



Economic Impact Analysis Virginia Department of Planning and Budget

12 VAC 30-80 – Department of Medical Assistance Services Methods and Standards for Establishing Payment Rates – Other Types of Care: Reimbursement for Pharmacy Services January 30, 2003

The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with Section 2.2-4007.G of the Administrative Process Act and Executive Order Number 21 (02). Section 2.2-4007.G requires that such economic impact analyses include, but need not be limited to, the projected number of businesses or other entities to whom the regulation would apply, the identity of any localities and types of businesses or other entities particularly affected, the projected number of persons and employment positions to be affected, the projected costs to affected businesses or entities to implement or comply with the regulation, and the impact on the use and value of private property. The analysis presented below represents DPB's best estimate of these economic impacts.

Summary of the Proposed Regulation

The proposed regulations will incorporate by reference the Board of Pharmacy's definition of "unit dose" for Medicaid pharmacy reimbursement purposes and will modify the unit dose dispensing fee to that of a monthly per capita fee.

Estimated Economic Impact

These regulations apply to Medicaid reimbursement methods for pharmacy services. Pharmacies receive a "unit dose dispensing fee" for the services they provide to Medicaid recipients residing in nursing homes to cover the additional costs associated with operating this system. This fee is separate from and in addition to the \$4.25 dispensing fee paid once in 30 days per patient per prescription. Unit dose is a measure of a particular dose of a drug ordered for a patient at one administration time. If the particular prescribed drug is not available from the manufacturer in unit dose packaging form, then the prescribed dose is prepackaged at the pharmacy before it is delivered to the nursing home. Nurses deliver these prepackaged,

individualized, labeled doses to the residents using a single container, such as a medication drawer or bin, and administer it.

The unit dose system has widespread use among nursing homes and hospitals. The research in this area generally indicates that the unit dose dispensing system is cost effective compared to traditional methods of dispensing a 30-day supply of drugs. The unit dose system is found to reduce the handling of drugs (preparation, record keeping, administration, etc.), to reduce medication errors (forgetting to administer a drug, administering the drug late, at the wrong dosage, administering an unauthorized drug, etc.), to reduce drug waste (dispensed but unused drugs due to patient discharge, adverse reaction, ineffectiveness, etc.), but also to increase pharmacy costs.¹

Currently, the Department of Medical Assistance Services (the department) uses a 24-hour supply of unit dose as a unit of service when calculating reimbursements to pharmacies. In some cases, the primary pharmacy provider may repackage a resident's prescription drugs. An example of this is fixing individual tablets in a bubble pack. The unit dose dispensing fee has two components: (1) a one-cent reimbursement per dose dispensed, and (2) a 1.57-cent reimbursement per dose repackaged. When pharmacies do not repackage the unit dose, they are not paid for this component. Under this system, the department annually pays approximately \$592,000 (\$389,000 for one-cent reimbursement and \$203,000 for the 1.57-cent component) to serve an average monthly population of 9,920 unit-dose recipients. Thus, the monthly cost per recipient is approximately \$4.97.

The department proposes to change its current unit dose dispensing reimbursement methodology to a monthly per capita fee. The proposed regulations will provide the department the authority to establish an initial per capita fee and to adjust it periodically. Although the

¹ Farner and Hicks, 1976, "The Impact of Drug Distribution Systems on Nurse's Time Involvement in Medication Related Activities in Long-term-care Facilities," *Drug Intelligence and Clinical Pharmacy*, v. 10, pp. 458-462.

Lepinski, Thielke, Collins, and Hanson, 1986, "Cost Comparison of Unit Dose and Traditional Drug Distribution in a Long-term-care Facility," *American Journal of Hospital Pharmacy*, v. 43, pp. 2771-2778.

Parrott, 1980, "Drug Waste in Long-term Care Facilities: Impact of Drug Distribution System," *American Journal of Hospital Pharmacy*, v. 37, pp. 1531-1534.

Barker, Mikeal, Pearson, Illig, and Morse, 1982, "Medication Errors in Nursing Homes and Small Hospitals," *American Journal of Hospital Pharmacy*, v. 39, pp. 987-991.

regulation does not specify the amount of the fee, the department plans to implement a \$5 monthly fee per recipient who is provided at least one unit dose package in that month. Since the current monthly average cost per recipient is \$4.97, the fiscal effect of this change is expected to be “budget neutral.”

