



We aimed to determine whether a rapid review by a multidisciplinary antimicrobial stewardship team would improve the timeliness of optimal antimicrobial therapy for patients with positive blood cultures” Cairns et al (2016).

Abstract:

Background: Antimicrobial stewardship teams play an important role in assisting with the optimization of antimicrobial use in acute care settings. We aimed to determine whether a rapid review by a multidisciplinary antimicrobial stewardship team would improve the timeliness of optimal antimicrobial therapy for patients with positive blood cultures.

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Methods: This prospective randomized controlled trial was undertaken in two Australian hospitals. Patients received either standard care (a clinical microbiologist, registrar or laboratory scientist communicating the positive blood culture by phone to the treating doctor) or intervention (standard care plus rapid review by a multidisciplinary antimicrobial stewardship team). Outcomes included time to appropriate and/or active antimicrobial therapy and in-hospital mortality. The trial was registered on the Australian New Zealand Clinical Trials Registry (ACTRN12614000258651).

Results: A total of 160 patients were enrolled in this study: 81 in the standard care arm and 79 in the intervention arm. Patients in the intervention arm were commenced earlier on active (HR 8.02, 95% CI: 2.15–29.91) and appropriate antimicrobials (HR 1.95, 95% CI: 1.13–3.38), with a higher proportion of patients allocated to the intervention arm receiving active therapy at 48 h (96% versus 82%) and appropriate therapy at 72 h (70% versus 54%). The majority of patients where the blood culture was a contaminant were not started on antimicrobial therapy, and there were no significant differences in time to cessation of antimicrobial therapy.

Conclusions: Antimicrobial stewardship team review of patients with pathogenic positive blood cultures improved the time to both active and appropriate antimicrobial therapy.

Full Text

Reference:

Cairns, K.A., Doyle, J.S., Trevillyan, J.M., Horne, K., Stuart, R.L., Bushett, N., Yong, M.K. Kelley, P.G., Dooley, M.J. and Cheng, A.C. (2016) The impact of a multidisciplinary antimicrobial stewardship team on the timeliness of antimicrobial therapy in patients with positive blood cultures: a randomized controlled trial. *Journal of Antimicrobial Chemotherapy*. 71(11), p.3276-3283.

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