EE. OVERDOSE/POISONING: CARBON MONOXIDE/SMOKE INHALATION

1. Inclusion Criteria

   Carbon monoxide (CO) is an odorless, colorless gas that is most commonly a product of incomplete combustion. Carbon monoxide poisoning occurs when a victim is exposed to high levels of carbon monoxide, frequently seen in house fires, malfunctioning furnaces, with suicide attempts, or others.

   Presentation may vary depending on the concentration, method, and duration of exposure to the agent. Symptoms may include but are not limited to: headache, dizziness, and nausea and vomiting, most frequently. Symptoms can also include: chest pain, altered mental status, dyspnea, and/or seizures

PULSE OXIMETRY MAY NOT BE ACCURATE FOR CARBON MONOXIDE VICTIMS. PATIENTS MAY HAVE NORMAL SpO_2 LEVELS WITH CARBON MONOXIDE TOXICITY.

PATIENTS WITH BURNS AND TRAUMA SHOULD BE REFFERED TO THE NEAREST APPROPRIATE TRAUMA SPECIALTY CENTER.

2. Treatment
   a) Remove patient from toxic environment by appropriately trained personnel using proper level PPE.
   b) Decontaminate as appropriate.
   c) Administer high-flow oxygen.
   d) Treat respiratory and/or cardiac symptoms.
   e) Consider Hyperbaric Center referral.

   f) Consider obtaining blood sample using closed system, particularly if transcutaneous carboxyhemoglobin measurement is not available.
   g) Establish vascular access.
      (1) If hypoperfusion exists, administer 20 mL/kg bolus of LR. May repeat once without consult.

         (a) Consider additional fluid administration.

      (2) Consider following Overdose/Poisoning: Cyanide Protocol (if participating) for smoke inhalation patients.

   h) Remove patient from toxic environment by appropriately trained personnel using proper level PPE.
   i) Decontaminate as appropriate.
   j) Administer high-flow oxygen.
   k) Treat respiratory and/or cardiac symptoms.
   l) Consider Hyperbaric Center referral.

EE. OVERDOSE/POISONING: CARBON MONOXIDE/SMOKE INHALATION (Continued)

m) Consider obtaining blood sample using closed system, particularly if transcutaneous carboxyhemoglobin measurement is not available.

n) Establish vascular access.

(1) If hypoperfusion exists, administer 20 mL/kg bolus of LR. May repeat once without consult.

(a) Consider additional fluid administration.

(2) Consider following Overdose/Poisoning: Cyanide Protocol (if participating) for smoke inhalation patients.

o) Hyperbaric Medicine Specialty Center Referral: Indications for Referral

(1) Patients with exposure to products of combustion (smoke) or carbon monoxide who have a carboxyhemoglobin value of greater than 25% ***with or without symptoms***
OR

(2) Patients with PROVEN exposure to products of combustion (smoke) or carbon monoxide who have:

(a) any of the following diagnostic indicators:

(i) Patient (transcutaneous or blood) carboxyhemoglobin value of greater than 15%

(ii) Alarm of EMS or fire agency maintained passive carbon monoxide monitor

(iii) Targeted atmospheric carbon monoxide value 100 ppm or greater in the patient environment

(b) **and** one or more of the following:

(i) History of loss of consciousness during exposure (may have since resolved)

(ii) GCS persistently less than or equal to 13

(iii) Rapid decline of neurological symptoms including actively seizing patients with appropriate airway stabilization

(iv) Pregnancy

(v) Chest pain

(vi) Extremes of age

(vii) Per clinician discretion

ALERT FETAL HEMOGLOBIN HAS A VERY HIGH AFFINITY FOR CARBON MONOXIDE AND PREGNANT MOTHER MAY BE ASYMPTOMATIC, YET FETAL LEVELS MAY BE DANGEROUSLY HIGH. ENCOURAGE THE PATIENT TO BE EVALUATED AT HOSPITAL.

