Acute intoxication is often a mixed picture: patients won’t necessarily exhibit all the signs of a classic toxidrome, and coingestants may create mixed toxidromes. Getting a history of what the patient was exposed to is critical, but this may not be possible if the patient is altered.

**Step 1:** Is the patient febrile/hyperthermic?
- *Hot Tox:* only a few toxidromes produce hyperthermia, so an elevated temp narrows the differential. Nearly all of these will require benzodiazepines for management.
  - Muscle rigidity? *Neuroleptic malignant syndrome* - give benzos (and consider bromocriptine)
    - Causes: antipsychotics (e.g. haloperidol, quetiapine, etc.)
  - Hypertonicity/clonus? *Serotonin syndrome* - give benzos (and consider cyproheptadine)
    - Many causes: SSRIs, SNRIs, MAOIs, TCAs, stimulants (including cocaine), many opioids (including fentanyl and tramadol), among others
  - Dry? *Anticholinergic* - give benzos (and consider physostigmine)
    - Causes: many, including antihistamines (e.g. diphenhydramine), TCAs, and various plants (e.g. nightshade, jimsonweed)
  - Sweaty? *Sympathomimetic,* give benzos
    - Causes: stimulants (cocaine, amphetamines, etc.), MAOIs
  - Just got a volatile anesthetic or succinylcholine? *Malignant hyperthermia* - give dantrolene

Note that NMS and serotonin syndrome can look identical except for the above motor findings, although timing of onset, labs, and med lists can help; anticholinergic and sympathomimetic syndromes may also look identical except for the presence or absence of sweating.

**Step 2:** Is the patient agitated or sedated?
- Sedation is more common
  - Miosis? *Opioid toxidrome,* give naloxone for respiratory depression (and you may need to give a lot if the patient took methadone, fentanyl, or other synthetic opioids)
  - No miosis? Most likely EtOH or benzos; consider flumazenil in the latter (but avoid in EtOH- or benzo-dependent patients, who might seize)
  - Fluids coming from everywhere? *Cholinergic toxidrome* (mnemonic DUMBBELLS), decontaminate and give atropine/2PAM
    - Causes: pesticides, nerve gas
  - Agitation is often concurrent with hot tox, but exists with other toxidromes as well
    - Superhuman strength? PCP, chemically restrain and ensure patient/staff safety
    - Withdrawal syndromes (EtOH, benzos, opioids)

Always remember to work up and treat concurrent problems, such as trauma or pre- or co-existing medical conditions that complicate the picture. Above all, remember to manage the ABCs.

**References:**

https://foundationsem.com/