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DECLARATIVE

I. General toxicology, assessment and management
- A. Types of toxicological emergencies
  - 1. Unintentional poisoning
    - a. Dosage errors
    - b. Idiosyncratic reactions
    - c. Childhood poisoning
    - d. Environmental exposure
    - e. Occupational exposures
    - f. Neglect/ abuse
  - 2. Drug/ alcohol abuse
  - 3. Intentional poisoning/ overdose
    - a. Chemical warfare
    - b. Assault/ homicide
    - c. Suicide attempts
- B. Provider safety and resources identification
  - 1. Need for appropriate personal protective equipment and scene safety awareness
    - a. Airway protection
    - b. Body surface absorption isolation
    - c. Specialized equipment
  - 2. Need for additional resources
    - a. Hazardous Materials Teams
    - b. Police
    - c. Fire
    - d. Rescue
  - 3. Equipment and environmental decontamination
- C. Use of Poison Control Centers
- D. Routes of absorption
  - 1. Ingestion
  - 2. Inhalation
  - 3. Injection
  - 4. Absorption
- E. Poisoning by ingestion, inhalation, injection, and absorption
  - 1. Examples
  - 2. Anatomy and physiology review
    - a. Absorption
    - b. Distribution
  - 3. Assessment findings
  - 4. General management considerations
- F. Geographically-specific toxic emergencies
  - 1. Discuss regional variances in possible toxic exposures
  - 2. Examples
    - a. Venomous snakes, spiders, sea creatures
    - b. Chemical manufacturing/ transportation
- G. Specific toxicology, assessment, and management
  - 1. Definition/ advantages
    - a. Grouping of toxicologically-similar agents
    - b. Useful for remembering the assessment and management of toxicological

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emergencies
c. Does not consider how or why the toxin has been introduced to the body
d. Be sure to include the general management based on route of entry in addition to specific treatments

2. Cholinergics
   a. Common causative agents - pesticides (organophosphates, carbamates) and nerve agents (sarin, Soman)
   b. Assessment findings
      (1) Headache
      (2) Dizziness
      (3) Weakness
      (4) Nausea
      (5) SLUDGE (Salivation, Lacrimation, Urination, Defecation, GI upset, Emesis)
      (6) Bradycardia, wheezing, bronchoconstriction, myosis, coma, convulsions
      (7) Diaphoresis, seizures
   c. Management
      (1) Decontamination
      (2) Airway and ventilation
         (a) Aggressive airway management
      (3) Circulation
      (4) Pharmacological
         (a) Atropine
         (b) Diazepam
         (c) Activated charcoal
      (5) Non-pharmacological
      (6) Transport considerations
         (a) Appropriate mode
         (b) Appropriate facility
      (7) Psychological support/ communication strategies
3. Anticholinergic
   a. Common causative agents
   b. Assessment findings
   c. Management
      (1) Airway and ventilation
      (2) Circulation
      (3) Pharmacological
      (4) Non-pharmacological
      (5) Transport considerations
         (a) Appropriate mode
         (b) Appropriate facility
      (6) Psychological support/ communication strategies
4. Narcotics/ opiates
   a. Common causative agents - heroin, morphine, codeine, meperidine, propoxyphene, fentanyl
   b. Assessment findings
      (1) Euphoria
      (2) Hypotension

(3) Respiratory depression/ arrest
(4) Nausea
(5) Pinpoint pupils
(6) Seizures
(7) Coma

c. Management
(1) Airway and ventilation
(2) Circulation
(3) Pharmacological
(a) Naloxone- opiate specific antidotal therapy
(4) Non-pharmacological
(5) Transport considerations
(a) Appropriate mode
(b) Appropriate facility
(6) Psychological support/ communication strategies

5. Carbon monoxide
a. Source
b. Common causative agents
c. Pharmacodynamics
d. Pharmacokinetics
e. Assessment findings
f. Management
(1) Airway and ventilation
(2) Circulation
(3) Pharmacological
(4) Non-pharmacological
(a) Hyperbaric treatment
(5) Transport considerations
(a) Appropriate mode
(b) Appropriate facility
(6) Psychological support/ communication strategies

6. Psychiatric medications
a. Tricyclic antidepressants
(1) Clinical use
(2) Common causative agents - amitriptyline amoxapine, clomipramine, doxepin, imipramine, nortptyline
(3) Pharmacodynamics
(4) Pharmacokinetics
(5) Assessment findings
(a) Early findings (dry mouth, confusion, hallucinations)
(b) Late findings (delirium, respiratory depression, hypotension, hyperthermia, seizures, coma)
(c) Cardiotoxicity - dysrhythmias
(6) Management
(a) Airway and ventilation
(b) Circulation
(c) Non-pharmacological
(d) Transport considerations
i) Appropriate mode

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ii) Appropriate facility
(d) Psychological support/ communication strategies

7. Bites and stings
   a. Common offending organisms - hymenoptera, spiders, other arthropods, snakes, marine animals
   b. Pharmacodynamics
   c. Pharmacokinetics
   d. Assessment findings
   e. Management
      (1) Airway and ventilation
      (2) Circulation
      (3) Pharmacological
      (4) Non-pharmacological
      (5) Transport considerations
         (a) Appropriate mode
         (b) Appropriate facility
      (6) Psychological support/ communication strategies

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