Be aware of the dangers of prescribing tricyclic antidepressants for methadone patients

As many as half of all patients in methadone maintenance therapy may also suffer from depression. While physicians often understand the challenges of treating patients suffering from both addiction and depression, not all may be aware of the dangers of prescribing tricyclic antidepressants (TCAs) such as amitriptyline and desipramine for patients on methadone. Understanding these risks can help physicians to select appropriate therapies and reduce the chance of adverse drug events.

Tricyclic antidepressants, often known as “first generation” antidepressants, are less commonly prescribed than newer antidepressants such as SSRIs, which have fewer side effects. However, TCAs are still considered effective and are used for treatment-resistant depression, which may be one reason why methadone prescribers may consider using them.

Although evidence suggests that the concurrent use of most opioids and tricyclics is uneventful, methadone prescribers should be aware that serum levels of tricyclic antidepressants have been shown to increase when co-administered with methadone. This may be significant since both methadone and tricyclic antidepressants can prolong the QT interval and perhaps increase the risk of arrhythmias.
Indeed, such risks are more than theoretical. In a 2006 study of coroner’s cases in New York City, Chan et al. found that the odds of an accidental overdose death were more than double among methadone patients testing positive for a TCA than for those on methadone alone.¹

Physicians treating patients on methadone maintenance therapy can take a number of steps to reduce the risk of adverse events associated with concomitant use of TCAs:

1. Consider alternative antidepressant therapies first. TCAs should never be used as first-line treatment for depression in methadone patients.
2. Check PharmaNet. PharmaNet review is mandatory in methadone clinics in British Columbia. When reviewing a methadone patient’s PharmaNet profile, physicians should check for the prescribing of TCAs.
3. Consider random urine drug testing for TCAs. Some MMT patients abuse TCAs for their sedative effects. If obtained illicitly, these drugs will not appear on the patient’s PharmaNet profile, and patients may not admit to their use.

**Add fentanyl testing to random urine drug screens as part of pharmacovigilance strategy**

The College recently reviewed a case of a physician whose PharmaNet profile suggested a high number of patients abusing prescription opioids. The physician in question had been performing random urine drug screens as part of his pharmacovigilance strategy but had not discovered anything out of the ordinary. Nonetheless, suspicions remained, and after discussing the issue with one of the College’s medical consultants, the physician added fentanyl testing to the urine drug screens. The results showed that all of the patients in questions were using fentanyl illicitly.

Fentanyl is a synthetic opioid that is 50 to100 times more potent than morphine.¹ Its use with a transdermal delivery system (“the patch”) makes it unique among opioids, and it has become an increasingly common choice for the management of chronic pain². However, as with other powerful opioids, fentanyl has been
associated with a risk of overdose, misuse, and diversion. Multiple jurisdictions in North America, Europe, and Australia have reported a spike in illicit fentanyl use and a corresponding increase in fentanyl-related deaths in the past several years.

In October 2014, Vancouver police issued a warning about fentanyl being sold as heroin, leading to more than 30 overdoses and at least two deaths since then.

Since fentanyl is not reactive in immunoassay screening tests for opioids, negative screens for morphine and other such drugs are not indicative of fentanyl non-use. In cases of suspected opioid misuse but negative screening for morphine and the like, physicians should specifically request testing for fentanyl.³

References

