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CHALLENGES IN QUALITY MANAGEMENT FOR POINT-OF-CARE-TESTING AT A TERTIARY HOSPITAL IN A RESOURCE-LIMITED COUNTRY

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BACKGROUND: The need for timely patient management has made point-of-care testing (POCT) to be widely applied within healthcare facilities. In Nigeria, POCT is often implemented without the consultation nor supervision of laboratory personnel, which raises concern about the quality of results from such tests and the risk to patients' safety. The aim of this study was to determine the types of POC tests in use, the quality management process in place and the challenges faced in implementing POCT.

METHOD: This was a descriptive study of 20 sites at the Lagos University Teaching Hospital Nigeria, where POC tests were performed, which included: out-patient clinics, wards, emergency rooms; neonatal, renal dialysis and intensive care units. Data was collected using interviewer-administered questionnaires, as well as visual inspection of records and facilities. All laboratories and self-monitoring POCT were excluded.

RESULTS: The predominant POC test in use was the glucometer at 15 sites. Internal quality control and external quality assurance were performed at only 1 site, while method validation was done at 2 sites. The POCT operators at the other 17 sites were unaware of these quality practices, because it was assumed that such measures have been performed by the manufacturers to make the devices error-free. Also the control materials were not readily available.
Although POCT were typically operated by medical interns or nurses, there was no or minimal training, such as reading of the manufacturer's instructions; only 1 site had documentation of this. The operators 'figure-out' how to run the device by trial and error.
At 17 sites, there was no logbook to document the results generated, likewise there was no traceability of those results to the patients tested.
Majority of sites (18) did not document when the POC device became faulty, as the commonest solution was to change it.
Collaboration with the hospital's laboratory was poor, as most sites (17) did not involve the laboratory in instrument procurement, validation, maintenance, trouble-shooting or monitoring the accuracy of results.

CONCLUSION: The practice of quality management for POCT in resource-limited settings is poor due to lack of awareness by inadequately trained operators and non-involvement of the laboratory in POCT implementation. While device manufacturers intensify stringent quality checks in their meters, laboratory personnel should provide guidance and framework for POCT to ensure quality results and patient safety.