Surveillance of Surgical Site Infections

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In the Literature

Garcia Stickney DN, Thieman Mankin KM. The impact of post-discharge surveillance on surgical site infection diagnosis. *Vet Surg*. 2018;47(1):66-73.

FROM THE PAGE ...

Surgical site infections (SSIs) are infections present at a surgical site within 30 days of surgery or within a year of surgery if the patient has implants. SSIs can result in increased owner costs and patient morbidity and, although rare, may even result in patient death. The incidence of SSIs may be underestimated by surgeons due to lack of appropriate surveillance and documentation. In human medicine, active surveillance occurs routinely, improving patient outcomes.

This study sought to document the incidence of SSIs that occurred postoperatively at a veterinary teaching hospital via prospective and retrospective means. SSIs from soft tissue, orthopedic, and neurologic surgeries were documented through repeat presentation to the surgeon, pet owner questionnaires, review of medical records, and/or communication with primary veterinarians. The study found that, if the medical record had been the sole source of surveillance, 27.8% (10/36) of infections would have gone unidentified. Active postdischarge surveillance increased known incidence of infection that would have otherwise been missed. Culture testing was not performed in approximately two-thirds of suspected SSIs to confirm infection versus inflammation.

The most effective means of surgical follow-up is direct observation through recheck examination, including culture and susceptibility testing if SSI is suspected. This direct observation occurs frequently with the patient's primary veterinarian. If an infection is noted by the primary veterinarian, this information should be reported to the surgeon to improve awareness of SSI incidence. With this proactive team approach, infections may be minimized and patient health improved.

... TO YOUR PATIENTS

Key pearls to put into practice:

1. Communication between primary veterinarians and referral centers is critical for optimal patient care.
2. Culture and susceptibility testing of surgical sites suggestive of infection before administration of antibiotics is warranted to document and treat SSIs. If cost is a limiting factor, compromised patients and patients with implants must be prioritized.
3. Culture testing allows for identification of the offending bacteria and helps define its prevalence. Through identification of the offending bacteria, SSIs can be accurately classified and managed as nosocomial infections versus infections caused by incisional disruption from patients or lack of owner compliance.