Workload metrics compliments for academic pursuits in pathology

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Abstract

Several clinical workload metrics have been developed and validated to provide a reasonable framework for compensation, workforce planning and accountability. Most Academic Pathologists have job descriptions that involve several diverse responsibilities outside the clinical service domain. Limited to the existing workload metrics, we continue to struggle not only amongst ourselves trying to structure our own complex and ever-growing work, but also communicating our needs with our academic system leaders. Moreover, the existing paradigm lacks the means for monitoring the safe boundaries or detecting "dangerous zones" at the pathologist's level as an interpretive operator beyond the mere quantification or qualification of their product (i.e. diagnosis). Occupational burnout for pathologists is not simply a function of their workload. This article highlights the need for complementary metrics for academic pursuits in pathology. It proposes a department-specific academic productivity complement and puts forth the idea of quantitating stress among pathologists. It is hoped that these two complements, used in concert with the existing clinical workload metrics, can inform decision making both at the individual and the system levels.

Keywords academic pathology; academic productivity; pathologists burnout; pathologists stress; pathology workload

Introduction

In the great majority of modern academic medical centers, pathologists are salaried healthcare providers hired by a university, an affiliated medical center, a third party (a professional corporation or a central laboratory) or a combination thereof. With all the added expenses of the costly technological advancements introduced to laboratory medicine in the past two decades, pathologists' salaries remain as the single largest line item in the budget of any Anatomic Pathology laboratory. It is then no surprise that laboratory and hospital administrations, which are constantly tasked to reduce running cost, have aggressively sought objective and accurate metrics to ensure adequate medical staffing. While the risk of "over-staffing" is mostly financial, the consequences of "under-staffing" could be serious as outlined in a later portion of this article. Consequently, the nineties have witnessed the cultural shift of more scrutinized workforce planning in academic anatomic pathology and the progressive introduction and adoption of objective clinical workload metrics to address the question of adequate staffing. Several pathologists-designed clinical workload measurement tools have been developed, validated and adopted in different parts of the world. Some of the truly robust systems include the Guidelines on Staffing introduced by The Royal College of Pathologists (UK)[1] and the system known as "Level 4 Equivalent (L4E)" endorsed by the Canadian Association of Pathologists.[2–4] Despite the existence of these systems for several years, we all have witnessed at one point in our career over the past two decades academic hospital administrations tending to err on the side of under-staffing in their workforce planning since the financial pressures keep increasing and the temptation for cutting cost could simply become irresistible. As a result, we continue to observe great differences in the way various practices are staffed with lack of uniformity in the interpretation of how these workload metrics should guide the process.[5]

Others have attempted to look at developing tools that are more customized to ensure equitable workload distribution within a department or among members of a pathology group. While the use of a simple case count could be appropriate in special settings with a uniform specimen type (e.g. a dermatopathology outpatient laboratory) it has very limited applicability in large subspecialized academic Anatomic Pathology practices. Acknowledging the added difficulty of comparing workload created by different types of specimens, Cheung et al. (2015) have recently proposed an Automatable Activity-Based Approach to Complexity Unit Scoring (AABACUS).[6] According to this metric, the Complexity Units (CUs) produced by each pathologist can be used not only to monitor their longitudinal clinical productivity but also to compare it with their peers, especially in a subspecialized academic practice.

In the United States and for reimbursement purposes, the Centers for Medicare and Medicaid Services (CMS) has assigned a Work Relative Value Unit (wRVU) to each Current Procedural Terminology (CPT) code that represents a standardized, constant value across specialties and geographic locations for the value of the work performed[7] wRVUs are typically used to provide compensation models intending to pay the provider based on the amount of work they perform. The actual compensation is then derived from the total wRVUs multiplied by a Dollar conversion factor. One of the great advantages of this system is that it is a global scheme that is inclusive of pathology work but also covers all the other medical services provided.

While each of the measurement tools discussed thus far has been designed and validated for the specific purpose for which it was originally intended, there seemed to be no compelling reason to stop using it in other contexts. For example, it is almost customary to use the Canadian L4E system or the American wRVUs to compare workload of various pathologists within the same department and allocate clinical services accordingly. Even more, the performance of an individual pathologist could be reviewed by measuring his/her clinical services against known national benchmarks of L4Es or wRVUs for the specific general geographic region(s). As systems get increasingly complex, Academic Pathologists need to advocate for the adoption of more sophisticated models for the measurement of their workload to ensure the sustainability of their scholarly pursuits. Standing

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alone, none of the existing workload metrics could tell the full story; especially for Academic Pathologists. They may provide the needed framework for an Academic Pathologist's clinical services but they certainly leave a considerable room for confusion and conflicting interpretations when it comes to all other aspects of Academic Pathology practice. It is inevitable that system leaders and policy makers will continue to resort to the existing objective metrics and, therefore, we believe that several complementary tools are needed. This article focuses on two of, arguably several, needed complements.

