

Intraoperative Management of Older Adult Patients Undergoing Plastic Surgical Procedures

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Plastic and Aesthetic Nursing (PAN), the official journal of the International Society of Plastic and Aesthetic Nurses (ISPAN), publishes this column to provide accurate, evidence-based information about fundamental best practices for plastic and aesthetic nurses.

Patients older than 65 years undergo approximately 4 million surgical procedures each year; however, they suffer a disproportionately high rate of morbidity and mortality. Because of conditions such as frailty, cognitive impairment, and multiple comorbidities, older adult surgical patients are different from younger surgical patients. Schwarze et al. (2015) found that the mortality rate for patients 65 years and older undergoing surgery was at least 1%, but for older adult patients undergoing high-risk surgery, the mortality rate was 6%. Careful preoperative management in combination with individualized, multidisciplinary preoperative, intraoperative, and postoperative management can reduce the risk for complications and death in older adult surgical patients.

It is likely that most plastic surgical nurses will care for an older adult patient undergoing a plastic surgical procedure at some point during their career. Van Wicklin (2023) addressed preoperative management of older adult patients undergoing plastic surgical procedures in the previous *Fundamentals of Plastic and Aesthetic Nursing* column. This column addresses intraoperative management of older adult patients undergoing plastic surgical procedures.

INTROPERATIVE MANAGEMENT

An essential component of intraoperative management of the older adult is maintaining the patient's dignity and independence (Doerflinger, 2009). Dignity, and a sense of self-worth, is a basic human need. Maintaining the patient's dignity and independence means respecting their preferences and individuality while allowing them to have autonomy and control over their own life.

Communication

The intraoperative nurse should establish communication with the older adult patient by introducing themselves and explaining the events to follow (Allen, 2023). Nurses should understand that older adult patients may require additional time for receiving, understanding, and processing perioperative communications (Doerflinger, 2009). The nurse should allow the patient to keep and use any *assistive devices* (e.g., glasses, hearing aids, dentures) for as long as possible before the procedure begins. In a systematic review and meta-analysis by Ahmed et al. (2014), the researchers found that visual impairment was a statistically significant predictor for delirium in hospitalized older adults. Likewise, before surgery, patients are routinely asked to remove their dentures (American College of Surgeons [ACS], 2019). However, patients who are dependent on dentures for eating may have difficulty communicating and sustaining their nutritional needs without them. Therefore, in addition to allowing the patient to use their assistive devices as long as possible before surgery, it is essential that the facility has an established process to ensure prompt return of all assistive devices to the patient after surgery.

When the patient enters the operating room (OR), perioperative team members should minimize conversations because they may interfere with the patient's ability to hear instructions and explanations (Doerflinger, 2009). Likewise, team members should avoid loud noises as these may be starting or disorienting to the patient.

Patient Transfer

In most cases, intraoperative management of a surgical patient begins with transferring the patient from the

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holding area to the OR. Nurses should understand that it may take additional time for an older adult to transfer from a chair, bed, or recliner to a gurney or wheelchair for transport to the OR and then to transfer from the gurney or wheelchair to the OR bed (Doerflinger, 2009). When transporting a patient from the preoperative holding area to the OR, nurses can decrease patient anxiety by remaining close to the patient and providing a reassuring presence or touch, if culturally appropriate (Allen, 2023).

In the nursing profession, *lateral transfers* (i.e., moving a supine patient laterally, from one horizontal surface to another horizontal surface) are the most frequent cause of back and shoulder injuries (Owen, 2000). Transferring obese patients, transferring patients when their weight is unevenly distributed, and assuming awkward positions during patient transfer are factors that can increase the risk for team member injury during lateral transfers (Ogg & Van Wicklin, 2021). Assessing the patient's function, posture, gait, and degree of mobility before transfer and using appropriate assistive devices and numbers of personnel during transfer helps prevent injury to perioperative team members. When performing a lateral transfer of the patient to and from the OR bed, perioperative team members can use the Association of periOperative Registered Nurses (AORN) *Ergonomic Tool #1: Lateral Transfer of a Patient From a Stretcher to an OR Bed* (Ogg & Van Wicklin, 2021).

