New York State Partnership for Patients

Infection Prevention Initiatives: SSI

Frequently Asked Questions on ERAS

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General Enhanced Recovery After Surgery (ERAS) Questions

Q: How do you modify ERAS and the colon bundle for emergent cases?

A: For emergent cases, you have to omit some of the pre-operative (pre-op) preparation that you would normally do with the patient, but we try to do as much of the bundle as possible, for example, the pain control portion of the ERAS bundle and the early post-operative ambulation.

Q: How did you track compliance with all the bundle elements?

A: During our bundle and ERAS protocol implementation period, we moved to an electronic medical record (EMR), which we have now built the bundle elements into. This made it easier to track compliance. Some areas were more difficult to track, specifically use of the chlorhexidine gluconate (CHG) shower the night before and early ambulation. Since inception, we have done EMR builds to capture these components. Also, we changed our CHG showers to pre-op CHG wipes to avoid the problem of not getting the CHG scrubs, forgetting to do them, etc.

Q: During the webinar, you mentioned that only colorectal surgeons perform colon surgeries now at Duke. How did you make the switch to having only colorectal surgeons perform colon surgeries? Did the general surgeons protest and how did you address this?

A: Essentially, any general surgeon could do colorectal surgery, but we benchmarked our results to those doing colon surgery only. Our results were far superior compared to the non-colorectal surgeons who did not want to join our bundles/ERAS, therefore they moved on to other things.

Additionally, we now present all of our new colorectal cancer and inflammatory bowel disease patients in a multidisciplinary team meeting that includes medical oncology, radiation oncology, pathology, radiology, gastroenterology, etc. to better organize and standardize care, etc. We do this intentionally to standardize our care to these patients.

Q: Is there good evidence for use of wound protectors? Was it hard to get buy in from surgeons and leadership on the need to use wound protectors?

A: We actually ended up doing a research project/clinical trial on wound protectors and colon surgery since there is no great level 1 data out there, but the results of the trial are not available yet. There is good data from cardiac surgery, vascular, trauma, burns, etc.

Buy in was not too difficult; the other surgeons thought that wound protectors made sense.

Q: Can you direct us to evidence on use of negative pressure wound therapy, i.e., “wound vacs” and their efficacy for colon surgery wounds?

A: Scalise A, Calamita R, Tartaglione C, et al. Improving wound healing and preventing surgical site complications of closed surgical incisions: a possible role of Incisional Negative Pressure Wound Therapy. A systematic review of the literature. *Int Wound J.* 2016 Dec;13(6):1260-1281.

Kugler NW, Carver TW, Paul JS. Negative Pressure Therapy is effective in abdominal incision closure. *J Surg Res.* 2016 Jun 15;203(2):491-4.

Anesthesia and ERAS

Q: How did the anesthesia service accommodate the increase in epidural use? Did you need to increase the number of providers? How did this change/impact workload for anesthesia?

A: From what I heard from anesthesiologists, their residents and CRNAs really liked this rotation because of the novelty and opportunity to hone their neuroaxial blocks. Thus, they had more help for the epidurals, a-lines, etc. We already had an acute pain team that transitioned to managing the epidural post-operatively.

Q: Do you remove the indwelling urinary catheter while the epidural is still in, or do you wait for the epidural to come out prior to catheter removal?

A: The urinary catheter can come out with the epidural still in.

Q: Patients are required to ingest carbonated beverages in the two hours prior to surgery—is this compliant with the fasting intervals required for anesthesia?

A: We used ClearFast, a non-carbonated drink. Our protocol was developed by an anesthesiologist, and there is no problem drinking clear fluids two hours prior to surgery.

Pharmacy and ERAS

Q: Your data indicates that there was a 37% reduction in pharmacy costs. What were the primary drivers for pharmacy cost reduction?

A: Patient controlled anesthesia (PCA) costs have nearly vanished with the use of epidurals, and there has been a reduced use of intravenous fluids. This, in addition to the reduction in the use of antibiotics for wound infections, were likely the main drivers of the cost decrease (use went from 19% to 5% of surgical cases).