



MUSIC Pain-control Optimization Pathway – Vasectomy

The procedure: *Vasectomy* is an important procedure for a pain control optimization pathway given its high volume and the opportunity to drastically reduce post-operative opioid use to **zero (0)** tablets.

Vasectomy is one of the most common urologic surgeries with over 500,000 performed annually in the United States. Vasectomies are most often provided to men in their 20s to 40s, an age range at high risk for opioid abuse. There is also wide variation in the use of opioid medications after vasectomy with national data suggesting that some patients are able to avoid filling a post-operative opioid prescription. However, among the sizeable population of patients who fill a prescription, prescription size can range from 6 to 78 5-mg hydrocodone tablets. (Auffenberg et al., *J Urol*, 197(4S). 2017.)

Our goal is for patients on this pathway to take 0 (zero) opioids after the procedure while maintaining patient safety and satisfaction. This is not a research trial. This is a quality improvement pilot to assess the clinical and administrative feasibility of this care pathway.

The patients: All patients seen by urologists, physician assistants, or nurse practitioners for vasectomy counseling will be offered participation in this quality improvement program. The clinician and patient will discuss the pros and cons of participation.

The care processes:

- **Patient selection:** Urologists will offer this post-surgical pathway to patients presenting for vasectomy counseling sessions. Risk and benefits of participation will be discussed. Patients with multiple comorbidities or who are already on opioids for chronic pain should not be included.
- **Preoperative optimization:** The care process will begin at the preoperative office-based vasectomy counseling appointment. The physician assistant, nurse practitioner, and/or attending surgeon will discuss the advantages and disadvantages of this care pathway with the patient to inform their decision-making.
 - Patients will receive education on the care pathway.
 - Patients will receive education regarding alternatives to opioids for postoperative pain management.
 - Patients will receive education regarding pain expectations following surgery.
 - Patients will be allowed to take NSAIDs and/or acetaminophen before surgery.
- **Operative management:** The perioperative pain management plan will be discussed again with the patient, the attending surgeon, and attending anesthesiologist if present. Some key components of care:

- Patients will receive standard analgesia during the operation (i.e., no changes will be made to intraoperative analgesic practice). This is considered critical for safe and optimal anesthetic management for surgery.
- Care in the PACU or clinic after the procedure will include oral NSAIDs and/or acetaminophen if they are available and if there are no contraindications or risks to the patient.
- Care in the PACU or clinic after the procedure will also include ice packs for the scrotum.
- **Discharge care**
 - Patients will receive clear and detailed instructions regarding the normal postoperative course, postoperative expectations, and the risks and benefits of all medications dispensed.
 - Patients will receive communication about what to do if there are deviations from the expected postoperative course.
 - Patients will receive instructions for scheduled acetaminophen and ibuprofen to be taken around-the-clock at specific times for the first 48 hours after surgery.
 - Patients will be educated regarding the efficacy of ice packs, scrotal support, and other adjuncts for optimal pain care.
 - **Patients will NOT be given a script for any opioid medications.**
 - Patients will be asked additional patient reported outcomes when receiving results of their post-surgical semen analysis.
- **Assessment plan:**
 - There will be a continuous assessment of the patient experience in the quality of care. If the protocol is deemed to be deleterious to patient care, it will be revised.