ALERT PATIENTS WHO DO NOT MEET CRITERIA IN O)(1) OR (2) ABOVE SHOULD BE TRANSPORTED TO THE CLOSEST HOSPITAL-BASED EMERGENCY DEPARTMENT..

p) Contraindications for Referral to the Hyperbaric Medicine Specialty Center

(1) Transport time to the Hyperbaric Medicine Specialty Center greater than one hour

(2) Patients in cardiac arrest

(3) Patients who have return of spontaneous circulation post-arrest

FF. OVERDOSE/POISONING: ABSORPTION

1. Inclusion Criteria

   Patient may exhibit any of the following: nausea, vomiting, diarrhea, altered mental status, abdominal pain, rapid heart rate, dyspnea, seizures, arrhythmias, sweating, tearing, defecation, constricted/dilated pupils, rash, or burns to the skin.

2. Treatment

   a) Remove patient from the toxic environment by appropriately trained personnel using proper level PPE.

   b) Identify agent and mechanism of exposure.

   c) Decontaminate as appropriate.

   d) **If patient has respiratory depression with decreased LOC, constricted pupils, and clinician suspects an opioid/narcotic overdose:**
   Administer naloxone 2 mg IN, dividing administration of the dose equally between the nares to a maximum of 1 mL per nare, **OR** administer 4 mg/0.1 mL IN in one nare.

   Consider additional doses of naloxone.

   e) **If patient has respiratory depression with decreased LOC, constricted pupils, and clinician suspects an opioid/narcotic overdose:**
   Administer naloxone 0.4–2 mg IVP/IO (titrated)/IM/IN (if delivery device is available, divide administration of the dose equally between the nares to a maximum of 1 mL per nare); **OR** administer 4 mg/0.1 mL IN in one nare. Repeat as necessary to maintain respiratory activity.

   f) Consider repeating naloxone.

   g) Establish IV access with LR in a clean area, if appropriate.

   h) If **organophosphate poisoning**, consider atropine 2–4 mg IV or IM every 5–10 minutes.

   i) Consider antidote to specific agent if available.

   j) Consider antibiotic specific to agent in mass casualty incident, if available.

FF. OVERDOSE/POISONING: ABSORPTION (Continued)

k) **If patient has respiratory depression with decreased LOC, constricted pupils, and clinician suspects an opioid/narcotic overdose:**
Aged 28 days to adult: Administer naloxone 2 mg IN, dividing administration of the dose equally between the nares to a maximum of 1 mL per nare, **OR** administer 4 mg/0.1 mL IN in one nare.

Consider additional doses of naloxone.

l) Remove patient from the toxic environment by appropriately trained personnel using proper level PPE.

m) Identify agent and mechanism of exposure.

n) Decontaminate as appropriate.

o) Establish IV access with LR in a clean area, if appropriate.

p) **If patient has respiratory depression with decreased LOC, constricted pupils, and clinician suspects an opioid/narcotic overdose:**
Aged 28 days to adult: Administer 0.1 mg/kg IVP/IO (titrated)IM/IN (if delivery device is available, divide administration of the dose equally between the nares to a maximum of 1 mL per nare); **OR** administer 4 mg/0.1 mL IN in one nare. May be repeated as necessary to maintain respiratory activity. ET dose: 0.2–0.25 mg/kg.

q)  If **organophosphate poisoning**, consider atropine 0.02 mg/kg IV/IO or IM every 5–10 minutes.

r)  Consider antidote to specific agent if available.

s)  Consider antibiotic specific to agent in mass casualty incident, if available.

GG. OVERDOSE/POISONING: INGESTION

1. Inclusion Criteria

   Patient may exhibit any of the following: nausea, vomiting, diarrhea, altered mental status, abdominal pain, rapid or slow heart rate, dyspnea, seizures, arrhythmias, chemical burns around or inside the mouth, or abnormal breath odors.

2. Treatment

DO NOT GIVE ANYTHING BY MOUTH WITHOUT MEDICAL CONSULTATION!

POISON INFORMATION CENTER RECOMMENDATIONS SHOULD BE SOLICITED IN CONJUNCTION WITH MEDICAL CONSULTATION, BUT MEDICATION ORDERS CAN ONLY BE ACCEPTED FROM AN APPROVED BASE STATION.

a) Identify substance and amount ingested.

b)  Consider activated charcoal **without** Sorbitol 1 gram/kg PO.

c) **If patient has respiratory depression with decreased LOC, constricted pupils, and clinician suspects an opioid/narcotic overdose:**
Administer naloxone 2 mg IN, dividing administration of the dose equally between the nares to a maximum of 1 mL per nare, **OR** administer 4 mg/0.1 mL IN in one nare.

