Intervention

Performance audit can alternatively be achieved through self-assessment of competency in comprehensive chronic illness management. At Oregon Health & Science University (OHSU), we facilitate a practice-based learning and improvement (PBLI) curriculum for residents in this model.

Prior to each session, a faculty champion prepares an illness registry report that displays an array of relevant data for resident-empaneled patients. The curriculum is provided in a conference room with computers for each resident.

We start each 90-minute session with a brief tutorial designed to expand resident awareness about primary care management for a common chronic disease. A typical tutorial might cover guideline recommendations, screening and immunization needs, awareness and prevention of complications, relevant clinic-based resources, and applicable electronic health record (EHR) tools. Residents are then guided to their subgroup listing of empaneled patients with that chronic illness diagnosis. If available, relevant lab, treatments, risk scores, and care gaps are highlighted in an accessible display. Time is provided for targeted chart review, patient-specific improvement planning (frequently, a deeper charting activity for 1 to 3 patients), and reflection. The faculty champion is available for mentorship and troubleshooting. Time spent in panel management engages learners in proactive planning, setting of chart reminders, and outreach to patients, with a goal to close gaps in care. The TABLE describes examples of activities undertaken as part of this curriculum. We leverage the use of our EHR for this curriculum. The faculty champion, having developed familiarity with EHR registry tools, prepares panel-specific dashboard reports and shares them with each resident to be "run by user." The relevant subset of patients is identified through use of diagnosis grouper search tools. Our medical center utilizes EpicCare and other useful tools including Reporting Workbench, SlicerDicer, and Sticky Notes.

Outcomes to Date

Chronic illness panel management provides a versatile framework for teaching core ambulatory medicine topics and is an active method of performance audit and improvement. This curriculum promotes a culture of resident engagement and stewardship in ambulatory care.

Relative to metric-based panel management, outcomes are less easily measured and are more often anecdotal. Residents commented, "This changed my framework of approaching cancer care. I realized that there is a great deal of responsibility...in long term DOI: http://dx.doi.org/10.4300/JGME-D-19-00846.1

care"; "I really appreciate PBL for the interaction with other residents—to learn from their troubles and victories!"; and "I am still [6 months later] using notes from this ASCVD review as I see patients."

Since the development of this PBLI curriculum at OHSU's university-based clinic, it has been successfully spread to practice sites (with and without EpicCare), including the OHSU resident clinic at Central City Concern and the internal medicine clinic at the University of California, San Francisco.

PBLI sessions have felt meaningful to both faculty champions and residents. This program has encouraged the use of charting tools and reminders to enhance effective patient care. It has fostered peer teaching and camaraderie, facilitated outreach to patients with gaps in care, and enhanced team-based care. We have seen an increasing number of residents attracted to practice in primary care in our program, and the structure of this PBLI curriculum may be a factor.

Mary E. Pickett, MD

Associate Professor, Department of Medicine, Oregon Health & Science University

Afaf Sharen Azar, MD

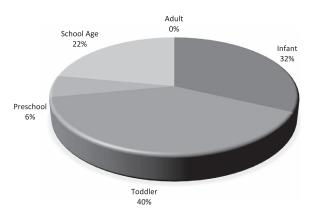
Assistant Professor, Department of Medicine, Oregon Health & Science University

Corresponding author: Mary E. Pickett, MD, Oregon Health & Science University, Mail Code L-475, 3181 SW Sam Jackson Park Road, Portland, OR 97239, 503.494.7098, fax 503.494.6324, pickett@ohsu.edu

Value of an Emergency Care Back-Up Service for Residents and **Fellows**

Setting and Problem

Trainees with child or elder care responsibilities can face unexpected disruption of care arrangements that may cause further ripples of disruption among



Usage by Age Group

colleagues in their training program. Even the possibility of an interruption in care arrangements can cause stresses beyond the scope of that trainee's family. To help mitigate these stresses, we implemented an Emergency Care Back-up Service (ECBS) for all trainees at our institution on a trial basis. This program was not considered research.

Intervention

We contracted with a commercial ECBS to provide this service. Messaging of the benefit was consistent with similar benefit rollouts and included presentations to program leadership (program directors, coordinators, and chief trainees), inclusion in intern orientation, e-mail messaging to all trainees, and inclusion on the Emory University School of Medicine Graduate Medical Education well-being webpage. There were follow-up e-mail reminders with brochures at 2 and 4 months. Utilization of the ECBS was reviewed monthly and compared against projected use and expected savings. Users of the service were queried individually on their experience. Program leadership were surveyed after 6 months of the service on their awareness of the benefit and the impact on their service of missed trainee days. The ECBS cost \$45,000 to cover approximately 1300 trainees for a year, with a projected 10 activations per month. We calculated a gross direct cost savings of a trainee not missing a day of work at \$285, based on an annual second-year trainee's salary and fringe rate divided by 49 five-day workweeks.

Outcomes to Date

There were 45 uses of the ECBS in the first 6 months and 95 in a year, all for younger childcare. Direct savings were \$27,000 for the year. Utilization started slowly and picked up to the projected usage as the fall virus season began. Trainees who used the service 404.251.8865, pshayne@emory.edu

were grateful and supportive of the service. A small number of trainees did have problems with the service. These problems included 1 no-show of caregiver, 2 instances when the service could not guarantee short notice (< 8 hours) activation, and 1 request outside the range of service (ECBS caregiver could not pick up an ill child from a day care center). Sixty-nine of our 106 programs completed the leadership survey. Of those, 65% were aware of the benefit, 15% knew their trainees had used it, and 20% mentioned this service in their recruitment presentations. Forty-two percent of program leadership said that a trainee absence affected their service, mostly through longer wait times by patients or more work time for faculty. Four program leadership respondents were aware of a problem with use of service. Seventy-five percent of programs favored keeping the service, 24% were indifferent, and one favored canceling it.

A small percentage of trainees found the ECBS to be a valuable benefit. Trainees with children found that the service provided peace of mind and prevented lost days at work. While expensive, the service appears to pay for itself through a combination of missed days prevented, reduced stress on the system, and ability not to cancel services due to an absent trainee. The service was reliable, but not perfect. The implementation of a commercial ECBS appeared to justify its cost and additionally provided peace of mind to trainees with children. There is also magnified benefit to additional program trainees, faculty, and patients in prevented disruptions that is difficult to measure.

Philip Shayne, MD

Professor and Vice Chair for Education, Emergency Medicine, and Assistant Dean for Graduate Medical Education, Emory University School of Medicine

Jaffar Khan, MD

Professor and Vice Chair, Neurology, and Assistant Dean for Graduate Medical Education, Emory University School of Medicine

Maria Aaron, MD

Professor, Ophthalmology, and Associate Dean for Graduate Medical Education, Emory University School of Medicine

Corresponding author: Philip Shayne, MD, Emory University, Department of Emergency Medicine, 49 Jesse Hill Jr Drive SE, Atlanta, GA 30303,