Use of Propofol in a Specialist Palliative Care Unit

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Background

Propofol is a general anaesthetic agent used primarily for induction and maintenance of anaesthesia, and continuous sedation of intubated patients.[1] It has a quick onset of action and little lag effect once stopped.[2]

Beneficial use of propofol in palliative care has been reported.[3] There is a recent systematic review of one prospective study and three case studies which discuss the use of propofol in managing severe refractory agitation.[4] The prospective study from Sweden has informed the practice in our specialist palliative care unit. No other reports of use in Scotland have been widely published.

There is also one cohort study from Germany (2017) which compares use of augmented symptom control (ASC) with opioids, benzodiazepines and continuous deep sedation (CDS) with propofol, in withdrawal of non-invasive and invasive ventilation in MND patients only.[5]

Indications for propofol use include intractable nausea and vomiting (with slower dose titration) [1,6]. refractory agitation (agitated delirium and intolerable distress 6), and status epilepticus. [4,6].

Its use in refractory agitation is suggested once other drug choices have been exhausted; including sedative, antipsychotic and benzodiazepine. Use of propofol or phenobarbital would be suggested as a final step, and phenobarbital would be used preferentially.[6]

"Propofol is a vital back up plan to have in reserve if other measures for agitation at the end of life fail" (SPCU Consultant 1)

"Propofol can quickly transform a very distressing end of life situation, to one of relative calm and control" (SPCU Consultant 2)

"It is used only very occasionally and this should remain the case" (SPCU Consultant 3)

Method

A protocol for propofol use in refractory agitated delirium or intolerable distress was developed in 2011. A pro forma was used to document use over the next six years. This was collated and simply analysed. There were insufficient patient numbers to perform any statistical analysis.

Conclusion

Evaluation of the use of propofol in this specialist palliative care unit has been limited due to incomplete data collection

Propofol has been used infrequently, but the impression of the specialist staff is that it is an invaluable tool for very difficult and refractory cases

A new pro forma has been written to allow for more robust auditing of the use of propofol and formal assessment of it's effect.

Results

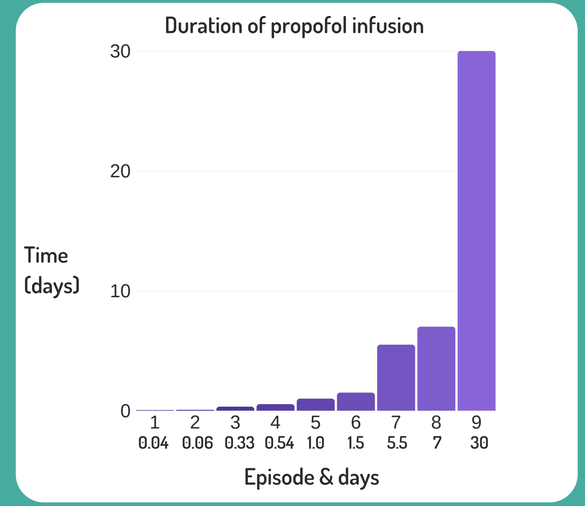
Nine episodes (in seven patients; three male and four female) over a six year period

Average age of the patients was 48 (21-63 years range)

Five of the seven patients had metastatic cancer, one had motor neurone disease and the other Lafora body disease.

Three of the seven patients had premorbid psychiatric history; anxiety or depression

Average length of time with propofol infusion was 7.7 days (range 0.04 days to 30 days)



Indications for propofol use: refractory agitation, status epilepticus, and sedation for NIV removal.

In the seven non seizure related episodes, a benzodiazepine and an antipsychotic has been used prior to propofol.

In all episodes, at least three other agents had been trialled, prior to propofol use.

The propofol infusion was stopped when the patient died in seven of the nine episodes.

Propofol Administration

A propofol infusion should be commenced, preferably, after discussion with other health professional colleagues, the patient and their family.[7]

A suggested starting dose of propofol in refractory agitation is 1mg/kg/hr, and can be increased by 0.5mg/kg/hr every 5-10 mins and should not be increased beyond 4mg/kg/hr.

Propofol does not have any analgesic properties so analgesics should be continued simultaneously.[1]

Gradual titration should be used to achieve conscious sedation ideally (responds to verbal command to open eyes).[6]

Monitoring of the patient in the first hour, and at 2, 6 and 12 hours is recommended, when using propofol. This would include monitoring the symptom relief and level of sedation.[1]

References

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