Consider additional doses of naloxone.

d) **If patient has respiratory depression with decreased LOC, constricted pupils, and clinician suspects an opioid/narcotic overdose:**
Administer naloxone 0.4–2 mg IVP/IO (titrated)/IM/IN (if delivery device is available, divide administration of the dose equally between the nares to a maximum of 1 mL per nare); **OR** administer 4 mg/0.1 mL IN in one nare. Repeat as necessary to maintain respiratory activity.

e) Establish IV access with LR in a clean area, if appropriate.

f) If **dystonic, extrapyramidal, or mild allergic reaction**, consider diphenhydramine 25 mg IV or IM. **(NEW ’20)**

GG. OVERDOSE/POISONING: INGESTION (Continued)

g) If **beta-blocker** overdose, consider glucagon.
1 mg every 5 minutes IVP

h) If **calcium channel blocker** overdose, consider calcium chloride.
0.5–1 gram SLOW IVP over 10 minutes
Max dose of 1 gram

ALERT CALCIUM CHLORIDE IS CONTRAINDICATED IN A CALCIUM CHANNEL BLOCKER OVERDOSE PATIENT TAKING DIGOXIN.

i) If **organophosphate poisoning**, consider atropine.
2–4 mg IVP or IM every over 10 minutes
Max dose of 1 gram

j) If **tricyclic** overdose, consider sodium bicarbonate.
1 mEq/kg IVP bolus initially with 0.5 mEq/kg at 10 minute intervals

k) Consider antidote to specific agent if available.

l) Consider antibiotic specific to agent in mass casualty incident, if available.

m) Identify substance and amount ingested.

n) Consider activated charcoal **without** Sorbitol 1 gram/kg PO.

o) **If patient has respiratory depression with decreased LOC, constricted pupils, and clinician suspects an opioid/narcotic overdose:**
Aged 28 days to adult: Administer naloxone 2 mg IN, dividing administration of the dose equally between the nares to a maximum of 1 mL per nare, **OR** administer 4 mg/0.1 mL IN in one nare.

GG. OVERDOSE/POISONING: INGESTION (Continued)

p) **If patient has respiratory depression with decreased LOC, constricted pupils, and clinician suspects an opioid/narcotic overdose:**
Aged 28 days to adult: Administer 0.1 mg/kg IVP/IO (titrated)IM/IN (if delivery device is available, divide administration of the dose equally between the nares to a maximum of 1 mL per nare); **OR** administer 4 mg/0.1 mL IN in one nare. May be repeated as necessary to maintain respiratory activity. ET dose: 0.2–0.25 mg/kg.

q) Establish IV/IO access with LR in a clean area, if appropriate.

r) If **dystonic, extrapyramidal, or mild allergic reaction**, consider diphenhydramine 1 mg/kg IVP or IM.
Maximum single dose 25 mg. **(NEW ’20)**

s) If **beta-blocker** overdose, consider glucagon.
1 mg IVP (5 years of age up to patient's 18th birthday)
0.5 mg IVP (28 days - 4 years of age)
Every 5 minutes as necessary

t) If **calcium channel blocker** overdose, consider calcium chloride.
20 mg/kg (0.2 mL/kg) SLOW IVP/IO (50 mg/min)
Maximum dose 1 gram

ALERT CALCIUM CHLORIDE IS CONTRAINDICATED IN A CALCIUM CHANNEL BLOCKER OVERDOSE PATIENT TAKING DIGOXIN.

u) If **organophosphate** poisoning, consider atropine.
0.02 mg/kg IVP/IO or IM
Maximum single dose 2 mg
May be repeated every 5–10 minutes

v) If **tricyclic** overdose, consider sodium bicarbonate.
1 mEq/kg SLOW IVP/IO (for less than 1 year, dilute 1:1 with LR)

w) Consider antidote to specific agent if available.

x) Consider antibiotic specific to agent in mass casualty incident, if available.

