EDITORIAL AND COMMENT Residents' Final Transition: The Graduation Clinic Hand-off

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T ransitions of patient care responsibility, such as the hand-off of care from primary care physician to hospitalist or between hospital teams during an acute illness, are increasingly the norm in general medicine practice. Such transitions are prone to error and can be detrimental to safe patient care. To address this problem, the Accreditation Council for Graduate Medical Education (ACGME) has highlighted education and oversight of care transitions in the current accreditation system.¹

Review of the transitions of care literature reveals a common thread. Most of the research focuses on inpatient care transitions. Less studied are ambulatory hand-offs (i.e., clinic patients), many of which involve the 7,500 internal medicine residents who graduate residency each year.³ These residents leave behind a cohort of nearly 1 million patients. 4 Do these ambulatory patients experience adverse events similar to patients handed off in the hospital setting? Previous analysis from a single academic urban residency program demonstrated that over 40 % of patients with active medical problems were lost to follow-up when care was transitioned from a graduating resident to a junior resident. Many of these patients missed appropriate cancer screening. More importantly, abnormal pathology and laboratory tests went unaddressed in some patients.⁵ A second report, also from an urban academic center, showed similar results, with 20 % of patients lost to follow-up at 6 months. Patients in both studies were considered "high-risk" and had chronic medical conditions. In both studies, patients presumably stopped regular medications and did not receive appropriate follow-up.

In this issue of JGIM,⁷ Pincavage et al. report on an innovative medical education program to improve the hand-off of clinic patients at the University of Chicago's internal medicine residency program. In this program, graduating third-year residents identified their own "high-risk" patients at increased risk for poor hand-offs due to a combination of factors including complex problems, frequent hospitalizations, non-adherence, missed visits, and challenging social situations, and then identified a junior resident to whom patient care responsibilities would transition. Prior to this intervention, patients were simply mailed a

notification letter with the names of their old and new resident physician. Previous work by the authors had shown that patients reported more positive experiences with the hand-off process when they received some personal information about their new primary care physician (PCP), and were informed of the medical education mission of the clinic. Accordingly, during the patient-oriented hand-off, each high-risk patient was sent a packet which described the hand-off process and included a goodbye letter from the third-year resident. The packet included a welcome letter from their new resident PCP, which contained information about their new physician, including a picture and the new doctor's name spelled phonetically. Personal information (such as the doctor's hobbies) was also included. The packet included a certificate for the patient's role in promoting the education of doctors. In addition, the packet included a worksheet tool for patients to complete, which prompted discussion of medication refills, outstanding tests, and promoted sharing of rapport-building personal information. Beginning in 2013, the packet included a patient-oriented comic that explained the transition process that was developed with patient input.

The authors used a pre-post design with a historical control to demonstrate improvements in the hand-off process. They compared approximately 300 patients in 2011 (control) to a similar number of patients in 2012 and 2013. Study endpoints included the percent of patients that missed their first appointment with their new PCP. In addition, patients were contacted by phone and asked whether they could name their new PCP and were aware and satisfied with the hand-off process. Compared to the historical controls, the percentage of patients that missed their first PCP appointment declined from 43 % to 26 %. The percentage of contacted patients that correctly named their new PCP increased from 82 % to 98 %. Of patients that were successfully contacted by phone, addition of the comic increased patient awareness of the hand-off to 99 %. Patient satisfaction did not improve, however.

This innovative work addresses a patient care transition that has received little attention, but may have limited generalizability beyond the poor urban population served by the institution. Residency programs that serve a more affluent patient population with high health literacy may not require such an intensive hand-off strategy. Similarly, in smaller residencies where faculty may be quite familiar with at-risk patients, such multi-faceted interventions may not be needed.

Another important question that remains unanswered is whether it is necessary to perform "sign-out" on ambulatory patients at all. The authors show that more patients followed up with clinic appointments and could name their PCP, but this is not evidence of better patient outcomes. Without dismissing the substantial efforts the authors took to implement this transition of care program, one must ask the question of whether it is worth it. The patient safety literature offers several examples of interventions that initially seemed promising, but ultimately were shown to lack benefit.⁹

Unlike hospitalized patients, who are physically proximate to the treating physician, ambulatory patients are free to make choices of when and where they follow-up. Using more patient-centered approaches to improve the continuity of care should translate to improved quality. Before other residencies embark on redesigning their hand-off process for ambulatory patients, further evidence demonstrating this as a problem in more diverse patient populations and other training environments is necessary. Further research should also describe whether improvements in clinical outcomes (e.g., improved glycemic, blood pressure, or lipid control) are achieved. Additionally, investigators could examine effects on medication compliance or completion of preventative care. While promising, this intervention should be replicated in other residency programs with supporting patient outcome data before it is implemented more widely.

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