Patient Safety Considerations

1. Toxicity is related to duration of exposure and concentration of agent used (exposure in non-ventilated space)
2. Patients with pre-existing pulmonary conditions (e.g., asthma, COPD) may be prone to more severe respiratory effects
3. Traumatic injury may result when exposed individuals are in proximity to the device used to disperse the riot control agent (e.g., hose/stream under pressure, riot control agent projectile, grenade)

Notes/Educational Pearls

Key Considerations

1. CN, CS, and OC are the most encountered riot control agents
2. CN, CS, and OC have a high safety ratio. All three have a high median lethal concentration (LCt50) and a low median effective concentration (ECt50)
3. Toxicity is related to time of exposure and concentration of agent used (exposure in non-ventilated space)
4. Symptoms that may be experienced after exposure:
   a. **Eyes**: tearing, pain, conjunctivitis, blurred vision
   b. **Nose/mouth/throat**: rhinorrhea, burning/pain, trouble swallowing, drooling
   c. **Lungs**: chest tightness, coughing, choking sensation, wheezing, dyspnea
   d. **Skin**: burning, redness, dermatitis
   e. **GI**: nausea and vomiting are rare and may be posttussive
5. Symptoms begin within seconds of exposure, are self-limited and are best treated by removing patient from ongoing exposure. Symptoms frequently decrease over time (15–45 minutes) after exposure ends

Pertinent Assessment Findings

1. Riot control agent used
2. Symptoms of exposed
3. Lung sounds
4. Evidence of other traumatic injuries

Quality Improvement

Key Documentation Elements

- Type of riot control agent if known
- Symptoms being treated
- Treatment provided
- Response to treatment

Performance Measures

- Riot control agent identified before making patient contact and providing treatment
- PPE used by responders
- Affected individuals removed from ongoing exposure
- Contaminated clothing and contact lenses removed as able