HH. OVERDOSE/POISONING: INHALATION

1. Inclusion Criteria

   Presentation may vary depending on the concentration and duration of exposure. Symptoms may include, but are not limited to, the following:
   nausea, vomiting, diarrhea, altered mental status, abnormal skin color, dyspnea, seizures, burns to the respiratory tract, stridor, sooty sputum, known exposure to toxic or irritating gas, sweating, tearing, constricted/dilated pupils, and/or dizziness.

PULSE OXIMETRY MAY NOT BE ACCURATE FOR TOXIC INHALATION VICTIMS!

IF PATIENT HAS EXPOSURE TO CARBON MONOXIDE/SMOKE INHALATION, REFER TO CARBON MONOXIDE/SMOKE INHALATION PROTOCOL.

2. Treatment

   a) Remove patient from the toxic environment by appropriately trained personnel using proper level PPE.

   b) Identify agent and mechanism of exposure.

   c) Decontaminate as appropriate.

   d) Consider obtaining blood sample using closed system, if indicated.

   e) Establish IV access with LR in a clean area, if appropriate.

   f)  If **organophosphate poisoning**, consider atropine 2–4 mg IVP or IM every 5–10 minutes.

   g)  Consider antidote to specific agent if available.

   h)  Consider antibiotic specific to agent in mass casualty incident, if available.

HH. OVERDOSE/POISONING: INHALATION (Continued)

i) Remove patient from the toxic environment by appropriately trained personnel using proper level PPE.

j) Identify agent and mechanism of exposure.

k) Decontaminate as appropriate.

l) Establish IV/IO access with LR in a clean area, if appropriate.

m)  If **organophosphate poisoning**, consider atropine. 0.02 mg/kg IV/IO or IM every 5–10 minutes.

n)  Consider antidote to specific agent if available.

o)  Consider antibiotic specific to agent in mass casualty incident, if available.

II. OVERDOSE/POISONING: INJECTION

1. Inclusion Criteria

   Patient may exhibit any of the following: local pain, puncture wounds, reddening skin, local edema, numbness, tingling, nausea, vomiting, diarrhea, altered mental status, seizures, muscle twitching, hypoperfusion, metallic or rubbery taste.

2. Treatment

   a) Identify markings (insects, bites, needlestick, etc.).

   b) Do not apply distal and/or proximal constricting bands for a poisonous snakebite to an extremity. Do remove any jewelry on the affected extremity.

   c) Assist patient experiencing moderate to severe allergic reaction symptoms or mild symptoms with a history of life-threatening allergic reaction with the patient's prescribed or EMS service's epinephrine (1:1,000) 0.5 mg in 0.5 mL IM or patient's prescribed fast-acting bronchodilator.

ALERT IF THE SNAKE IS **DEAD**, AND IF IT IS PRACTICAL, DELIVER IT WITH ITS HEAD INTACT. DEAD SNAKES STILL BITE!

   d) Immobilize extremity.

   e) Apply cool packs for relief of pain only.

   f) **If patient has respiratory depression with decreased LOC, constricted pupils, and clinician suspects an opioid/narcotic overdose:**
   Administer naloxone 2 mg IN, dividing administration of the dose equally between the nares to a maximum of 1 mL per nare, **OR** administer 4 mg/0.1 mL IN in one nare.

   Consider additional doses of naloxone.

   g) Establish IV access with LR; administer 20 mL/kg bolus in uninjured extremity. Titrate to a systolic pressure of 90 mmHg.

   h) **If patient has respiratory depression with decreased LOC, constricted pupils, and clinician suspects an opioid/narcotic overdose:**
   Administer naloxone 0.4–2 mg IVP/IO (titrated)/IM/IN (if delivery device is available, divide administration of the dose equally between the nares to a maximum of 1 mL per nare); **OR** administer 4 mg/0.1 mL IN in one nare. Repeat as necessary to maintain respiratory activity.
   Titrate to adequate respiratory effort.

II. OVERDOSE/POISONING: INJECTION (Continued)

i) If **organophosphate poisoning**, consider atropine.
2–4 mg IVP or IM every 5–10 minutes.

j) Consider antidote to specific agent if available.

k) Consider antibiotic specific to agent in mass casualty incident, if available.

