Improvement Era: Optimizing Patient Data Storage and Team Processes in Relation to Key Performance Metrics

Author name(s):
Meghan Fraser and Sara Elliott

Author institutional affiliations:
SickKids

The Newborn Screening Team at The Hospital for Sick Children serves infants within its geographic catchment area who screen positive on the Ontario Newborn Screen. As one of the regional treatment centers in the province, the team receives around 500 referrals annually. Historically, the team documented referrals using an Excel log, and this continued despite the emergence of electronic medical records. The use of Excel for documentation raised significant concerns regarding data integrity and security. However, obtaining executive support led to the creation of an Epic-based Newborn Screening patient form and database. This transition was crucial for ensuring the safe documentation and storage of patient data. Simultaneously, the team received provincial funding linked to performance metrics, which necessitated modifications to their processes while maintaining high standards of patient care.

To achieve their objectives, the team employed several improvement methods, including Plan-Do-Study-Act (PDSA) cycles, process mapping, and the utilization of a driver diagram. These methods facilitated a structured approach to identifying and implementing necessary changes.

The findings from this initiative include the successful creation of an Epic form and database, which significantly improved the safety and efficiency of patient data documentation and storage. Additionally, the team experienced efficiency improvements through well-defined roles and task allocation, contributing to a more streamlined workflow. Regular reviews of the data allowed for real-time performance assessments, enabling staff to learn, correct, and change practices sooner, fostering an improvement mindset within the team.

Overall, by securing executive-level leadership and employing various improvement methods, the Newborn Screening Team at The Hospital for Sick Children was able to enhance the security of patient data, align their practices with performance metrics, and foster a culture of continuous improvement. This initiative not only addressed the immediate concerns related to data integrity and security but also positioned the team for ongoing success in managing newborn screening referrals.