

Critical care drug requirements in response to Covid-19

Interview with Anita Hogg - Medicines Optimisation Innovation Centre (MOIC) Lead for PCE & Principal Pharmacist, NHSCT



Tell me about this work?

COVID-19 is an emerging pandemic and widespread and unprecedented efforts to optimise patient care are ongoing and are being delivered at pace. The process developed to estimate critical care drug requirements is a robust and agile starting point to inform regional procurement planning and preparedness in response to the COVID-19 pandemic.

Informing critical care drug requirements is important. Medicines are a clinical priority to support patients and front-line clinical staff in dealing with the virus and to optimise patient care. As a result, there has been an unprecedented global demand on supportive medicines, particularly in critical care. Given that this is a new virus, the existing evidence base to inform and predict critical care drug requirements is limited.

Assuring the availability of critical medicines at the point of need during a pandemic is particularly complex. The balance between 'normal' supply and demand is eroded as demand escalates and organisations may order excess stock to maintain continuity of supply, placing further pressure on already constrained medicines and the supply chain.

What are your main learning points from this work?

The process developed was a collaborative and robust approach to assist in informing regional critical care drug requirements in response to the COVID-19 pandemic. Further application has been demonstrated in regional procurement planning and preparedness. It is anticipated that the complexity and robustness of the model will increase and will be further refined based on evolving real world data.

What challenges did you face in doing this work and did Covid 19 pandemic make this work more difficult to complete?

Given that this was an emerging pandemic, the main challenges were a limited evidence base and limited available real world data. To our knowledge there was no other process or model available at the time to estimate critical care drug requirements for this pandemic.

The collaborative approach was key – despite the pressure and increased workload brought about by Covid 19, all involved engaged fully throughout the process, including ICU pharmacists, procurement leads, Trusts, CCaNNI and the Regional Pharmaceutical Procurement Service.

Will this work lead to a change in service in healthcare?

Measures are currently being introduced to gather further real world data. The process developed is evolving and being refined based on real world data as it becomes available. The current model assumptions were formulated to reflect the initial surge of the COVID-19 pandemic in N.I. However these are being adapted, as necessary, and the model assumptions, based on real world data will be available to inform the requirements for any potential future surges.