---

l) Identify markings (insects, bites, needlestick, etc.).

m) Do not apply distal and/or proximal constricting bands for a poisonous snakebite to an extremity. Do remove any jewelry on the affected extremity.

n) Assist patient experiencing moderate to severe allergic reaction symptoms or mild symptoms with a history of life-threatening allergic reaction with the patient's prescribed or EMS service's epinephrine (1:1,000) 0.15 mg in 0.15 mL IM or patient's prescribed fast-acting bronchodilator.

o) **If patient has respiratory depression with decreased LOC, constricted pupils, and clinician suspects an opioid/narcotic overdose:**
Aged 28 days to adult: Administer naloxone 2 mg IN, dividing administration of the dose equally between the nares to a maximum of 1 mL per nare, **OR** administer 4 mg/0.1 mL IN in one nare.

Consider additional doses of naloxone.

---

p) Establish IV access with LR; administer 20 mL/kg bolus in uninjured extremity. Titrate to a systolic pressure of 90 mmHg.

q) **If patient has respiratory depression with decreased LOC, constricted pupils, and clinician suspects an opioid/narcotic overdose**:
Aged 28 days to adult: Administer 0.1 mg/kg IVP/IO (titrated)IM/IN (if delivery device is available, divide administration of the dose equally between the nares to a maximum of 1 mL per nare); **OR** administer 4 mg/0.1 mL IN in one nare. May be repeated as necessary to maintain respiratory activity. ET dose: 0.2–0.25 mg/kg.

r) If **organophosphate poisoning**, consider atropine.
0.02 mg/kg IV/IO or IM every 5–10 minutes

s) Consider antidote to specific agent if available.

t) Consider antibiotic specific to agent in mass casualty incident, if available.

JJ. OVERDOSE/POISONING: STIMULANT TOXICITY

1. Inclusion Criteria
   a) Moderate toxicity:
      - Patient exhibits chest pain, hypertension, supraventricular tachycardia, moderate anxiety, respiratory distress, and/or hallucinations
   b) Moderate to severe toxicity:
      - Includes the symptomatology described above along with severe agitation, seizures, and hyperthermia

2. Treatment

   a) Ensure scene is secure and safe from paraphernalia.

   b) Initiate patient care.

   c) Identify amount, route, and time the stimulant was introduced into the body if possible.

   d) Establish IV access with LR. Consider blood draw if possible.

   e) Consider midazolam.
      0.1 mg/kg in 5 mg increments SLOW IVP over 1–2 minutes per increment with maximum single dose 5 mg
      (Reduce by 50% for patients 69 years or older)
      If IV unavailable, 5 mg IN/IM may be administered.
      IN administration max 1 mL per nare
      Larger doses may be needed to treat stimulant toxicity. Additional doses require medical consultation.

   f) Initiate Chest Pain Protocol and treat accordingly with unstable angina or suspected MI.

SUPRAVENTRICULAR TACHYCARDIA (SVT) MAY RESOLVE WITH THE ADMINISTRATION OF MIDAZOLAM. TREATING SVT DUE TO STIMULANT TOXICITY WITH ADENOSINE WILL NOT WORK SINCE THE SUBSTANCE CAUSING THE SVT WILL STILL BE IN THE SYSTEM AND CAUSE REFRACTORY SVT AFTER THE ADENOSINE HAS WORN OFF.

JJ. OVERDOSE/POISONING: STIMULANT TOXICITY (Continued)

g) Ensure scene is secure and safe from paraphernalia.

h) Initiate patient care.

i) Identify amount, route, and time the stimulant was introduced into the body if possible.

j) Establish IV access with LR.

k) Consider midazolam 0.1 mg/kg in 2 mg increments SLOW IVP over 1–2 minutes with maximum single dose of 5 mg.
If IV unavailable, administer 0.2 mg/kg IN to a maximum single dose of 2 mg or 0.2 mg/kg IM to maximum single dose of 5 mg.
IN administration max 1 mL per nare

Additional doses (up to a maximum total dose of 5 mg) require medical consultation.

