Impact of prescriber’s handwriting style and nurse’s duty duration on the prevalence of transcription errors in public hospitals

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Aims and objectives. To investigate the prevalence of transcription errors in a main public hospital in Pakistan and to test the impact of medication name and dose writing styles and the nurse duty duration on the occurrence of transcription errors.

Background. Medication errors occur frequently in public hospitals. Errors occurring at the transcription stage have not been sufficiently investigated.

Design. Medications transcripts and dispensed item labels were prospectively reviewed. In the second stage, nurses (n=25) transcribed medication charts in a double-blind randomised cross-over design administered at one, six and 10 hours after the commencement of their duty.

Methods. Inpatient (n=1000), discharge patient (n=1000) medication transcripts and labels of dispensed items for (n=1000) transcripts were reviewed. On medication charts, orthographically similar medications (n=20) were written in lowercase and Tall Man, decimal doses were written covered and uncovered, and metric doses were written with and without trailing zeros.

Results. Of the 6583 and 5329 medications transcribed from inpatient and discharge patient charts, error rates were 16Æ9 and 13Æ8%, respectively. Labels for 6734 dispensed items were reviewed, and error rate was 6Æ1%. Tall Man, covered decimal points and avoiding trailing zeros with decimal units significantly reduced transcription errors.

Conclusion. Errors increased with increasing nurse duty duration. Highlighting orthographically similar medications and the use of proper decimal and metric units reduce errors.

Relevance to clinical practice. Transcription errors are highly prevalent in Pakistan public hospitals; therefore, elimination of transcription stage is encouraged.

Key words: hospitals, medication errors, nurses, Pakistan, transcription errors

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