

### Yellow Section Change Document Final

| Location<br>Section/Page # | Change   | Purpose of Change<br>(Provider Input,<br>Stakeholder Input,<br>Evolution of<br>Evidence, Best<br>Practice, etc.)                       | Evidence for Change                                      | Expected Impact<br>(Operational,<br>Educational,<br>Financial, QI,<br>Medical Direction,<br>Communication,<br>etc.) | Size of Change<br>(Small/Medium/<br>Large) | Outcome   |
|----------------------------|--|--|--|---|--|---|
| Yellow 1/99                | “Some drugs such as prolonged release opioids, buprenorphine or methadone may require doses greater than 4 mg.”<br>Change to “Some drugs are longer acting opioids and may require many repeated doses which could exceed 4 mg (i.e. buprenorphine, methadone, fentanyl patch).” | Lost this language – added back for clarity and clinical care  |  | Educational – need to review what are long-acting opioids (Dr. Nash to assist with list for education)              | Small                                      | Accepted as the following: Some drugs are longer acting opioids such as buprenorphine, methadone, fentanyl patch, and may require many repeated doses of naloxone which could exceed 4mg. |
| Yellow2/100                | Consider calcium gluconate for calcium channel blocker OD 60 mg/kg dose (4-6 grams)  | Offers treatment to sick Ca-channel blocker patients; dosing would require 6-8 vials; will explore further when discuss Crush injuries |  | Educational/Cost<br>Currently carry 1 gram; approx \$8/vial<br>Requires: space, dilution/administer via drip.       | Medium                                     | Accepted.<br>Matched symptomatic bradycardia definition with Red 18; pedi dosing added; repeat dosing defined   |
| Yellow2/100                | Add to PEARL: <b>Do not</b> give naloxone to a patient who is in cardiac arrest. This practice is not helpful and may be harmful as it distracts from the best performance of tasks that are necessary for the   | Provider input   | Still being seen in some areas and clarification needed. | Educational   | Small                                      | Accepted  |

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|            | successful resuscitation of cardiac arrest. Refer to the 2019 Naloxone White Paper for more information.  |  |  |             |        |   |
| Yellow/100 | <p>Bullet “e” under TCA add: “consider 2 grams magnesium sulfate IV/IO over 5 minutes for arrhythmia that does not respond to bicarbonate”</p> <p>Add Pediatric dosing: 50 mg/kg (max dose of 2 grams) IV/IO over 5 minutes</p> <p>Add that sodium bicarb in should be administered IV “push”</p> <p>Add to sodium bicarbonate pediatric dosing – that bicarb needs to be diluted in D5W</p> <p>May repeat bicarb until QRS &lt;100 msec.</p> | Additional treatment option, clarification and inclusion of pediatric dosing | <p>Tricyclic antidepressant poisoning treated by magnesium sulfate: a randomized, clinical trial. Emamhadi M, Mostafazadeh B, Hassanijrdehi M Drug Chem Toxicol. 2012;35(3):300. Epub 2012 Feb 7.</p> <p>Efficacy of long duration resuscitation and magnesium sulfate treatment in amitriptyline poisoning Citak A, Soysal DD, Uçsel R, Karaböcüoğlu M, Uzel N Eur J Emerg Med. 2002;9(1):63.</p> <p>Effects of magnesium sulfate and lidocaine in the treatment of ventricular arrhythmias in experimental amitriptyline poisoning in the rat. Knudsen K, Abrahamsson J Crit Care Med.</p> | operational | medium | Accepted; though in discussion with toxicology, use 120 msec rather than 100 msec.; Discussion also to add other classes of sodium channel blockers to the list in the PEARL. Poison Center sent us a list of the classes of the classes of meds with some examples for each class. |

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|            |  |   | 1994;22(3):494.   |             |        |  |
| Yellow/100 | Bullet "e" under TCA, change QRS goal from 120 to 100 msec | Lower threshold for QRS duration based on toxicity research | <p>Demographic and electrocardiographic factors associated with severe tricyclic antidepressant toxicity.</p> <p>Caravati EM, Bossart J Toxicol Clin Toxicol. 1991;29(1):31.</p> <p>Value of the QRS duration versus the serum drug level in predicting seizures and ventricular arrhythmias after an acute overdose of Tricyclic antidepressants.</p> <p>Boehnert MT, Lovejoy FH Jr N Engl J Med. 1985;313(8):474.</p> | Operational | Medium | <p>Rejected:</p> <p>Per toxicology added: other Na-channel blockers (which will be listed in the PEARLS)</p> <p>QRS &gt; 120 msec, With HR &gt;100 as these patients are always tachycardic.</p> <p>Recommended repeating ECG and looking for dynamic changes: a change QRS widening of 10 msec is significant. Advised timeframes in which to repeat ECGs</p> <p>Will also add IV Push definition to purple section</p> |
| Yellow/100 | Bullet "e" under TCA add "refer to seizure protocol        | Best practice. Points out potential                         | NA  | Operational | Small  | Accepted   |

