Primary Resident Physician: Improving Continuity of Care

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Setting and Problem

Continuity of care is associated with improved patient and physician satisfaction, increased use of preventive care, and decreased hospitalizations and emergency department visits. However, resident continuity clinics are renowned for having poor continuity, and the finite duration of residency inherently limits longitudinal relationships.

Resident factors that contribute to poor continuity include limited clinic hours, canceled clinic sessions during night duties, competing demands from in-hospital rotations, and duty hour restrictions. System-level factors also hinder continuity, including patient insurance cards that only recognize the attending physician and suboptimal appointment and triage systems. Predominantly underserved and minority, the patient populations served by resident continuity clinics have additional socioeconomic barriers that contribute to limited continuity.

Interventions to improve continuity have ranged from local (resident care teams, increased clinic times, resident business cards/photos) to national solutions (flexibility in Resident Review Committee continuity rules). Despite these interventions, continuity remains below private practice settings with resulting dissatisfaction and suboptimal quality.

Intervention

Driven by resident input, the local Epic electronic health record team worked collaboratively with Hurley Children's Clinic, a pediatric residency clinic in Flint, Michigan, to create a "primary resident" field in the electronic health record. Clinic staff, resident providers, and faculty were continuously involved in the improvement process. Prominently visible to the registration staff during patient scheduling, the primary resident field is adjacent to the primary care physician's name on the top banner of the chart. The designation of primary resident is a multistep process done by the resident during the patient's visit. Registration staff, resident providers, and faculty were educated via class meetings and one-on-one encounters regarding the primary resident field.

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The intervention was assessed via a mixed-methods design. Qualitatively, residents and clinic staff were surveyed anonymously regarding their experience and satisfaction with the primary resident field. Quantitatively, preintervention and postintervention retrospective chart reviews were conducted to assess continuity using the usual provider of care index, which is the proportion of visits in which a patient is seen by his or her assigned clinician. The Epic team created a preintervention report of all children ages 12 to 18 months seen from January 31, 2013, to January 31, 2014, for at least 2 well-child visits. The team also created a postintervention report of all children ages 12 to 18 months seen from February 28, 2014, to November 13, 2014, for at least 2 well-child visits. Data collected included number of visits, resident at each visit, and date of each visit.

Outcomes to Date

Preliminary qualitative results revealed satisfaction with the primary resident field intervention and opportunities for additional improvements. Clinic residents and staff reported an improved continuity experience with greater resident "ownership" and responsibility in patient care. Residents also reported improved rapport, more time spent on patient-driven issues, and greater recognition and ability to follow up on lab/imaging results, emergency department visits, and hospitalizations.

In the preintervention period, 87 patients between 12 and 18 months old were seen for at least 2 well-child visits (mean usual provider of care index = 0.53 ± 0.02). Preliminary postintervention results reveal that 23 patients between 12 and 18 months old were seen for at least 2 well-child visits (mean usual provider of care index = 0.77 ± 0.23). In the preintervention period, 9 of 87 patients (10%) saw the same resident for their visits; in the postintervention period, 11 of 23 patients (48%) saw the same resident for their visits ($P < .001$).

An innovative electronic health record modification significantly improved continuity and empowered residents to become their patients' primary physician. The intervention was recently adopted by the institution's internal medicine residency and can be generalized to all residency

programs that have an ambulatory continuity component, so it has profound implications for patient care and provider satisfaction. Resident satisfaction with an ambulatory experience that more closely resembles postresidency practice has additional implications for building a greater primary care workforce. Continued and future directions include (1) simplifying/modifying the primary resident field designation process, (2) assessing patient perceptions of the intervention, (3) reexamining the long-term impact on continuity (1 and 2 years postintervention), and (4) reporting primary resident-specific patient outcome metrics.

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