

Panel 3

Jamie Redwing: any comment about hypothyroidism in opioid users?

Leslie Hayes: Why is there such a difference in dose between Zubsolv and Suboxone? Any factors at play there?

- Dr. Nelson: Different formulations that use different polymers, different excipients, different bioavailabilities.
- Adam Lake: I'd assume this is difference in bioavailability of the product

William Nickell: Have u ever used over 24 mg of buprenorphine/day

- Bella: I have for someone whose pain was not controlled by 24 mg for a short time.
- Stephen Gibert: I have a patient with h/o OUD but severe neuropathic and ischemic leg pain, who does well with 32 to 40 mg/day buprenorphine.
- Dr. Nelson: We relatively routinely give patients 24 mg daily initially but often titrate them back to 16 mg over a few days. There are clearly some patients who benefit from even higher dose, but probably not for long term if able to be reduced.
- William G Anderson: I like higher doses of buprenorphine - runs tolerance higher which lowers odds of overdosing if they use other things
- Stephen Gibert: There was a study done showing high dose buprenorphine is often very effective for pain. Sorry I don't have the reference handy.

Sean Leonard: I've been seeing high levels of naloxone in the urine of suboxone patients. I thought naloxone was poorly absorbed through the oral/SL route.

- Sadie Knott: Elevated naloxone levels may indicate the individual is "spiking" their urine by putting a piece of a film in their urine. Or, the individual may be injecting their Suboxone. I see both of these things regularly in my practice. My patient have been forthcoming as to what they have done to their urine or that they are injecting their Suboxone when I bring up the UDS results.
- Adam Lake: I've usually looked to the bupe/norbupe ratios to assess "spiking" - I didn't even think of or know we could order a naloxone urine test until this course.
- Sean Leonard: It's also showing high levels of norbuprenorphine, indicating liver metabolism. Injection of suboxone, I thought, resulted in precipitated withdrawal.
- Dr. Nelson: Assuming it is taken properly and not put in the urine, you really cannot rely on urine naloxone for much more than a plus/minus evaluation. Most of the drug is hepatically metabolized and there is interindividual variability and the urine specific gravity/concentration changes during the day. Additionally, defining "high levels" in urine is difficult and does not predict blood/brain levels.
- Dr. Stancliff: It is absorbed and metabolized, I believe rapidly so little to no impact. We don't measure it at all. Norbupe is the measure of ingestion.
- Ann Still: Good to look at parent and metab components of Naloxone when evaluating the high levels of naloxone in urine. Will differentiate the "spiking the urine" from injecting
- Sean Leonard: by high levels, I kind of meant higher than negligible, which I kind of thought was the case in typical suboxone administration. (our UDS changed from running

buprenorphine/norbuprenorphine to running naloxone too). increased naloxone levels surprised me.

- Ann Still: Remember folks will trade or exchange Suboxone and Subutex so always good to check for the Naloxone in your UDS. It also tells you how they are dosing and if running out early which allows for teaching tidbits.
- Sean Leonard: buprenorphine/norbuprenorphine ratios will vary depending on the length of time between taking a dose and obtaining the UDS, I've seen negligible bup. levels and high norbup levels.
- Ann Still: Always trend your UDS confirmation results.
- Sean Leonard: I do
- Sadie Knott: Important to know if your labs provides results that are corrected for creatinine. The lab my organization uses does not so this calculation needs to be done to compare UDS results from one week to the next.
- Adam Lake: good point sean, I usually just want to see meaningful amounts of norbupe. Though, I have used low bupe, high norbup ratios to get insurance to cover higher dose bupe (maybe a fast metabolizer, don't have to get pharmacogenomic testing)
- Bella: Need to make bup affordable and covered by insurance.
- Bella: Is there an in house type screen for norbuprenorphine?
- Adam Lake: @bella - I haven't ever seen a point of care norbupe, but would love to have that discussion at the time of the visit