KK. EXCITED DELIRIUM SYNDROME (ExDS)

1. Inclusion Criteria
   a) Excited delirium syndrome (ExDS) is a potentially life-threatening condition in which a person is in a psychotic and extremely agitated state. Mentally, the subject is unable to process rational thoughts or to focus their attention. Physically, the body's systems are functioning at such a high rate that they begin to shut down and fail. When these two factors occur at the same time, a person can act erratically enough that they become a danger to self and to the public.
   b) History of present illness often includes:
      (1) Ingestion of a stimulant or hallucinogenic drug
      (2) Drug/alcohol withdrawal
      (3) Psychiatric patient who is off of medication
   c) Signs and symptoms: ExDS is characterized as having a minimum of bizarre and aggressive behavior and one of the above history. The more signs and symptoms the patient exhibits, the more likely the patient is to have ExDS and the higher the risk for complications.
      (1) Tachycardia
      (2) Hypertension
      (3) High body temperature
      (4) Dilated pupil
      (5) Incoherent or nonsensical speech
      (6) Rapid or inconsistent breathing patterns
      (7) Paranoia
      (8) Skin changes:
         (a) Hot/dry skin (in the anticholinergic patient)
         (b) Profuse sweating (in the cocaine/MDMA/methamphetamine patient)
      (9) Shivering
      (10) Inappropriate removal of clothing
      (11) Patients who present after receiving multiple TASER or other less lethal energy by law enforcement

MANY LIFE-THREATENING MEDICAL EMERGENCIES PRESENT WITH SIMILAR SIGNS OF EXDS. EXAMPLES INCLUDE HYPOGLYCEMIA, HYPOXIA, SEIZURES, HEAD INJURIES, AND SEPSIS. EMS CLINICIANS MUST ALWAYS ASSESS FOR THE POSSIBILITY OF OTHER EMERGENCY MEDICAL CAUSES FOR THE PATIENT'S PRESENTATION.

ANOTHER KEY SYMPTOM THAT OCCURS JUST PRIOR TO THE ONSET OF SUDDEN DEATH IN A PATIENT EXPERIENCING EXDS IS "INSTANT TRANQUILITY." THIS SYMPTOM IS NOTED WHEN A PATIENT WHO HAS BEEN VERY VIOLENT AND AGITATED SUDDENLY BECOMES QUIET AND LETHARGIC. THIS IS A SIGN OF IMMINENT CARDIOPULMONARY ARREST. PATIENTS WHO HAVE UNDERGONE PERIODS OF PROLONGED PHYSICAL STRUGGLE WITHOUT SEDATION WITH MEDICATION ARE AT HIGH RISK FOR CARDIAC ARREST. ALL EFFORTS MUST BE MADE BY ALS CLINICIANS TO EXPEDITIOUSLY ADMINISTER MEDICATION TO THE AGITATED AND STRUGGLING EXDS PATIENT.

KK. EXCITED DELIRIUM SYNDROME (ExDS) (Continued)

2. Treatment (BLS)
   a) Ensure scene is secure and safe.
   b) Initiate patient care.
      (1) Obtain a measured temperature, as these patients often have severe hyperthermia.
      (2) If possible, attempt to identify the amount, route, and time of any substance ingested.
      (3) Suspected ExDS patients with evidence of head injury or traumatic mechanism of injury should receive Spinal Protection Protocol.
   c) Patients displaying signs of ExDS do not have medical capacity to refuse care.
      (1) If a suspected ExDS patient resists the delivery of care, ALS resources, EMS supervisors (where available), and law enforcement shall be requested to facilitate the treatment and transport of the patient in a safe and effective manner.
      (2) Patients who exhibit violent behavior shall require a police officer to accompany the patient during transport. Appropriate physical restraint procedures should be utilized per Restraint Protocol.

ALERT

PATIENTS DISPLAYING SIGNS AND SYMPTOMS OF EXDS SHALL BE TREATED AND TRANSPORTED AT THE ADVANCED LIFE SUPPORT LEVEL. ALS CARE AND TREATMENT WILL BE GUIDED BY THE SIGNS AND SYMPTOMS THAT THE PATIENT IS EXHIBITING, AS WELL AS POSSIBLE OCCULT INJURIES THAT MAY HAVE OCCURRED WHILE THE INDIVIDUAL WAS BEING SUBDUED. THE APPROPRIATE LIFESAVING TREATMENT FOR EXDS IS THE ADMINISTRATION OF MEDICATION, FLUID RESUSCITATION, AND DECREASING HYPERTHERMIC CORE BODY TEMPERATURE.

