

MDS Alert

Best Practices: Follow The ABCs Of Identifying, Treating Pressure Ulcer Infections Effectively

Assessment tips will improve your clinical, survey outcomes.

Detecting and stopping a pressure ulcer infection in time can save residents' lives and your survey record.

The first step: Recognize the insidious signs that the pressure ulcer is in trouble due to bacterial load or critical colonization so you can get the physician and wound-care team on the case.

Look for: A "sudden deterioration in the quality or quantity of granulation tissue and persistent high-volume wound drainage," suggests **Dorothy Doughty, RN, MN, COWN, FAAN**, director of the **Wound Ostomy Continence Nursing Education Center** at **Emory University** in Atlanta. Normally the volume of exudate decreases as a wound heals, Doughty notes. And "persistent high volume or increase in drainage usually is bacterial."

Assess for pain: "The patient will also complain of increasing pain in most cases," adds Doughty.

What you won't see: The surrounding skin won't be red (erythematous), because the infection is on the surface of the wound, says Doughty.

Tips: Use the PUSH tool (see p. 99) to determine if a pressure ulcer's healing has stalled, indicating potential infection as a cause.

Treatment: "The mainstay in preventing and addressing infection is to remove the necrotic tissue" from the wound, says **Sue Gardner, RN, PhD, CWCN**, a nursing professor at the **University of Iowa**.

"Then you can use topical preparations, such as silver, to treat bacterial overload or surface infection in the wound bed," she adds.-

Doughty notes that there are a number of silver dressings on the market. And the best guideline is to use what's available and pick one based on whether you need absorption or hydration, she notes.

"If the wound is wet, you need a dressing that will manage the exudate." A dry wound needs a dressing with silver that donates moisture to the wound bed, she adds.

2 More Types of Wound Infection

Look for these additional types of wound infection:

- Infection involving the tissue surrounding the ulcer or cellulitis. One can diagnose that infection clinically by using the standard clinical signs of infection, advises Doughty. Look for erythema extending more than 2 cm from the wound edge, induration, heat and pain, she says.

Treatment: The wound infection will require systemic treatment with antibiotics. "You can't treat it topically," Doughty says.

Whether the prescriber selects oral or IV antibiotics depends on the ulcer's location and the "patient's level of perfusion," she adds. If the ulcer is on the trunk or sacrum, the prescriber may often give oral antibiotics because those areas have good blood flow, Doughty notes.

But if the pressure ulcer is on the lower extremity, the resident may require IV antibiotics to achieve a higher blood level, she adds.

- Infection spreading beyond the tissue surrounding the ulcer, including to the bone (osteomyelitis).

One of the two major indicators of infection involving the bone is the ability to probe to the bone, says Doughty. "If you can take a cotton tip applicator and touch bone or if you see or feel bone, osteomyelitis is very likely, and the patient needs an orthopedic consult."

The second indicator of infection involving the bone is a large wound that closes down to a nonhealing tunnel, says Doughty.

"The patient with such a wound also needs an orthopedic consult."

Treatment: Osteomyelitis is treated with systemic antibiotics, says Doughty. "Sometimes the orthopedist will do a surgical resection of the involved bone as well as putting the person on long-term antibiotics."

Identifying the Causative Organism, Right Antibiotic

A punch biopsy is the ideal approach to figuring out the causative organism, says **James Marx, RN, CIC**, an infection control expert and principal of **BroadStreet Solutions** in San Diego.

Yet it's hard to do punch biopsies in long-term care because they require a physician to do them and a lab to process the biopsy, notes Doughty.

A reasonable alternative: Clinicians can diagnose wound infection based on the wound's clinical presentation and then do a good swab culture to identify the causative microorganism and its susceptibility to antibiotics, says Doughty.

Use the right technique: To obtain a swab culture, first flush the ulcer with saline to remove purulent drainage, advises Doughty. Then select "a square centimeter of viable tissue and swab forcibly to produce exudate," she says.

"The rule of thumb is you don't culture pus, slough or eschar," Doughty adds.

Watch Out for MRSA

You need to worry about methicillin resistant Staph aureus (MRSA) because it's a very common pathogen, says Doughty.

"If you see invasive infection -- osteomyelitis or cellulitis -- and the wound bed has viable tissue, do a culture" to identify whether MRSA is present or not ---- and determine the organism's sensitivity to various antibiotics, advises Doughty.

"Most topical agents are effective against MRSA -- for example, silver," says Doughty.

So if you are treating a surface infection with silver, a culture is not usually required because silver has "extremely broad spectrum" antibacterial effects, she says.

MDS coding tip: Code MRSA in I2a (antibiotic resistant infection) if you have supporting documentation in the clinical record (including transmittal records of new admissions and recent transfers from other institutions), instructs the RAI user's manual.

Does your resident have these conditions on the MDS or in the clinical record? Identify residents with conditions or treatments that place them at risk for developing wound infection.

The list includes anemias, steroid use, NSAIDs, chemotherapy, low albumin and corresponding low pre-albumin levels, says **Kathleen Thimsen, RN, ET, MSN**, president of **RARE Consulting Group Inc.** in Belleville, IL.

