

be individualized to the patient, their disease process, and their expected surgical procedure.

In advance of surgery, patients should be made aware of their overall activity restrictions for the early postoperative period (eg, limitations on weightlifting and vigorous activity). Plans for returning to normal activity, exercise, work, or school should be clarified and discussed so patients and their families can plan ahead with their employers, teachers, and collaborators. Although these recommendations may differ among surgeons, it is important that patients have a clear understanding of the expectations for their own course of recovery, as these restrictions can have important implications on their daily lives and have a potential socioeconomic impact as well.

Patients should be made aware that they may be prescribed perioperative medicine, depending on their specific disease state.²⁰⁸ The patient's regimen might include oral corticosteroids, topical nasal steroid spray, steroid-eluting stents, oral antibiotics, high-volume saline irrigations, or other medical management as indicated. Nasal irrigations are useful in the postoperative period, as well as long-term management of CRS. Varying postoperative protocols exist regarding when to start, the volume of irrigation, frequency, application (squeeze bottle, atomization spray, or powered delivery device),²⁶⁸ and concentration (isotonic vs hypertonic)²⁶⁹ of nasal saline. Irrigation improves mucociliary clearance and resolution of postoperative crusting, which may help with in-office debridement. Plans and timing for resuming any medications that were held perioperatively should be clarified. Not all patients will require all these facets of medical management; however, appropriate expectations for perioperative medical management benefit individual patients in advance of surgical intervention.

Pain management should also be planned.²⁶⁸ Postoperative pain management varies by surgeon with both opioid and nonopioid options.²⁷⁰ Pain has been shown to peak over the first 3 days following ESS, and the median number of combination acetaminophen and opioid pills taken in patients undergoing ESS, septoplasty, or a combination, was three tablets.²⁷¹ Pain following endoscopic surgery can vary based on patient factors, including a history of antidepressant use, in which patients have been shown to require more opioids for adequate pain control.²⁷² Opioid use is low even when prescribed,^{273,274} suggesting nonnarcotic options such as acetaminophen can often be effective choices for pain management. Clinicians should keep in mind that the experience of pain is unique to each individual; pain management strategies should be discussed in advance with each patient to ensure that an appropriate plan is in place based on each patient's characteristics. Use of nonsteroidal anti-inflammatory drugs (NSAIDs) is not currently shown to increase bleeding risk after ESS but can decrease pain and opioid usage.²⁷⁵ Pain management plans can therefore be individualized through a combination of surgeon expertise and patient factors to include

acetaminophen, ibuprofen, and/or a limited number of narcotic tablets, based on discussed risks (e.g., bleeding).

Based on the type of surgery performed and the postoperative endoscopic exam, postoperative debridement may be performed. Postoperative debridement, in which retained blood and dense crusting are removed from the nasal cavity and sinuses after surgery, is important to the healing process following ESS.²⁰⁸ This in-office procedure, typically done with topical anesthesia only, can be uncomfortable. The importance and frequency of these visits should be discussed with patients in advance when needed to optimize outcomes.

A clear plan for long-term surveillance should also be reviewed with patients. The surgeon or their designee should educate the patient on the chronicity of the disease process and inform them that ESS is often part of a comprehensive management strategy, such that long-term postoperative follow-up is beneficial for this chronic disease state. This approach allows for early identification if the disease worsens, with timely, appropriate medical or surgical intervention to maintain disease control. Assisting patients in scheduling short- and long-term follow-ups in advance of surgery helps prevent loss to follow-up. Long-term planning can also benefit from educating patients about potential acute episodes and how they may be experienced after the sinus drainage pathways have been opened. For example, it can be helpful to counsel about the potential for future viral illnesses, which may resolve without antibiotic therapy, as distinct from symptoms that might suggest recurrence of CRS or acute bacterial exacerbations thereof. Concepts related to acute rhinosinusitis may be further considered according to the related multidisciplinary CPG on this topic.¹²

A checklist is a helpful tool for a clinician to have on hand when educating patients to ensure that pertinent care and expectations have been comprehensively discussed with the patient. Materials used can also be incorporated into the medical record. It is also beneficial to document the patient visit record and/or the informed consent form that education and the opportunity to ask questions and discuss answers were provided. In addition, multimedia teaching tools may be used, as noted above.

As the understanding of the pathophysiology of CRS has advanced, the idea of sinus surgery has evolved from a single isolated event, independent of follow-up and ongoing medical management, to a component of a comprehensive treatment plan. Patients need to understand the chronicity of their disease and how all of the facets of short-term and long-term management will aid in optimizing their disease control. Educating patients and involving them in their care plan early is a critical part of patient care.

Statement 10: Extent of Sinus Surgery

When the sinus involves polyps, osteitis, bony erosion, or fungal disease in an adult with CRS who is scheduled for