

“On-the-go” real time Meropenem Database : Innovative Approach to Microbiologist Advising with a positive impact on meropenem stewardship

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Background

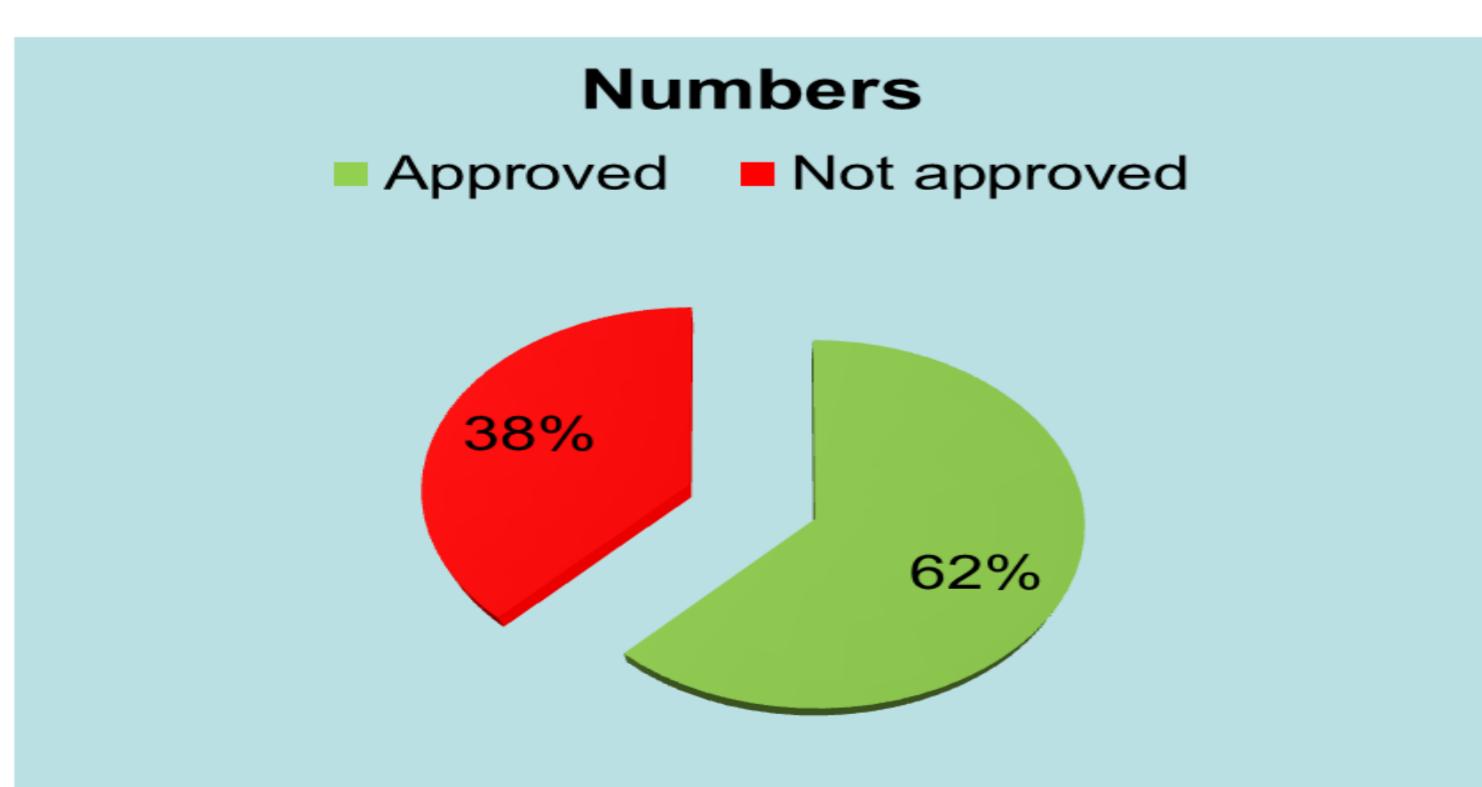
It was noted that meropenem use at a large district hospital was steadily increasing over the past 6 months despite monitoring its use. We have previously demonstrated that microbiologists may themselves need to monitor and audit their antibiotic advising practice¹. In order to ensure that meropenem use – including those which were prescribed based on microbiology advice are appropriate and closely monitored – we introduced an easily accessible, on-the-go, secure database to allow real time information sharing and monitoring meropenem use.

Methods

A secure encrypted database was introduced at West Hertfordshire Hospitals NHS trust on July 6th 2018. This database can be accessed by all microbiologists and the antimicrobial pharmacist. When meropenem is recommended by a microbiologist, this information goes on the system with all the details about the indication, the duration and the stop/review date. This information gets notified in real time to all other microbiologists and the antimicrobial pharmacist. The information was then used to stop/review meropenem in a timely fashion, with the data disseminated to the respective ward pharmacist. A pilot study was conducted over a period of 5 weeks, and the data was analysed.

