Complex Wounds in the Emergency Department:

Multidisciplinary management strategies for wound care in the emergency setting

PRESENTERS:

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Attendees at this session learned about the challenges of managing complex wounds in the emergency department (ED). In addition, the various roles played and aspects of care provided by ED team members were discussed.

Christine Murphy began by defining the role of the enterostomal therapist (ET) in the ED, and noted that the involvement of ETs in ED care supports faster healing, with lowered costs.[1]

Moreover, ET support is associated with shorter stays in acute care facilities and lower readmission rates. In many facilities, Murphy said, "ETs are the 'go-to' person for best practice recommendations for wound care." Common ET consults in the ED are shown in Table 1.

Wound care in the ED is a priority. A recent National Health Statistics report stated that 1 in 10 patients reporting to the ED require some form of wound care, and 1 in 20 patients present to the ED with a wound-related issue as the primary reason.[2] Furthermore, ED staff may be unfamiliar with best practice recommendations.

ETs can offer the ED team the following knowledge and support:

- photography and care plan on e-chart (with measurements and Photographic Wound Assessment Tool [PWAT] score);
- nursing and resident education (including plastics, dermatology, vascular, infectious diseases);
- evidence related to practice;
- basic wound supplies;
- inter-facility care plans and options; and
- expedited discharge of patients.

Barriers to evidence-based wound care in the ED

Lorne Wiesenfeld began by noting that ED clinicians strive to provide evidence-based care for patients who present with acute wounds, and have the opportunity to positively impact wound care. However, this is sometimes offset by lack of knowledge, insufficient resources and competing demands in the ED. Table 2 lists common complex wounds seen in the ED.

A major challenge regarding wound care in the ED, said Wiesenfeld, is that the current medical school curricula are deficient in wound care. In one 3rd-year medical school there are 1,232 core objectives, only 15 of which pertain to wound care. Furthermore, there are few continuing medical education sessions pertaining to wounds at ED physician conferences.

The main challenges regarding evidence-based practice in the ED are competing demands (i.e. "sicker" patients, time allotment), human resources (i.e. availability of staff) and product knowledge and availability. Barriers to follow-up include "orphan" patients without family physicians or health coverage, unavailability of specialty follow-up and community care overload.

TABLE 1

Common enterostomal therapist consults in the emergency department

Dehisced surgical wounds for non-surgical closure
Infected wounds (local antimicrobial assessment)
Venous leg ulcers (dressings, compression)
Diabetic foot ulcers (dressings, vascular supply, infection, pressure redistribution)
Pressure ulcers (dressings and surface assessment)

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Donna McRitchie is the medical director of critical care and division chief of general surgery at North York General Hospital in Toronto, Ontario.

Complex abdominal wounds

Donna McRitchie outlined the general principles of complex abdominal wound management in the ED: 1) make the diagnosis; 2) determine the appropriate intervention; and 3) optimize healing.

Appropriate interventions – depending on the abdominal wound – include: drainage, debridement and irrigation, surgery, pressure relief, positioning and diversion of the gastrointestinal tract. Systemic issues include tetanus, dealing with comorbidities, vascularity, oxygenation, temperature and shock states. Whatever the wound, said McRitchie, the basic management principles are as follows:

- Provide nutritional support.
- Prevent infection.
- Consider prophylactic antibiotics.
- Consider functional aspects (e.g. joints).
- Prevent regression (e.g. desiccation, trauma, infection, stabilization).
- Promote cosmesis and closure.
- Provide exudate/transudate management.

In conclusion, McRitchie said, complex abdominal wounds are almost always the result of trauma or infection. Early identification of the goals of treatment will help to determine the overall therapeutic strategy. A multidisciplinary team approach is critical to success; key players include the nutrition, wound care, allied health, surgical and community nursing teams.

TABLE 2

Common complex wounds seen in the emergency department

Acute lacerations
Subcutaneous abscesses (pilonidal, perianal)
Burns (chemical, thermal)
Infected lacerations
Infected pressure ulcers
Postoperative wounds
Chronic leg ulcers
Arterial ulcers
Diabetic foot ulcers

References

1. Harris C, Shannon R. An innovative enterostomal therapy nurse model of community wound care delivery. *J Wound Ostomy Continence Nurs*. 2008;35:169-183.
2. Pitts SR, Niska RW, Xu J, et al. National hospital ambulatory medical care survey: 2006 emergency department summary. *National Health Statistics Reports*. 2008;7:1-40.