Medication for Addiction Treatment: A Guide for Primary Care Providers

Medication	Uses	Maintenance dosing	Side effects and risks	Precautions	Notes
Alcohol use disorder					
Oral naltrexone	Maintenance	50 mg/day by mouth	Nausea, headache, dizziness, elevated transaminases	Contraindicated with AST or ALT > 5 times the upper limit of normal or decompensated cirrhosis due to impaired metabolism in liver disease. Periodic monitoring of liver function tests (LFTs) is recommended..	
Intramuscular (IM) naltrexone	Maintenance	380 mg IM every four weeks	Nausea, fatigue, dizziness, injection site reaction	Periodic monitoring of LFTs is recommended. Impaired metabolism in liver disease.	
Acamprosate	Maintenance	666 mg by mouth three times daily	Diarrhea, nervousness, fatigue	Contraindicated with creatinine clearance </= 30 ml/min; reduce dose in creatinine clearance 30-50 ml/min.	Safe in decompensated liver disease.
Disulfiram	Maintenance	Weeks 1-2: 500 mg by mouth daily Thereafter: 250 mg by mouth daily	Drowsiness, metallic taste, headache, peripheral neuropathy, rare fulminant hepatitis	Do not administer until the patient has been abstinent from alcohol for at least 12 hours as causes highly unpleasant adverse reaction. Contraindicated in severe myocardial disease or known coronary occlusion; psychosis; pregnancy; or with allergies to rubber, nickel or cobalt.	Unlikely to be effective outside of highly structured settings or in patients highly motivated for self-change.
Opioid use disorder					
Methadone	Inpatient withdrawal management; maintenance	Most effective at doses of 60 mg or more by mouth daily.	Sedation, prolongation of the QTc interval, nausea, constipation, weight gain, edema, amenorrhea, decreased bone density, decreased libido. Risk of respiratory depression and overdose.	Prolonged, variable half-life with incomplete cross tolerance with other opioids requires low initiation dose (30mg or less) and slow titration (10mg or less dose increases every 3 days or longer). Potential for drug interactions with inducers or inhibitors of P450 system. Obtain baseline EKG in those with risk factors for QTC prolongation; dose reduction and EKG monitoring or alternative treatment is recommended for patients with QTC ≥ 500 msec.	Schedule II substance in US. For outpatient addiction treatment, only available through state-licensed programs. For pain treatment, available from licensed prescribers.
Sublingual buprenorphine-naloxone	Inpatient withdrawal management; maintenance	Buprenorphine 2mg/naloxone 0.5mg – buprenorphine 24mg/naloxone 6 mg sublingually daily (generic	Nausea, constipation, headache, insomnia. Rarely associated with overdose, usually in combination with other sedating agents.	Risk of precipitated opioid withdrawal if initiated too soon in opioid-tolerant patient after last use of full opioid agonist; patients should be experiencing at least moderate withdrawal at first dose (typically 12 or more hours after last heroin, more for longer acting agents). May be less effective in severe liver	Schedule III. Can be prescribed only be physicians who have taken a federally mandated course and received federal waiver. Naloxone is an opioid antagonist with poor

		dosages; dosage varies in newer brand-name formulations).		disease due to increased bioavailability of naloxone. Periodic monitoring of LFTs is recommended.	sublingual bioavailability, and is intended to block buprenorphine's effect only if the tablet is crushed and injected.
Sublingual buprenorphine	Inpatient withdrawal management; maintenance, particularly for pregnant women.	2mg-24mg sublingually daily. Most non-pregnant patients do not require buprenorphine doses over 16mg.	Nausea, constipation, headache, insomnia. Rarely associated with overdose, usually in combination with other sedating agents.	Risk of precipitated opioid withdrawal if initiated too soon after last use of full opioid agonist, as above. Periodic monitoring of LFTs is recommended.	Schedule III. Can be prescribed only be physicians who have taken a federally mandated course and received federal waiver. Preferred over buprenorphine-naloxone for pregnant women. Pregnant women may need higher doses.
Intramuscular (IM) naltrexone	Maintenance	380 mg IM every four weeks	Nausea, fatigue, dizziness, injection site reaction.	Risk of precipitated withdrawal if taken < 7 days after last opioid dose (urine drug testing and naloxone challenge may be used to assess risk). Risk of overdose if dose is missed and patient relapses, due to waning opioid tolerance. Periodic monitoring of LFTs is recommended. Impaired metabolism in liver disease.	Some variability in time in days of full opioid blockade reported.
Oral naltrexone	Sometimes given as "bridge" prior to IM naltrexone; can be considered for maintenance in highly supervised settings.	Bridge to IM naltrexone, or maintenance: 25 mg by mouth on day 1, if no withdrawal symptoms occur, start 50 mg daily on day 2	Nausea, headache, dizziness, elevated transaminases	Risk of precipitated withdrawal if taken < 3-6 days after use of short-acting opioids, or <7 days for long-acting opioids. Periodic monitoring of LFTs is recommended. Impaired metabolism in liver disease.	Sometimes used as a bridge treatment while awaiting insurance approval for IM naltrexone. Daily dosing limits effectiveness as a maintenance treatment for opioid dependence but may be effective in settings where adherence is enforced.

*A monthly subcutaneous injection formulation of buprenorphine-naloxone is now approved and entering into practice for patients who already initiated sublingual buprenorphine at doses of 8mg-24mg; this guidance will be updated as we gain experience with the subcutaneous formulation.

Medication table adapted from Pace & Samet, Annals of Int Med 2016