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### **Nursing Time Devoted to Medication Administration in Long-Term Care: Clinical, Safety, and Resource Implications**

#### **Background**

Medication administration is a fundamental nursing task in long-term care (LTC). While it may seem to be relatively straightforward, the special characteristics of the LTC population and the number of medications used mean that medication administration is often more complex than fully realized. Despite the importance of this nursing task, relatively little is known about the time requirements for medication administration in LTC. The purpose of this study was to characterize the time required for the medication administration process.

#### **Methods**

Nurses were directly observed and the amount of time spent on the medication administration process was recorded. The medication administration process was defined as the regularly scheduled rounds during which the nurse provided medication to residents and included the following 7 steps: organize medication cart, locate and identify resident, prepare medication, prepare resident, provide medication to resident, observe resident, and travel back to medication cart. Any interruption that occurred during the medication administration process was also timed. Nurses on each physical support, behavioural and mental health, and dementia care units were observed as were both permanent and temporary nurses. This study is based on a 20-bed unit area.

#### **Main Findings**

In total, 141 medication administration processes were observed. For a unit with 20 residents, it took nurses an average of 62 minutes to complete the medication process on physical support units, 84 minutes on behavioural care units, and 70 minutes on dementia care units. On all units, the morning medication administration time was found to be the longest since the greatest number of medications were given out at that time. Preparing medication and providing medication to the resident were found to be the lengthiest steps in the medication administration process. Interruptions occurred during 79% of all observations and accounted for 11% of the total observed time. Temporary nurses took longer than regular nurses to complete each step in the medication administration process and to address interruptions. It was estimated that during a 7-hour day shift with two regularly scheduled medication administration periods (morning and lunch), nurses spent 29.5%-40.9% of their time engaged in this activity. These estimates are conservative since they do not include all possible medication-related activities.

#### **Importance of Findings**

In LTC, medication administration is a time-consuming, yet extremely important, nursing activity. In this study, nurses were found to spend at least one-third of their time carrying

out the medication administration process. The length of time required for medication administration varied by unit case-mix and took longer on units that served residents with more cognitive and behavioural problems. Interruptions were frequent. Further research on the potential for interruptions to affect the safety of the medication administration process is required. Efforts to improve the safety and efficiency of medication administration should include protocols to address interruptions.

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The full article can be purchased at <http://www3.interscience.wiley.com/journal/121562631/abstract?CRETRY=1&SRETRY=0> or can be accessed through the **Seniors Health Research Transfer Network (SHRTN) Library Services** at <https://www.ehealthontario.ca/portal/server.pt?open=512&objID=1485&mode=2>

MS Thomson, A Gruneir, M Lee, J Baril, TS Field, JH Gurwitz, PA Rochon. Nursing Time Devoted to Medication Administration in Long-Term Care: Clinical, Safety, and Resource Implications. *Journal of the American Geriatrics Society* 57; 266-272, 2009.