

With an estimated one million people living with an ostomy in the United States, and 100,000 surgeries that result in an ostomy annually it is very likely that you, as a nurse, will encounter a patient with an ostomy no matter your specialty (Cleveland Clinic, 2022). Some facilities have specialists available for help, other facilities the bedside nurse may be entirely responsible for care. In either case, the bedside nurse is always the first line in assessment and care of the treatment of the patient with an ostomy. This is why it is vital to know and understand basic principles of what an ostomy is, what expected assessments are, basic pouch change and emptying procedures, review complications of the stoma and peristomal skin, and when to alert the provider for further treatment. This presentation will provide education on the basic skills needed to care for the ostomate and act as a reference guide for future review if necessary.

As a bedside nurse you will come across many types of stomas. While the stomas share many characteristics in terms of assessment, which we discuss in a later slide, understanding their anatomical location and expected output can help you in your assessments. A colostomy is created in the large bowel. Most frequent findings are in the transverse or descending colon (Stricker et al., 2022). Transverse colostomies are located in the upper quadrants or midabdomen; stool is expected to be liquid to pasty and malodorous (Stricker et al., 2022). Descending colostomies are typically located in the left lower quadrant; stool is expected to be pasty to formed. Ileostomies are the most common ostomy created in the small bowel (Stricker et al., 2022). These ostomies are usually located in right lower quadrant and have a liquid to mushy stool consistency with a larger volume of output than colostomies (Stricker et al., 2022). The most common urostomy is the ileal conduit, which is located in the right lower quadrant (Stricker et al., 2022). It is expected to have a continual flow of urine from this type of stoma (Stricker et al., 2022). Knowing the most common stomas will help you identify what type of stoma your patient has, and understand expected and unexpected findings.

The assessment of the stoma is an important step both during the postoperative window as well as at regular intervals such as with pouch changes. Abdominal stomas, no matter their location or function, will share some characteristics. Stomas should be red to pink and moist (Colwell & Hudson, 2022). Stoma shape varies by person and type of stoma it may be round, oval, or irregular (Colwell & Hudson, 2022). During the immediate post-operative period the new stoma will also be edematous, over time the stoma will heal and have creases and folds (Colwell & Hudson, 2022). Next you will want to note the protrusion of the stoma. Is it above skin level, even with skin level, or is it below skin level? Ideally, the stoma should be above the skin by 2cm for ideal pouching (Colwell & Hudson, 2022). The os or opening of the stoma can also be called the stoma lumen. It may point up, down, left, or right; it can also be located even with the skin

or above the skin (Colwell & Hudson, 2022). The most ideal spot for the os is the apex of the stoma (Colwell & Hudson, 2022). The mucocutaneous junction is the area that the stoma and the skin meet. It should be assessed for sutures, as well as any space or gaps as these can be signs of delayed or poor healing (Colwell & Hudson, 2022). A bridge for loop ostomies or stents for urostomies maybe present in the immediate post-operative period (Colwell & Hudson, 2022). Finally, the peristomal skin should be assessed. This skin should be intact and free from rashes, irritations, or injury (Colwell & Hudson, 2022).

No matter what type of stoma you are taking care of, emptying and changing the pouching system are essential skills for bedside nursing. Emptying the pouch should happen when the pouch is 1/3 to 1/2 full; for the ileostomy and urostomy patients this can be several times daily, while for some colostomy patients this may be only once or twice daily (Carmel & Goldberg, 2022). The established ostomy patient may be able to take care of this skill independently, for the new or critically ill ostomy patient this will be a nursing task. For the independent patient they will sit on the back of the toilet or stand over the toilet, hold up the tail of the pouch, open the pouch (open clamp, Velcro, or spout), tilt tail and allow to drain ("push" stool out if necessary), clean the end of the spout with toilet paper (rinsing pouch is not necessary), and secure the closure (Carmel & Goldberg, 2022). For nursing staff providing the care, contents can be emptied into a graduated cylinder and then drained in the toilet. In either case, placing some toilet paper in the toilet prior to emptying can reduce splashing (Carmel & Goldberg, 2022). Pouch changes are recommended twice a week and with evidence of leakage or skin irritation (Carmel & Goldberg, 2022). Again, established ostomies may complete this task themselves; new and critically ill patients will need nursing to complete this task. First you gather necessary equipment including: pouching system, pouching accessories (not always indicated), scissors, cleaning supplies, and measuring tool. The old pouch should be removed in a push-pull method; the skin is pushed in while the pouch is peeled back gently (Carmel & Goldberg, 2022). The stoma and peristomal skin should be assessed without the pouch on as discussed in detail in the previous slide. Next the post-operative stoma should be measured using either a template from a previous pouch change or pre-cut measuring guide; the post-operative stoma is expected to shrink for the first 4-6 weeks, after this time the stoma shape stabilizes and measuring may not be necessary (Carmel & Goldberg, 2022). The measurement is then used to size the pouch. The next step is peristomal skin cleansing, although there are many products available for purchase warm water and a paper towel is acceptable; soaps are not recommended (Carmel & Goldberg, 2022). Note the peristomal skin is being cleansed, the stoma itself does not require cleansing. Finally, the skin can be patted dry and the new cut pouch placed. Whether the patient is standing, sitting, or lying the goal is to place the pouch on a smooth surface (Carmel & Goldberg, 2022). The spout should face in the 6 o'clock position if the patient is independent in emptying, or may be placed on an angle if the bedside nurse will be providing care.

