ANESTHESIA-ANALGESIA

for Office Based Procedures

This paper is based on the conversation between
David Robinson, MD, Malcolm Munro, MD,
Amy Garcia, MD, and **Scott Washburn, MD.**

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Approaches to Pain Management
DURING IN-OFFICE HYSTEROSCOPY PROCEDURES

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As an increasing number of OB/GYN practices are beginning to move hysteroscopy procedures into the office, questions about pain management often arise. The last thing providers want is for such procedures to be painful and/or traumatic for their patients. So, **having proven pain control protocols in place is essential.** In this paper, we'll explore protocols that have been developed by experts and that have been shown to be effective.

UNDERSTANDING SOURCES AND TOLERANCE OF PAIN

One of the most important things to remember when addressing pain management during hysteroscopy procedures is that **there is no one source of uterine innervation.** Instead, there are multiple sources and controlling pain effectively requires a tailored approach. Simply using local anesthesia may not be sufficient for every case.

In addition to uterine neuroanatomy, other determinants of how well a patient will tolerate pain include the following:

- The setting in which the hysteroscopy procedure will be performed
- A patient's previous experience with office-based procedures
- The perceived competence and compassion of the staff
- A patient's confidence level and personality
- The surgical experience and confidence of the provider

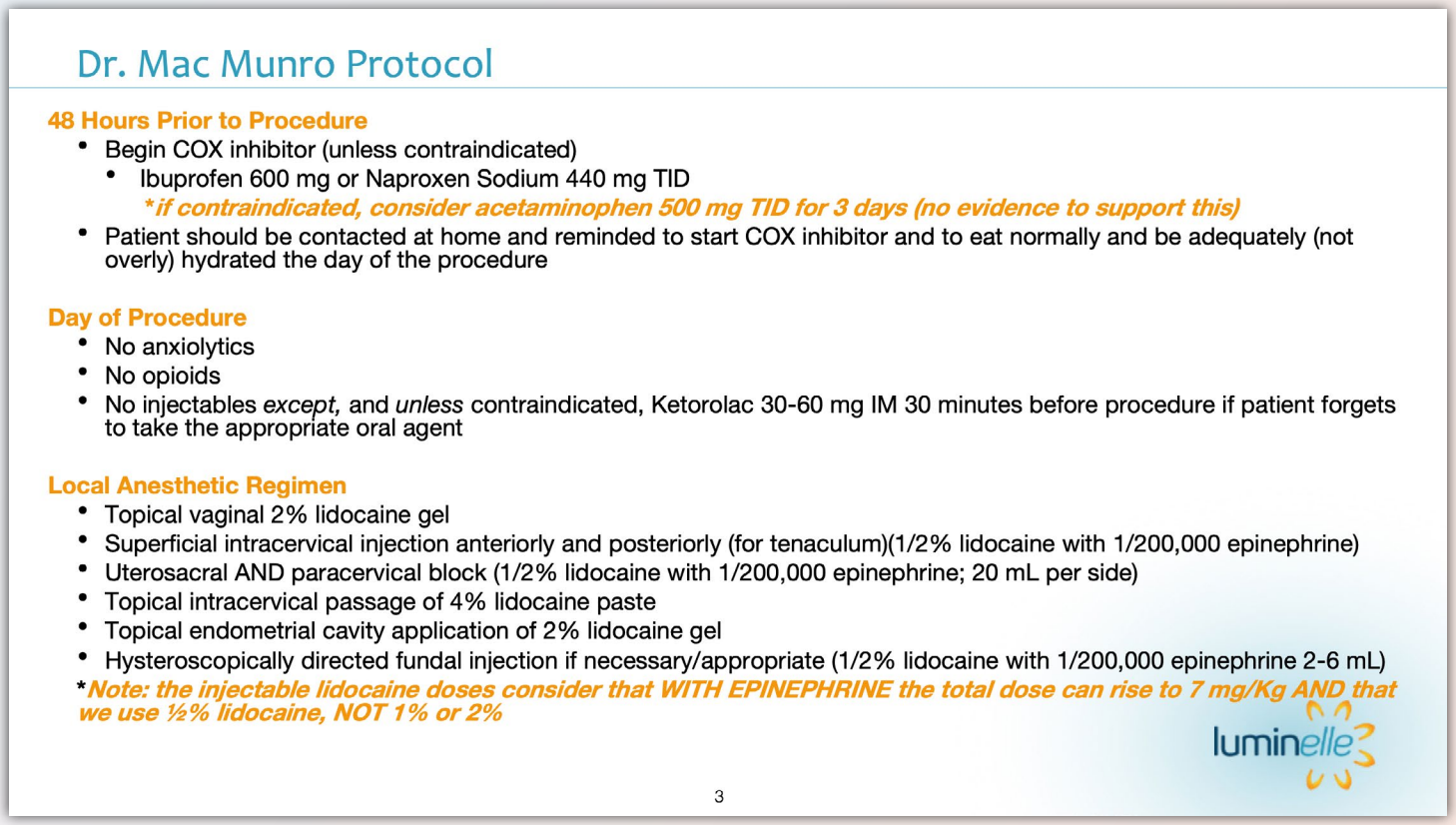
Other than a patient's confidence level and personality, the remaining factors that influence how well pain will be tolerated are controlled by providers and their staff. All of them should be considered and optimized before establishing an in-office hysteroscopy program.