To reduce the potential for patient falls, perioperative team members should use *lateral transfer devices* (e.g., air-assisted lateral transfer mattresses, roller boards, friction-reducing sheets, patient lifts) when moving patients horizontally from one flat surface to another (e.g., from a gurney to the OR bed) (Ogg & Van Wicklin, 2021). These devices minimize frictional resistance and decrease the pulling forces required to move patients, increase patient safety, and reduce the risk for health care worker injury (Bartnik & Rice, 2013; Lloyd & Baptiste, 2006; Matz et al., 2019; Pellino et al., 2006). In a randomized controlled trial, Baptiste et al. (2006) evaluated the subjective feedback of 77 caregivers performing 179 lateral transfers and compared lateral transfer devices with traditional draw sheets. The researchers found the drawsheet performed poorly whereas the air-assisted transfer devices received the highest overall performance ratings.

Anesthesia

Older adult patients may have changes in their airway anatomy that make ventilation difficult (Allen, 2023). For example, changes in facial contour (e.g., sunken cheeks, poor dentition) can prevent the anesthesia mask from fitting correctly. Keeping the patient's dentures in place can help offset this problem; however, if the anesthesia professional is planning to intubate the patient, the

patient's dentures will need to be removed. The joints of an older adult's head and neck may have a limited range of motion, making intubation and airway management challenging.

Although perioperative pulmonary aspiration is a rare event, it can potentially lead to significant morbidity (Sakai et al., 2006; Warner et al., 1993). According to the ACS National Surgical Quality Improvement Program (NSQIP)/American Geriatrics Society (AGS, 2016) best practices guideline for optimal perioperative management of the geriatric patient, there are several intraoperative strategies that perioperative caregivers should consider for preventing pulmonary complications in older adult patients. These strategies include the following:

- Administering an epidural whenever possible;
- Avoiding intermediate- (e.g., cisatracurium, rocuronium, vecuronium) and long-acting (i.e., pancuronium) neuromuscular blocking agents when possible; and
- Ensuring adequate recovery of neuromuscular function prior to extubation when neuromuscular blockade is used (ACS NAQIP/AGS, 2016; Das et al., 2010; Grosse-Sundrup et al., 2012).

The choice of anesthesia (i.e., intravenous sedation with local anesthesia, regional anesthesia, spinal anesthesia, general anesthetic) in an older adult patient depends on the patient's physiological status, anticipated length of the procedure, and preference of the anesthesia professional (Allen, 2023). The anesthesia professional may opt for a regional anesthetic to reduce the potential for blood loss and venous and pulmonary thromboembolism (ACS NAQIP/AGS, 2016; Lin et al., 2019; Tulay, 2021). Notably, the anesthesia professional must consider the lack of flexibility of an older patient or the presence of arthritis before administering a spinal anesthetic (Allen, 2023). The anesthesia professional may also consider placing an epidural catheter for postoperative pain management (ACS NSQIP/AGS, 2016; Allen, 2023).

Because of the decreased function of various body systems, it is difficult to predict how an older adult patient will respond to the administration of drugs or anesthetics (Allen, 2023). Older adult patients have an altered *anti-inflammatory response* (i.e., relationship between plasma concentration and drug effect) and an altered *pharmacokinetic response* (i.e., distribution and elimination of drugs) to drugs. These responses can result in a longer or shorter duration of action and less predictable effects. As individuals age, they also require lower doses of anesthetics. For example, the induction dose of a barbiturate for a 70-year-old will be less than the dose required for a 30-year-old patient. Likewise, even minimal blood levels of a drug may produce undesirable side effects before therapeutic levels of the drug are reached.

The ACS NSQIP/AGS (2016) guideline provides a table of suggested dose adjustments for induction agents, inhalational agents, and opioids that anesthesia professionals can use to determine appropriate dose adjustments.

An older adult patient's ability to eliminate drugs can be affected by reduced liver and kidney functions, altered body composition, decreased albumin level, and decreased cardiac output (Allen, 2023). As well, age-related changes in *homeostatic mechanisms* (i.e., the body systems and processes that work continuously to maintain stable conditions in the human body) may inhibit an older adult's ability to overcome the physiological stresses created by a surgical procedure. For these reasons, the intraoperative nurse must be prepared to rapidly assist the anesthesia professional to stabilize the patient if adverse reactions occur.

Positioning the Patient

The skin of an older adult has been subjected not only to the consequences of time but also to prolonged exposure to the environment (Farage et al., 2009). Over time, the supporting structures of the dermis (e.g., collagen, elastin) and the vasculature have deteriorated. Thus, the skin of an older adult is fragile and prone to trauma. For this reason, perioperative team members must take particular care when positioning the older patient for surgery (Allen, 2023).

