Harm Reduction in Opioid Use Disorder

Transcript

Christopher Griggs, MD: We're going to move on and talk about Harm Reduction in Opioid Use Disorder in The Emergency Department. Travis, can you tell us a little bit more about that?

Travis Barlock, MD: Yes, absolutely. Just more generally, I think in the emergency department, we see Opioid Use Disorder pretty much every day. And every one of us can think pretty clearly about those patients and the ones that are addicted to prescription opioids coming in with opioid withdrawal, or that patient who is injecting drugs on the street and coming in with an opioid overdose. And I don't know about you guys, but in my opinion, I often find that these patients are kind of viewed as second class patients who are either drug seeking or who just aren't that sick and shouldn't be in my emergency room.

And I just think it's important that we try to change that interpretation and point out that we have a huge opportunity as providers in the emergency room specifically to make a huge impact in reducing the harm that is associated with opioid use.

The first way that we can do this I think applies in the setting of opioid withdrawal. And that is to utilize Buprenorphine. So, Buprenorphine: What is this? It's an interesting molecule. It binds the mu-opioid receptor, and it does so more tightly than most other opioids and that means that it can effectively displace them. However, it only partially activates the receptor. And what this results in is a reduction in cravings without producing a significant high. It also has a longer duration of action, which at low doses lasts around twelve hours, but at higher doses can last anywhere between one and three days.

And so, based on these pharmacological properties, I think we can all see that Buprenorphine serves as an ideal medication to help bridge patients through withdrawal and ideally get them into recovery. One thing I think that's important that we should all know about it is that it's got this unique pharmacological profile and it should only be used in patients who are being exposed to short-acting opioids. So, that's going to be things like Heroin, Morphine, Hydrocodone and Oxycodone.

If a patient is taking a long-acting opioid like Methadone, we can actually end up precipitating withdrawal which is the opposite of what we're trying to do here.

Christopher Griggs, MD: So, Travis, when using Buprenorphine, it's not that a patient who's had Methadone you would say cannot take Buprenorphine. It's just you have to probably wait longer which is not going to happen in an emergency department because if they'd just taken

Methadone or they're using Methadone, you're going to have to wait a pretty long time and it's going to be at least a couple of days before you can use Buprenorphine, correct?

Travis Barlock, MD: Exactly. It will just take much longer just based on the pharmacokinetics. So, now if you've got a patient who you've identified is in withdrawal and you're deciding that okay, this is a patient that you want to help with Buprenorphine you need to determine how severe their withdrawal is to gauge your dosing regimen.

So, there's the Clinical Opioid Withdrawal Scale, also called the COWS. And every patient who comes in with withdrawal, they get a COWS Score. Now, it factors in multiple different elements that we all know with withdrawal, like piloerection, yawning, etc. If they come in with a score of at least eight, then they're in withdrawal that could benefit from Buprenorphine.

So, our protocol is to use between two and four milligrams of Buprenorphine if their score is between eight and twelve. And then, you go higher doses if it's over twelve. After that first dose, you basically wait an hour, repeat your COWS Score, and then you provide a second dose. At this time if they're withdrawing still, then you do this again. If they've improved, these patients are good to be discharged. And so, you can just continue this assessment every hour until the patient is out of withdrawal.

Christopher Griggs, MD: And there are great protocols online that can walk you through this, right Travis?

Travis Barlock, MD: Oh, yes. There are great groups at Yale; there's ED Bridge, down in California (https://www.bridgetotreatment.org/), and many others. This is an evolving treatment strategy and there are different approaches to it for sure.

Christopher Griggs, MD: So, what evidence is there behind using Buprenorphine that would be convincing to a provider to want to take the steps to start a patient on it?

Travis Barlock, MD: We know that when comparing patients who are just sent to a referral treatment center, compared to patients who are started on Buprenorphine in the emergency department, they are more than twice as likely to engage in addiction treatment if they're started on Buprenorphine.

More specifically, those patients who are started on Buprenorphine have higher levels of engagement with medication-assisted therapy also known as MAT Therapy. We also know that patients who are injecting Opioids and are engaging with MAT, inject less. And those that have complications like HIV, they're more adherent to their antiretroviral therapy, and they're less likely to engage in HIV-transmitting behaviors, like needle sharing and things like that.

