**Buprenorphine-Naloxone Information Sheet for Providers**

**WHAT ARE WITHDRAWAL SYMPTOMS/SIGNS FROM OPIOIDS?**

Dilated pupils, goosebumps, sweating, runny nose, tearing eyes, diarrhea/nausea/vomiting/stomach cramps, restlessness, agitation/anxiety, tachycardia, bone or joint aches, tremor, yawning. The COWS scale (on mdcalc) helps us to grade the amount of withdrawal.

**WHAT IS buprenorphine-naloxone?**

Buprenorphine-naloxone is a medicine that is used to treat opioid use disorder (OUD). It’s a narcotic, so it is a substitution therapy sort of like how methadone is a substitution therapy. The main difference between them is that buprenorphine-naloxone is a “partial agonist” which means that if the dose increases, it has a “ceiling effect” and patients don’t get high. It’s also quite hard to overdose on (not impossible – usually overdosing happens because people mix it with benzodiazepines, alcohol, or fentanyl). The other main difference is that buprenorphine-naloxone is available by prescription, so people can lead a much more normal life on it, seeing a primary care doctor once a month for a prescription refill, rather than going to a methadone clinic daily.

**HOW DOES IT WORK?**

The goal of buprenorphine-naloxone is to prevent patients from feeling sick, while preventing the high.  In the sublingual form naloxone is not active as it has low bioavailability, however if it is injected it has high bioavailability and becomes active. The naloxone is present to prevent people from dissolving the medication and injecting it as this would precipitate severe withdrawal.

**WHY IS STARTING BUPRENORPHINE-NALOXONE COMPLICATED?**

Buprenorphine-naloxone binds very strongly (aka “high affinity) to the same receptors as other narcotics do.  Because it has such high affinity, if patients take buprenorphine-naloxone and THEN take heroin, they won’t really feel effects of the heroin because the receptors are already bound up.  But if patients have other narcotics int heir system and THEN take buprenorphine-naloxone, the buprenorphine-naloxone will actually displace other narcotics from the narcotic receptor, and this will precipitate bad withdrawal symptoms and make patients feel even worse!

So, before starting buprenorphine-naloxone the patient cannot take ANY type of narcotic pain medicine for ~12 hours (or much longer if it was a longer acting narcotic, such as OxyContin, MSContin or methadone).  The patient also has to be in moderate withdrawal (COWS scale score of ~8+) when starting the first dose of buprenorphine-naloxone.  Since there is a lot of fentanyl in DC’s heroin supply, many of our patients with OUD will be using fentanyl without realizing it. People who use fentanyl can tend to feel withdrawal symptoms before 12 hours have passed, but you should generally still wait about 12 hours before starting the buprenorphine-naloxone to avoid precipitated withdrawal.

It is ok (and in fact, encouraged!) to give patients medications to relieve symptoms of withdrawal while waiting to start buprenorphine-naloxone. Doing so makes it more likely they can wait long enough to start safely. These may include clonidine, ondansetron, diphenhydramine, loperamide, gabapentin, NSAIDs and others.