



**NORTHWEST
COMMUNITY
EMERGENCY
MEDICAL
SERVICES
SYSTEM**

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Date: September 24, 2018
To: All System members
From: Connie J. Mattera, MS, RN, PM
EMS Administrative Director; Director, Resuscitation Department
RE: **Benzocaine spray being pulled**

System Memo: # 374

POST FOR ALL PARAMEDICS AND ECRNS

Benzocaine 20% spray has been determined to carry an excessive risk of causing methemoglobinemia in some patients. Because methemoglobin is unable to carry oxygen, the condition can be life-threatening, causing cyanosis, confusion, cardiovascular instability, and coma if not recognized and treated rapidly at a hospital.

The development of methemoglobinemia is not dose related. It has been reported after a single spray.

Hospitals may be deleting from their formularies and **pulling from EMS exchange supplies effective immediately**. Please remove from ambulance inventories and return to your assigned hospital EMSC.

In running our System numbers, we only used the drug 9 times in the past two years, so this change will have little immediate impact.

The Procedure Manual has been updated to remove reference to Benzocaine spray.

The System will explore if we need to add nebulized lidocaine 4% or viscous lidocaine 2% as alternative drugs to dampen gag reflex prior to DAI in the new SOP update.

Thanks so much for your cooperation in this practice update.

References:

- Ajaji, T., Gropper, M.A. (2001). Methemoglobinemia. *Pulm Perspect*, 18:1–7.
- Moore, T.J., Walsh, C.S., Cohen, M.R. (2004). Reported adverse event cases of methemoglobinemia associated with benzocaine products. *Arch Intern Med*, 164:1192–1196.
- Wurdeman, R.L., Mohiuddin, S.M., Holmberg, M.J., Shalaby, A. (2000). Benzocaine-induced methemoglobinemia during an outpatient procedure. *Pharmacotherapy*; 20:735–738.
- Kaufman, M.R., Aouad, R.K. (2017). Benzocaine-induced methemoglobinemia. *J Emerg Med*. 53(6), 912-913.

ISMP Medication Safety Alert; www.ismp.org/Newsletters/acutecare/articles/20021003.asp?ptr=y