Indisputably, patients engaging with MAT do better. So, starting your patient on Buprenorphine is one of the best things you can do for them. Additionally, those patients have been shown to have a 50% relative reduction in illicit opioid use overall when compared to patients who are just referred to counseling. And moreover, patients started on Buprenorphine in the emergency department are more than 67% less likely to require inpatient addiction treatment. There are just many different long term benefits from starting patients on Buprenorphine in the emergency department.

Christopher Griggs, MD: Yes. I think those points are huge because if you have a patient who is actively injecting heroin or using IV opioids, it could be their next dose that causes them to have an overdose death. So, if you can be that gateway to start them on Buprenorphine, where you're going to take away that drive to continue to use that IV opioid, even if they only stay on it a week, that next day could have been that dose that was going to kill them. So, every day that you're able to keep them off the
IV opioid, you're exposing them to less risk for HIV, exposing them to less risk for endocarditis, and exposing them to less risk for overdosing. The outcome is not just in the patient, but also there are a lot of mothers who have Opioid Use Disorder where we're seeing neonatal abstinence. And patients who get on Buprenorphine in pregnancy, the children have better outcomes as well.

So, I think it's huge across the population if we can get everybody with an Opioid Use Disorder started on medication treatment would be great.

Travis Barlock, MD: Absolutely. There's just a slew of virtues that follow. One thing that I think is important to state regarding Buprenorphine, is the special laws that are surrounding it. Particularly the three-day rule. Buprenorphine is under a special classification and unless you have an X Waiver, you're unable to prescribe it. However, any physician is able to **administer** Buprenorphine and it's basically under this specific rule.

Christopher Griggs, MD: So, you mean any emergency physician, right?

Travis Barlock, MD: That's right. Any emergency physician.

Jeremy Driscoll, MD: We are special.

Christopher Griggs, MD: So, in an emergency department you can give a dose without the X Waiver?

Travis Barlock, MD: That's correct. And officially, the rule states that not more than one day's medication can be administered or given to a patient at a time and this treatment cannot be carried out for more than seventy-two hours. It's a little technical but basically, what that rule

says is that any physician treating opioid withdrawal can treat a patient with Buprenorphine for three days in a row and there needs to be a concurrent referral for treatment.

Christopher Griggs, MD: So, yes, this gives us the opportunity if a patient comes in on a Friday night and is in acute opioid withdrawal in the clinic and their community doesn't open up till Monday morning; they can come back then on Saturday and Sunday, get re-dosed by the emergency physician to bridge them to that appointment, correct?

Travis Barlock, MD: Exactly. I think that's why it's three days.

Christopher Griggs, MD: But if you get an X Waiver, what does that give the emergency provider an opportunity to do?

Travis Barlock, MD: It allows them to prescribe it. So, it doesn't need to be this in the emergency department treatment. It's a prescription that you can send patients out with and again, it's one of the most efficacious means of keeping patients adherent to their addiction treatment.

Christopher Griggs, MD: Yes, I have my X Waiver and most of our residents in our residency have taken the training to get the X Waiver. And the opportunity is great because you see them, they don't have to come back, you can give them what they need to get to that appointment.

And then also, we will have patients who come in with an acute overdose and they're not in significant enough withdrawal to start Buprenorphine in the emergency department. But I can write them a prescription for home induction that then can bridge them to that appointment instead of asking them to come back to the emergency department when they're in withdrawal. Because we know if you're using heroin and you go back into your community, those patients aren't always going to come back when they go into withdrawal. If you at least give them that opportunity: "Hey, here's a prescription for Buprenorphine; you can use this prescription at home and then follow up with this appointment," that's another opportunity for them to try to get into treatment instead of going back to using the IV opioid.

Travis Barlock, MD: So, that brings me to my next point, which is naloxone. So, all these patients should be sent out with a prescription for naloxone. This is another harm reducing intervention that we can provide in the emergency department which is an absolutely lifesaving intervention. Now, naloxone is mu-opioid receptor antagonist and it will displace opioids from the receptor without activating it. This is critical and lifesaving. And we all need to be utilizing it as the key reversal agent in opioid overdose. But I think it's important for us to know that we should be prescribing this to patients and that is really where I think it functions best in regard to harm reduction.