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|            | for TCA induced seizure activity”   | for seizure and clarify it is treated the same way                                  |   |             |        |  |
| Yellow/100 | <p>Bullet “e” under TCA add “consider norepinephrine infusion in patients with hypotension refractory to bicarbonate and/or fluid bolus”</p> <p>Add pediatric norepi dose here as well.</p> | <p>Best Practice. Improves treatment of hypotensive patients with TCA overdose.</p> | <p>Response to dopamine vs norepinephrine in tricyclic anti-depressant induced hypotension. Tran et al. Acad Emerg. 1997;4(9):864.</p>  | Operational | Medium | Accepted   |
| Yellow/101 | <p>Add pearl “prophylactic benzodiazepines have been shown to improve outcomes in nerve agent toxicity”</p>   | <p>Improve understanding of treatment provided</p>                                  | <p>Pharmacokinetic studies of intramuscular Midazolam in guinea pigs challenged with soman. Capacio et. al. Drug Chem Toxicol. 2004;27(2):95</p> <p>Anticonvulsant treatment of nerve agent seizures: anticholinergic vs diazepam in soman intoxicated guinea pigs. McDonough et al. Epilepsy Res. 2000;38(1):1</p> <p>Organophosphate Induced Convulsions and Prevention of neuropathological Damages. Tuovinen. Toxicology. 2004;196(1-2):31.</p> | education   | small  | <p>Rejected: General thoughts that the midaz is already highlighted and adding language may not be necessary....</p> <p>Also, added in at bottom of the table, Paramedic scope if drawing up atropine from a multidose vial and added max IM pedi volume</p> |
| Yellow/102 | <p>Delete OLMC for Cyanokit in moderate exposure</p>  | <p>Best practice Lower threshold for</p>  | <p>NA; NNEPC interested in lactate or ABG, but</p>  | operational | medium | Rejected: Cyanokit 1.  |

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|  | category   | treatment of symptomatic patients  | we cannot do that.   |  |        | Makes it impossible to interpret laboratory data, 2. \$900; 3. Shelf life of 1.5-2 years; Needed in severe cases, but not always in moderate and many times the appearance of "moderate" is due to other causes. Also made changes to definitions of moderate vs. severe exposure as per NNEPC |
| Yellow/105   | Add to EMT "7. Apply clean dry dressings to frostbitten extremities and between involved fingers and toes. 8. Consider transport to IR capable facility for cases of moderate to severe frostbite. | Draw attention to treatment of concomitant frostbite and also suggest appropriate dispo for severely frostbitten extremities; Improve immediate treatment of frostbite | Wilderness Medical Society Clinical Practice Guidelines for the Prevention and Treatment of Frostbite: 2019 Update | Operational; follow the regional trauma destination protocol             | Medium | Yes to dressings; Passed with - Trauma system hospital (rather than IR capable hospital) - + Add definitions for moderate to severe, put in PEARLS rather than as #8 in the protocol as it is guidance.  |
| Yellow/105<br>*new suggestion for 5/20/20 MDPB meeting | Moderate to severe frostbite is defined as any of the following:<br>1. Frostbite involving the   | Definition for moderate to severe frostbite as noted being needed in the   | There has never been a definitive categorization of initial frostbite aside from                                   | Educational<br>Operational<br>Consider pictures of blisters and necrosis | Medium | Accepted   |

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| based on 4/15/20 motion above | hands, feet, face or genitals, 2. Frostbite associated with cyanotic tissue, blisters (clear or hemorrhagic) or skin necrosis, 3. Frostbite associated with loss of sensation or weakness in the involved areas.               | PEARL above  | the standard 1 <sup>st</sup> , 2 <sup>nd</sup> 3 <sup>rd</sup> and 4 <sup>th</sup> degree frostbite which isn't applicable since many of these clinical findings can be delayed (hours to days). Suggest using more broader guidelines if recommending transport to a trauma/burn facility. | in the education product vs. in the protocol |       |  |
| Yellow/106                    | Add to pearl "Massaging the extremities will not significantly increase body temperature and it may worsen the damage caused by frostbite."  | Remove ambiguity, point potential harm. Avoid unnecessary trauma to frostbitten tissue   | Wilderness Medical Society Clinical Practice Guidelines for the Prevention and Treatment of Frostbite: 2019 Update  | education                                    | small | Accepted   |
| Yellow/109                    | Add #4 "Pay close attention for circum-rescue collapse; the drop in catecholamines and mental relaxation that occurs just before, during or after rescue that may lead to life threatening hypotension or arrhythmia (i.e. VF) | Highlight this potentially life threatening phenomena that may not be considered in the process of rescue or immediately after | Wilderness Medical Society Clinical Practice Guidelines for the Out-of-Hospital Evaluation and Treatment of Accidental Hypothermia: 2019 Update   | educational                                  | small | Accepted: Pearl in submersion & hypothermia – add definition – hemodynamic collapse  |
| Yellow/109                    | Change #9 to "refer to blue 10 Anxiolysis in CPAP"   | Less ambiguous, links and reminds of anxiety with CPAP protocol  | NA  | operational                                  | small | Accepted: Link to Blue 10; discussion re: concern for benzos in the pop'n, however, cannot do without OLMC which is another safeguard. Not |

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|  |  |  |  |  |  | unanimous (2<br>opposed, 1<br>abstained). |
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