Subject: Methadone dosing pearls

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Review of equianalgesic dosing and methadone and kinetics. Here are few pearls since good info on methadone dosing is hard to come by:

1) Equianalgesic dosing tables are based off of single dose studies in opioid naive patients with acute pain, therefore do not account for chronic opioid dosing effects.

2) When switching from a fentanyl patch to methadone, opioid switching was successful 80% of time using a 1:20 fentanyl:methadone (using daily mg).

NOTE: our website equianalgesic dosing tables use a fixed 1:25 (+/-) ratio, and after you account for cross tolerance decreases, this is about the same.

3) Because morphine's metabolite (which can accumulate in renal dysfunction) has antianalgesic properties AND the fact that methadone has NMDA receptor antagonism effects which decrease (and can even reverse) morphine tolerance, caution is needed when converting from morphine to methadone. The methadone amounts can be easily overdone at higher morphine levels.

NOTE: our website equianalgesic dosing tables use a fixed 3:1 morpine:methadone ratio, which is likely too high at higher morphine levels.

4) When converting from morphine to methadone and...
   a. the dose is 30-90mg of morphine/day; use 4:1 morphine:methadone
   b. the dose is 90-300mg of morphine/day; use 8:1 morphine:methadone
   c. >300mg morphine/day; use 12:1 or higher morphine:methadone

Give this daily methadone dose as divided TID

5) An alternative method (the little old lady method) of morphine to methadone dosing is to use 10% of the morphine equivalent dose given every 12hrs. Ex. 300mg morphine, give 30mg bid. .

If >300mg morphine per day, don't start higher than 30mg methadone BID, and augment with BTP meds until response is known.

6) The 1st article doesn't mention it, remember that QTc prolongation is increasingly reported with methadone, thus watch for those haldol/amiodarone/others patients. Also those on 3A4 and 2D6 inhibitors.

7) As with all long t1/2 drugs, methadone dose changes shouldn't be more frequent than q5-7 days.

8) Lastly, we've had several patients who are given methadone by the docs who have a recent heroin abuse history to limit withdrawal symptoms. While methadone is a good opioid for methadone maintenance treatment (MMT) for opioid withdrawal in the outpatient setting due to long t1/2 (daily dosing) and cost, it may not be a great choice inpatient unless it's a continuation of their MMT. The reason I see are:
   a. not titratable due to half life
   b. drug interactions (p14-15 of 2nd article)
   c. high variability in dose response (see concentration curve on p25 of 2nd article)
   d. potential for it to be continued and added to RxPad as a discharge med when it is clearly used for abuse and not pain

We could easily use other opioids inpatient that are easier to handle such as fent, oxycodone, etc. or let them withdrawal (up to the doc, obviously, but labetalol or clonidine help) since some feel that giving them opioids is like giving a nicotine patch to a post MI smoking patient - condoning the behavior.

As usual, my lone opinion and comments very welcomed.

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