

A survey of prescribing errors in Intensive Care

K Went, P Antoniewicz, D.A. Corner, P Gregor, A Mathewson,
S McLeod, I.W. Ricketts, A.J. Shearer
Intensive Care Unit, Ninewells Hospital, Dundee, DD1 9SY

Introduction

Drug prescription errors are believed to be a significant problem in the intensive care unit and the cause of these errors is often multifactorial. Identifying the errors that occur in the prescribing process allows an understanding to be formed of how errors can be prevented. Many of these errors occur as a result of the present paper based system.

The prescription process can be split into two components, namely technical and clinical aspects of prescribing. The aim of this observational study was to identify errors with the technical aspect of the prescribing process. These data will also provide a baseline for future comparison with an alternative electronic prescribing system.

Method

Standards for prescribing are given in the Safe and Secure Handling of Medicines document². Our survey reviewed patients' prescriptions, against 15 standards set by this document, and assessed for compliance. Ninety drug prescription charts were reviewed for 68 different patients over a 15 week period from the 21st November 2005 until the 7th March 2006.

Results

All of the charts reviewed contained at least one compliance failure against the standards. A breakdown of these is shown in table 1. Of the 1,921 individual drug prescriptions reviewed 30% contained at least one deviation from the standard, with some prescriptions containing several.

Standard Required	% Charts with non compliances
Appropriate units stated eg 250 micrograms	89
'As required' doses must have a dosing frequency	69
Indication and maximum daily dose stated	
No abbreviations	62
Discontinued medicines procedure followed	56
Written legibly	49
Written generically where appropriate	42
Patient details stated – name, date of birth, hospital identifier and ward	38
Allergies documented or no know allergies	32
Infusions – infusion rate and concentration should be stated	30
Time of administration indicated	21
Signed in ink by prescriber	20
Dosage form documented	14
State route of administration correctly	13
Dose stated	12
Each entry must be dated	9

The screenshot shows a medical prescription chart for a patient named Hilary. It includes fields for Name, CHI No, Ward, Weight, and D.O.B. Below this is a table for 'Regular Prescriptions' with columns for Start Date, Medicine, Dose, Form, Route, and Times of Administration. The chart also has sections for 'Once Only Prescriptions' and 'Allergies'.



Conclusion

Current practice results in a high incidence of technical errors. It is unclear what the clinical significance of these errors is. The incidence of these errors may be reduced or eliminated through the design of an electronic prescribing system.

References

1. Barber N. Designing information technology to support prescribing decision making. *Qual Saf Health Care* 2004; **13**: 450-4.
2. Royal Pharmaceutical Society. *The safe and secure handling of medicines: a team approach*. London: RPSGB, 2005.