Most people with ostomies are able to live full and active lives. Mastering self-care is an integral part of adjusting to having an ostomy (Carmel & Scardillo, 2022). Clothing choice is a consideration that all ostomates will have to adapt to. In terms of clothing often selecting stylish clothing can help cultivate an improved body image (Colwell & Hudson, 2022). There are also many products on the market such as belts and under garments to help conceal pouches. Routine emptying of the pouch and avoiding allowing the pouch to overfill will also help conceal the pouch under clothing (Colwell & Hudson, 2022). Ostomates also have concerns about bathing and showering. The ostomy patient can rest assured that water is not harmful to the stoma and the stoma cannot “suck in” water (Colwell & Hudson, 2022). Therefore, the ostomate can shower or bath with or without a pouch; though patients may want to consider output type and volume before making this decision. If the pouch is left in place during bathing or showering the skin barrier can be dried with a towel or a hair dryer on low heat (Colwell & Hudson, 2022). Recreational activities such as swimming and exercising can be resumed once cleared by a doctor. Considerations for swimming include emptying the pouch prior to entering the water, using waterproof tape if desired, or a specialty belt for swimming. While all exercise needs to be cleared by a doctor post-operatively, there is evidence that a gradual abdominal exercise program can reduce the risk of peristomal hernias (Colwell & Hudson, 2022). Returning to regular activities can help the ostomate gain a sense of confidence and is an important part of post-operative adaptation.

Patients with an ostomy should eat a balanced diet with sufficient calories, macronutrients, and micronutrients for overall health. Though the new ostomy patient may have a restricted diet initially, the patient will be transitioned to a low fiber/ low residue diet, and a regular diet will be resumed for most patients prior to discharge (Carmel & Goldberg, 2022). Patients with an ileostomy and a colostomy may both be concerned with gas. The nurse should advise them that there are foods and behaviors that can contribute to gas production. Foods that can contribute to gas include: eggs, cabbage, broccoli, onions, fish, beans, dairy products, and alcohol (Carmel & Goldberg, 2022). Behaviors that can increase gas include skipping meals, chewing gum, drinking through straws, and smoking (Carmel & Goldberg, 2022). Specific concerns may differ for an ileostomy and colostomy. Ileostomies may be prone to food blockage that can be caused by insoluble fiber that cannot pass. These patients should be advised to avoid or eat in small quantities foods such as: celery, Chinese vegetables, nuts, popcorn, raisins, and corn (Carmel & Goldberg, 2022). The colostomy patient should be aware that certain foods and medications can cause an increase in odor. Foods such as: dairy, cabbage, broccoli, eggs, garlic, and coffee can increase odor and may be eliminated on a person-to-person basis if found to have a profound effect on odor (Carmel & Goldberg, 2022). Colostomies should also be aware that constipation and diarrhea can occur. Constipation can be avoided with a diet that includes

whole grains, vegetables, fruits, and fluids (Carmel & Goldberg, 2022). For diarrhea, the patient can be educated on use of BRAT diet foods such as: bananas, rice, applesauce, and toast (Carmel & Goldberg, 2022).

