

Dear

I would like for the outpatient pharmacy our institution to carry a new product, the "Tonsil Fire Extinguisher," which can be filled with flavored 4% aqueous lidocaine and made available for my tonsillectomy patients. I plan to use the device, which delivers a metered dose (0.12ml or 5mg lidocaine with each spray) that can be directed at the surgical site, to mitigate the severe pain associated with tonsillectomy. We would plan to use the spray in the OR, before the patient wakes from surgery, to ease the emergence from anesthesia, and then to use it in the recovery room as an alternative to narcotics. This should enable our patients to be discharged from the surgery center more quickly.

I believe that use of this device is a great alternative to narcotics, which we are all trying hard to avoid given the opioid crisis.

It is also a good alternative to viscous lidocaine, which has been used in the past for these patients. We would like to decrease the chance of lidocaine toxicity, especially since we plan on using this for several days during the post op period. We would also like to decrease the chance of aspiration that could result from anesthetizing the throat.

Regarding lidocaine toxicity, it is generally held that a safe dose of lidocaine is 3mg/kg(1). Considering that the smallest patient we would plan to treat would be 40kg, a safe dose would be 120mg. 5ml of 2% viscous lidocaine would deliver a 100mg dose. 4 metered sprays from the Tonsil Fire Extinguisher would dispense 20mg. This makes the Tonsil Fire Extinguisher five times safer in terms of dosing.

Regarding potential for aspiration, giving viscous lidocaine to create numbness at the surgical site requires exposure through a swallow, which would necessarily result in anesthesia of the entire mouth and throat. The Tonsil Fire Extinguisher has a long sprayer arm that enables delivery of the drug directly to the tonsil fossa, leaving the mouth and lower throat with normal sensation.

There is precedent for using topical lidocaine over a prolonged period, both for tonsillectomy pain, and for chronic cough(2,3,4,5).

I propose that we prescribe the medication filled device prior to surgery, and make it available to the caregivers during surgery and recovery as we sometimes make other non formulary drugs available to our hospitalized patients.

The device itself is a class 1 medical device, manufactured by Brillient LLC in Grayslake, Ill, in compliance with all FDA regulations. Brillient also sells flavoring that can be used to mitigate the taste. They will accept purchase orders. Contact Drmann@brillientdoctors.com to make arrangements.

Thank you for your consideration.

Sincerely,

REFERENCES

1. S Derbyshire M J Donald, Lignocaine toxicity; a complication of local anaesthesia administered in the community *Emerg Med J* 2004;**21**:249-250
2. Kaygusuz I, Susaman N. The effects of dexamethasone, bupivacaine and topical lidocaine spray on pain after tonsillectomy. *International Journal of Pediatric Otorhinolaryngology* 2003;67(7):737–42
3. Evidence for therapeutic uses of nebulized lidocaine in the treatment of intractable cough and asthma. *Ann Pharmacother*. 2013 Apr;47(4):578-85. doi: 10.1345/aph.1R573. Epub 2013 Apr 2
4. Nebulized lidocaineintractable cough. Truesdale K, Jurdi A. *Am J Hosp Palliat Care*. 2013 Sep; 30(6):587-9. Epub 2012 Sep 9.
5. Long-term safety of nebulized lidocaine for adults with difficult-to-control chronic cough: a case series. Lim KG, Rank MA, Hahn PY, Keogh KA, Morgenthaler TI, Olson EJ. *Chest*. 2013 Apr; 143(4):1060-5.