Clinical pharmacist's views on the role of alpha-2-agonists in practice and research for the management of agitation, sedation and delirium (ASD)

Sedation, analgesia and delirium

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Abstract

Introduction: Patients in the intensive care (ICU) com- monly receive analgesics and sedatives to facilitate me- chanical ventilation. Recommendations suggest patients are kept as lightly sedated as feasible. Studies report an in- consistent association between deep sedation, prolonged ventilation and ICU stay.[1]

Opinions around patients 'wakefulness' include dis- comfort and the potential increased prevalence of psy- chological morbidity.[2] Alpha-2-agonists (clonidine and dexmedetomidine) are agents used in ASD management and reported to produce lighter sedation.

The aim of this project was to explore ICU pharmacist's perspective on ASD practice over UK.

Objectives

- Explore ICU pharmacist's views on: ASD practices, sedation research priority, importance of A2B clinical trial and the impact of Covid19.
- Determine the prevalence of clonidine and dexmedetomidine prescribing.

Methods: An online survey was devised on SurveyMonkey. The survey was designed in 2 sections:-

1. Respondents provided responses based on a 'point prevalence' of clonidine and dexmedetomidine pre- scriptions, on day of completion.
2. Their local ICU sedation practice, their views on pri- ority of sedation research, the A2B study and whether they believed ASD was more challenging during the Covid19 pandemic.

The online survey was distributed via the UK Clinical Pharmacy Association Critical Care Group (UKCPA CCG), the NIHR Critical Care National Speciality Group (NSG), the UK Critical Care Research Group and Twitter.The survey remained active for 12 weeks from 30.3.2021 with reminders sent for completion every fortnight.

Results: There were 121 respondents, all but 1 were ICU pharmacists. There are approximately 243 ICU pharmacist posts in the UK, this represents a response rate of ap- proximately 50%.

37 (30%) of respondent reported clonidine (but not dexmedetomidine) was prescribed in their ICU; 7 (6%) described dexmedetomidine only; and 76 (63%) reported both.
In describing ASD during Covid-19 pandemic, 107 (88%) respondents reported it had become more challenging.
83 (69%) of respondents stated that clonidine usage increased during the pandemic (27 (22%) no change). 46 (39%) stated that dexmedetomidine usage increased during the pandemic (50 (42%) no change).
Among the respondents 98 (81%) 'strongly agreed', and 20 (17%) 'agreed' that research involving ASD is a priority. A2B is set to compare clinical and cost effectiveness of propofol, clonidine, and dexmedetomidine as primary sedative for ICU patients. 49 (40%) of respondents re- ported participating in A2B. 65 (54%) respondents felt that A2B was a 'very important', and 63 (52%) said it was an
'important' research question.

Conclusion: This survey reported widespread use of alpha-2-agonists in ASD practice. Almost two-thirds of ICUs report using both agents. Clonidine use is the most prevalent. Given the paucity of high quality clinical effec- tiveness and safety data for this drug, clinical trials which assess clinical effectiveness, including ASD are a priority. Respondents endorsed that ASD research is a priority, with ASD management much more challenging during the Covid19 pandemic. Limitations include that the design was a brief online survey; although had a high pharmacist response it did not incorporate the views of other members of the ICU team.

References

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