



Errors and discrepancies are relatively common in everyday infusion administrations but most have low potential for patient harm” Lyons et al (2018).

Abstract:

INTRODUCTION: Intravenous medication administration has traditionally been regarded as error prone, with high potential for harm. A recent US multisite study revealed few potentially harmful errors despite a high overall error rate. However, there is limited evidence about infusion practices in England and how they relate to prevalence and types of error.

OBJECTIVES: To determine the prevalence, types and severity of errors and discrepancies in infusion administration in English hospitals, and to explore sources of variation, including the contribution of smart pumps.

METHODS: We conducted an observational point prevalence study of intravenous infusions in 16 National Health Service hospital trusts. Observers compared each infusion against the medication order and local policy. Deviations were classified as errors or discrepancies based on their potential for patient harm. Contextual issues and reasons for deviations were explored qualitatively during observer debriefs.

RESULTS: Data were collected from 1326 patients and 2008 infusions. Errors were observed in 231 infusions (11.5%, 95% CI 10.2% to 13.0%). Discrepancies were observed in 1065

infusions (53.0%, 95% CI 50.8% to 55.2%). Twenty-three errors (1.1% of all infusions) were considered potentially harmful; none were judged likely to prolong hospital stay or result in long-term harm. Types and prevalence of errors and discrepancies varied widely among trusts, as did local policies. Deviations from medication orders and local policies were sometimes made for efficiency or patient need. Smart pumps, as currently implemented, had little effect, with similar error rates observed in infusions delivered with and without a smart pump (10.3% vs 10.8%, $p=0.8$).

CONCLUSION: Errors and discrepancies are relatively common in everyday infusion administrations but most have low potential for patient harm. Better understanding of performance variability to strategically manage risk may be a more helpful tactic than striving to eliminate all deviations.

Full Text

Reference:

Lyons, I., Furniss, D., Blandford, A., Chumbley, G., Iacovides, I., Wei, L., Cox, A., Mayer, A., Vos, J., Galal-Edeen, G.H., Schnock, K.O., Dykes, P.C., Bates, D.W. and Franklin, B.D. (2018) Errors and discrepancies in the administration of intravenous infusions: a mixed methods multihospital observational study. *BMJ Quality & Safety*. April 7th. .

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