CLINICAL GUIDELINE

Clonidine in acute pain management, Queen Elizabeth University Hospital

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Important Note:

The Intranet version of this document is the only version that is maintained.
Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

Guidelines for the use of Clonidine in Pain Management

This guideline covers the prescribing of clonidine in pain management for adult patients only in QEUH. Patients requiring clonidine should be discussed with the acute pain team, anaesthetist or critical care team.

Introduction:

Although the mechanism of action is not fully understood, Clonidine is an alpha 2 adrenoceptor agonist which works as an analgesic by its action on pain inhibitory pathways.

Centrally, it is thought to act on alpha-2 receptors in the substantia gelatinosa of the dorsal horn, where it has the effect of increasing acetylcholine and suppressing the release of substance P and glutamate. Peripherally, clonidine appears to block C-fibres and interact with inhibitory G-proteins.

It can be given by oral, nasogastric or intravenous route.

It has both sedative and analgesic properties and is used as an adjuvant to other analgesics**.**

Clonidine also reduces blood pressure and slows heart rate by reducing sympathetic stimulation.

Indication

Clonidine may be used for challenging postoperative pain as an adjuvant analgesic, particularly as an opioid sparing and to augment the analgesic effect, without increasing respiratory depression risk.

Clonidine can be used as an adjuvant for neuropathic pain (off licence use) along with other agents.

As an adjunct analgesic in patients with high opioid requirements, coexisting anxiety or opioid abuse/withdrawal.

Dosage

Clonidine can be given via oral, nasogastric or intravenous route. The bioavailability of oral and IV route is same. Therefore intravenous and oral dose is the same.

Bolus doses: Usual starting dose 50 microgram TDS. The dose may be titrated to 75-150 microgram TDS, usual maximum dose 450 microgram.

Side effects

Its negative chronotropic effects can cause hypotension & bradycardia.

Caution if systolic BP < 100 or hemodynamically unstable patients.

Others – sedation, dizziness, constipation, depression, dry mouth, fatigue, headache, nausea, postural hypotension, hallucinations.

Drug Interactions

CNS depressants - may enhance sedation bradycardia and hypotension.

Beta-blockers - may enhance bradycardia and hypotension.

Caution

Hypersensitivity to clonidine

In severe bradycardia or hypotension or heart failure

Renal Impairment: 50% is renal excreted and therefore caution should be taken in renal impairment.

In Pregnancy and lactation – seek advice as it crosses placenta and excreted in the breast milk.

Withdrawal of clonidine

Caution when ceasing after prolonged treatment (5days or more) or with high doses (daily dose 150microgram TDS).

Abrupt withdrawal may cause rebound hypertension. Symptoms include agitation, nervousness anxiety, restlessness and headache.

To avoid this-Clonidine should be tapered slowly over 2-3 days and could be stopped when dose is down to 50microgram tds.

References

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