Did you know ……

Many standard urine drug screens (UDS) are unable to detect semi-synthetic and fully synthetic opioids. UDS commonly test for natural opioids such as morphine, codeine and heroin (heroin metabolizes to morphine). Since synthetic and semi-synthetic opioids such as fentanyl, hydrocodone, hydromorphone, meperidine, methadone, oxycodone, buprenorphine and tramadol do not metabolize to codeine or morphine, the UDS may give a false negative opioid result even when these drugs are present.

Contact your lab to determine if synthetic and semi-synthetic opioids are part of your hospital’s UDS.

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Treatment of Opioid Overdose with Naloxone

With stronger and more lethal illicit synthetic opioids on our streets, health care providers need to be vigilant in helping these victims of overdose. Most recently we are seeing exposures to the illicit synthetic opioid analogues such as U-47700, furanylfentanyl, carfentanil, and heroin laced with fentanyl.

When a person becomes unresponsive or respiratory depressed from taking these opioids, the treatment is naloxone (Narcan). Naloxone is an opioid antagonist and it reverses the coma and respiratory depression caused by all opioids.

Dosing: The usual initial dose of naloxone is 0.04 – 0.4 mg with repeat dosing up to 2 mg; it can be given IV, SQ, IM, intranasal, via nebulizer (in patients with spontaneous respirations), or via ET tube. In hospital, naloxone can also be given as a continuous IV infusion.

Larger doses of naloxone may be needed to reverse opioid effects in exposures to the illicit synthetic opioids. For example, in a study from Yale New Haven Hospital, naloxone 6 mg has been necessary to reverse effects of fentanyl. Single doses of up to 24 mg of naloxone have been given without adverse effects.

In the opioid dependent adult, the goal is to reverse respiratory depression without putting the patient in to withdrawal. Symptoms of withdrawal usually appear within a few minutes after giving naloxone.

There are some special considerations when using naloxone:

- In a mixed overdose with an opioid and a sympathomimetic (like cocaine, amphetamine or ecstasy), naloxone may expose serious sympathomimetic toxicity.
- If a patient has hyperkalemia, giving naloxone can precipitate arrhythmias.
- The patient needs to be monitored a minimum of 4 - 6 hours after the last dose of naloxone given, as the patient can re-sedate. Recurrence of opioid toxicity has been reported in approximately 1 out of 3 adults in the ER after being given naloxone. This is more likely with long acting opiates like methadone or extended release opiates.

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