Productivity Systems-The Importance of Accurate Time Standards

Why worry about productivity?

Private and government payors continue to reduce the levels of reimbursement to providers of care. Now and in the future, hospital administrators will continue to focus on reducing operational cost in respiratory care. Considering that typically 70% or more of expenses are labor, managers must have skills to manage labor resources and tools that clearly identify the need and demand for services. They must have systems in place to measure and report productivity. Productivity management is essential to ensure adequate numbers of qualified respiratory therapists are assigned based on patient need, and to justify staffing levels when faced with challenges to reduce expenses.

Issues with productivity systems based on patient days or discharges

When faced with budget challenges hospitals are engaging consultants to assist in improving revenue while decreasing expense. Often these consultants attempt to evaluate the services provided by respiratory therapists with the broad, standard metrics of the industry which they are most familiar (e.g. patient days, discharges). While these broad metrics work nicely as macro indicators for hospitals to benchmark with each other, they are a poor indicator of workload intensity for respiratory care services and thus inappropriate to use in making staffing determinations. While these metrics may be a good reflection of total patient mix, they do not accurately portray the acuity or hours needed to treat patients in which the type and frequency of respiratory services vary significantly. This subset of patients can be a substantial driver of workload intensity that cannot be accurately measured by a macro indicator like patient days or discharges.

Issues with productivity systems based on charges and CPT codes

Frequently charges or billable procedures based on CPT codes are used as a proxy for productivity. This practice became popular because computerized systems exist in most facilities to capture charges. Thus in this system, if an activity does not have a charge associated with it, the work provided to produce the activity goes unmeasured and unaccounted for even though it is critical to producing good outcomes for the facility. A few examples of activities without CPT codes critical to producing good outcomes include (1)Spontaneous Breathing Trials for ventilator patients, (2) Rapid Response calls when patients are in respiratory distress and; (3) participation in high-risk deliveries. These activities all have no CPT codes; yet they are unquestionably clear

examples of activities in which respiratory therapists participate to ensure patient safety and produce positive patient outcomes and therefore, should be included in staffing and productivity systems.

Issues with productivity systems based on procedure counts

Another common approach is using procedure counts to as a measure of workload intensity. If all procedures required the same amount of time, this would be a simple solution. Setting up and stabilizing a patient requiring mechanical ventilation and initiating oxygen service on a relatively stable patient are each discrete activities, but the first may require 5 times as long as the second. Thus a therapist initiating oxygen therapy and one initializing mechanical ventilation would each generate one workload unit if activity counts were the measure of productivity. With the variety of procedures commonly performed by respiratory therapists and the vastly different time required to accomplish each, it is easy to see that simply counting procedures is not an accurate means of determining productivity. Unfortunately, systems that collect data only on charges or procedures do not provide a means of accounting for the clinical and non-clinical support activities that are required to assure patient safety (like infection control, communication handoffs, etc.)

Productivity systems based on relative value units: the solution in assessing labor demand

Time standards based on relative value units (RVUs) provides a much more accurate reflection of workload than simply reporting patient days, procedures or charges. An RVU compares the amount of time required by different activities. RVUs are not unique to Respiratory Care services. Because of varying time required to perform physician services, the Centers for Medicare and Medicaid Services (CMS) adopted relative value units as a basis for physician reimbursement using the Resource-Based Relative Value Scale (RBRVS) more than 20 years ago.

While any length of time can be the foundation of the RVU system, (some facilities use 15 minute intervals) minutes are the most convenient and most commonly used units because they easily convert to standard hours (standard hour = minutes/60). This unit is frequently used by industrial engineers. Because each activity has its own unique time standard (number of minutes required to complete it) the total time required to perform any mix of activities can be determined by adding up the number of each activity in the mix and multiplying it by its assigned RVU time standard which yields the total time required to provide the services

Example of Workload Calculation: Comparing a Procedure Count with Time Standards Based on RVUs :

Activity	Activity Frequency	**Time Standard** RVU (min)	Total Time (min)
Assessment	1	15	15
Setup	1	20	20
Monitor	3	15	45
Adjust	3	9	27
Suction	4	11	44
Blood Gas	2	11	22
Total	*14*		*173*

Note that in this example, 14 activities were performed requiring 173 minutes or 2.9 hours of therapist time.

RVUs can be assigned to any type of activity including support activities such as transporting patients, performing CPR, shift reports, participation in rounds and patient education. Because of their specificity to the mix of activities performed, RVUs are a critical component of an accurate productivity system.

It is extremely important that RVUs accurately reflect the time required to perform the activities to which they are assigned. Thus the accuracy of RVUs must be periodically re-evaluated if critical components of providing the service change. These might include changes in technology of devices used in the activity (using BAN instead of a hand-held nebulizer) or a change in IT or other systems used to deliver or document the service. Any of these may add or reduce time to deliver the service and if the activity is a high volume service it may have a substantial impact on staffing required for delivering the service.

How a Productivity System Based on Time Standards is Useful to Managers

Developing and maintaining accurate time standards for your services is important for several reasons:

1. They can help objectively define staffing requirements for budget projections as the foundation of a credible productivity system

2. Objective decisions about the staffing impact of service expansion and contraction can be determined.

3. Most importantly, they allow supervisors to flex staff required to meet workloads that may vary by shift, thus reducing costs while safeguarding patient safety.