Both the Virginia Pharmacy Association and the department indicate that the reimbursement methodology currently in place is administratively costly, inefficient, and cumbersome. For reimbursement, the pharmacies must identify and show the two add-on fee components for unit dose dispensing services on their claims. In order to do that, they maintain records on the number of unit dose packages provided everyday and whether they are repackaged by the provider pharmacy. This procedure requires maintenance and submission of a number of data elements, which increases the chances for billing errors. The department in turn must audit the integrity of these claims and must devote staff time for this purpose. The proposed monthly per capita fee system will reduce the number of data elements that must be recorded, maintained, verified, and audited. Thus, the proposed change in reimbursement method for unit dose dispensing services will likely reduce administrative costs for both the pharmacy providers and the department in terms of reduced staff time.

The department also proposes to change the service unit definition of the unit dose dispensing from the 24-hour supply to the definition established under the Board of Pharmacy regulations, which is currently up to a seven-day supply.² Since all pharmacies must comply with the Board of Pharmacy regulations, most are familiar with the seven-day supply provision. However, Medicaid pharmacy providers are also subject to a 24-hour supply provision for Medicaid reimbursement purposes. This definitional discrepancy in the two regulations that Medicaid providers must comply with has been creating confusion among the pharmacies. The Virginia Pharmacy Association also indicates that the majority of other states define a unit of service as a seven-day supply. A definition conforming to that of the Board of Pharmacy is expected to remove a potential confusion among Medicaid pharmacy providers and benefit them in terms of communication costs that would otherwise be incurred to clarify the confusion.

With this change in definition, unit dose Medicaid pharmacy providers and nursing homes will be allowed to implement an up to seven-day supply unit dose dispensing system.

² 18 VAC 110-20-420 B.

Given this option, some pharmacies may find it beneficial to operate with a system that is capable of providing up to seven-day supply of drugs for nursing home residents. It is highly likely that the time spent on operating a seven-day supply unit dose system would be lower than the time spent on operating the equivalent of seven 24-hour supply unit dose systems. Some pharmacies may choose to take advantage of this new opportunity to reduce their costs in terms of pharmacist time and may realize some significant savings.

Similarly, a unit dose system with a larger supply is expected to also reduce nurses' administrative duties related to medication dispensing in nursing facilities. Although no study is available to make comprehensive cost comparisons between the two alternate unit dose systems (24-hour vs. seven-day supply), available evidence suggests that the nurse's time involvement in medication related activities is 0.84 minutes lower per dose under a three-day system relative to that under a 24-hour system.³ It can be inferred from the expenditure data that Medicaid pays for approximately 38.9 million unit doses every year (or about 11 doses per day per person) for nursing home residents receiving this service.⁴ Thus, there are significant potential savings in nursing time. For example, if all nursing homes start using a three-day system, the total reduction in nurses' time involvement may be approximately 544,600 nurse-hours per year (or 2,475 nurse-hours per nursing home annually, or slightly more than a full time nurse position per nursing home).⁵ Given the current tight labor market for nurses, this represents a significant incentive for nursing homes to demand a unit dose system with a larger supply from their pharmacy providers.

On the other hand, the likely effect of a larger supply unit dose system on medication error rates is unknown. Thus, depending on the actual outcome, the change in medication error rate may represent an additional benefit or cost of the proposed change in definition.

In short, this amendment will allow pharmacies and nursing homes to take advantage of a longer period unit dose system. The potential costs savings in pharmacist time and nurse time appear to be significant.

³ Farner and Hicks, 1976, "The Impact of Drug Distribution Systems on Nurse's Time Involvement in Medication Related Activities in Long-term-care Facilities," *Drug Intelligence and Clinical Pharmacy*, v. 10, pp. 458-462.

⁴ 38.9 million doses = \$389,000/\$0.01, 11 doses = 38.9 million/(9,920 residents x 12 months x 30 days).

⁵ $544,600 = ((38.9 \text{ million doses}) \times (0.84 \text{ minutes})) / (60 \text{ minutes per hour})$, 2,475 nurse hours = $(544,600 \text{ nurse hours}) / (220 \text{ nursing homes})$, 1.2 full time nurse per nursing home = $(2,475 \text{ nurse hours}) / (2,088 \text{ hours per full time position})$.

Businesses and Entities Affected

The proposed regulations apply to pharmacies providing unit dose services to nearly 10,000 Medicaid nursing home residents in 220 nursing home facilities.

Localities Particularly Affected

The proposed regulations will not affect any particular locality more than others.

Projected Impact on Employment

The proposed change in reimbursement methodology will likely simplify the billing process and reduce, probably by a small amount, the staffing needs of the pharmacy providers and the department. The change in definition of unit dose will also provide an opportunity for pharmacies as well as nursing homes to utilize a more labor efficient unit dose system and reduce the labor demand.

Effects on the Use and Value of Private Property

The proposed regulations, through reducing administrative costs and allowing more efficient drug distribution systems, will likely improve the profitability of private pharmacy and nursing home providers and contribute to their value.