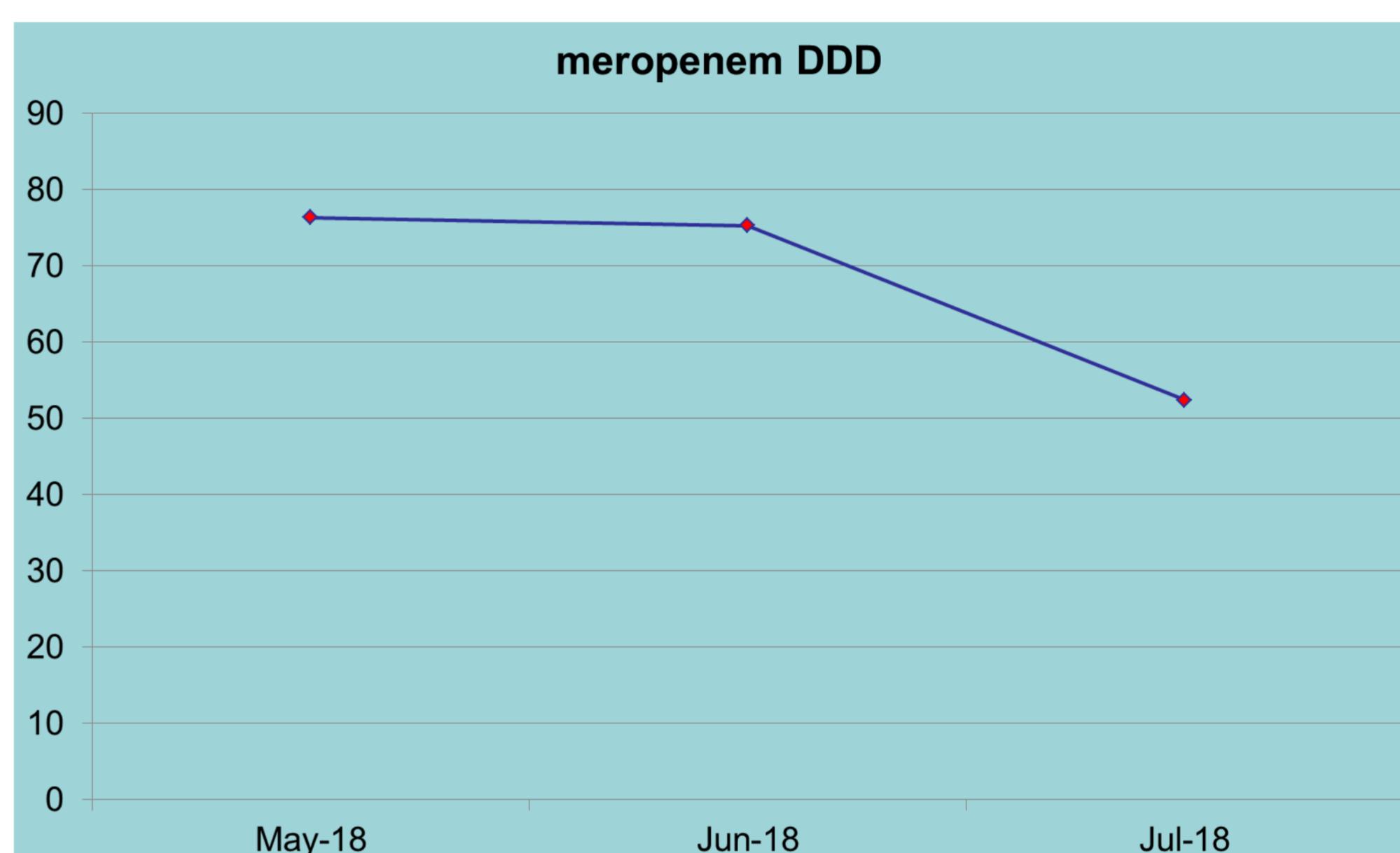
Results

Over the 35 day period there were 61 patients prescribed meropenem. Of these 38 were approved by microbiologists (62 percent).



Results

Over the study period the total measured consumption of meropenem by the trust decreased: the Defined Daily Dose for meropenem in July was 52.5 per 1000 patient days, which was down on the average figure of 82.1 for the three preceding months (36%) reduction.



Conclusions

The reduction in meropenem use during this pilot study shows this approach is a promising innovation for improving the antimicrobial stewardship in this trust with relation to meropenem prescribing. This innovation has also contributed to changing microbiologist behaviour in relation to advising effective alternative therapy and sparing meropenem. Further parallel studies are now required to see whether this reduction is sustained over a longer period as well as to understand the indications driving meropenem prescribing by clinicians to allow these to be targeted.

Reference

- Do antimicrobial guardians require stewardship?
Elamin W, Vaghela T, Kandil H, FIS 2016