



UTSW/Parkland BioTel EMS ALERT

February 19, 2018

EMS ALERT 18-003

Prohibition of Use of Ammonia Inhalants And Advisory Regarding Sternal Rub During GCS Assessment

Purpose:

To advise BioTel EMS Providers that the use of ammonia inhalants is NO LONGER permitted, and to provide clarification of the correct use of the Glasgow Coma Scale (GCS) tool to assess patient arousability.

Background:

EMS providers are bound by the same tenet as physicians and other healthcare professionals: “*primum non nocere*” (“first, do no harm”).

Use of ammonia vapor -- a respiratory irritant classified as a weapon of mass effect -- may cause pain &/or suffering. As such, the use of ammonia inhalants (“smelling salts”) in the assessment of patient mental status/arousability is no longer considered an EMS “best practice” and is **PROHIBITED**.

For similar reasons, use of the sternal rub to assess a patient’s response to “pain” was replaced in 2014 with an assessment of the patient’s response to “pressure”. The change was made “...in part to reflect accurately the nature of stimulus used, in part also because of reservations about the concept of pain as a component of care, and in part because of uncertainty if painful sensation is necessary or even possible in a patient in coma”. Furthermore, “...stimulation by rubbing the knuckles on the sternum is strongly discouraged; it can cause bruising and responses can be difficult to interpret.” ([Reference](#))

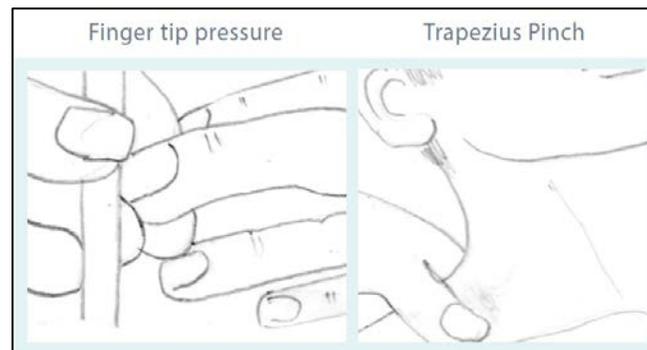
UTSW/Parkland BioTel EMS System Policy, Effective Immediately:

1. Use of ammonia inhalants is no longer permitted in the BioTel EMS System.
2. Use of a “sternal rub” as part of the GCS or other patient arousability assessment in all age and all gender patients is strongly discouraged and should be replaced by an assessment **and documentation** of response to fingertip/nail bed pressure*, trapezius muscle pinch/pressure*, or axillary skin fold pinch/pressure.

Glasgow Coma Scale and further information continued on the next page...

ADULT GCS (Verbal component is modified for children less than 5 years old)

EYE OPENING (4)	
Spontaneous	4
To Speech	3
To Pressure	2
None	1
VERBAL RESPONSE (5)	
Oriented & Appropriate	5
Confused Speech	4
Inappropriate Words	3
Incomprehensible Sounds or Moans	2
None	1
BEST MOTOR RESPONSE (6)	
Follows Commands	6
Localizes Pressure	5
Withdraws from Pressure	4
Abnormal Flexion	3
Abnormal Extension	2
None	1
TOTAL (3 to 15)	



*Figure 1: Fingertip pressure and trapezius muscle pinch/pressure

(Adapted from glasgowcomascale.org and Sir Graham Teasdale, by Margaret Frej based on layout and illustrations from Medical Illustration M I • 268093)

3. EMS Providers shall utilize the minimal force necessary to assess a patient's arousability and shall always avoid harm or injury to the patient.
4. If a patient fails to respond or arouse to these techniques, then EMS Providers shall consider the patient to be unarousable. Follow [BioTel Guidelines for Therapy/CPGs](#) for medical and traumatic causes: periodically re-assess and document GCS and level of consciousness as indicated by the clinical condition; assess POC blood glucose; ensure adequate oxygenation and ventilation; stabilize the patient's spine, if indicated; and consider administration of naloxone if the patient meets the clinical indications. Transport the patient to an appropriate receiving hospital emergency department.

➤ **UTSW/Parkland BioTel EMS Providers may contact BioTel or the [EMS Medical Direction Team](#) at any time with questions or concerns about this EMS Alert**