So, in terms of its efficacy, multiple studies have shown that by prescribing naloxone to patients with Opioid Use Disorder, it also has major downstream effects. Studies across the nation have shown very clearly that mortality rates as high as 37% with this prescription have decreased. And additionally, this is the position of the AMCT, the AACT, and the AAPCC to widen access to naloxone as, "it is an opioid safety issue and a harm reduction measure."

In the emergency department if someone comes in with an opioid overdose, after doing the basic ABCs and making sure that they're stabilized, you are going to be providing IV naloxone. Usually, around 0.2mg, but can certainly provide more. Our goal is to achieve adequate ventilation, not a normal level of consciousness.

And we should keep in mind that you can provide naloxone in multiple different ways. You can do it intranasally, subcutaneously, or even intramuscularly if you're having difficulty with IV access. Now, Jeremy, is that your experience as well?

Jeremy Driscoll, MD: Yes, and I think another important point though regarding dosing is, if you do or are able to get a little bit of history about the patient – what they use, how often they use – it can be important with your dosing. Obviously, if someone's in respiratory distress or apneic, we go straight to a 4mg dose. But someone who maybe is a chronic user, I usually start with a low dose like 0.2mg because we can always re-dose this, see if we get a response. But like you said, the goal isn't to precipitate withdrawal. It is to keep them having adequate ventilation.

Travis Barlock, MD: Regarding the prescribing of naloxone, there are different ways you can do it. But I think that the most common way to prescribe it is the intranasal spray. It's a 4mg dose that's given to the patient. There is a backup dose that's provided in the kit, and this is something that is a lifesaving measure that you can give to your patients. It's something that helps the patients. It helps family. It helps the kids in the house. It's really a safety measure that everyone benefits from.

I think it's important to communicate to patients that this is something that they need to inform their family and friends that they have, so that someone who is able bodied would be able to administer it if need be.

Now that kind of leads me into I think our next topic here, which is safe injecting practices. So, patients who are injecting drugs are patients that often struggle with many complications from their injection drug use like skin and soft tissue infections, endocarditis, HIV, among other things.

One thing that we have the opportunity to do in the emergency department is to provide the right counseling to patients regarding safe injecting practices. I don't think it's hyperbole to state that every emergency provider should know how to inject IV drugs, and that is to educate their patients properly.

I think of these recommendations in three main categories and that's in: overdose prevention, infection prevention, and protecting their veins basically. Regarding overdose prevention, obviously we're going to prescribe patients naloxone. But I think another useful tip is to have patients try a tester shot before giving themselves their first dose. Fentanyl has been flooding the markets and patients often don't know the opioid that they're taking. And so, if they can do a tester shot, that often might be something that is helpful.

You'd be blown away how something as simple as washing your hands and cleaning your skin can also make a huge difference. Along the same lines, patients should be encouraged to use sterile equipment and sterile water if possible. These all are simple things that we can tell our patients and that can reduce the risk of infection.

If a state has a needle exchange program, we should be giving our patients this information. Patients should avoid sharing their equipment with others. And this is because bloodborne pathogens like HIV and hepatitis C are commonly transmitted by needle sharing. Prevalence is much higher among this population as well.

Lastly, patients should be educated about smart injection sites. It is recommended to inject in the arms and legs and the hands and feet. You want to make sure to recommend against injecting in the neck, the wrists and the groin because important neurovascular structures course through these areas. Recommend using smaller bore needles and rotating sites, which will help prevent damaging these veins and building up scar tissue over time, which also our nurses will appreciate.

Christopher Griggs, MD: Yes. I think it's counter intuitive to be educating a patient on how to inject opioids. But if we can make the process of their addiction less risky for them, that's every day that we have an opportunity then to try to engage them to get them into treatment where we would get them off using needles. But the reality is, some people just aren't ready when they're in the emergency department.

Travis Barlock, MD: Yes, I totally agree.

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