The loss of muscle mass, poor skin turgor, and tissue fragility associated with the aging process can quickly lead to a postoperative pressure or positioning injury (Allen, 2023). Age-related changes in the musculoskeletal system can increase the protrusion of bony prominences and decrease an older adult's range of motion. Obese patients, as well as patients with normal body mass indexes, may not tolerate certain positions (e.g., lithotomy, prone). Likewise, patients who are underweight are more vulnerable to pressure and positioning injury. Older patients with age-related musculoskeletal deformities (e.g., *kyphosis* [i.e., excessive curvature of the spine resulting in an abnormal rounding of the upper back]) and chronic pain may not be able to fully extend their spine, neck, or upper and lower extremities. These skeletal changes coupled with limitations imposed by chronic pain make positioning an older adult one of the most critical considerations of perioperative care. It may be helpful to position the patient before the induction of anesthesia so that the patient can assist with positioning efforts to ensure their comfort.

To prevent shearing injuries, older adult patients should be lifted into position, rather than pulled or dragged (Allen, 2023). Using appropriate positioning devices and surfaces is pivotal to redistributing pressure and protecting the patient from pressure and/or positioning injury. Effectively padding bony prominences helps maintain

skin integrity and limit pressure on peripheral nerves (ACS NSQIP/AGS, 2016). Positioning devices and surfaces should be used in accordance with the manufacturer's instructions for use and patients should be positioned in accordance with the AORN *Guideline for Positioning the Patient* (Van Wicklin, 2021).

When positioning an older adult patient for surgery, perioperative nurses must be aware of the location and placement of *critical devices* (i.e., devices for which there is a risk of significant clinical impact to the patient if the device is dislodged or does not perform as expected) (McNichol et al., 2013). Examples of critical devices include vascular access devices, endotracheal tubes, nasogastric feeding tubes, and indwelling urinary catheters. Pressure injuries can occur as a result of pressure on the patient's skin from these devices. Surgical patients may have tubes or other attachments that can become entrapped in skin folds, resulting in skin damage (National Pressure Ulcer Advisory Panel et al., 2019).

After positioning and at established intervals during the procedure, the perioperative nurse should assess the patient's integumentary, circulatory, musculoskeletal, and neurological structures and document the results of the assessment in accordance with the facility policy and procedures (Croke, 2020).

Skin Preparation

The skin of an older adult is fragile and susceptible to irritation, inflammation, rashes, bruises, and infection (Allen, 2023). Most older adults have very dry skin that may be related to the natural aging process or to a specific disease process (e.g., anemia, malignancy, kidney disease, diabetes). The patient may be using corticosteroid medications to alleviate itching and inflammation; however, these medications also cause the skin to become thin, making it even more fragile.

Antiseptic solutions used to clean and prepare a patient's skin for surgery may be harmful to older adult patients (Allen, 2023). The perioperative nurse should ensure that antiseptic solutions do not pool beneath and around the patient, as prolonged patient contact with a wet antiseptic solution can cause patient injury (Doerflinger, 2009; Wood & Conner, 2021). For this reason, the perioperative nurse should use skin antiseptics in accordance with the manufacturer's instructions for use and in accordance with the AORN *Guideline for Preoperative Patient Skin Antisepsis* (Wood & Conner, 2021).

Thermoregulation

Thermoregulation is ability of an organism to maintain its body temperature within certain boundaries, even when the surrounding temperature is very different. Decreased muscle tissue and activity, reduced subcutaneous fat, and

diminished peripheral circulation associated with the aging process in combination with the cool temperature of the perioperative environment negatively affect an older adult patient's ability to thermoregulate (Williams, 2023). Older adult patients are predisposed to hypothermia, and most anesthetics inhibit thermoregulatory function (ACS NSQIP/AGS, 2016; Esnaola & Cole, 2011; Lester & Brown, 2017).

Hypothermia occurs when a surgical patient has a core body temperature less than 36°C (96.8°F) (Paulikas, 2008). Hypothermia may be further delineated as follows:

- *Mild* (32°C–35.9°C [89.6°F–96.6°F]);
- *Moderate* (28.1°C–31.9°C [82.6°F–89.4°F]); or
- *Severe* (<28°C [$<82.4^{\circ}\text{F}$]). (Mitchell & D'Angelo, 2008)

The human body has two thermal compartments: the core and the peripheral (Sessler, 2016). The *core* body compartment includes the trunk and head, which maintain a nearly constant temperature in a wide range of environments. The *peripheral* thermal compartment includes the arms and legs. The temperatures in these areas are typically lower than core body temperature.

