HOW WE INVOLVED CRITICAL ROLE PLAYERS IN AN ANTIBIOTIC STEWARDSHIP TEAM IN A PERI-URBAN HOSPITAL

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CONTEXT

Mediclinic Paarl is a 127-bed private hospital in the Western Cape. The implementation of an Antibiotic Stewardship Programme (ASP) was started in July 2011, led by the Clinical Risk Manager (CRM).

PROBLEM

Although our hospital's performance was on track, there were still cases of non-conformance to standards and protocols regarding antimicrobial use. Specialists were not actively involved in antibiotic stewardship, sometimes resisting change. Antimicrobial rounds consisted of the CRM and the pharmacist, but they had no authority to enforce changes. To include others was a problem: the microbiologist had to travel from Cape Town to attend and the specialists were not comfortable discussing all issues in front of the patients.

INTERVENTION

The CRM realised that a team with more role players was necessary and, in September 2013, put together a small committee comprising physicians, surgeons, the pathologist and pharmacist to set up ASP meetings.

The committee decided to identify cases for presentation before the meeting to give members time to prepare. In addition, because the Critical Care Unit does not always have patients with a high acuity, complicated infections, alert organisms or alert antimicrobials prescribed, patients would be selected even if they had been discharged or had died, since lessons could be learnt even from previous mistakes.

To facilitate attendance, meetings were held during lunch-hour, twice monthly. The hospital manager approved a light lunch to be served during the meeting. The first meeting, held in October 2013, was attended by two of the physicians, one general surgeon, the pathologist, the CRM and the pharmacist.

Discussions and action plans were documented, including changes in antimicrobial choice, dosage or duration of treatment. The pharmacist then phoned the treating specialist to discuss the suggested changes.

To increase participation of clinicians, the microbiologist prepared a topic for discussion for every meeting, and meeting minutes were sent to all the relevant specialists. The Network Marketing Manager arranged for one CPD point to be awarded for attending the meeting.

In January 2014 a letter was sent to all specialists inviting them to the meetings and requesting that they add patients to the list for discussion. The list would now include patients identified by the CRM, the pharmacist and all specialists. Specialists involved with any of the cases would present their patient. In their absence, the CRM or the pharmacist would present the case for discussion. This letter included a motivational testimony from the physician most involved in the meetings, explaining the value the meeting added to patient care and personal growth.

Simultaneously, a pharmacist and the CRM attending an Antibiotic Stewardship conference were introduced to a software program that enabled them to identify patients needing immediate action. ICNet was already used to identify patients with alert organisms. The SAP BusinessObjects Web Intelligence on the Mediclinic Intranet made it possible to identify patients on alert antibiotics.

During the second half of 2014, ownership and championship of the Antibiotic Stewardship meeting was transferred from the CRM to the pharmacy. The pharmacy would take responsibility for all upcoming meetings, with all the other role players equally responsible for identifying patients, attending meetings and enforcing changes.

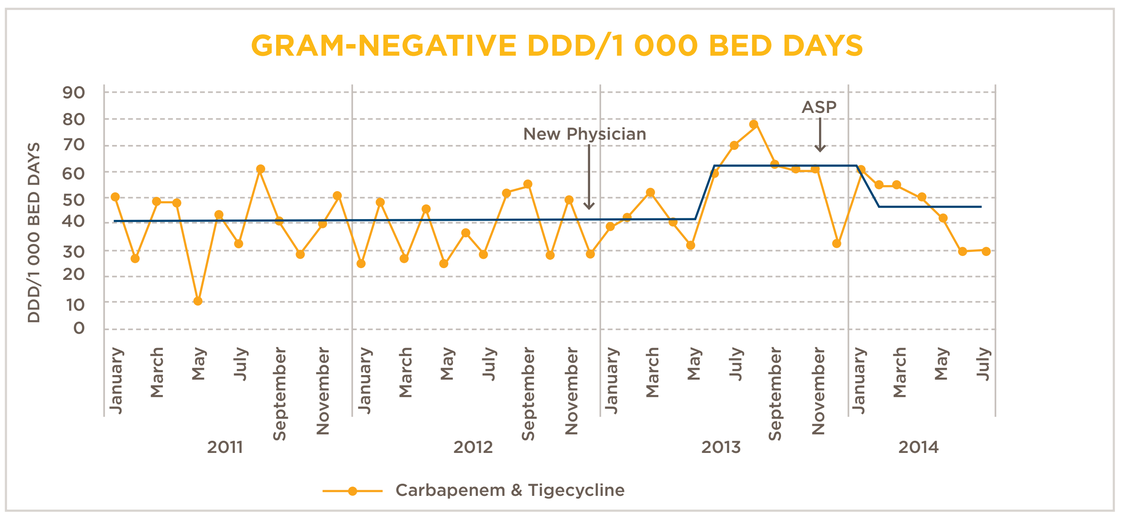
The ASP Committee was subsequently given authority by the Clinical Hospital Committee to confront non-conforming specialists to ensure conformance.

