



HIV/TB Care and Treatment Programme



HIGHLIGHTS OF THE YEAR

- » Achieved and exceeded most PEPFAR targets for the year ended 30 September 2007, and received an increase in grant allocation from \$12.5 million to \$17.8 million.
- » Obtained an additional PEPFAR grant of \$1.9 million for HIV prevention, treatment and care services in small and medium enterprises.
- » Accreditation received from the Department of Health for implementation by Aurum of its HIV care and treatment programme at the Johannesburg Correctional Facility.
- » Participated at the South African AIDS Conference with two oral presentations.
- » Participated at the HIV implementers meeting in Kigali, Rwanda, with oral and poster presentations.
- » Published five peer-reviewed journal articles on the programme.

PROGRAMME OVERVIEW

Aurum's HIV Care and Treatment programme has evolved over the years from a workplace programme, purely focused on antiretroviral delivery, to a large HIV care implementation programme with over 100 facilities throughout the country in the public and private health sectors.

The programme is currently divided into two main initiatives, one funded by industrial companies and the other funded by the President's Emergency Plan for AIDS Relief (PEPFAR). The programmes are supported by data management, HIV specialist clinical support, and a training programme. Additionally, the programme includes a sizeable research component which continually evaluates antiretroviral therapy implementation in the workplace and community. A number of masters and PhD students are presently conducting ancillary studies into the antiretroviral therapy

programme to further understand adverse effects, adherence, and drug interactions.

The objectives of the Aurum HIV Care programme are to:

- » expand access to HIV-infected individuals requiring ART through partnerships in the public and private sectors;
- » ensure a high-quality, comprehensive, and integrated ART programme, using a standardised model of delivery;
- » To develop local capacity through the provision of training for all levels of health care workers;
- » provide a framework for research to inform health care providers about HIV and integrated HIV/TB care in South Africa and the developing world; and
- » evaluate the programme in terms of feasibility, and immunological, virological and clinical outcomes.

The focus areas for the programme in 2007 were:

- » **Clinical support department:** In 2007, we appointed an in-house clinician to provide more on-site clinical support to partners and to facilitate the better

integration of the clinical support with programmatic activities.

- » **HIV/TB integration:** A number of activities were introduced in 2007 to improve HIV/TB integration. These include a new TB training course for nurses, emphasis on TB in the refresher training courses, a review of TB screening in the programme, and a review of TB incidence in the Anglo Platinum programme. A number of research projects on TB screening have also been initiated at Tshepong Hospital.
- » **Expansion of provision of services to children:** In collaboration with the Wits Paediatrics unit, we have been increasing clinical capacity to treat children within the unit. An increase in paediatric patients was achieved by encouraging the recruitment of children at all Aurum-run PEPFAR sites and by increasing emphasis on HIV care to children in the training programme.
- » **Expansion of prevention-of-mother-to-child transmission (PMTCT) services:** Guidelines have been drawn

up for PMTCT services, and a manual and data collection tools are being implemented at our sites.

» **Continued work with the Department of Correctional Services:** We have successfully obtained accreditation for the Johannesburg Correctional Facility and patients there have begun on HIV care and treatment. The team is currently working on obtaining accreditation for the Pretoria Correctional Facility.

» **Efforts to establish closer relationships with the Department of Health:** We are making very good progress on closer collaboration with the government at several levels in a number of provinces and centrally (see PEPFAR programme).

» **Efforts to establish an Aurum-affiliated site at Thembisa Hospital:** As part of the PEPFAR programme, Aurum has agreed to provide infrastructural development, data management, training, and human resource support to Tembisa Hospital's HIV CCMT programme.

» **Nutritional aspects of ART delivery:** We have appointed a dietician within the programme to assist with the training of the nutrition monitoring initiative that has been implemented at the Department of Correctional Services.

» **Improvement of data management systems:** We have commissioned the development of a completely revised SQL-based HIV care management system which is now complete and is undergoing user-testing. Efforts have also been made to improve data flow, data checking, and to increase monitoring and evaluation capacity within the unit.

» **Provision of a data management system at Tshepong Hospital:** Our data management system has been implemented at Tshepong Hospital. The new forms are being used and data is being captured electronically.

» **Developments at Chris Hani Baragwanath Hospital:** We have improved the clinic facility at the hospital by providing equipment and arranging for painting of the premises. Also, our data management system has been implemented. Provision of support to the psychiatric unit to enable them to provide HIV treatment to in-patients is being finalised.

PROGRESS REVIEW

The workplace programme

The scope of our workplace programme was reduced in 2007 due to the unbundling of the Anglo American group. Some companies, no longer part of the Anglo group (such as Tongaat-Hullet and Highveld Steel), continued their Aurum support, while AngloGold Ashanti opted to take over the tools and systems provided by Aurum and manage their programme internally. The continued generous support for the programme by Anglo Platinum, Anglo Coal and Anglo Operations is particularly valued.

During this year there have been a number of new emphases for the workplace programme:

» **Implementation of a new first-line antiretroviral treatment regimen, including Tenofovir:** Guidelines, data collection forms, and training manuals were revised to include in the new programme.