A change in an individual's core or peripheral temperature generally leads to a behavioral or autonomic response (Sessler, 2016). For example, a *behavioral response* to a decrease in body temperature may be moving into a warmer environment or putting on more clothing. An *autonomic response* to a decrease in core body temperature is vasoconstriction or shivering. General, neuraxial, or regional anesthesia prevents or alters these behavioral and autonomic responses, which leads to a decrease in the patient's core temperature. General anesthesia also blocks the autonomic response of vasoconstriction, which causes redistribution of body heat from the core to the periphery (Lenhardt, 2010; Sessler et al., 2008). General anesthesia additionally decreases metabolic heat production by about 15%–30% and slightly increases cutaneous heat loss, which exaggerates temperature loss. Hypothermia leads to adverse events in surgical patients including surgical site infections, cardiac events, coagulopathy leading to surgical bleeding, and increased oxygen consumption due to shivering (ACS NSQIP/AGS, 2016; Esnaola & Cole, 2011; Lester & Brown, 2017).

For these reasons, anesthesia professionals and perioperative nurses should make efforts to maintain normothermia in older adult patients throughout the perioperative period. Before being transported to the OR, nurses can use *passive warming measures* (i.e., methods that prevent patient heat loss [e.g., warm blankets]) to ensure the older adult patient is warm (ACS NSQIP/AGS, 2016). If the patient's oral temperature is below 36°C (96.8°F), nurses should implement *active warming measures* (i.e., methods that apply heat to the skin, blood, or internal structures to warm the patient [e.g., forced air warming, warmed intravenous fluids]). Before the induction

of anesthesia, nurses should limit patient skin exposure and ensure the older adult patient is kept warm. If the anticipated procedure time is longer than 30 min, nurses and anesthesia professionals should monitor the patient's core temperature, implement methods to actively warm the patient, administer warm intravenous fluids, and maintain the patient's temperature at or above 36°C (96.8°F). To help prevent unintended perioperative hypothermia, perioperative team members should follow the recommendations provided in the *AORN Guideline for Prevention of Hypothermia* (Burlingame, 2021).

Preventing Infection

Age-related changes in the immune system and certain diseases affect the older adult's ability to respond appropriately to infection (Allen, 2023). Older adult patients are more susceptible to developing hospital-associated infections, central line-associated bloodstream infections, ventilator-associated pneumonia, surgical site infections, and catheter-associated urinary tract infections.

Urinary tract infections are one of the most common postoperative complications in older adult patients and they are associated with significant health care costs (Saint, 2000). For this reason, health care providers should insert catheters only for appropriate indications and leave the catheter in place only as long as needed (Gould et al., 2019). To prevent urinary tract infection before, during, and after inserting urinary catheters in older adults, nurses and other health care professionals should implement the following strategies:

- Determine whether catheter use is appropriate. Appropriate indications for catheters include the following:
 - Critically ill patients requiring accurate measurements of urinary output.
 - Patients who have been diagnosed with acute urinary retention or bladder outlet obstruction.
 - Patients undergoing selected surgical procedures:
 - Urological or other surgery on contiguous structures of the genitourinary tract.
 - Surgery of prolonged duration.
 - Surgeries with intraoperative administration of large-volume infusions or diuretics.
 - Surgeries that require intraoperative monitoring of urinary output.
- Patient is incontinent and a catheter is essential to assist with healing of open sacral or perineal wounds.
- Patient requires prolonged immobilization (e.g., potentially unstable thoracic or lumbar spine, multiple traumatic injuries such as pelvic fractures).
- Patient is receiving end-of-life care and a catheter improves comfort.

Notably, perianesthesia nurses should remove catheters inserted for surgery of prolonged duration while the patient is in the postanesthesia care unit.

When inserting urinary catheters, perioperative nurses should:

- Perform hand hygiene immediately before catheter insertion.
- Use personal protective equipment before manipulating the catheter or drainage system.
- Secure the catheter in a manner that prevents movement or urethral traction.
- Maintain a sterile, closed drainage system.
- Position the drainage bag below the bladder and off of the floor.

Do not use urinary catheters as a substitute for nursing care of the older adult patient who is incontinent, as a mechanism for obtaining a urine culture when a patient can void, or in patients receiving thoracic epidural anesthesia/analgesia.

