



UNIVANTS™
OF HEALTHCARE EXCELLENCE

Reduction of Inpatient Daily Blood Draws with Data Science and Clinical Collaboration

In the setting of publicly funded healthcare, maximizing the delivery of care while minimizing waste is increasingly important. Finding areas to reduce waste requires critical thinking and often, innovative solutions. At St. Paul's Hospital in British Columbia, Canada, it was noted that some patients had daily bloodwork orders (i.e. complete blood count and electrolytes) for an extended amount of time, without a specified stop-date. In order to further evaluate this trend, two years of laboratory data was analyzed in an effort to better understand how long these runs of daily bloodwork were extending, and how clinically informative they were to clinical care. Of the 1575 patients with runs of bloodwork of 14 days or more, 30% had months of identical daily bloodwork that was not contributing to their care and only showing expected homeostatic fluctuations.

Thus, an opportunity presented itself to collaborate with clinical staff to develop a new hospital guideline dictating that any “daily” order would repeat for three days and would subsequently require the ordering physician to reassess and reorder the test, if needed. This system-wide policy change achieved significant

results including a 28% reduction in repeated blood collections and testing for inpatients. The latter is an important safety metric for patients, as it is known that repeated phlebotomy is associated with iatrogenic anemia, bleeding, and hematoma. This site also saw a demonstrable decrease in core lab workload, and the elimination of extended, unnecessary runs of daily bloodwork. Lastly, in a site wide physician survey 80% (39/49) of respondents “agreed” or “strongly agreed” that the new policy improved patient care, further linking their change to improved clinical satisfaction and improved clinical outcomes.

For their proactive policy change to improve resource utilization and improve patient outcomes, this integrated clinical care team was recognized by the 2020 UNIVANTS of Healthcare Excellence award program with recognition of Distinction. Congratulations to Janet Simons, MD, Medical Director of Pre and Post Analytics, Laboratory, Mirjana Besir, Clinical Nurse Leader, Medicine Program, PHC, Camille Ciarniello, Director of Risk Management and Patient Safety for Providence Health Care, Astrid Levelt, Director, Medical Affairs at Providence Health Care, Deborah Shaw, Unit Coordinator, Education Coordinator.

3 TERTIARY CARE CENTRES
have adopted the best practice

28%

REDUCTION

in patients undergoing
daily phlebotomy for
10 consecutive days

\$2,200 CAD

in mitigated monthly resource costs

KEY TAKEAWAYS

1. Cost and resource saving opportunities exist throughout the health system. Identification and mitigation of any waste can positively impact resource utilization and patient care.
2. The laboratory is uniquely positioned within the health system to provide insights and data to enable actionable change across the health system.
3. Collaboration with clinical staff is key to successfully implementing system change that positively affects patients and clinical staff alike.

To learn more about this best practice and/or the UNIVANTS of Healthcare Excellence award program, please visit: univantshce.com.