Riot Control Agents

Common Agents:
- Chloracetophenone (CN), chlorobenzylidenemalononitrile (CS), chloropicrin (PS), bromobenzylcyanide (CA), dibenzoxazepine (CR), oleoresin capsicum (OC)
- May be stored and used in liquid, solid, or powder form.

Mechanism of action:
- Cause irritation to areas of contact within seconds of exposure.
- Duration of action minutes to hours depending on dose of exposure and any decontamination that occurs.

Signs/Symptoms:
- Eyes: excessive tearing, burning, blurred vision, redness
- Nose: runny nose, burning, swelling
- Mouth: burning, irritation, difficulty swallowing, drooling
- Lungs: chest tightness, coughing, choking sensation, wheezing, shortness of breath. Fatal asthma attacks have been related to riot control agent exposure.
- Skin: burns (especially in hot weather or if liquid on clothing), rash
- GI: nausea, vomiting
- Long term exposure or large doses can lead to: blindness, glaucoma, respiratory failure, chemical burns to throat and lungs

Decontamination:
- Move the exposed patient to fresh air.
- Remove contaminated clothing and seal in plastic bag.
- Wash skin with soap and water. Agents can be very persistent and require copious amounts of irrigation. In such cases avoid hypothermia.
- For severe discomfort pre-mixed mildly basic solutions containing bicarbonate may be used. DO NOT USE BLEACH.
- Clothing may later be safely washed in washer with usual detergent – fill washer then place opening of bag underwater to prevent re-exposure and press clothes into water, remove bag, wash hands with soap and water.
- Care providers should be careful not to come in direct contact with the substance.  
  - Wear splash-proof PPE when helping decontaminate patients.
  - May require respirator use if high concentrations on patients (PAPR with filter for riot control agents / charcoal filter or SCBA).
  - Use Universal Precautions after decontamination.

Treatment:
- No specific antidotes for riot control agents.
- Treatment is typically symptomatic after decontamination has been completed.
- \(O_2\), bronchodilators, steroids and/or intubation may be necessary in case of significant respiratory involvement.
- Eye exposures are treated by irrigating eyes with water or NS.
- Burns require standard burn treatment.

For more information contact Minnesota Poison Control System at 1-800-222-1222