Prolonged surgical procedures also increase the patient's risk for surgical site infection (Allen, 2023). Perioperative team members should work together to reduce unnecessary surgical delays and the length of time the patient is anesthetized by maximizing efficiency, decreasing exposure of the surgical site, and ensuring that the necessary supplies and equipment are available and that all team members have the requisite knowledge and skill to assist with the procedure. Members of the surgical team can help prevent surgical site infections in older adult surgical patients by meticulously adhering to sterile technique as presented in the AORN *Guideline for Sterile Technique* (Cahn & Wood, 2021).

Fluid Management

Fluctuations in fluid volume can lead to impaired respiratory function, swelling of the extremities, and heart failure in older adult patients (Williams, 2023). Volume deficits occur as a normal part of the aging process; however, intraoperative fluid therapy can lead to volume excess (Allen, 2023). It is essential that anesthesia professionals and perioperative nurses take careful measurements of an older adult's intake and output during surgery.

According to the ACS NSQIP/AGS (2016), "there is insufficient evidence to support a best practices statement for or against specific fluid management strategies or interventions designed to optimize physiologic parameters ... in the older adult" (p. 18) and they recommend considering the combined effects of aging, anesthetics, analgesics, and anxiolytics on physiology when administering intravenous fluids (p. 18).

Effective communication among surgical team members regarding the amount of blood loss can help prevent complications associated with hypovolemia (Allen, 2023).

Likewise, the perioperative nurse and the scrub person should collaborate to ensure accuracy in the amount of irrigation fluid distributed to the sterile field and used during the procedure. To achieve an accurate intake and output assessment of the older adult patient, the perioperative nurse should also closely monitor discarded sponges, suction canister contents, and urinary output.

Medical Adhesives

Medical adhesives are an integral part of health care delivery and are used by every medical specialty in all care settings (McNichol et al., 2013). *Medical adhesives* include tapes, dressings, electrodes, ostomy supplies, and patches. They are used to secure both critical and non-critical devices and products, facilitate skin protection and healing, and allow noninvasive monitoring.

Medical adhesive tapes, dressings, and devices have multiple layers (Cutting, 2008). The type of backing and adhesive determine the properties and performance of the adhesive product. For example, adhesive tape backings may consist of paper or a paper blend, plastic, silk, woven polyester, nonwoven soft cloth, traditional cloth, foam, and/or elastic. Types of adhesives used in tapes and dressings include acrylates, silicones, hydrogels, hydrocolloids, polyurethanes, natural rubber latex, or zinc oxide.

Skin changes that occur during the aging process increase the risk for skin injury from medical adhesives in older adults (Lober & Fenske, 1991). These changes include a loss of moisture, less dermal matrix and subcutaneous tissue, epidermal thinning, reduced cohesion between the dermal and epidermal layers, and decreased vascularity, elasticity, and tensile strength.

Medical adhesive-related skin injury (MARS) occurs when the skin-to-adhesive attachment is stronger than the skin cell-to-skin cell attachment causing the epidermal layers to separate or the epidermis to separate from the dermis when the adhesive product is removed (McNichol et al., 2013). Types of MARS include the following:

- *Skin stripping* (i.e., removal of one or more layers of *stratum corneum* [the outermost layer of the epidermis]);
- *Blister* (i.e., separation of the epidermis from the dermis caused by shear force);
- *Skin tear* (i.e., a wound caused by shear, friction, and/or blunt force resulting in partial- or full-thickness separation of the skin layers);
- *Irritant contact dermatitis* (i.e., an inflammation of the skin caused by a chemical in the adhesive);
- *Allergic dermatitis* (i.e., a cell-mediated immunological response to a component of the medical adhesive or its backing);
- *Maceration* (i.e., changes in the skin resulting from moisture trapped against the skin for a prolonged period); and

- *Folliculitis* (i.e., an inflammatory reaction in the hair follicle caused by entrapment of bacteria). (Blaylock et al., 1995; Brett, 2006; Conway & Whettam, 2002; Cutting, 2008; Jester et al., 2000; Koval et al., 2003; LeBlanc et al., 2011; McNichol et al., 2013; Norris & Storrs, 1990; Widman et al., 2007)

The degree of skin injury that can occur from medical adhesives is related to a combination of factors, including the amount of energy required to remove the adhesive, the *rheology* (i.e., the amount of stress required to deform the product) of the adhesive, its *occlusiveness* (i.e., the ability of the product to protect the tissue from air, fluids, and harmful contaminants, such as bacteria), and the rigidity of the material used as the product backing (Tokumura et al., 2005). Even when there is no visible trauma, removing products containing medical adhesive detaches superficial epidermal cell layers (McNichol et al., 2013). Repeated application and removal of products containing medical adhesives compromise skin barrier function and initiate inflammation and the wound-healing response.

