Children's Hospital of Philadelphia PolicyLab

Adoption of a Portal for the Primary Care Management of Pediatric Asthma: A Mixed-Methods Implementation Study

Visit Article

BACKGROUND: Patient portals may improve communication between families of children with asthma and their primary care providers and improve outcomes. However, the feasibility of using portals to collect patient-reported outcomes from families and the barriers and facilitators of portal implementation across diverse pediatric primary care settings have not been established.

OBJECTIVE: We evaluated the feasibility of using a patient portal for pediatric asthma in primary care, its impact on management, and barriers and facilitators of implementation success.

METHODS: We conducted a mixed-methods implementation study in 20 practices (11 states). Using the portal, parents of children with asthma aged 6-12 years completed monthly surveys to communicate treatment concerns, treatment goals, symptom control, medication use, and side effects. We used logistic regression to evaluate the association of portal use with child characteristics and changes to asthma management. Ten clinician focus groups and 22 semistructured parent interviews explored barriers and facilitators of use in the context of an evidence-based implementation framework.

RESULTS: We invited 9133 families to enroll and 237 (2.59%) used the portal (range by practice, 0.6%-13.6%). Children of parents or guardians who used the portal were significantly more likely than nonusers to be aged 6-9 years (vs 10-12, P=.02), have mild or moderate/severe persistent asthma (P=.009 and P=.04), have a prescription of a controller medication (P<.001), and have private insurance (P=.002). Portal users with uncontrolled asthma had significantly more medication changes and primary care asthma visits after using the portal relative to the year earlier (increases of 14% and 16%, respectively). Qualitative results revealed the importance of practice organization (coordinated workflows) as well as family (asthma severity) and innovation (facilitated communication and ease of use) characteristics for implementation success.

CONCLUSIONS: Although use was associated with higher treatment engagement, our results suggest that achieving widespread portal adoption is unlikely in the short term. Implementation efforts should include workflow redesign and prioritize enrollment of symptomatic children.

Journal:

Journal of Medical Internet Research
Authors: Fiks AG, DuRivage N, Mayne SL, Finch S, Ross ME, Giacomini K, Suh A, McCarn B, Brandt E, Karavite D, Staton EW, Shone LP, McGoldrick V, Noonan K, Miller D, Lehmann CU, Pace WD, Grundmeier RW

Related Content

- Patient Portals and Quality of Care: Improving Patient Engagement with Electronic Health Records Research at a Glance
  Winter 2014