

Mobile phones support palliative care services in Africa

The African Palliative Care Association (APCA) are a pan-Africa advocacy and research organisation working to expand palliative care services in the Africa region. APCA have been working with Honexus, a software development company, to create an electronic system that can be accessed using a mobile technology device, such as a tablet computer or a mobile phone.



Fig. 1. An example of how information was entered into the electronic system by staff in the pilot study. Photo credit to Honexus.

The system was designed for use by pharmacies that support palliative care services, replacing current paper-based records of patient information and medicine stock levels. At present, tasks such as reporting on medicine stock levels and reviewing patient notes can be time consuming and burdensome for pharmacy and healthcare staff. The newly created system was tailored to record information electronically to enable pharmacists to record and retrieve patient data easily and protect patient confidentiality. The system also provides pharmacists with information on which medication is close to being out of stock and which medicines are soon to expire. This feature was designed to help pharmacists manage their medication stock more efficiently and to support an uninterrupted supply for patients.

For nine months, APCA explored how the system worked a Gombe Hospital (a rural hospital) and Hospice Africa Uganda (an urban hospice). Both sites were provided with a tablet computer and a one-day face-to-face training session. Support was also available to the sites during the study if help or advice was needed when using the system.

APCA wanted to answer three questions:

How well does the system store information on patients?

Does the system help how efficiently services are run?
Can the system support medicine stock management?

A total of 455 patients were recorded on the system across both sites, which covered a total of 565 consultations. Improvements in the time it took pharmacy staff to review patient and medicines information were observed.



Fig. 2. A member of staff receiving training from Joel Senoga, Honexus, during the study. Photo credit to Honexus.

Time to review pharmaceuticals data reduced from seven days to 30 minutes at Hospice Africa Uganda, and from 10 days to one hour at Gombe Hospital.

The expiry of stock was also reduced, from 3% of stock to 0.5% at the urban hospice and from 58% to 0% at the rural hospital.

These findings highlighted great improvements to the efficiency of both pharmacy services. The use of mobile devices make entry and retrieval of data very easy for staff.

The electronic system used in the pilot work is freely available for others to use and APCA are keen to support further work in using mobile devices as part of service delivery.

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Publication

[Strengthening pharmaceutical systems for palliative care services in resource limited settings: piloting a mHealth application across a rural and urban setting in Uganda.](#)

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