MedTech: a hybrid theatre incorporating a biplane, intra-operative MRI (iMRI), multi-detector computed tomography (CT) scanners, and an EOS imaging system and predict the complementary technologies required for the decade to come. These technologies not only require adequate spatial resources but a significant upfront capital investment.

**Methods.** Three sources of information were used: i) a literature search, selected journals and other horizon scanning resources that examined current efficiency, safety, and cost-effectiveness for the proposed technologies, ii) expert elicitation in the form of user-group meetings and one-to-one discussions with clinical and service management teams and iii) hospital data consisting of audit and information from capital equipment bids.

**Results.** With the exception of limited comparative data on iMRI (mainly including adults), little evidence exists to support investment in the proposed technologies. However, the decision of whether to adopt these technologies was influenced not only by existing evidence on the proposed technologies and associated cost but other factors such as local disease burdens, hospital staff requirements (training, expertise), space requirements for the new MedTech, and its impact on organizing healthcare services and hospital workflows. Complementary technologies associated with radiation monitoring image visualization and control were identified.

**Conclusions.** Strategic MedTech investment requires a holistic approach that assigns equal weight to information arising by expert elicitation and hospital audit data with existing literature evidence. The decision for adoption is heavily influenced by the clinical expertise and hospital workflows.

## OP106 The Xpert™ Clostridium difficile Kit Incorporation: Conducting a Local Clinical Study as Part of Hospital Health Technology Assessment

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**Introduction.** The Xpert™ Clostridium difficile kit is a nucleic acid amplification test indicated after discrepant results from an enzymatic test; was submitted for incorporation in a teaching hospital in Brazil. In order to evaluate the potential for improvement with Xpert™ incorporation, the performance of the available technology (enzymatic test) was assessed using a real word evidence approach. Additionally, the association between enzymatic test results and the agreement to the Infectious Diseases Society of America (IDSA) recommendations for stool test submission ($\geq$ 3 unformed stools in 24 hours without laxatives) for Clostridium difficile were evaluated.

**Methods.** This is a retrospective cohort study conducted at a tertiary teaching hospital. We included all consecutive tested patients that were submitted for enzyme immunoassay – glutamate dehydrogenase (GDH) plus toxin detection from 15 March to 8 May 2018. Data referent to episodes of unformed stools in 24 hours and use of laxatives were recorded. Statistical significance was tested by Fisher Exact test ($\alpha = 0.05$).

**Results.** One hundred and thirty-eight consecutive patients were tested: 4 (2.9 percent) were positive for GDH and toxin (group III); 114 (82.6 percent) were negative for both (group I). Twenty (14.5 percent) cases were discrepant, all being positive to GDH and negative for toxin (group II). There were not negative GDH and positive toxin cases. The IDSA guidelines were followed in 33 (28.9%), 3 (15%) and 3(75%) test orders in groups I, II and III, respectively ($p = 0.03$).

**Conclusions.** Only a minority of patients had discrepant results in enzymatic tests and would be candidates for the Xpert™ test. The low adherence to IDSA guidelines could explain the low positivity rate of enzymatic tests at the hospital. Considering the uncertainty about the potential of the new test for changing infection control practices, Xpert™ was not recommended for incorporation. Using real world evidence data is important for contextualized health technology studies in hospitals.

## OP109 The Need For Building Pharmacists' Health Technology Assessment Capacity; The Nigerian Scenario

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**Introduction.** The role of Health technology assessment (HTA) as a systematic approach in the evaluation of health interventions and technologies is becoming increasingly important as the quest for attaining universal health coverage globally continues to increase. Some developed countries in Europe and the Americas now apply HTA extensively in healthcare policy decisions, however, developing regions and countries like sub-Saharan Africa and Nigeria respectively, seem not to be making significant progress in this area. Given that evidence suggests that Nigeria and indeed several countries in sub-Saharan Africa are performing poorly on most healthcare indices as the region continues to be ravaged by predictable and avoidable epidemics and disease outbreaks, the need to build HTA capacity has never been more paramount.

**Methods.** A review of HTA capability in Nigeria was done. Pharmacists in Nigeria's Capital were randomly sampled. Semi-structured questionnaires were administered. Descriptive statistics were used in data analysis. P values less than 0.05 were considered to be significant.

**Results.** In Nigeria, there is no institution tasked with undertaking HTA and there seems to be limited knowledge, capacity and awareness on the issue. Pharmacists, being the most accessible healthcare professionals according to evidence, are a key group that could play an active role in HTA and its implementation in developing countries like Nigeria. However, out of 322 pharmacists randomly sampled, 93 percent were not aware of HTA and its application in healthcare decision-making.

**Conclusions.** There is no paucity of healthcare programs and plans in Nigeria but they seem to fail due to lack of evidence-based assessment, decision-making and implementation. Hence, there is an increasing need to raise awareness on the importance of HTA in healthcare decision-making; strengthen HTA capacity by developing and sustaining institutional capacity and adequate human resource for HTA; and creating regional annexes of HTA organizations in Africa.

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