

EMS Subspecialty Certification Review Course

1.3.7.1.7 Phosgene

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Pulmonary Irritants

- Properties
- Inhalant substances cause direct respiratory tract damage
- Some more delayed than others
- Hallmark symptom is dyspnea
 - Initially might be exertional, then at rest
- Cough is prevalent
 - Initially may be dry, later frothy or pink-tinged (non-cardiogenic pulmonary edema)



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Phosgene Properties

Phosgene

- White Gas at Temp 47F
- Smell = Fresh Mown hay
- Cough
- Dyspnea
- Onset delayed: 2-24h
- May hug floors upon release

Ammonia

- Colorless, water soluble, alkaline gas, pungent odor, immediate irritation to eyes

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Chlorine (Review)

- Greenish-Yellow
- Smell = Pungent Odor
- Stridor
- Onset immediate to eyes, nose
- Onset : <12 hrs to respiratory tract



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Sources of Phosgene

- Phosgene is not found naturally in the environment.
- Used to produce other chemicals such as pesticides.
- Phosgene can be formed when chlorinated hydrocarbon compounds are exposed to high temperature source



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Treatment

- Remove from source of exposure
- ABCs
- Flush skin and eyes with copious amounts of water
- O₂, cool mist, bronchodilators may assist
- Airway management may be necessary (intubation, PEEP)
- Hydration
- Transport even if improved (medical observation for 48 hours is recommended)



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Lightning Refresher

- Caustics: solids increase risk of proximal injury, liquids increase risk of distal injury
- HF: worker is often the clue to the question; paradox: deeper burns and lower concentrations (late recognition)
- Cyanide: always consider in closed space combustion; hydroxocobalamin preferred tx
- Phosgene: late recurrence of pulmonary sx



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