<table>
<thead>
<tr>
<th>SLIDE #</th>
<th>LESSON</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Title slide</td>
<td></td>
</tr>
</tbody>
</table>
| 2      | 2. GLOBAL CHANGES *(series of slides)*  
|  | a. Consolidation of Yellow #1-5 into "Poisoning/Overdose" |       |
| 3      | b. Pediatric interventions and medications/doses have been moved from PINK and incorporated where applicable |       |
| 4      | c. "Organophosphate/Carbamate" is now titled: **Nerve Agent/Organophosphate/Carbamate** |       |
| 5      | d. "Ophthalmology" has been moved to the GREEN section |       |
| 6      | e. "Agitation/Excited Delirium" has been moved to a NEW Orange section |       |
| 7      | f. "Radiation Injuries" is a NEW protocol |       |
| 8      | 3. Yellow #1 & #2  
|  | a. There was a large overhaul of the Yellow section.  
|  | i. It was revised to make the protocol simpler and easier to use  
|  | ii. The following sections were consolidated into 2 pages:  
|  | 1. Toxins #1-3  
|  | 2. Antidotes for Specific Toxins- Opiates  
|  | 3. Antidotes for Specific Toxins- TCA's |       |
| 9      | b. 2017 Approach  
|  | i. The 2017 protocol began with a general assessment  
|  | ii. It proceeded with specific treatments to "remove and dilute" toxins, by method of exposure:  
|  | 1. Ingested  
|  | 2. Inhaled  
|  | 3. Absorbed  
|  | 4. Injected |       |
| 10     | c. 2019 Approach  
|  | iii. The approach of the protocol is to begin assessing the patient as you normally would and proceeds to cover signs and symptoms and interventions, along with possible causes, as you might find them in the assessment process.  
|  | iv. Expanded list of signs/symptoms, suspected causes, and their Tx  
|  | v. Referrals are given for signs/symptoms and specific toxins for which there are separate existing protocols.  
|  | vi. Protocol starts with airway assessment |       |
| 11     | d. EMT  
|  | vii. **NEW** Pediatric\(^1\) dosing added for suspected narcotic overdose  
|  | 1. 0.5 mg **IN**  
|  | 2. Titrate to effect |       |

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1. **NEVER GIVE NALOXONE TO A NEONATE.** Neonatal patients are defined in 2019 protocols as being LESS than 28 days old.
e. EMR

viii. **NEW**- EMR’s can now administer naloxone intranasally or intramuscularly (**via auto-injector at a dose that is available per commercially available product**).

1. This includes use of prefilled bristojet 2mg/2mL with atomizer attached.
2. This is a change in EMR scope of practice in Maine.
3. This addition to scope of practice will require local/individual education and skills practice to obtain and maintain knowledge and skills competency.²

2. INSTRUCTORS: Please emphasize the importance of individual and especially service-level didactic and practical skills training for the EMR. Administration method MAY vary between services with specific administration sets purchased.

f. EMT

i. Item #5-7

5. Tx for some specific toxins and signs/symptoms are referred to other existing protocols

   a. CO
   b. Hypoglycemia
   c. Seizures

ii. Paramedic

1. Item #13- Ingested Poisons

   a. No change in pt care

ii. Paramedic

1. Item #13- Ingested Poisons

   a. No change in pt care

2. Item #14

   a. Pain management secondary to absorbed toxins incorporated here

3. Item #15

   a. List of suggested Tx for various ingestions:

      i. Symptomatic Beta blocker or Ca⁺ channel blocker overdose
      ii. Dystonic reactions
      iii. Organophosphates
      iv. Severe agitation
      v. TCA overdose

   b. Refers to multiple existing protocols for Tx

   c. This list includes items not in 2017 protocol

Format here is similar to 2017, but not broken down by method of exposure.
4. Item #15b
   a. **NEW**- Dystonic Reaction
   b. Benadryl
      i. Adult: 25-50 mg IV/IM
      ii. Peds: 1-2 mg/kg IV/IM; **MAX** dose 50 mg

5. Dystonic Reaction
   a. **THIS SLIDE IS NOT IN THE PROTOCOLS THEMSELVES**
   b. Dystonic reaction should not be new to the paramedic.\(^1\) SEE SLIDE.
   c. Acute dystonic reactions are often transient but can cause significant distress to the patient.
      i. Although rare, laryngeal dystonia can cause life-threatening airway obstruction.

6. Item #15c-e
   a. Refer to appropriate existing protocols:
      i. Organophosphate
      ii. Agitation
   b. TCA
      i. Incorporated from 2018 separate protocol

7. PEARLS
   a. Combined from multiple sections of 2017 Yellow section protocols
      i. General assessment
      ii. Opiates
      iii. TCA
   b. TCA PEARL
      i. Defines QRS duration limit as \(<120\) msecs
      vii. Standing order to repeat if there's no positive change to QRS duration. OLMC not required\(^3\)

4. Nerve Agent/Organophosphate/Carbamate Poisoning
   a. Verbiage "Nerve Agent" added
b. PEARLS section additions  
i. Emphasis on scene safety continued with addition of 3 bullets  
   1. Transporting pt with windows open can help with build-up of residual off-gassing. Keeps fresh air circulating  
   2. Decon entire ambulance post transport  
   3. All responders with patient contact require decontamination

25  

ii. The ability of any individual provider or service to effectively employ this protocol (especially if as a result of a WMD incident) may depend to a significant extent on one or more of the following.

