Antagonizing the Errors of History:
Bedside Experience with Flumazenil

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Drug toxicities are most commonly caused by agents that are ready-to-hand
  - OTCs, Analgesic Rx, Psychotropic Rx
Sedatives are most widely available Rx in most countries
  - Second to Rx analgesics in U.S. ¹
Agents expected to cause sedation are the most commonly used in purposeful OD ²
  - Supportive care frequently involves intubation, prolonged sedation, restraint, and urinary catheterization
Anxiety and sleep disturbance are ubiquitous in the hospital setting
  - Delirium is not uncommon, with BZD dose-related association ³
Sedatives widely used both pre-hospital and in hospital
Flumazenil infrequently used based on either lack of perceived utility or concern for seizures \(^4,5\)

One good (old) RCT, \(^6\) clinical guideline, \(^7\) meta-analysis \(^8\)

**Patient Selection:** Critical Care Tox Service & Consults
- Sedation or confusion with relaxed markers of neural and autonomic status (vital signs, reflexes, movement)

**Dose:** 0.5 mg IV over 30 sec, running IVF line
- Consider 0.2 mg first in cases of equivocal exam

**6 year retrospective / 1 year observational study** \(^9\)
- 519 / 212 – overall positive response rate 81.1%
- No seizures or arrhythmias
  - Drooling (3), transient anxiety (7), odd behavior (2)
  - 40.1% patients >1 Tox Dx, 13.7% Sz d/o, 48.1% Chronic BZD use
Conclusions

- Oversedation is a common problem in hospitalized patients with risk factors for delirium
- **Flumazenil** is safe and effective for *confusion* / *sedation* / *coma* suspected secondary to sedatives
  - Recovery from withdrawal (over)treatment
  - BZD induced delirium
  - Reversal of intended sedation
- **Safe**, despite worry, in patients who appear to be at risk:
  - Chronic BZD users
  - Underlying seizure disorders
  - Polysubstance ingestion
    - Watch for transient anxiety / behavioral unrest in those with severe underlying anxiety, Cluster B personality, CNS disease
References


