in the post orientation process is essential to RN growth, development, comfort level, and job satisfaction. Nursing knowledge and support of perioperative practices in the new hire period will contribute to a safer and more comfortable environment for everyone. Nurses who are well trained and supported are more likely to be happy in their position which leads to sustainability.

5) - We all know how important patient positioning for each surgical case is. Proper positioning ensures patient stability, prevent inadvertent movement, and protect them from injury.

-A variety of factors impacts the degree of risk for injury related to positioning surgical patients.

- Type and length of the surgical procedure
- Whether patients are positioned correctly
- patient’s age, height, weight, nutritional status, level of mobility.
- Comorbidities
- type of anesthesia.

- When possible it is ideal that the position during surgery is comfortable for the patient when they are fully awake. Therefore the nurse should have a conversation with the patient about range of motion capacity and their ability to lie comfortably in the expected position.

So now i want to talk about the top 3 most common surgical positions

SUPINE - the most common position used in the OR. Typically the head is rested on a foam pillow or donut, keeping the neck in a neutral position. The arms are typically at rest at the patient's side or on padded arm boards. When arm boards are used the arms should be extended at less than a 90 degree angle from the body to prevent ulnar and radial nerve compression. Positioning the knees in a slight flexion prevents popliteal vein compression and reduces the patients risk for DVT's. A soft pillow may be placed under the knees to alleviate strain on the lumbar spine. legs should be parallel with ankles uncrossed. Heels should be elevated to increase perfusion and help prevent pressure injury.

Lithotomy- It is primarily used for procedures involving the perineum, pelvic organs, rectum, and genitalia. Arms should be secured on padded arm boards. The legs are elevated, abducted and supported in stirrups with the buttocks even with the lower break of the table. To prevent hip dislocation or muscle strain from exaggerated range the legs should be raised and lowered slowly simultaneously.

Trendelenburg - This position provides additional visualization of the lower abdomen and pelvis and is also indicated for patients who develop hypovolemic shock. Patients undergoing robotic procedures are also frequently placed in this position. Its important to note that all movements should be carried out slowly to allow the patient's body enough time to adjust to the change in blood volume, respiratory exchange and displacement of abdominal contents.

Also I wanted to list some important facts for keeping staff members safe from workplace-induced injuries.

- 2) Explain what you will be doing and how you will perform the lift or transfers to the patient.
- 3) Do not transfer patients when off balance.
- 4) Maintain a wide and secure base of support by keeping your feet apart.
- 5) pivot on your feet in the direction of the move and not against it.
- 6) lift as close to the body as possible.
- 8) Keep your spine, neck, and back straight and aligned throughout the lift or transfer.
- 10) Use lateral transfer devices and at least four team members to move patients from bed to stretcher.
- 11) Use assistive devices whenever you can for lifting, transferring and positioning patients.

6) The Aquilex fluid management system helps you maintain maximum control of your hysteroscopy procedures.

1) Its innovative technology and design can minimize procedure time by rapidly achieving and holding constant distension.

3) Provides real-time accurate deficit readings.

4) Offers a simple user interface that is easy to set up.

5) The device includes

- A non-weight-based inflow volume measurement system that reduces the risk of inaccurate deficit readings caused by sensitivity to movements, such as bag changes or accidental bumps.

- it has the ability to add or remove bags without pausing the system.

- A system pause function that stops both inflow and suction pumps and locks the fluid deficit reading when a canister change is necessary, reducing inaccurate deficit readings due to canister changes.

The Device can be used with novasure for endometrial ablation procedures and myosure which helps with tissue removal procedures that targets and removes uterine tissue, including fibroids and polyps.

1) AquaVac is an effective and economical solution for water control in the operating room during arthroscopic surgical procedures, as well as any surgical procedure that causes fluid to spill on the operating room floor.

2) AquaVac is a mat fabricated from a special compound of high-grade rubber.

3) AquaVac uses standard operating room suction to remove spilled saline before it can pool and spread away from the operative area.

4) AquaVac has been tested and shown to remove 95% of spillage during arthroscopic surgery. The mats provide for rapid removal of potentially contaminated fluids.

6) Operating room turn-over time is greatly reduced by limiting the work required to clean and dry the surgical floor between cases.

7) AquaVac®- decreases liability for slips and personnel injury on the wet operating room floor.

8) Its also nice because the mat allows room for up to three people to stand together on the AquaVac® mats.

9) They can be reused when cleaned front to back. You must replace the connector pieces each case. According to the rep and their website the mat is Good for about 10-15 cases.

10) Just to give you a general overview retained surgical sponges are a costly problem for patients and hospitals.

68% of RSIs are surgical sponges

88% of RSIs occur despite a correct count

Miscounts occur in an estimated 1 out of 64 procedures

AORN recommends the use of adjunct Radio Frequency technology to maximize the opportunity to identify missing surgical items.

1) This powerful safety tool will help to reliably locate missing and retained surgical sponges. It can detect the misplaced sponges through fat, dense tissue, blood and bone as well as near metal.

2) It Uses sensors to transmit non-ionizing, low frequency radio waves to detect tagged cotton. When the tagged cotton is stimulated by the device's signal, it transmits its own signal back to the detector, instantly identifying its presence.

3) This item may help rectify counts, eliminating the potential need for an x-ray and extended anesthesia time.

4) When a surgery is completed, a registered nurse waves the wand around the patient and surrounding areas. This process ensures the surgical item counts are correct by both manual counting and RadioFrequency scanning.