When perioperative team members remove products that contain medical adhesives, superficial layers of the skin can be detached along with the adhesive product, which not only affects skin integrity but also causes pain and increases the risk for infection, increases wound size, and delays healing, all of which reduce the patient's quality of life (Cutting, 2008). Treating skin damage caused by medical adhesives is costly in terms of service provision, time, and additional treatments and supplies (Denyer, 2011; Tokumura et al., 2005).

To prevent injury when removing products containing medical adhesives, health care professionals should:

- Follow the product manufacturer's instructions for use for application and removal techniques;
- Use the correct product for the purpose;
- Do not use tape with excessive adhesion for the purpose;
- When applying tape in an area where swelling or movement is anticipated, use a tape that stretches;
- Avoid tension or *strapping* (i.e., applying overlapping strips of tape in a manner that exerts pressure and reduces motion);
- Apply the product in a direction that allows stretch in the area of expected swelling or movement;
- Do not apply the product to wet or moist skin;
- Do not use alcohol-based skin preparation pads or products;
- Allow skin preparation products or barriers to dry completely before applying the adhesive product;
- Clip or trim hair before applying a medical adhesive product;
- Avoid excessive use of substances that increase the stickiness of the adhesive (e.g., tackifiers, bonding agents);

- Not leave occlusive tapes or dressings on for prolonged periods;
- Not remove the product rapidly;
- Not remove the product at a high angle;
- Provide sufficient support of the skin at the peel line when removing the product; and
- Avoid repeated taping or dressing changes when possible. (Bryant, 1988, 2016)

When applying surgical dressings on an older adult patient at the end of the procedure, perioperative nurses and other team members should use sensitive skin tapes, such as soft cloth surgical tape with hypoallergenic adhesive, and avoid using surgical adhesive and silk tapes (Doerflinger, 2009). When placing electrosurgical unit dispersive pads on older adult patients, perioperative nurses and other team members should place them on areas with significant muscle mass and healthy vasculature (Dyer, 2015). Placing the dispersive pad on an area with insufficient muscle mass, compromised vasculature, and an inability to redistribute pressure increases the patient's risk not only for pressure and skin injury but also for electrical burns.

Transfer of Care

As the procedure ends, perioperative nurses must carefully evaluate the older adult patient's response to surgery (Allen, 2023). Before transporting the patient to the postanesthesia care unit, the perioperative nurse should examine the patient's skin for any injury that may have occurred from positioning, paying special attention to areas where tape and other adhesive products (e.g., electrocardiogram leads) were attached and where any positioning devices were placed (Doerflinger, 2009).

The transfer-of-care report from the intraoperative nurse to the postanesthesia care unit nurse should include a discussion of any pertinent preoperative and intraoperative information that could affect postoperative care outcomes (Allen, 2023). This information includes the patient's pain level, physical and sensory limitations, intake and output measurements, allergies, type and location of any catheters, drains, packing, and implantable devices, and any unusual occurrences that might affect the patient's recovery.

Using evidence-based standardized checklists for transfer-of-care reporting (e.g., SBAR [situation, background, assessment, recommendation]; I PASS the BATON [introduction, patient, assessment, situation, safety concerns, background, actions, timing, ownership, next]; SWITCH [surgical procedure, wet, instruments, tissue, counts, have you any questions]; SURPASS [SURgical Patient Safety System]) improves the quality of information transfer and decreases communication breakdowns (Eberhardt, 2014; Johnson et al., 2013; Morris & Hoke, 2015; Petrovic et al., 2015; Pucher et al., 2015; Randmaa et al., 2014; Salzwedel et al., 2013; Weiss et al., 2013).

CONCLUSION

It is likely that most plastic surgical nurses will care for an older patient undergoing a plastic surgical procedure at some point during their career. Competently caring for older adult patients undergoing plastic surgical procedures can be challenging for nurses. To provide optimal care, plastic surgical nurses must understand the physical changes associated with aging and the unique and specific needs of the older adult.

If you are a plastic or aesthetic nurse and would like to write about an issue of fundamental importance to plastic or aesthetic nurses, or if you would like to see your issue presented in a future *Fundamentals of Plastic and Aesthetic Nursing Practice* column of PAN, please contact Sharon Ann Van Wicklin, Editor-in-Chief, at sharonvwrn@ispan.org.

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