Clinical pathology selected abstracts

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A Canadian study of pathologist burnout: prevalence, drivers, and mitigation strategies

August 2023—Burnout has been reported to affect as many as 44 percent of physicians. It is listed in the International Classification of Diseases 11th Revision (ICD-11) and has been attributed to chronic workplace stress, emotional exhaustion, depersonalization, and a low sense of personal accomplishment. A social psychologist created the Maslach Burnout Inventory (MBI) tool to measure degrees of burnout. The 2018 Canadian Medical Association Physician Health Survey of 3,000 members found an overall burnout rate of 30 percent, and 28 percent of pathologists who responded to that survey indicated they were burned out. Physician burnout can have a significant negative impact on patient care, including on the amount of medical errors. It has been estimated that physician burnout costs the Canadian health care system CAD $185 million due to early retirement and CAD $27.9 million due to reduced professional work effort. The estimated annual cost related to physician burnout-driven turnover in the American health care system is $4.6 billion. Drivers of physician burnout include workload and job demands, work efficiency and resources, control and flexibility in one's work, meaning in one's work, work-life integration, social support and community at work, and organizational culture and values. The author conducted a national burnout study specifically related to pathology that used the MBI–Human Service Survey for Medical Personnel (MBI-HSS [MP]) tool for assessment. The goals of the study were to identify the prevalence of burnout within pathology practice in Canada, drivers of physician burnout, and pathologist burnout mitigation strategies at the individual and departmental level. The author designed an electronic survey that was disseminated by participating departmental chiefs and the Canadian Association of Pathologists. The survey included the MBI-HSS (MP) and three open-ended qualitative questions: "What do you find to be the most stressful aspect of your practice?", "Have you introduced anything into your own practice that you think is helping to mitigate against burnout?", and "Has your department introduced anything that you think is helping to mitigate against burnout?" All questions, except those that were open ended, required an answer for the participant to advance through the survey process and submit the completed survey. All participants provided informed consent, but the survey was anonymous—it did not involve collecting information that could identify the respondents. The survey was rolled out in three phases, and 427 pathologists across all 10 Canadian provinces completed it. This represented a survey response rate of approximately 50 percent of all Canadian Association of Pathologists members and 27 percent of all pathologists practicing in Canada. Burnout was defined as a high score on the emotional exhaustion (27 or more) or depersonalization (10 or more) domain. The results showed that the prevalence of burnout in Canadian pathology was 58 percent. Female pathologists showed significantly higher levels of emotional exhaustion than male pathologists, and those in practice for fewer than five years had the highest level of depersonalization. Of interest, those who had been in practice for six to 10 years had a significantly lower sense of personal accomplishment. Drivers of burnout included workload and chronic work-related pain. The most frequent effective departmental strategy to address burnout involved organizational culture, and the most effective approach by individual pathologists involved work-life integration. Workload was the leading job-related stressor, as reflected in 35 percent (210 of 599) of responses to the question, "What do you find to be the most stressful aspect of your work?" Furthermore, 47 percent (200 of 427) of pathologists responded yes to the question, "Do you experience chronic or persistent pain at work?" Female pathologists were more likely than male pathologists to experience chronic work-related pain, (61 and 32 percent, respectively). Based on the study findings, the author concluded that pathology departments should develop strategies for mitigating pathologist burnout. They include targeting workload and fostering a culture of wellness, social support, and community.

Keith J. The Burnout in Canadian Pathology Initiative—pathologist burnout prevalence, drivers, and existing mitigation strategies. *Arch Pathol Lab Med*. 2023;147:568–576.

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Comparison of CPOE-specific prepopulated transfusion indications to use of 'other'

Computerized physician order-entry systems ensure proper blood utilization and reinforce evidence-based practices for blood product ordering. Implementation of CPOE ranges from having providers select a prepopulated indication for ordering a blood product to providing immediate feedback with computer-generated best practice alerts. The authors conducted a study, after a new CPOE system was installed at their institution, to evaluate the use of "other" as an indication in blood product ordering and to examine the reasons for transfusion that are listed as free text in lieu of prepopulated indications. When the new CPOE system was introduced, a comprehensive change flier that detailed ordering practices for packed red blood cells, platelets, fresh frozen plasma (FFP), and cryoprecipitate was sent to all sites that were affected by the change. The authors analyzed how frequently health care providers selected "other" when placing orders for RBCs, platelets, and FFPs and assessed the reasons, expressed in free text, for the orders. The study was conducted at the Long Island Jewish Hospital blood bank. Transfusion order records for RBCs, platelets, and FFPs were obtained using a health care analytics program for Allscripts' Sunrise Clinical Manager. The records were collected from April 2021, when the CPOE system was implemented, to November 2021. The transfusion orders were obtained from the emergency department and intensive care unit for adult patients and the Cohen's Children's Medical Center emergency department, ICU, and Med4, which is a unit for pediatric hematology and oncology, for pediatric patients. The percentage of "other" orders and reasons for "other" orders were reviewed. The results showed that 9.7 percent of RBC orders, 1.9 percent of platelet orders, and 18.2 percent of FFP orders were placed using the indication of "other." Although the reasons for "other" varied, the most common reasons were bleeding (15.7 percent for pediatric RBC orders) and hold for the operating room (14.3 percent of pediatric and 15.8 percent of adult RBC orders). Among a few unique indications was FFP for ACE-inhibitor-associated angioedema (84.6 percent of adult "other" FFP orders). Because some of the "other" orders are recurring indications for transfusion, the authors may consider expanding their institutional list of prepopulated transfusion indications to include some of the more common free-text entries. The authors noted that the "other" orders revealed trends that could inform future educational initiatives and CPOE design to improve blood product utilization and patient outcomes.

Tong N, King J, Fomani K. Comparison of computerized provider order entry specific transfusion indications versus the use of "other." *Transfusion*. 2023;63:737–744.

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