



Transcription Errors Occurring Upon Transfer from Hospitals to Nursing Homes

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INTRODUCTION

Within the past few years there has been an increase of elderly patients transferring from hospitals to long-term care (LTC) facilities. Researchers have found that over 3 million patients were transferred from hospitals to LTC facilities last year. Furthermore, about 30% of these patients use more than 9 medications placing them at a higher risk of transcription errors especially when transitioning from the hospital to LTC facilities.

Transcription errors in LTC facilities are becoming burdensome to both healthcare providers and patients. It is important to note that many transcription errors are associated with orders that originated in hospitals. Beyond the error's origin, the problems themselves are just as important. Studies have revealed that more than 50% of discharge summaries and transfer/referral forms do not match. Also, more than 20% of patients have experienced accidental medication continuation that should have been discontinued or medication omissions that should have been continued during this transition period. Lastly, these studies also determined that up to 60% of transcription errors have been serious and in rare instances fatal.

Hospitals and LTC facilities have begun a number of interventions to address these problems. First, facilities have increased effective communication by bringing together the different stake holders, physicians, pharmacists, nurses, and administrative personnel from both hospitals and LTC facilities to discuss the problems and possible interventions to improve the process. Second, some LTC facilities have instituted procedures to improve the transcription process such as requiring two different nurses to participate in the transcription process. Third, hospitals and LTC facilities are initiating feedback procedures to hospitals to report any discrepancies identified in orders.

Transcription errors may lead to unnecessary morbidity, mortality, and increased hospital re-admission rates which can result in financial penalties for the hospitals. It is important that both hospitals and LTC facilities work together continuing to address this major problem that appears to be growing. The goal of this study was to compile and assess transcription errors that occurred during transitioning from hospitals to nursing homes.

OBJECTIVE

The primary objectives were to determine the number of transcription errors, calculate the rate of occurrence, and distinguish the types of transcription errors with the highest prevalence.

METHODS

This study included approximately 44 transcription errors from nine different nursing homes in Alabama between August 2014 and January 2015. A pharmacy student was used to search for consultant pharmacists' recommendations concerning transcription errors during transition from hospitals to nursing homes in their computer data bases. These were then categorized into their appropriate transcription error type. The transcription error categories were omitted orders, wrong med, duplication orders, orders added, wrong dose, wrong frequency, wrong route, and wrong dosage form.

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> • Transition orders from hospitals to nursing homes • Orders that were reviewed by a consultant pharmacist 	<ul style="list-style-type: none"> • Medication errors occurring within the nursing home but not during transition of care

