How Caregivers' Perceptions of Access to Timely Care Impacts Repeat Hospital Visits

Population Health Sciences

Date Posted:

Dec 19, 2018

Here's a situation we see frequently in pediatric practice: Two previously healthy three-year-old children from different families are admitted to the hospital overnight for treatment of croup. Both are discharged the following day and their caregivers are instructed to follow up with their primary care providers in the next week. One family has regular contact with their child's primary care office and is easily able to schedule appointments in a timely manner; the other family has a harder time scheduling their child in for timely care.

This common scenario led our PolicyLab team to ask the following question: Will the child with better access to timely outpatient care have a lower chance of being hospitalized again in the next 30 days? The answer was more complicated than one might think.

Understanding the answer to this question can help us better address the needs of our patients and families, while also reducing health care costs. We know that respiratory illnesses such as asthma send a large number of children to the hospital (accounting for 22 percent of all non-neonatal hospital stays) and are the reason for many hospital readmissions. These readmissions and repeat emergency department (ED) visits are often unnecessary and costly—and we could prevent many of them with higher quality of care. That's one of the reasons health systems and insurance providers commonly measure care quality by assessing a patient's timely outpatient follow-up after they've been hospitalized.

There is conflicting evidence, however, on how access to timely outpatient follow-up care impacts subsequent ED and hospital visits. Further, low-income minority children may be disproportionately affected by the relationship between follow-up care and revisits, as they often have worse access to primary care and are more likely to visit the ED or be hospitalized for certain respiratory conditions, such as asthma.

To provide more clarity around this issue, our team recently completed a study—which was published in *Academic Pediatrics*—to assess the relationship between a caregiver's perception of timely access to outpatient care for their child and 30-day ED revisits and inpatient readmissions following a hospital discharge for four common pediatric respiratory illnesses. We hypothesized that if a caregiver perceived better access to timely outpatient care, they would tend to have lower rates of ED visits and hospital readmission following initial hospitalization, particularly for conditions such as asthma and croup for which there are fast-acting, effective outpatient therapies that could reduce the need for subsequent ED or hospital care.

The realities of repeat hospital visits

Our study looked at nearly 2,500 children hospitalized for asthma, bronchiolitis, croup or community-acquired pneumonia (CAP) at five children's hospitals across the United States. Within 30 days of going home from the hospital, one in ten returned to the ED or was readmitted to the hospital. Interestingly, **we found that children**

whose caregivers perceived that they had better access to timely outpatient care were, on average, *more likely* to have a subsequent ED revisit, even when we accounted for differences in their demographics, severity of the illness, and prior use of outpatient care**.** But there was no association between perception of access to timely outpatient care and whether their child was readmitted to the hospital. Finally, although Hispanic and non-Hispanic black families were not as likely to report that they had access to timely outpatient care compared to white families, we didn't find that race/ethnicity was significantly associated with higher ED revisits or readmissions.

These findings challenge convention. Clinicians often recommend routine post-hospitalization outpatient follow-up care and insurance providers frequently incentivize them to do so. It seems logical to assume that timely outpatient follow-up care leads to better post-hospitalization outcomes, as it provides an opportunity for clinicians to assess how a patient is recovering, if the family is properly following through with recommended discharge care and whether the child needs additional treatments or medications. Further, we know from two previous pediatric studies of Medicaid patients that more timely access to outpatient care has been associated with lower rates of children visiting the ED who haven't had a recent hospitalization.

We believe one potential explanation for these findings may relate to the well-documented relationship between access to care and use of care. Caregivers of children with more timely access to outpatient care may seek care earlier upon noticing their child has residual symptoms and be referred back to the ED as a result. In contrast, recently hospitalized children with less timely access to outpatient follow-up care may have had more time to improve prior to seeing their doctor, and thus be less likely to be referred back to the ED. In this situation, better access to care may lead to more, potentially unnecessary, care.

While this was an observational study and we cannot definitively say that perceived access to timely outpatient care caused an increase in ED visits, we still believe this study's findings should give providers, health systems and insurers pause when reflexively promoting or incentivizing timely post-hospitalization follow-up care for common respiratory conditions. A more targeted approach to recommending outpatient care that accounts for the specifics and complexity of a child's medical condition may be more appropriate.

Adjusting our approach to reduce readmissions

There are a few evidence-supported strategies shown to reduce ED and hospital revisits: (1) identify a person or coordinated team who is accountable for discharge transitions and (2) focus on individualizing care and eliciting feedback and teach back from families on the recommended care plan. If used properly, these approaches should build upon existing services to address the complexity of a patient's condition and the true drivers of their health outcomes, such as lack of access to discharge medications or misunderstanding of the recommended care plan.

One such example that we use in our Asthma Population Health initiative at Children's Hospital of Philadelphia (CHOP) leverages several evidence-based practices, including individualizing inpatient education, making sure patients leave with medications-in-hand and connecting patients with community health workers who deliver home-based environmental interventions. This program has led to a nearly 50 percent reduction in 30-day hospital revisits for high-risk children with asthma. Models like this show us the need for more targeted and better-specified services to impact health—**ensuring children receive the right care, in the right place, at the right time.**

Still, in order for models like these to help more children, we need further research on the content and timing of traditional hospital follow-up care for specific conditions. For example, investigators are conducting a randomized trial of follow-up care for bronchiolitis, known as the Bronchiolitis Follow-up Intervention Trial (BeneFIT), to better understand the impact of routine follow-up visits on care quality and health outcomes for children under two years old. Studies such as these are crucial in addressing the evidence gap in best practices for helping children with specific conditions transition from hospital to home.

What's the bottom line?

Though the current study did not directly assess whether children had timely outpatient follow-up, our findings suggest that timely access to outpatient care may be insufficient in preventing ED and hospital revisits and may even be counterproductive in some cases. More customized efforts to curtail readmission may be necessary in both the outpatient and inpatient settings. By taking into account a child's clinical condition, complexity and the content of follow-up care when developing interventions, we can achieve the following:

- Providers engage families with more targeted and sustainable plans of action in follow-up care
- Families and children receive individualized care that focuses on their specific needs
- Families and children learn to address their goals and needs beyond the clinic

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