EFFECTIVENESS OF POINTCARE CD4/CBC TESTING MACHINES AT HEALTH FACILITIES IN UGANDA

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Introduction

- Services rendered varies from the most basic at Health Centre Levels III and IV, through general and regional referral hospital to national reference laboratories.
- Districts have 1-2 hospitals, 4-5 Health Centre IV’s and 5-10 HC III’s.
- 60% of Health Centre Ills have laboratories (600/991).
Limited access to baseline CD4 testing has often led to delays in initiation of HAART among HIV/AIDS clients.

Goal: To increase the No. of Patients accessing ART through availing CBC/CD4 test
Introduction (3)

- Baylor-Uganda procured four PointCare CD4/CBC testing equipment in 2009 for Kitgum, Kilembe mines and Pallisa Hosp, and Kaberamaido HC IV

- Dual platform – Total WBC count, haemoglobin, four-part haematology differential, CD4 count and CD4 %
PointCare *Now* Features

- adapted for rural use

- Fully automated – No manual steps for pipetting, incubation, vortexing, etc

- Results in 8 minutes; 50 samples a day

- Flexible power options – UPS, Battery Pack and Solar Panel for extended battery life and battery re-charge
Features (2)

- Automated data analysis – No manual gating or interpretation of data
- Calibration – Factory calibrated; does not require gain adjustments or colour compensation
- Easy and safe to use – full automation and closed-cap sampling
- Minimal operator training
- Heat-stable reagents to 30°C – no cold chain shipping

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Objectives

- To determine the effect of availing on site CD4/ CBC testing on:
  - number of people initiated on HAART
  - time to HAART initiation
Materials and Methods

- Records of CD4 tests done, number of patients started on HAART and average time to initiation of HAART a year before and after installation of the equipment were compared.


Adult HAART Initiation

Before installation of CD4/CBC machine:
- Adults Started: 825
- Active on HAART: 1698

After installation of CD4/CBC machine:
- Adults Started: 990
- Active on HAART: 3294
Children HAART Initiation

Chart Title

No. on HAART

Installation of CD4 machine

Before

After

- Children Started
- Active on HAART

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Time to HAART initiation

- **2008-2009**: 7.2 months
- **2009-2010**: 3.6 months

Year of comparison
Other Benefits

- EID improved- tagged to CD4 testing and sample transportation
- TAT for laboratory investigations Hb and CBC
- Logistics management of supplies, reagents and commodities improved
- Clinic flow synchronised
Challenges

- Attrition of trained lab staff after installation
- Administrative support to keep equipment running
- The heavy patient load of the ART clinic in need of CD4/CBC results overwhelmed staff members.
Conclusions

- No of patients initiating HAART did not change significantly.
- However no of active clients in care and on HAART increased by 48% for adults and 85% for children.
  - Transfer in for better service.
- Average time to HAART initiation decreased by 50%.
Thank you
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