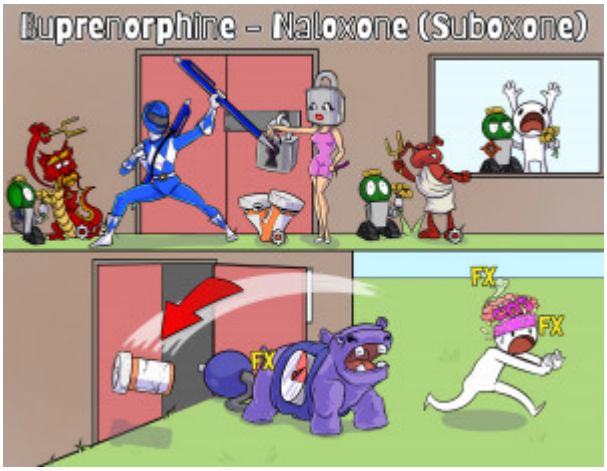
Buprenorphine-Naloxone (Suboxone)

Buprenorphine-Naloxone (Suboxone) is a combination drug consisting of buprenorphine, a partial opioid receptor agonist, and naloxone, a full opioid antagonist. This medication is indicated for opioid use disorder as an agent to prevent withdrawal symptoms and improve adherence to treatment plans. Side effects include CNS depression, hypotension, and diaphoresis. This drug has a low abuse potential, as the naloxone included in this formulation is only active when the drug is administered through non-prescribed means. If the patient attempts to snort, inject, or otherwise abuse the drug, naloxone will exert total antagonist activity and prevent opioid-mediated effects.



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Mechanism of Action

Combination Drug

Combined Med-bottles

This drug is a combination of two commonly used medications, buprenorphine and naloxone. This combination aims to attenuate the symptoms of opioid withdrawal and prevent further abuse. The most active of these two is buprenorphine, a partial opioid receptor agonist. Naloxone is included in this formulation in order to prevent abuse.

Partial Opioid Receptor Agonist (Buprenorphine)

Partial Poppy-droid Receptor Dragonist

Buprenorphrine is a partial opioid agonist at the mu receptor subtype. This drug serves to attenuate withdrawal symptoms in patients addicted to opiates, while at the same time prevent full agonists from binding to the receptor. Patients who are taking buprenorphine will thus be unable to obtain their desired effects from full agonists such as morphine or fentanyl. This drug has a ceiling effect on dangerous side effects such as respiratory depression, making it safer for regular use.

Opioid Receptor Antagonist (Naloxone)

Poppy-droid Receptor Ant-toga

Naloxone is a full antagonist at opioid receptors. While it is seemingly contradictory to prescribe a partial agonist and an antagonist together, the difference lies in their bioavailability. Unlike buprenorphine, this drug is not orally active. Thus, this drug will only exert its full agonist effect if the patient attempts to inject or otherwise abuse the drug. This is a sort of failsafe, ensuring this prescription is not used in a way that would harm an opioid-addicted patient further.

Indication

Opioid Use Disorder

Poppy-droid User

This drug is indicated for patients recovering from opioid use disorder and those suffering from acute opioid withdrawal. Administering a partial agonist allows the patient to focus on their therapy, rather than the distress of withdrawal. This improves rates of adherences and maintenance. Unfortunately, this drug can also induce a withdrawal state in patients who are very dependent on opioids. As this drug stimulates opioid receptors with much less efficacy than commonly abused opioids, taking this drug can be similar to quitting “cold turkey” in these patients. For most individuals, however, this drug can be used without fear of inducing withdrawal symptoms.

Side Effects

CNS Depression

Deflated CNS-brain

Despite being used for opioid use disorder, this drug is in fact still an opioid. As such, it carries many of the same side effects as full agonists. This includes CNS depression and mild sedation. This drug may also precipitate withdrawal.

Diaphoresis

Sweaty-sweatband

Diaphoresis is a common symptom of opioid withdrawal, and may be caused by buprenorphine. Patients who are very dependent on opioids are more likely to experience this side effect.

Hypotension

Hippo-BP

Buprenorphine-Naloxone administration may cause hypotension, which can present as dizziness, nausea, or fainting.

Considerations

Low Abuse Potential

Down-arrow Abused Med-bottle

Because of this drug's formulation, it has a low potential for abuse. Due to buprenorphine's partial agonist activity, there is a ceiling effect on opioid receptor stimulation. Attempts to circumvent this drug's opioid ceiling effect through alternative means of administration (smoking, injecting, snorting) will be nullified due to the naloxone included in the formulation.