

## Benzodiazepine Intoxication Assessment

Benzodiazepines are a group of medications that act on the central nervous system and cause sedation, muscle relaxation, and decreased anxiety. Examples of benzodiazepines include chlordiazepoxide (Librium), oxazepam (Serax), and diazepam (Valium). Symptoms of benzodiazepine abuse include confusion, drowsiness, and slurred speech. The individual may also experience hypotension, respiratory depression, and coma. Flumazenil (Romazicon) is a benzodiazepine receptor antagonist used to reverse the effects of benzodiazepine overdose.



PLAY PICMONIC

### Drowsiness

#### Sleepy-guy

Benzodiazepines act on the central nervous system to produce sedation and can result in drowsiness. Assessment of the patient's level of consciousness (LOC) is a necessary step in suspected benzodiazepine intoxication.

### Confusion

#### Confucius

Confusion, hallucinations and slurred speech are signs and symptoms of benzodiazepine toxicity. Along with altered mental status, other indications of an overdose can include anxiety, agitation or dizziness.

### Respiratory Depression

#### Deflated Lungs

Individuals using benzodiazepines may have difficulty breathing and develop respiratory depression. Enhanced GABA potentiation relaxes striated muscles like the diaphragm. Frequent assessment of the respiratory system is critical when monitoring the patients affected by a benzodiazepine overdose.

### Hypotension

#### Hippo-BP

Benzodiazepines act on the central nervous system to produce striated muscle relaxation, and also works on the peripheral nervous system leading to decreased cardiac contractility and arterial vasodilation. Hypotension and inadequate tissue perfusion can be symptoms of benzodiazepine toxicity.

### Coma

#### Comb

Benzodiazepines act on the central nervous system via enhanced GABA neurotransmission to produce sedation, altered mental status and possibly unresponsiveness or a coma. If a coma occurs in a suspected benzodiazepine overdose, it is a medical emergency and requires intensive monitoring and treatment.

## Treatment

## Flumazenil (Romazicon)

Flute-mace-nail

Flumazenil (Romazicon) is a benzodiazepine receptor antagonist which reverses the effects of benzodiazepines via competitive inhibition of the benzodiazepine binding site on the GABA receptor. Use of Flumazenil in patients with high benzodiazepine tolerance and activity can decrease their seizure threshold and result in seizure activity. Therefore, intensive monitoring and repeat assessment is necessary when reversing benzodiazepine intoxication.