GeneDx Announces Publication of SeqFirst Study Demonstrating Need for First Tier Rapid Genomic Testing for Non-Critical Care Pediatric Inpatients in The Journal of Pediatrics

June 25, 2025

--Data demonstrates that rapid genomic testing dropped the average time to a precise genetic diagnosis from almost ten months to 13 days

--Despite broad utilization in the study, rapid genomic sequencing in non-critical care inpatients yielded a diagnostic rate over 42%, comparable to critical care settings

--Study supports broader adoption of rapid genomic testing in the non-critical care inpatient setting to improve pediatric patient outcomes and lower healthcare costs

GAITHERSBURG, Md.--(BUSINESS WIRE)--Jun. 25, 2025-- GeneDx (Nasdaq: WGS), a leader in delivering improved health outcomes through genomic insights, today announced new data from the SeqFirst study team conducted in partnership with the clinical genetics team at Seattle Children's supporting the application of rapid exome sequencing (rES) and rapid genome sequencing (rGS) as a first-tier test for non-critical pediatric inpatients. The study assessed the impact of using rES/rGS as a first-tier test for children receiving genetic consults in non-critical care settings. The researchers examined diagnostic rates before and after a new policy allowing rES/rGS as a first-tier test was implemented. An analysis published in *The Journal of Pediatrics* showed that rapid genome testing dropped the average time to a precise genetic diagnosis from almost ten months to less than two weeks.

"Pediatric inpatients often remain undiagnosed and stuck in limbo without answers or treatment as their conditions worsen and costs rise for way too long," said Mike Bamshad, MD, FACMG, Professor of Pediatrics at the University of Washington School of Medicine and Division Chief of Genetic Medicine at Seattle Children's. "The study demonstrated how a policy change allowing for rapid genomic testing as a first-tier test significantly reduced the time to diagnosis in non-critical care pediatric wards, enabling patients to receive timely treatments and potential better outcomes."

Implementation of the SeqFirst approach in the clinical setting led to significant reductions in the time to a genetic diagnosis, with the average time dropping from 289 to 13 days following the policy change that enabled rES/rGS to be ordered as a first-tier test in non-critical care pediatric wards. Despite an increase in utilization of rES/rGS, the diagnostic yield remained high, exceeding 40 percent, comparable to rates in critical care settings. The acceleration of diagnoses enables earlier interventions, better care planning, and improved outcomes for children with rare and undiagnosed conditions.

"Access to rapid genomic testing shouldn't be limited by where a child is admitted in the hospital," said Tara Wenger, MD, PhD, FACMG, Professor of Pediatrics at the University of Washington School of Medicine and Associate Medical Director, Inpatient Service at Seattle Children's. "This study shows that when we remove outdated barriers and bring cutting-edge diagnostics to the broader inpatient setting, we can deliver faster answers, reduce uncertainty for families, and ensure more children benefit from the highest standard of genomic care, regardless of their level of acuity."

Additional findings from the study:

- Providers caring for patients in pediatric inpatient settings are good at recognizing which patients are appropriate candidates for genetic testing, with 91 percent of consults resulting in the geneticist recommending testing.
- When rES/rGS is not used, cases may be lost to follow-up, which delays access to testing and therefore a diagnosis.
- The rate at which a precise genetic diagnosis was made from the initial encounter was over 3 times higher when rES/rGS was implemented as a first line test.

"This study underscores a major opportunity to expand timely, precise genetic diagnoses in non-critical care inpatients, a setting where genomic testing remains underutilized," said Britt Johnson, PhD, FACMG, SVP of Medical Affairs at GeneDx. "As health systems aim to deliver care more efficiently, expanding rES/rGS access across pediatric inpatients should reduce costs, shorten hospital stays, minimize unnecessary procedures, and improve outcomes for patients and families."

SeqFirst also published findings earlier this year in the *American Journal of Human Genetics* on the use of rapid genomic testing in the NICU.

About GeneDx
At GeneDx (Nasdaq: WGS), we believe that everyone deserves personalized, targeted medical care—and that it all begins with a genetic diagnosis. Fueled by one of the world's largest, rare disease data sets, our industry-leading exome and genome tests translate complex genomic data into clinical answers that unlock personalized health plans, accelerate drug discovery, and

improve health system efficiencies. For more information, please visit genedx.com and connect with us on LinkedIn, Facebook, and Instagram.

View source version on businesswire.com: https://www.businesswire.com/news/home/20250625305855/en/

Investor Relations Contact:
Investors@GeneDx.com

Media Contact:
Press@GeneDx.com

Source: GeneDx