Red represents previous phrasing, Blue represents new phrasing

"**Subjective hazards**" changed to **"Know the difference between objective and subjective hazards"** as its own bullet point (page 11)

- Clarifies that the intent is to make sure searchers are aware that their mental state and actions can generate hazards in addition to environmental conditions

Recognize and manage cardiac arrest with external cardiac compression with or without artificial respiration (page 21, A.2.a.(2).i)

- Emphasizes that hands-only CPR is appropriate as well
- Hands-only CPR is acceptable or even better for a few reasons:
    - Mouth to mouth can distract from compressions.
    - Because of the low amount of oxygen in exhaled air, mouth-to-mouth and even mouth-to-mask may be worse than doing compressions only and allowing for passive oxygenation during cardiac arrest.
    - If rescuers are uncomfortable doing mouth-to-mouth, they may be less likely to attempt CPR at all.
    - All pulled from this AHA review: https://www.ahajournals.org/doi/full/10.1161/01.cir.96.6.2102

Added **"Know the advantages of commercial and improvised barrier devices for mouth-to-mouth artificial respiration"** (page 21, A.2.a.(2).iii)

- Having or knowing how to make a barrier device makes it more likely rescuers will attempt ventilations
- Using some sort of barrier device decreases risk of infection (to rescuer and patient) while attempting mouth-to-mouth

"**Recognize respiratory distress, including tension pneumothorax, and recognize and treat flail chest**" to **"Recognize respiratory distress, including flail chest without attempting to stabilize flail segments and tension pneumothorax, and know to monitor for respiratory compromise"** (page 21, A.2.a.(2).iv)

- The old phrasing ("treat") could be interpreted as bulky dressings to 'stabilize' the broken ribs. This treatment used to be frequently taught but is no longer recommended:
    - "Management of flail chest is directed toward pain relief, ventilatory support, and monitoring for deterioration. The respiratory rate may be the most important parameter to follow. Pulse oximetry, if available, is also useful to detect hypoxia. Oxygen should be administered and IV access obtained, except in cases of extremely short transport times. Support of ventilation with bag-valve-mask (BVM) assistance or endotracheal intubation and positive-pressure ventilation may be necessary (particularly with prolonged transport times). **Efforts to stabilize the flail segment with sandbags or other means are contraindicated**." (Prehospital Trauma Life Support, 6th edition)
    - The only treatment above that is doable in the field by a provider without advanced training and special equipment is monitoring of the respiratory rate and treating respiratory or cardiac arrest if present.

"**Inspect, palpate, percuss (only for tension pneumothorax) and auscultate as appropriate for a basic physical exam, without adjuncts**" to "**Know how and when to visualize and palpate a chest and recognize respiratory sounds that may be audible without a stethoscope**" (page 21, A.2.a.(3).iii)

- Clarifies that the adjunct mentioned is a stethoscope, and that searchers are not required to carry one
- Removes percussion, which is probably too complicated for an average searcher (and doesn't provide useful treatment information since all they can do either way is support respiratory efforts) and may cause pain to the patient if searchers repeatedly or forcibly bang on their chest

"**Dealing with severe hypothermia that might mimic death, including questions of whether to start external cardiac compressions or not and the efficacy of extended CPR even if interrupted**" to **For an unconscious hypothermic patient: i.When to start CPR on a hypothermic patient versus determining death ii.The need for a longer pulse check iii.That prolonged cardiac arrest is more survivable for hypothermic patients iv.That prolonged CPR may be indicated even if interruptions are anticipated** (page 22 A.5.e.(4))

- More specifically states considerations for determining death in hypothermic patients

Ottawa criteria to **“Twisting injuries of the ankle including taping”** and **“Using the Ottawa criteria to determine which ankle injuries should not be weight-bearing and which might be weight-bearing”** (page 22, A.7.a.(3))

- Clarifies that the Ottawa criteria should be used to determine if a team member *must* be evacuated without weight bearing, and then their comfort level can be used if they do not meet criteria
    - Previous phrasing could be interpreted the opposite way (team members not meeting Ottawa criteria do not need to evac or seek medical attention even if they want to)

“Know basic multisystem trauma recognition and management, including the concepts of the Golden hour and the golden day, and general principles for managing multisystem trauma in the backcountry” to “**Know basic multisystem trauma recognition and management, including the concept of the golden period and general principles for managing multisystem trauma in the backcountry**”(page 22, A.8)

- The golden hour/day is a somewhat outdated idea and PHTLS and other trauma curricula usually refer to it as the golden period now. That’s because some trauma patients have much more than an hour and some will never make it that long, so it’s more important to emphasize reaching a hospital as quickly as possible without giving a specific timeframe. Calling it the golden hour can give people the false impression that they can take their time as long as they get to a hospital within an hour (PHTLS sixth edition).

Spinal immobilization and NEXUS criteria section split into **“Using the NEXUS criteria to avoid the need for cervical spine immobilization”** and **“The advantages and disadvantages of immobilization for fractures, including suspected spinal fractures”** (page 22, A.10.c)

- Immobilization was previously in quotes to suggest that there were drawbacks to using it in the field, but this was easy to miss. The creation of the new bullet point ensures that searchers are aware of these considerations.

Pneumothorax and hemothorax combined into one bullet point (page 22, A.10.d.(1), A.10.d.(2))

- These things are different and will matter to the hospital, but they don't make any difference in terms of treatment by an average searcher. There also aren't really any practical ways to differentiate them in the field.

Broken ribs and flail chest combined into one bullet point (page 22, A.10.d.(3), A.10.d.(4))

- As with pneumo/hemothoraxes above, these are different and will matter to the hospital, but they don't make much difference to the searcher's treatment. This is especially true since the idea of stabilizing a flail chest is no longer recommended, as previously discussed.

Submersion injury (near-drowning/drowning) (page 22, A.10.d.(6))

- Added to avoid any possible confusion about what a submersion injury is since drowning is now the more commonly used term.

"**Emotional support: not leaving them alone**" to "**Emotional support: not leaving family alone, while still providing necessary grieving room"** (page 24, D.3.b)

- This is generally a good principle but if the family wants to be left alone they can be supervised from a distance. I wouldn't let them out of eyesight but the searcher should also avoid being too clingy if the family wants space to grieve without strangers right next to them.

Using the "D" word ("dead") and techniques for break- ing bad news to family (page 25, D.3.c)

- Old phrasing could give the impression that the word "dead" should be avoided.
- The word "dead" should actually be used, as has been well documented in papers like this one (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6170084/) , which states "At this point, break the bad news compassionately, using direct and clear language. Avoid using euphemisms, such as "passed on", or "no longer with us". Instead

say “he has died”, or “she is dead”. This will help avoid confusion and misinterpretation of the information just received by the family”