Ankle-Brachial Index Screening for Peripheral Artery Disease in Uganda: Building a Training Model and Exploring the Feasibility and Acceptability of Implementation Strategies

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Intro

- Peripheral artery disease (PAD) increases risk of heart attack, stroke[1]
- Prevalence increasing disproportionately in low- and middle-income countries[2]
- Non-invasive, low-cost PAD screening test: ankle-brachial index (ABI) test[3]
- Objective: Determine efficacy of PAD training program and feasibility and acceptability of implementing PAD screening practices in Uganda

Population

- Doctors recruited from Central/Eastern Uganda
- HIV sub-study: enrolled doctors who care for persons living with HIV (n=10) due to increased recognition of HIV as a risk factor for PAD[4]
- Future direction: enroll other healthcare workers, laypersons

Activities/Methods

- Implementation science research study, guided by the Consolidated Framework for Implementation Research[5]
- Intervention: intensive, one-day PAD education, ABI training program, with follow-up testing
- Quantitative Study Outcomes: Competency (score >80%) in ABI procedures (measurement, calculation, interpretation)
- Focus group discussions to explore acceptability/feasibility

Lessons Learned

- Hybrid remote/in-person teaching model may facilitate dissemination of knowledge
- Cohort of Ugandan doctors believed screening programs to be acceptable, desirable
- Key barriers to address include access to equipment, lack of awareness of PAD

Public Health Implications

- High level of competency achieved supports feasibility of expanding PAD training and screening efforts
- Similar models may be used to promote implementation of PAD screening initiatives in low-resource settings
- Enhanced uptake of screening and knowledge of PAD may be used to combat rising prevalence seen in low- and middle-income countries

After an intensive training program, Ugandan physicians **mastered peripheral artery disease screening techniques** and **supported scaling-up implementation** in the community.

https://youtu.be/E5MImer46IE

Deliverables

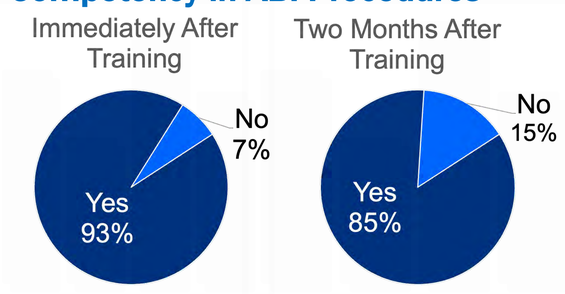
- Quantitative and Qualitative Data
- Focus Group Interview Guide
- Focus Group Coding Template

Participant Demographics

	Total Cohort (N=29)	Non-HIV Sub-Study (N=19)	HIV Sub-Study (N=10)
Age (yrs)†	32 (31-34)	31 (29-34)	33 (31-42)
Sex (F)	17 (58.6%)	10 (52.6%)	7 (70.0%)
Highest Level of Education			
MBChB	18 (62.1%)	11 (57.9%)	7 (70.0%)
Post-graduate diploma	1 (3.5%)	0 (0%)	1 (10.0%)
MMed	10 (34.5%)	8 (42.1%)	2 (20.0%)

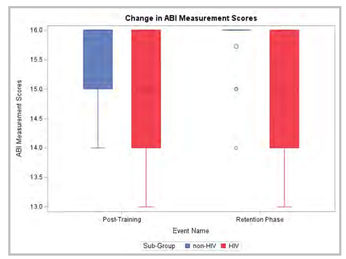
†Data is presented as median (IQR).

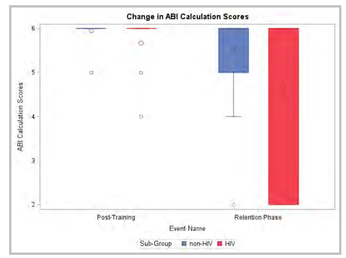
Proportion of Participants Achieving Competency in ABI Procedures

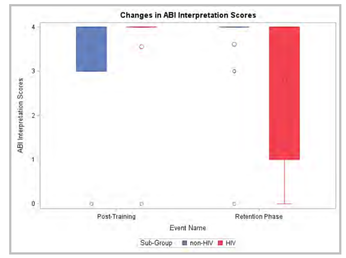


Change in ABI Performance Scores based on study sub-group.

Comparison of scores on ABI measurement, calculation, and interpretation assessments over study timepoints, stratified by sub-group (non-HIV sub-study vs. HIV sub-study).







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