ALERT

PATIENTS WHO HAVE RECEIVED MULTIPLE ROUNDS OF ENERGY FROM CONDUCTED ELECTRICAL WEAPONS (INCLUDING T.A.S.E.R.) AND ARE DISPLAYING SIGNS OF EXDS ARE AT HEIGHTENED RISK FOR SUDDEN CARDIAC DEATH. THESE PATIENTS SHOULD BE TREATED WITH MEDICATION AND CLOSELY MONITORED FOR ANY EVIDENCE OF HEMODYNAMIC COLLAPSE.

   d) Establish IV/IO access. Consider blood draw if possible.
   e) Administer 20 mL/kg IV fluid bolus LR if tachycardic and/or hyperthermic.
   f) Check glucometer and treat accordingly.
   g) Administer ketamine.
      (1) Administer 1 mg/kg IV/IO. Maximum single IV/IO dose 100 mg.
         (a) If severe agitation persists, administer 1 mg/kg IV/IO. Maximum single IV/IO dose 100 mg. Maximum total IV/IO dose 200 mg.
         (b) If agitation persists after second dose of ketamine, consider midazolam 2.5 mg IV/IO.
      (2) If IV/IO unavailable:
         (a) Administer 4 mg/kg IM. Maximum total IM dose 400 mg.
         (b) If severe agitation persists after IM ketamine dose, administer midazolam 5 mg IM.
         (c) Additional dose of 4 mg/kg IM ketamine for persistent agitation requires medical consultation.

KK. EXCITED DELIRIUM SYNDROME (ExDS) (Continued)

h) Consider the administration of cold packs to the groin, neck, and axilla for patients displaying evidence of hyperthermia.

ALERT

PATIENTS DISPLAYING SIGNS AND SYMPTOMS OF EXDS SHOULD NOT RECEIVE HALDOL AND/OR BENADRYL FOR CHEMICAL RESTRAINT. THESE MEDICATIONS MAY WORSEN AN ANTICHOLINERGIC CRISIS. HALDOL MAY INCREASE THE POSSIBILITY OF CARDIAC DYSRHYTHMIA BY PROLONGING THE QT INTERVAL, AND MAY ALSO INCREASE THE CHANCES OF A SEIZURE BY LOWERING THE BODY'S SEIZURE THRESHOLD.

i) Establish IV/IO access. Consider blood draw if possible.
j) Administer 20 mL/kg IV fluid bolus LR if tachycardiac and/or hyperthermic.
k) Check glucometer and treat accordingly.
l) Administer ketamine.
   (1) Patients who have not yet reached their 13th birthday require medical consultation: Administer 1 mg/kg IV/IO. Maximum single IV/IO dose 100 mg. Maximum total IV/IO dose 200 mg.
   (2) Patients aged 13 years who have not yet reached their 18th birthday: Administer 1 mg/kg IV/IO. Maximum single IV/IO dose 100 mg. Maximum total dose 200 mg.
   (3) If severe agitation persists, administer repeat dose 1 mg/kg IV/IO to a maximum single dose of 100 mg.
   (4) If agitation persists after second dose of IV/IO ketamine, consider midazolam 0.1 mg/kg SLOW IVP/IO over 1–2 minutes. Maximum single dose 2.5 mg.
   (5) If IV/IO is unavailable:
      (a) Patients who have not yet reached their 13th birthday require medical consultation: Administer 4 mg/kg IM. Maximum IM dose 400 mg.
      (b) Patients aged 13 years to not yet reached their 18th birthday: Administer 4 mg/kg IM. Maximum IM dose 400 mg.
      (c) If severe agitation persists, administer midazolam 2.5 mg IM.
      (d) Additional dose of 4 mg/kg IM ketamine for persistent agitation requires medical consultation.
m) Consider the administration of cold packs to the groin, neck, and axilla for patients displaying evidence of hyperthermia.