

## Opiate Review

Adapted from Safety Update - Opiates and Benzodiazepines: Ensuring Patient Safety

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Opioid class	Agents	Clinical considerations
Pure agonists	Codeine, dihydrocodeine, fentanyl, hydrocodone, hydromorphone, levophanol, meperidine, morphine, methadone, oxycodone, oxymorphone	<ul style="list-style-type: none"> <li>• High binding affinity at the mu receptor</li> <li>• No dosage ceiling effect</li> </ul>
Partial agonist	Buprenorphine	<ul style="list-style-type: none"> <li>• High binding affinity but low efficacy at the mu receptor</li> <li>• Ceiling effect for analgesia</li> <li>• Used as abuse deterrent and detox</li> </ul>
Opioid class	Agents	Clinical considerations
Mixed agonist-antagonist	Butorphanol, nalbuphine, pentazocine	<ul style="list-style-type: none"> <li>• High affinity but low efficacy at mu receptor also have partial kappa agonist activity</li> <li>• Partial agonist activity at the kappa receptor</li> </ul>
Pure antagonist	Naloxone, naltrexone, methylnaltrexone	<ul style="list-style-type: none"> <li>• Antagonist at mu, kappa, and delta receptors</li> <li>• High binding affinity to mu receptor with NO efficacy</li> <li>• Abuse deterrent &amp; detox</li> </ul>
"Other"	Tramadol, tapentadol	<ul style="list-style-type: none"> <li>• Weak agonist at the mu receptor</li> <li>• Inhibits reuptake of norepinephrine and serotonin</li> </ul>