Academic productivity complement

The typical contractual agreement with an Academic Pathologist includes a job description clause specifying the portion of their time (and probably salary) allocated for clinical services and the portion dedicated to academic pursuits (i.e. teaching and research). For example, an Academic Pathologist who is contracted for 70% clinical services is expected to undertake a clinical workload equivalent to 70% of a community, full-time equivalent (FTE) pathologist; as measured by L4Es or wRVUs. The remaining 30% of that pathologist's effort should be dedicated to scholarly work. There are several inherent difficulties built in this paradigm. This arrangement does not necessarily address whether the proportions are those of the pathologist's "effort" or "time" spent in either domain. While clinical workload measurement tools exist, there often are no objective measurement of the academic productivity, nor are there provisions to adjust the course if the proportions are forced to change. As physicians, Academic Pathologists are programed to put patient care first and when the clinical workload increases, in most instances, the academic protected time suffers. In practical terms and probably in many academic settings, clinical/academic time proportions become theoretical with very little practical applicability due to clinical service pressures and staffing challenges. A time study of clinical and nonclinical workload has shown great variability in pathologists' time allocation even within the same system and between community-based and academic settings, highlighting the magnitude of difficulty encountered in this area.[8]

The proposed academic productivity complement attempts to bring some degree of objectivity and accountability in managing expectations for the portion of academic time while providing a mechanism for regular monitoring and adjusting of time proportions. For the purpose of this discussion, the portion of clinical services of an academic pathologist takes in account both, the pathologist's effort (70% = performs 70% of the workload measured for an FTE) and time (70% = the pathologist's name appears on the service schedule only 70% of the time). In order for this to happen effectively, the service schedule and the daily workload (in L4Es or wRVUs terms) need to be aligned. In other words, case triaging among pathologists should ideally be designed to deliver to each pathologist no more than what a community 1 FTE pathologist receives on daily basis. In this example, a pathologist's 30% protected academic time would mean that there are no clinical services expected of them 30% of their time so that they can focus on their academic work (teaching and research). Another added complexity arises from the fact that, in most institutions, vacation is deducted out of the time allocated for nonclinical services. Depending on the local circumstances, the 30/70 time splitting in this example could be practiced on monthly, weekly, or even daily basis.

Accountability for academic time cannot be dependent on time-based metrics alone because of the very nature of academic pursuits. Alternatively, it is typically based on productivity metrics, which is still very difficult to measure in our complex systems. Currently, most of the uncertainty and difficulties are due to a lack of validated or widely used metrics and the diversity of physicians and scientists engaged in the practice of Laboratory Medicine. However, accountability for protected time is an important component of Academic Medicine. The existing model of academic Anatomic Pathology will be improved if expectations and measurements are put in place and are followed by adequate feedback. These measurements should undergo unbiased analyses after meaningful periods of time, and modifications should be made as required. Several measurement tools for academic productivity have already been proposed for other disciplines.[9,10] It is acknowledged that even some academic Anatomic Pathology departments have also established their own benchmarks for academic productivity. This section of the current article aims at stimulating a broader discussion and calls for the adoption of academic productivity complement to the practice of simple monitoring of clinical workload whether it is used for workforce planning, annual performance reviews of pathologists, or any other purpose.

The academic productivity complement could be developed by a taskforce chosen from the faculty within the Department of Pathology. Preferably, members of the taskforce would have diverse profiles and interests to insure inclusiveness and applicability of the final product. In this sense, the produced metric will be department-specific. In our experience, this is more practical since the scope of academic pursuits and the infrastructure available for the Academic Pathologists varies considerably among various academic institutions.

Step 1: The first step in this endeavor will be to collate a comprehensive list of all the possible academic activities that members of the pathology department could undertake. These are typically grouped under the generic headings:

A. Educational activities
B. Research activities
C. Others professional activities (e.g. membership in a national or international committee or working group)

Step 2: The second step is for the taskforce to assign weighted Academic Productivity Units (APUs) to each one of these activities to reflect both the effort and time needed to produce this academic activity.

As stated earlier, most pathologists cannot designate specific days for clinical services, administration, education or research exclusively. Rather, a typical day for an Academic Pathologist usually includes more than one of these elements. Also, many of the academic activities typically span over several workdays to complete. Therefore, assigning APUs should attempt to allocate a reasonable number of hours that are typically needed by an Academic Pathologist to complete each of the academic activities irrespective of the number of calendar days it spans. It is also understood that the same academic activity could be weighed

