



Drug-related adverse events (AEs) are reported to be common amongst patients receiving outpatient parenteral antimicrobial therapy (OPAT). However, comparative data regarding intravenous (iv) catheter-related AEs are lacking” Underwood et al (2018).

Abstract:

BACKGROUND: Drug-related adverse events (AEs) are reported to be common amongst patients receiving outpatient parenteral antimicrobial therapy (OPAT). However, comparative data regarding intravenous (iv) catheter-related AEs are lacking.

OBJECTIVES: To compare drug- and iv catheter-related AEs from a large UK OPAT centre.

PATIENTS AND METHODS: We reviewed 544 OPAT episodes with a median (IQR) duration of 7 (2-18) days. Clinically significant drug- and iv catheter-related AEs were calculated as a percentage of OPAT episodes with an AE and also as AEs per 1000 iv drug/catheter days.

RESULTS: Drug-related AEs complicated 13 (2.4%) OPAT episodes at 1.7 (95% CI 0.9-2.9) per 1000 drug days. Catheter-related AEs occurred more frequently, complicating 32 (5.9%) episodes at 5.7 (95% CI 4.2-7.9) per 1000 iv catheter days (χ^2 test for difference in AE rate: $P < 0.001$). Non-radiologically guided midline catheters were associated with the most frequent AEs ($n = 23$) at 15.6 (95% CI 10.3-23.4) per 1000 iv catheter days compared with other types of iv catheters (HR 8.4, 95% CI 2.4-51.9, $P < 0.004$), and self-administration was

associated with a higher rate of catheter-related AEs at 12.0 (95% CI 6.0-23.9) per 1000 iv catheter days (HR 4.15, 95% CI 1.7-9.1, P = 0.007). CONCLUSIONS: Clinically significant iv catheter-related AEs occurred more frequently than drug-related AEs, especially when using non-radiologically guided midline catheters. Regular review of the need for iv therapy and switching to oral antimicrobials when appropriate is likely to minimize OPAT-related AEs.

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Reference:

Underwood, J., Marks, M., Collins, S., Logan, S. and Pollara, G. (2018) Intravenous catheter-related adverse events exceed drug-related adverse events in outpatient parenteral antimicrobial therapy. *The Journal of Antimicrobial Chemotherapy*. November 20th. .

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