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International Federation of Clinical Chemistry and Laboratory Medicine

N° 3 – March 2021

UNIVANTS™ OF HEALTHCARE EXCELLENCE

Reducing Medical Errors and Enhancing Patient Care Through Strategic Point-of-Care Testing Led by Laboratory Medicine

The Aga Khan University Hospital
The first hospital in Kenya Accredited by Joint Commission International, USA
CAP ACCREDITED

Pictured here are innovative leaders and members of the Kenya team of distinction: (L-R) Daniel Main and John Waigwa. Not pictured here but part of the valued care team are: Serafino Gatwiri, Gregory Muruga, and Nancy Kunyiha.

Point-of-care testing (POCT) is growing in popularity and applicability as many health systems seek to implement POCT in general practice, in community settings, and in select departments within the hospital, such as the emergency department. POCT comes with a multitude of benefits including near-patient testing and results, reduced turn-around time and the ability to bring testing to rural or remote areas where traditional core laboratories may not be possible or feasible.

As with any diagnostic and testing program, updates and improvements help to reduce care gaps, mitigate risk and reduce medical errors. Strengthening and improvements to POCT programs often center around education and training, implementation and/or improvement of quality systems, enhanced data management and process improvements. With 33 sites actively utilizing POCT in Nairobi, Kenya, a team led by laboratory medicine pertinently sought to improve standardization of POCT procedures and tests, digitize all POCT and records, and improve equipment performance through a comprehensive quality system.

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Implementation of this new POCT strategy ultimately and radically changed hospital processes and consequently patient flow and care at the Aga Khan University Hospital. Specifically, there has been a five-fold reduction in total medical errors. This includes a complete elimination of mismatched patient results through electronic point-of-care systems, a 20% reduction in pre-analytic confounders and substantially enhanced compliance to routine quality control (QC).

“Medical errors can have catastrophic effects on patients, resulting in potential medication errors, physical injury, and possibly death” says Majid Twahir, Chief of Staff and Associate Dean of Clinical Affairs at the Aga Khan University Hospital. “With medical errors being 20 times more likely in Africa compared to developed countries, a five-fold reduction has profound impact on the mitigation of preventable adverse outcomes and downstream costs.”

An unintended, but impressive outcome enabled by the enhanced capabilities in data capture were the improved documentation and billing processes, resulting in reduced revenue loss of KES 19,109,800 (177,400.25 US dollars) in only six months, highlighting the multitude of positive effects programs such as these can have for an institution.

These important outcomes have been enabled through a multidisciplinary POCT committee, thus underscoring the importance of ensuring representation across stakeholders, including laboratory medicine, hospital quality department, ICT, nursing, clinical stakeholders, materials management division, biomedical engineering, pharmacy, and hospital administration for reducing medical errors and enhancing patient care.

For their leadership, this integrated clinical care team has been awarded a prestigious 2020 UNIVANTS of Healthcare Excellence Award Designation of Distinction. Congratulations to John Waigwa, *Laboratory Quality Coordinator*, Serafino Gatwiri, *Nurse Training Manger*, Gregory Muruga, *ICT Programmer*, Nancy Kunyiha, *Endocrinologist*, Daniel Maina, *Clinical Pathologist and Chair of POCT Committee*.

THREE KEY TAKEAWAYS:

1. Point-of-Care testing is an emerging technology that health systems around the globe are leveraging.
2. Continuous improvement programs for POCT, with a strong focus on quality can substantially change patient care and improve flow.
3. Cross-functional POCT committees can help ensure strategic buy-in and integration of POC testing for improving care, reducing errors and mitigating lost revenue.

For more details on this best practice and/or other best practices that received recognition by the UNIVANTS of Healthcare Excellence Award program, please visit www.UnivantsHCE.com.