   4. Regional, Hospital, and/or service-level policies and procedures in support of this patient care situation  
   5. Provider-level education and practical skills training.  
   6. Service-level education and practical skills training.

26  
c. EMT  
i. Item #3  
   9. Airway protocol reference updated  
      a. Airway algorithm  
   ii. Item #6  
      10. Added use of Mark 1 kit  
      a. Reminder: EMRs are also able to use this kit (was in 2017 protocols)

d. AEMT  
i. Bullet added:  
   11. "In all cases, continue to monitor closely for worsening symptoms"

27  
e. Paramedic  
i. If seizures are present, provider is referred to protocol GOLD 8 for treatment

ii. NEW- TABLE

   12. Treatment for various signs and symptoms has been put into a table for easier reference.
   13. Pediatric interventions are included in this section.
   14. Intervention depends on:  
      a. Signs and symptoms versus whether patient is an adult or pediatric

28  

iii. SLIDE IS CLOSE-UP OF THE TREATMENT TABLE

29  

5. Cyanide/CO Exposure #1  
a. ASSESSMENT BOX- flow chart
i. Reference to use of “finger probe” style portable CO monitoring device (i.e. RAD-57) was removed.

ii. Concern is the evidence that debunks its effective use in accurately determining blood CO levels
   1. Finger CO monitors may not accurately detect CO level and should not be relied upon to guide treatment
   2. **This point was discussed with poison center**, who stated that they would not base treatment on it. Not reliable enough.
   3. Hence, making patient care decisions based solely upon device readings is NOT RECOMMENDED by the MDPB
   4. Therefore, the reference was removed from the protocols.

iii. Re: NFPA 1584 and removal of finger probe use recommendation:
   1. Not using such devices is **NOT A VIOLATION** of the NFPA standard.
   2. NFPA 1584 (the standard for fire fighter rehab):
      a. **DOES** state that patients should be assessed for CO poisoning.
      b. **However, it DOES NOT require use** fingertip CO Monitoring as a method of assessment.
   3. Analysis of arterial blood gasses is the best determinant of CO toxicity.
   4. A complete history of episode and thorough physical exam are the most important medical decision tools available to providers.

iv. If, **after obtaining a history of the episode and patient exam**, providers suspect CO, treat per protocol.
   1. **Transport of patient is always an option**, regardless of definitive findings.

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**MDPB white paper “Carbon Monoxide Monitors,” 13 Sep 2019 for additional information on this decision. This is available for download on the MEMS website**

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**30**

b. **PEARLS - CO/Cyanide Exposure**
   i. Short note regarding removal of finger probe CO monitors
   ii. **Note added:**
      1. There is no correlation between blood carbon monoxide levels and EtCO₂.

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**31**

6. **NEW- Radiation Injuries**
   a. **ADVISORY NOTE:**
      i. **The ability of any individual provider or service to effectively employ this protocol (especially if as a result of a WMD incident) may depend to a**
significant extent on one or more of the following:\(^5\)

1. Existence of Regional, Hospital, and/or service-level policies and procedures in support of this patient care situation
2. Provider-level education and practical skills training.
3. Service-level education and practical skills training

32. ii. Operational components

   1. Response procedures may vary according to service policies and procedures; however, the basics of patient care are covered by the protocol.
   2. NOTE: The determination of the presence of weapons of mass destruction can greatly affect response and patient care.

b. The protocol addresses the following components affecting care:

   i. EMT

      1. Donning of appropriate PPE
      2. Presence of HAZMAT personnel for decon needs
      3. Triage of patients in case of MCI
      4. Traumatic injuries
      5. Transport of patients

33. ii. Paramedic

   1. Consider antiemetic for nausea and vomiting
       a. Note time of onset of symptoms
   2. Consider pain management protocol
   3. Treat seizures per protocol
       a. Consider whether or not seizures are being caused by:
          i. Medical cause
          ii. Exposure to toxic agent (WMD otherwise)
          iii. Are indicators of a large whole-body radiation dose: > 20 grays (Gy) present??
              1. Rapid onset of vomiting

34. 7. Hypothermia #1

   a. AEMT/Paramedic
      i. Addition of pediatric dosing for heated fluid bolus
         1. 20 mL/kg; repeat bolus if necessary
         2. Contact OLMC for additional boluses if needed

35. 8. Hypothermia #2
### Severe Hypothermia without signs of life

**EMT**

1. **Item #4**
   - If no ROSC after 20 minutes of CPR/rewarming, consider termination of resuscitation (TOR).
   - Contact OLMC if possible

**AEMT/Paramedic**

1. **PEARL**
   - No active rewarming (massaging extremities)

### Hyperthermia - Heat Exhaustion

**EMT**

1. Added use of evaporative cooling techniques
   1. Remove/loosen as much clothing as possible

### Hyperthermia - Heat Stroke

**EMT**

1. Minor additions/changes to care procedure
   1. In cases of exertional hyperthermia, considering especially Radical Cooling techniques
   2. **TACO Method**
      - Tarp Assisted Cooling with Oscillation
         a. Placing pt in a tarp
         b. Spreading ice and cold water across their body
         c. Pick up tarp on either side of patient. Tarp will look like a taco, with pt at bottom
         d. Oscillate (roll) the water and ice gently over the patient's body continuously to cool patient
   3. Ice pack placement

**PEARL**

1. In cases of sporting/athletic events in temperatures where hyperthermia can easily occur, it is beneficial to have a plan to handle multiple patients at the same time in place.

### TACO Method

**Slide showing what the TACO method of cooling a patient looks like**

**Questions?**

**END OF YELLOW SECTION**