Analysis of Costs to Dispense Prescriptions in Independently Owned Long Term Care Pharmacies

Executive Summary

The need for accurate calculation of long term care (LTC) pharmacies' costs to dispense (CTD) has become more critical as payers have moved toward reimbursement models that more closely reflect the pharmacies' actual acquisition cost for the drug product and the Centers for Medicare and Medicaid Services (CMS) has implemented requirements that LTC pharmacies must dispense prescriptions for branded drugs in 14-day-or-less quantities. The purpose of this project was two-fold: First, to calculate the average cost that the typical independently owned closed-door LTC pharmacy currently incurs to dispense and deliver a prescription to the resident of a client LTC facility. Second, to estimate how CMS-mandated changes to a 14-day-or-less dispensing cycle would affect the typical LTC pharmacy's average CTD.

The data requirements and measurement model used in this study were developed by a team of experienced academic researchers assisted by an industry advisory committee consisting of independent LTC pharmacy owners. A survey instrument was constructed to collect financial and operating data required by the measurement model to calculate the CTD. Surveys were distributed via three dissemination channels to approximately 1,000 independently owned, closed-door LTC pharmacies. NCPA mailed the survey directly to their LTC members; three major national wholesalers distributed the survey instrument to their LTC customers through their respective newsletters; and three LTC group purchasing organizations distributed the survey instrument to their members through emails, newsletters, mailings, and / or regional meetings.

Each pharmacy's CTD was calculated by dividing total LTC dispensing-related costs by the total number of prescriptions dispensed. Dispensing-related costs included not only the costs related to physically dispensing prescriptions (e.g., dispensing pharmacist and technician salaries and costs of medication containers) but also costs related to supporting the dispensing function (e.g., salaries of delivery and medical records personnel). To examine the potential effect that requiring 14-day-or-less dispensing cycles would have on LTC pharmacies' average CTD, we classified all dispensing-related expenses as fixed, variable, or semi-variable costs, then developed a model to predict the effects of increased prescription volume resulting from the conversion to a shorter dispensing cycle on the CTD. The model assumed an increase in volume of 19%. This was based on converting only oral, solid, branded drugs to short-cycle dispensing.

A diverse sample of 64 pharmacies returned usable surveys. Respondents indicated that they currently dispensed about 23% of total doses in 14-day-or-less cycles; about 76% were dispensed in 28-31 day cycles. Sales from dispensing to LTC facilities accounted for over 98% of total sales. Most pharmacies used automated medication packaging technology, heat and cold package sealers, bar code systems, sterile compounding hoods, LTC printers or labelers, and electronic prescribing.

The median CTD for the sample was $13.54 with an interquartile range (25th to 75th percentiles) of $10.51 to $17.66. Over half of dispensing-related costs were from personnel expense of which pharmacists and managers accounted for over 40%. The results of our fixed and variable cost modeling suggested that converting oral, solid brand-name drugs from 30-day to 14-day dispensing cycles would lower the median per prescription CTD to between $11.63 and $12.54, a maximum decrease of $1.91. However, this decrease in per prescription dispensing cost is dwarfed by an increase in total dispensing cost incurred by pharmacies that results from doubling the monthly volume of prescriptions dispensed and delivered to residents of client facilities.

In other words, the typical LTC pharmacy incurs a median CTD of $13.54 if the medication is dispensed in a 30-day cycle or $23.26 if the medication is dispensed in two 14-day cycles (a cost of $11.63 for each cycle dispensed).

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