



## 36 Innovative process improvement strategies enable timely care provision during a global pandemic with staffing shortages for Banner Health

It likely comes as no surprise that the COVID-19 pandemic disrupted the social, economic, and mental health aspects of the global population. Although the pandemic has highlighted the inspiring stories of many healthcare professionals, seldom is fully appreciated the increase in patient volume caused by the pandemic relative to the minimal resource of experienced, skilled healthcare professionals in all disciplines. While healthcare professional training programs can scale to fill every available seat, it still takes time to train and educate the new professionals. Regrettably, the pandemic created an immediate need for more trained healthcare professional in all disciplines but did not allow the lag time necessary to develop them. To provide care to all the patients with need, healthcare systems needed to do even more with the same number of staff.

Unfortunately, further confounding the provision of care challenge was a concurrent social movement colloquially known as “The Great Resignation.” This social movement is associated with many employees’ strong dissatisfaction with their working conditions and demanding more advantageous working conditions from their employers. The movement is demonstrated by a high number of employees leaving their jobs in many different countries, including (but not limited to): Australia, France, Italy, Spain, The Netherlands, Japan, The United Kingdom,



Banner Health team

The United States, and Singapore. Not only did employees leave their jobs, but they often also changed their employment industry. Healthcare professionals were not immune to the effects of this social movement, with large numbers leaving the field in the last couple of years. In the fall of 2020, the Medical-Surgical (MS) department at Banner Health experienced delays in test result availability for morning medical rounds. These delays resulted in additional testing ordered as either timed studies or with the designation “STAT” collection. These additional orders further clogged the system causing more delays in testing. Investigation of the root cause for these test delays indicated that the volume of patients,

coupled with the staffing challenges in multiple areas of the hospital, including both lab and nursing staff, overwhelmed the current process for sample collection. Noting twin challenges posed by the pandemic coupled with the social movement and understanding the need to do more with less, a multidisciplinary team was formed at Banner Health in Arizona (United States) to improve the sample collection and testing processes quickly.

The team consisted of Kimberly Wuestenberg (Quality Improvement Specialist), Connie Moreno MSN-L, BSN, RN (Senior Manager, Clinical Care Operations), Tim Hersom MBA, MT (ASCP) (Administrative Director, Clinical Laboratory), Kevin Cruz MBA, MSN-L, RN, CCRN (Director Medical Surgical Service Line) and Teri Dahn MBA, BSN, RN, CCRN-K, CPHQ (Quality Improvement Director) and their respective departments. The team determined to employ an integrated process improvement methodology to target each key stakeholder and drive change “in the now” while long-term solutions got vetted. The integrated process improvement methodologies combined concepts from Lean Six Sigma, Scrum Framework, Kanban Framework, and Design Thinking. These concepts used the customer’s voice to identify the improvement processes. They applied fast and flexible sprint sessions in a small team of department leaders to improve productivity by reducing bottlenecks in the process.

Their care initiative achieved impressive metrics on key performance indicators for the critical healthcare stakeholders of patients, clinicians, health systems, and payors. These metrics included a 35.8% increase in discharge timeliness before 1 PM. Earlier discharge reduces the risk of hospital-acquired infections (patient safety) and improves patient satisfaction as timely communication and release directly impact the patient experience. Clinicians experienced improved satisfaction with improved reliability of laboratory test results available to inform their decision-making during morning rounds at 7 AM. This information is available when desired, improving the clinician experience, relieving frustration, and increasing the clinician’s time for other care activities. The number of duplicative tests ordered in the “STAT” collection priority was reduced by 72%, indicating an improvement in the physician experience. Staff satisfaction improved as realized by improved facility-wide collaboration daily. The health system also realized improved resource utilization with 100% compliance to

interdepartmental communication of collection barriers by 3 AM, enabling better resource allocation strategies for morning draws. Payors gained reduced patient risks as the overall length of stay for in-patients reduced by 1.6%, lowering the risk of contracting nosocomial infections and lowering the cost of the stay for payors.

The measurable improvement to healthcare enabled by this care initiative at Banner Health led to being recognized as a top 3 global winner of the prestigious 2021 UNIVANTS of Healthcare Excellence Awards program. For more details on this program and/or this best practice, visit [www.UnivantsHCE.com](http://www.UnivantsHCE.com).

#### THREE KEY TAKEAWAYS:

- Innovative application of process improvement strategies can remove barriers to timely phlebotomy services, removing the cause of many duplicate “STAT” orders, further reducing bottlenecks to laboratory service provision.
- Multidisciplinary care communication and careful care coordination can enable timely discharge of patients, improving patient experiences and the availability of scarce healthcare resources.
- Timely clinical and laboratory information can positively influence physician decision making, patient continuum of care, health operations resource utilization, and payor reimbursement.

## Banner Health and Laboratory Sciences of Arizona

Utilizing an Innovative Approach to  
Process Improvement in the Era of a Global  
Pandemic and the Great Resignation:  
Rapidly Improving Timeliness of Laboratory  
Test Results for Multidisciplinary Rounds  
in an Acute Care Setting

## Croydon University Hospital

Sustained 97% Opt-Out HIV testing  
in the Emergency Department:  
Getting to Zero AIDS

## Prisma Health Greenville Memorial Hospital

Enhancing Personalized Care for  
Heart Failure Patients: A Risk-Scoring  
EMR Model



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