USING LOCAL ANESTHESIA TO CONTROL PAIN

When using local anesthesia for pain management, patience is key. Giving the anesthetic time to work will help ensure a much more comfortable experience for the patient.

Dr. Malcolm Munro, a gynecologist and Clinical Professor in the Department of Obstetrics & Gynecology at UCLA, has published a systematic review detailing his use of local anesthesia for in-office hysteroscopy procedures. Anesthetic agents discussed include topical anesthetic for the vagina, local anesthetic in the cervix, paracervical anesthetic, topical intracervical agents, topical intracavitary agents and fundal block.

Below is an outline of Dr. Munro's pain management protocol:



Dr. Mac Munro Protocol

48 Hours Prior to Procedure

- Begin COX inhibitor (unless contraindicated)
  - Ibuprofen 600 mg or Naproxen Sodium 440 mg TID
    **if contraindicated, consider acetaminophen 500 mg TID for 3 days (no evidence to support this)*
- Patient should be contacted at home and reminded to start COX inhibitor and to eat normally and be adequately (not overly) hydrated the day of the procedure

Day of Procedure

- No anxiolytics
- No opioids
- No injectables *except,* and *unless* contraindicated, Ketorolac 30-60 mg IM 30 minutes before procedure if patient forgets to take the appropriate oral agent

Local Anesthetic Regimen

- Topical vaginal 2% lidocaine gel
- Superficial intracervical injection anteriorly and posteriorly (for tenaculum)(1/2% lidocaine with 1/200,000 epinephrine)
- Uterosacral AND paracervical block (1/2% lidocaine with 1/200,000 epinephrine; 20 mL per side)
- Topical intracervical passage of 4% lidocaine paste
- Topical endometrial cavity application of 2% lidocaine gel
- Hysteroscopically directed fundal injection if necessary/appropriate (1/2% lidocaine with 1/200,000 epinephrine 2-6 mL)

****Note: the injectable lidocaine doses consider that WITH EPINEPHRINE the total dose can rise to 7 mg/Kg AND that we use ½% lidocaine, NOT 1% or 2%***

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Figure 1. Dr. Munro's office-based hysteroscopy pain control protocol

To help avoid lidocaine toxicity, epinephrine is used in Dr. Munro's protocol. This is based on the reasoning that the impact on the central nervous system caused by lidocaine toxicity can be significantly more problematic than the possibility of tachycardia occurring with epinephrine.

Patients are directed to eat and drink sufficiently prior to their hysteroscopy procedure so that the risk of any vasovagal complications is minimized.