The ileostomy patient is at risk for dehydration as they have lost the absorptive function of the colon (Carmel & Scardillo, 2022). The nurse needs to be aware of this risk to assess for the risk, and to educate the patient of future risk. The colon is responsible for water and electrolyte absorption; without the colon the ileostomy is at risk for dehydration and electrolyte deficiencies. Signs and symptoms to monitor for include: thirst, lethargy, muscle cramps, dry mouth, dark or decreased urine, and abdominal cramps (Carmel & Scardillo, 2022). Prevention strategies include maintaining electrolyte balances by adding sodium rich foods such as broths, canned vegetables, and tomato juice (Carmel & Scardillo, 2022). Potassium intake can be increased by including foods such as bananas, potatoes, peppers, beef, chicken, and spinach (Carmel & Scardillo, 2022). Management of dehydration may include fluid restrictions (500mL/day), intravenous fluids, intake and output tracking (both urinary and fecal), and medications once *Clostridium difficile* has been ruled out (loperamide, omeprazole, codeine, and tincture of opium) (Carmel & Scardillo, 2022). Hypertonic fluids and increasing fluids are not recommended as both will increase ileostomy output (Carmel & Scardillo, 2022). Food such as the BRAT diet foods mentioned on the previous slide may also be used to thicken output. This patient will need close monitoring and education on prevention for the future.

Peristomal skin complications are a common barrier for the ostomy patient. Some common ones the bedside nurse should be able to identify are peristomal moisture associated skin damage (PMASD) and pseudo verrucous lesions. PMASD is a wide category of conditions. One specific condition that the nurse may come across is irritant dermatitis. Upon assessment the nurse will notice inflammation and erosion of skin next to the stoma and extending outward; the patient may complain of burning or itching and peeling (Salvadalena & Hanchett, 2022). This can be caused by contact with output as is the case with contact irritant dermatitis, or from contact with ingredients from skin care products as is the case with allergic contact dermatitis (Salvadalena & Hanchett, 2022). Treatment includes identifying and correcting the cause: resizing the barrier, changing products, skin barrier powder to absorb excess moisture with a liquid barrier film to seal powder ("crusting"), hydrocolloid dressings if indicated, and education to patient and support system on prevention and care (Salvadalena & Hanchett, 2022). More frequent pouch changes may be needed until skin is healed (Salvadalena & Hanchett, 2022). Pseudo verrucous lesions develop due to chronic contact with an irritant, for this reason they are commonly seen in urostomy patients (Salvadalena & Hanchett, 2022). This patient will have a raised, thick, irregular area that maybe different in color next to the stoma; patients may complain of itching or bleeding (Salvadalena & Hanchett, 2022). Management consists of protecting skin from causative agent; ensure correct fit of ostomy pouch, ensure frequent

changes to reduce contact with effluent, ensure the urostomy pouch has an anti-reflux feature, and ensure the patient is emptying the pouch frequently enough (Salvadalena & Hanchett, 2022). These measures should resolve the lesion, in some cases silver nitrate to reduce elevated lesion that interfere with pouching maybe necessary (Salvadalena & Hanchett, 2022).

Although the bedside nurse can provide a great amount of care for the patient with an ostomy there are a few times that the expertise of a WOC nurse might be advantageous. As the nurse you should make sure you know when to refer the patient to a WOC nurse. Pre-operative patients should all be referred to a WOC nurse for education and stoma siting. Stoma siting has been found to improve patient quality of life, independence, and lower post-operative complications (Goldberg & Mahoney, 2022). The WOC nurse should be consulted for postoperative teaching. The WOC nurse can help the patient with educational needs for the immediate needs and help plan for future needs by referring to outpatient ostomy clinics (Carmel & Goldberg, 2022). If the bedside nurse notices an abnormal assessment in the stoma or peristomal changes, the best course of action is to change the pouch if indicated by leakage, and refer to a WOC nurse. Ostomy complication can impact the patients negatively and have been shown to impose physical and psychosocial limitations (Pittman, 2022). The WOC nurse can promote evidence-based life long education and support for a healthy lifestyle of the ostomate.

As the bedside nurse, you are poised to make a difference for both the new ostomy patient and the established ostomate while admitted to the hospital. Having an understanding of the most common types of ostomies that you will encounter will help you feel confident in your assessment of the stoma, peristomal skin, and the output. Having confidence in your pouch emptying and pouch changing technique will help the new ostomy patient learn and become secure in adapting to their new lifestyle. Identifying complications in the stoma and the peristomal skin will make you a strong partner for the WOC nurse. Your assessment and prompt referral will be invaluable to the WOC nurse and the patient. There are many reliable resources that the both the bedside nurse can use as well as the patient. The United Ostomy Association puts together a brochure for new ostomy patients that can be a helpful resource (United Ostomy Association, Inc, 2024). The United Ostomy Association also has a website full of resources for education.

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