MEASUREMENT AND RESULTS

Teamwork improved: specialists contacted the pathologist for advice more frequently, and were more willing to discuss their patients with each other. Treating specialists conformed to suggestions made by the pharmacist with less resistance and there was more enthusiasm from role players who were not previously involved. Usage of antimicrobials was used to track antibiotic prescribing using Run Charts[2].

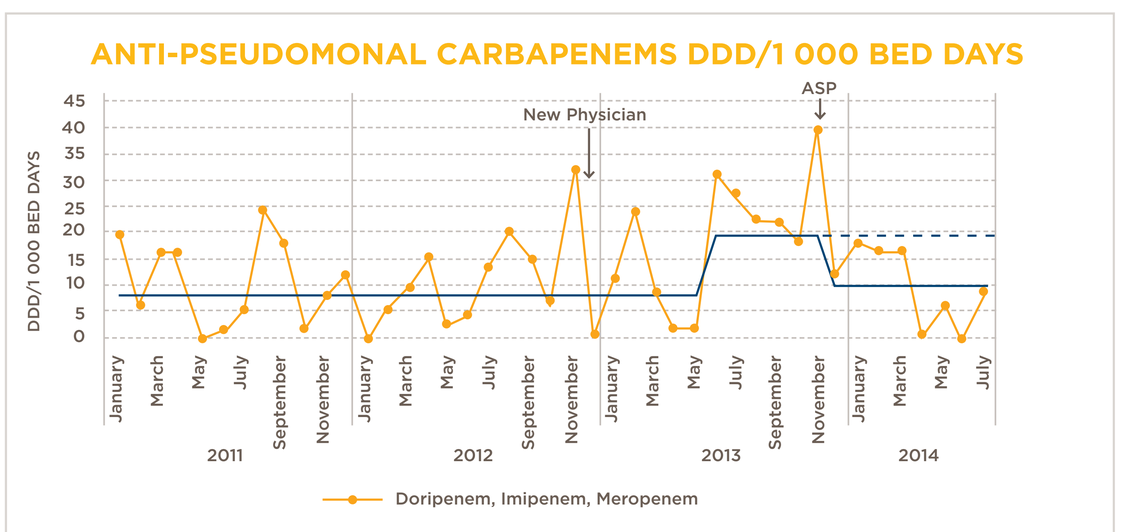
The median usage of gram-negative antibiotics increased when an additional two physicians joined the hospital in early 2013 (from a median usage of 40.9 – 60.8 Defined Daily Dose (DDD)/1 000 bed days) but total usage decreased from this high point after the introduction of the ASP (to 46.6 DDD/1 000 bed days) (Figure 1).

Figure 1



The usage of three carbapenems with anti-pseudomonal cover, that we most need to spare (Doripenem, Imipenem and Meropenem), increased from a median of 9 to 20 DDD/1 000 bed days with the two additional physicians but dropped back to 10 DDD/1 000 bed days (50%), with the introduction of ASP meetings. There appears to be a further decrease in usage but more data points are required to confirm this (Figure 2).

Figure 2



CHALLENGES AND LESSONS LEARNT

Only an Antibiotic Stewardship Committee has the authority to discuss failures with prescribers and to give support and advice to non-conforming prescribers. We found ways of involving the specialists by giving them a platform to discuss their cases, to learn from others, and to make the meetings convenient and rewarding.

CONFLICT OF INTEREST

None.

MESSAGE FOR OTHERS

Even if you are working in a small to medium sized hospital, it is possible to have a meaningful Antibiotic Stewardship meeting. Be creative in finding a structure and format that suits your environment. This will create enough knowledge and energy, and will bring about positive changes.

1. Perla RJ, Provost LP, Murray SK. The Run Chart: a simple analytical tool variation for learning from variation in healthcare processes. BMJ Qual Saf 2011; 20: 46 – 51. Downloaded from qualitysafety.bmj.com on January 31, 2011.