To see how Dr. Munro's protocol of local anesthesia for intrauterine procedures is applied, you can access a demonstration video **here**.

PAIN MANAGEMENT WITH IV PROPOFOL OR SYSTEMIC ANESTHESIA

For practices that offer regional or systemic anesthesia during in-office hysteroscopy procedures, staff and equipment requirements are quite different than those required for practices that use only local anesthetics. Additionally, providers need to be aware of their state's requirements regarding the use of general anesthesia.

As with local anesthetics, providers must wait until the IV propofol or systemic anesthesia takes effect—resulting in the patient going to sleep or being under conscious sedation. However, unlike the pre-procedure protocol for local anesthetics, ibuprofen and COX inhibitors are typically not used by the patient 48 hours before hysteroscopy.

Dr. Scott Washburn is an OB/GYN at Lyndhurst Gynecological Associates in Winston-Salem, NC, a Clinical Assistant Professor in the Wake Forest University School of Medicine's Department of OB/GYN, and an Assistant Professor in the school's Department of Comparative Medicine. He uses both IV propofol and systemic anesthesia for in-office procedures. **Below is his pain management protocol:**

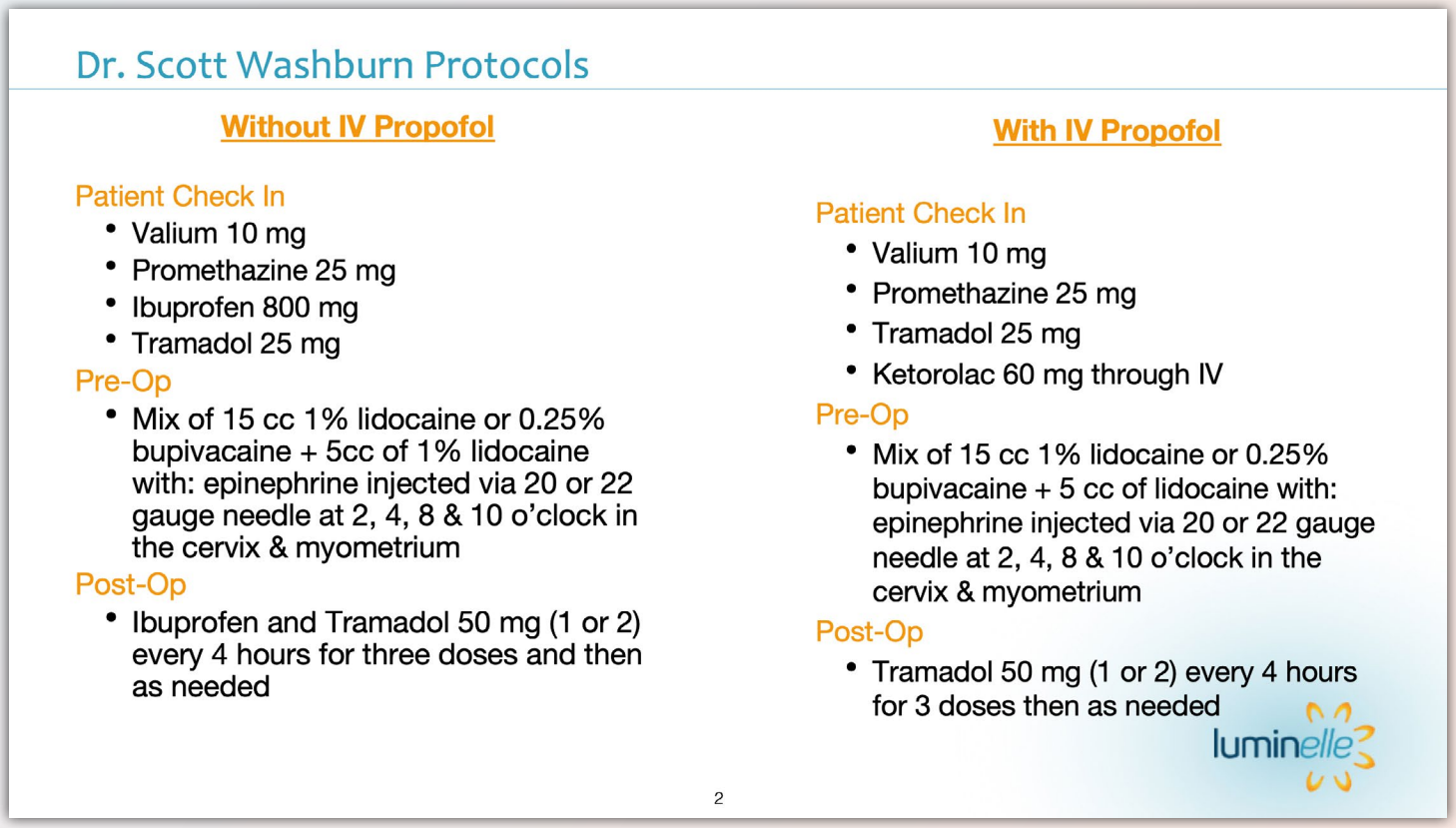


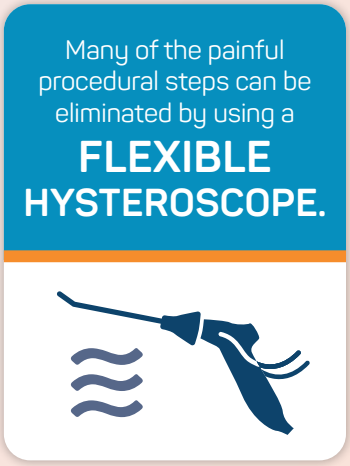
Figure 2. Dr. Washburn's anesthesia protocol

ELIMINATING PAINFUL PROCEDURAL STEPS WITH A FLEXIBLE HYSTEROSCOPE

In addition to using anesthesia and/or analgesia to control pain during in-office hysteroscopy procedures, **many of the painful procedural steps can be eliminated by using a flexible hysteroscope.** This is an approach Dr. Amy Garcia, an OB/GYN specialist in minimally invasive procedures and private practitioner based in Albuquerque, NM, uses in her practice.

Because her office isn't set up to conduct radiological assessments, Dr. Garcia uses a flexible scope for diagnostic hysteroscopy. By doing so, she can reach the uterine cavity in approximately 95% of cases—even those involving post-menopausal patients.