RESULTS

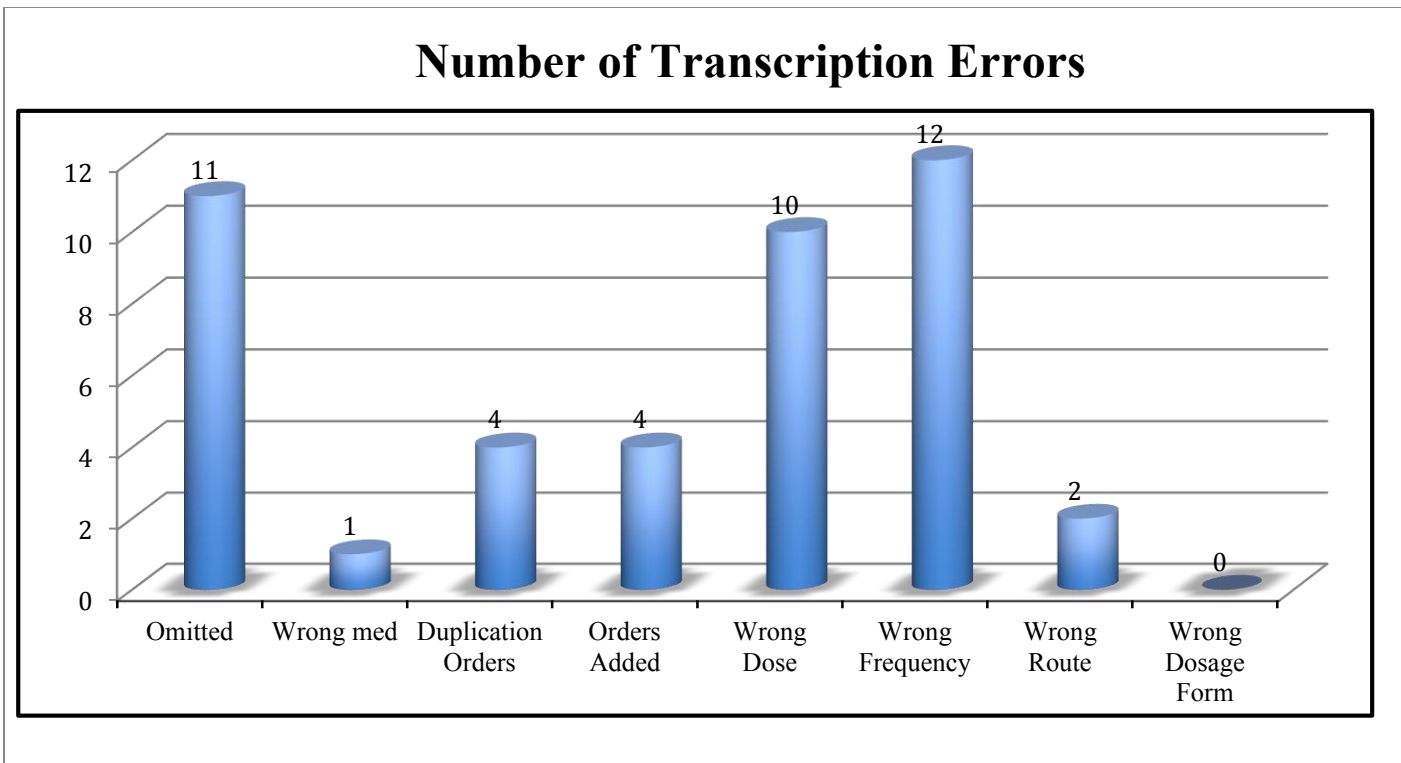
Table 1: Transcription Error Results

Error Category	Number of Errors	Rate of Occurrence (events/month)	Most Prevalent
Omitted	11	1.8	**
Wrong Orders	1	0.1	
Duplication Orders	4	0.7	
Orders Added	4	0,7	
Wrong Dose	10	1.7	***
Wrong Frequency	12	2.0	*
Wrong Route	2	0.33	
Wrong Dosage Form	0	0	

Total number of Events = 42

, Most prevalent; *, Second most prevalent; *****, Third most prevalent

Figure 1: Transcription Error Chart



DISCUSSION

There were a total of 44 transcription errors that occurred during transitioning. Omitted orders, wrong frequency, and wrong dose had the highest number of occurrences while orders added and duplication orders were not prevalent when looking at the results. In addition there were identical transcription errors that occurred within one error category. For example, both warfarin and tramadol were omitted multiple times on the admission orders. Also, a review of the errors associated with wrong dose indicated that partial and multiple unit doses (ie. 0.5 tablets doses or 2 capsules doses) were contributors.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Multiple nursing homes assessed • 6-month time period • The study is reproducible to allow for comparison after interventions are made 	<ul style="list-style-type: none"> • One person gathered and assessed data (increased bias) • Small sample size

CONCLUSION

In this study we were able to calculate the rate of transcription errors associated with transitions of care.

Table 1 suggests that about 4.9 transcription errors per home occurred over this time period. This could possibly be used to determine the effectiveness of interventions by repeating the study in the same manner after the interventions are implemented. Although not exhaustive for the homes or the area, the random review for errors is reproducible. The findings in this study should help healthcare providers focus on implementing helpful strategies to remedy common transcription errors. One possible intervention could be to modify the font or highlight in some way the doses that are partial units or multiple units on the transfer orders since this seemed to be a problem area. Another possible intervention could include developing a list of high risk medications and modifying the font or highlighting the orders for them in some way on the transfer orders. Although much better studies are needed, this study is at least a start for the process.

REFERENCES

- Department of Health and Human Services, Centers for Medicare & Medicaid Services. CMS 2012 nursing home plan. Action plan for further improvement of nursing home quality. [0](#)
- Handler SM, Wright RM, Ruby CM, et al. Epidemiology of medication-related adverse events in nursing homes. *Am J Geriatr Pharmacother.* 2006;4(3):264–72.
- Institute for Safe Medication Practices. From Hospital to Longterm Care. (Updated 2013 July 25; cited 2015 March 11). Available from: <http://www.ismp.org/newsletters/acutecare/showarticle.aspx?id=54>
- Tija J, Bonner A, Briesacher BA, et al. Medication discrepancies upon hospital to skilled nursing facility transitions. *J Gen Intern Med.* 2009; 24(5):630-5.
- Truax BT. Medication errors in long-term care. *Patient Safety Tip of the Week.* Patient Safety Solutions. July 21, 2009.
- Gurwitz JH, Field TS, Avorn J, et al. Incidence and preventability of adverse drug events in nursing homes. *Am J Med.* 2000;109(2):87–94.
- Greene SB, Williams CE, Pierson S, et al. Medication error reporting in nursing homes: identifying targets for patient safety improvement. *Qual Saf Health Care.* 2010;19:218-22.