

West Essex Medicines Optimisation Programme Board

Pethidine for the management of acute or chronic pain

Not recommended

Name: generic (brand)	Formulation	What is it?	Indication	Date of decision	Decision status	NICE guidance
Pethidine	Pethidine 50mg tablets Pethidine 50mg/ml & 100mg/2ml injection	Short acting schedule 2 opioid with a rapid onset	Moderate to severe pain, Obstetric analgesia, analgesia during anaesthesia	September 2019		Not suitable for pain associated with Sickle Cell (1)

West Essex MOPB recommendation: Not recommended for prescribing within West Essex Primary care.

Licensed dose for moderate to severe pain (2)

By mouth: Pethidine 50mg to 150mg to be repeated every 4 hours.

The analgesic effect of oral pethidine is noticed within 15 minutes after administration and peaks in around two hours and then the effects gradually subside.

By intramuscular or subcutaneous injection: pethidine 25mg-100mg to be injected every 4 hours.

The analgesic effect of injected pethidine is noticed within 10 minutes after administration and usually lasts between 2 to 4 hours.

Pethidine 50mg is potentially equivalent to 5mg of oral morphine

The analgesic effect (3)

Due to the fast acting effect of pethidine patients can experience feelings of euphoria, difficulty concentrating, confusion and impaired psychomotor and cognitive performance. The euphoric side effects increase the addiction potential of this medication.

Pethidine is not recommended for patients with chronic pain. Pethidine has high lipid solubility and therefore has a fast onset and short duration of action which could lead to patients becoming dependant on the drug.

Pethidine has a toxic metabolite norpethidine, which is more toxic than other opioids particularly in long term use which can lead to serious central nervous system side effects.

Research has shown pethidine does not cause less smooth muscle spasms than other opioids of equivalent doses and so there is no benefit for patients with visceral colic or pain.

The recommendations (3)

Pethidine tablets are not recommended for the management of long term persistent pain because fast-acting opioid medicines, like pethidine tablets are not useful for managing continuous pain.

For patients with chronic pain, modified release opioids administered at regular intervals are more appropriate for patients who experience pain day and night.

No new initiations on pethidine and work with the surgeries to review the patients currently being prescribed pethidine with a plan to stop /move to a more effective pain management medication

Alternatives to consider (2)

Severedol® (morphine immediate release 10mg tablets) – well absorbed, reaches half- life in 2.5 to 3 hours

Oramorph (morphine 10mg/5ml liquid)- peak plasm level after 15 minutes and half-life in 2 hours

Not suitable in combination with buprenorphine due to agonist/antagonist interaction

References

1.<https://www.nice.org.uk/donotdo/do-not-offer-pethidine-for-treating-pain-in-an-acute-painful-sickle-cell-episode>

2.<https://www.medicines.org.uk>

3.<https://www.rcoa.ac.uk/faculty-of-pain-medicine/opioids-aware/structured-approach-to-prescribing/long-term-prescribing>

4.<https://www.nhsbsa.nhs.uk/epact2>