Using a vaginoscopy approach, the posterior fornix is filled with saline. This allows the cervix to move into the visual field with hydro-distention of the cervical canal. As



a result, no speculum is required. Additionally, no betadine is needed in the vagina, no anesthesia is required, and there is no need to hold the labia closed.

Dr. Garcia has found that use of a flexible scope during hysteroscopy is well-tolerated without anesthesia by her pre-menopausal patients who aren't undergoing a significant operative hysteroscopy and/or who don't have anatomical issues.

CHOOSING THE BEST PAIN MANAGEMENT APPROACH

Determining which approach you should take regarding hysteroscopy pain management will depend on a number of factors. These include:

- Assessment of a patient's anxiety level and how well they've tolerated previous office procedures
- The complexity of the operative hysteroscopy procedure
- The types of diagnostic equipment and capabilities available in the office
- The skill levels of the provider and staff
- The mutual confidence and comfort of the patient and physician regarding the in-office hysteroscopy procedure

With in-office hysteroscopy procedures, **providers have significant control in making the experience a more comfortable one for patients in every way**—from the room setting to the compassion of the staff to the skill of the provider to effective pain management. By evaluating and applying the approaches to pain management discussed in this paper, providers can help ensure that in-office hysteroscopy procedures are a welcomed—and more comfortable— option for their patients.

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If you have questions regarding how your practice might bring hysteroscopy procedures into the office, please reach out to us at **info@UVision360.com**. We'd welcome the opportunity to talk with you and to explore this possibility.

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