

HOW MANY HAVE WE LOST, HOW MANY ARE STILL THERE, AND HOW ARE THEY DOING? A SYSTEMATIC APPROACH TO COLLECTING CROSS-SECTIONAL PATIENT-LEVEL INFORMATION IN ART CLINICS

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BACKGROUND:

The HIV Management Cluster of RHRU provides clinical and managerial input for 8 ART clinics in Gauteng and the North-West province which operate at very different levels of care and face a wide range of operational difficulties. We identified three needs that were not met by continuing efforts to collect clinical data on a day-to-day basis:

- ▶ up-to-date information on the numbers of patients currently accessing care for use by clinic heads and in communication with funding sources (donors and provincial departments of health)
- ▶ information on treatment outcomes and inconsistencies in patient management to be used in order to improve quality of care
- ▶ information about treatment outcomes and operational challenges to inform national and international policy.

The main aim of the process was to provide a method that allows the collection of valid and reliable data in a way that keeps disruption of normal clinic operations to a minimum and makes use of all available clinic staff at whatever level of training and expertise.

METHODS:

We created a data collection tool (Fig. 1) as well as a systematic piloting and cross-sectional data collection process (called Optimised Clinical Audit System, OCAS) in order to provide reliable information on the following parameters:

- ▶ patient demographics, including age and gender
- ▶ CD4 count and viral load at treatment initiation and during the course of treatment
- ▶ ART regimens used; changes and interruptions to regimens, and incidence and timing of virological failure
- ▶ incidence and timing of side effects such as lactic acidosis, peripheral neuropathy, lipodystrophy, etc.
- ▶ numbers of patients falling pregnant while on treatment
- ▶ prevalence and timing of co-morbidities (tuberculosis and other opportunistic infections, IRIS)
- ▶ number of patients and timing of defaulting from clinic care both before and after ART initiation
- ▶ number of patients down-referred to other sites/ out-referred to other programmes
- ▶ number and timing of deaths.

Fig. 1: Optimised Clinical Audit System (OCAS) tool

Table 1: Details of completed file reviews and interventions implemented as a result

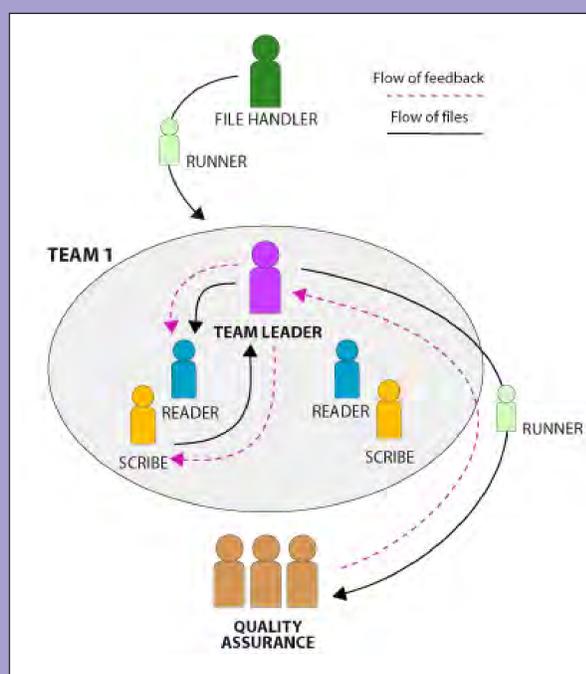
Site	No. of files	No. of staff	No. of days	Quality assurance	Detailed info on side effects	Detailed info on co-morbidities	Interventions following from review
Tshepong Wellness Clinic	5,750	70	2	Limited	No	No	▶ Defaulter tracer ▶ Improved longitudinal data collection
Johannesburg Hospital ART Clinic	3,679	43	5	Yes	Open-ended	Open-ended	
Taung Treatment Centre	3,450	40	4	Yes	Systematic	Systematic	▶ Defaulter tracer
Nazareth House ART Clinic	813	20	3	Yes	Systematic	Systematic	

Fig. 2: Optimised Clinical Audit System (OCAS)

Each team consists of a team leader and several reader/ scribe subteams who check a file at a time and fill in the forms. The **team leader** answers questions and controls the first two finished forms of each reviewer against the file. **Readers** extract information from the files; **scribes** fill out the data collection tool accordingly.

Quality assurance (QA) staff at a central station check for errors in the forms against each file before re-filing and feed back missing information to the team leader.

Files are retrieved from and re-filed into the filing cabinet by a **file handler**, and carried to the teams, the QA team, and back to the filing station by **runners**.



RESULTS:

The tool was first used in an audit of all files of all patients ever accessing the Tshepong Wellness Centre in Jouberton, Klerksdorp, in July 2006 (n=5075). Here, files were reviewed by staff from RHRU and Aurum Health Institute as well as clinic staff at all levels of training, with quality assurance being done in bulk by a team of clinicians for files of defaulted or down-referred patients only. The quality of data proved to be rather poor due to low levels of supervision, resulting in a high loss of information on laboratory results and a low sensitivity regarding information on side effects and co-morbidities. For the second file review, the tool was significantly upgraded to include open-ended questions on side effects and comorbidities. It was used in a file review at the ART clinic of the Johannesburg Hospital in December 2006 and February 2007 (n=3679). Here, we used a system of tight control by an experienced team leader and additional, real-time quality assurance by a team of clinicians (Fig. 2). After a third round of changes to include systematically collected information on side effects and comorbidities, it was used in a file review at the Taung Treatment Centre (n=3220) in March 2007 and, after adjustments to capture the specifics of a non-public sector ART clinic, at Nazareth House in May 2007 (n=813). Data were imputed in an Access database and submitted to descriptive statistic analysis in Excel, and results were presented to staff at the clinics and at provincial departments of health. Details of the clinics covered, the logistics and methods of each file review, and of interventions implemented as a result of the review can be found in Table 1.

CONCLUSIONS:

The Optimised Clinical Audit System (OCAS) tool, as well as the data collection process, has by now been adapted for use in any clinic setting, with supervision, training and piloting being managed by the Mobile Clinic Support Team of the HIV Management Cluster. It has been used for providing baseline data for attempts in defaulter tracing, improving the longitudinal collection of patient-level data, and providing systematic evidence for overall quality improvement in the clinics.