» **Reduction of losses to follow up:** This has been achieved through increased attention on patient follow-up at monitoring visits, identification of lost patients for recall, and continuous reporting on missed visits and losses from the programme.

» **Increased attention to HIV care prior to antiretroviral therapy implementation:** This has been achieved by emphasising the registration of all patients who have tested positive for HIV, expediting the identification of patients who require treatment, and increasing the training and implementation of preventative therapy at the Anglo Platinum sites.

Fig 1: Kaplan Meier graph of TB-free survival patients started on ART, assessed by CD4 count at start of ART

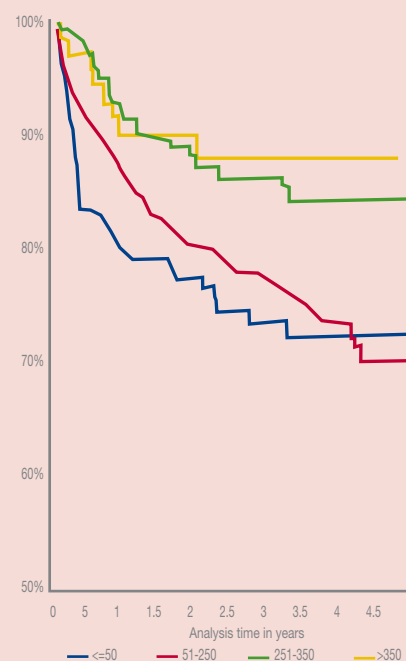
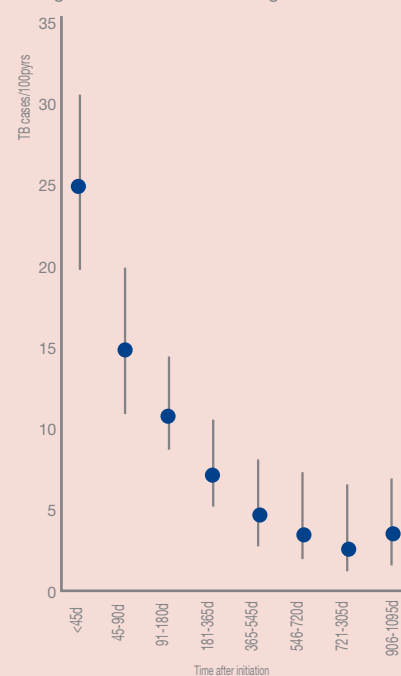


Fig 2: TB incidence following ART initiation



» **Increased focus on HIV/TB integration:** A report for Anglo Platinum has been compiled on TB incidence following ART initiation, with recommendations made for increased HIV/TB integration. In addition, a review of the data system has indicated areas of improvement in the documentation of TB screening, and changes have been made to the system to accommodate these accordingly.

By the end of December 2007, the workplace programme had registered 7,739 patients on the HIV Care programme and had started 4,223 patients on antiretroviral therapy. 1,843 patients had been started on cotrimoxazole preventive therapy and 1,218 on isoniazid (INH) preventive therapy. Mean CD4 counts increased from 152 cells/ μ l at the time of starting ART, to 258 and 298 by 12 and 24 months of treatment respectively. Virological suppression to less than 400 copies/ml was found in 72% of patients at 6 months, and was present in 62% and 61% at 12 and 24 months respectively. Retention on the programme after 5 years is 66%.

The results of the workplace programme are comparable to results obtained in the developed world and to those in pilot programmes in the developing world (see figures 1 and 2 for examples of TB outcomes from the data).

The PEPFAR programme

By the end of December 2007, the PEPFAR programme in Aurum-managed sites had registered 15,636 patients on the HIV Care programme and had started 8,596 patients on antiretroviral therapy. 6,693 patients had been started on cotrimoxazole preventive therapy and 1,202 on isoniazid (INH) preventive therapy. Mean CD4 counts increased from 113 cells/ μ l at the time of starting ART, to 272 and 367 by 12 and 24 months on treatment respectively. Virological suppression to less than 400 copies/ml was found in 75% of patients at 6 months, and was present in 74% and 76% at 12 and 24 months respectively. Retention on the programme after 3 years is 82%.

Collaboration with the Department of Health (DOH): Collaboration with the province of Gauteng: A memorandum of understanding has been negotiated with the province and signature is imminent. This memorandum outlines all support activities entered into by Aurum at public facilities such as Chris Hani Baragwanath Hospital and Thembisa Hospital.

Down-referral programme in Gauteng: Aurum has been involved in the consultation for the down-referral programme for Gauteng. Support for the Ekurhuleni Municipality has been discussed and is scheduled to commence in 2008.

DOH Limpopo: A collaboration between Aurum and DOH Limpopo to establish a down-referral site (Mathabatha clinic) in a mining area in Limpopo province has been discussed. The clinic is currently receiving support in terms of project management and has started enrolling patients onto an HIV programme prior to commencement of ART.

Collaboration with North West Province: Aurum has proposed providing support for a clinic in Orkney for down-referral from Tshepong Hospital. Preparations for this are at an advanced stage.

Collaboration with KwaZulu-Natal: Through our collaboration with the Medical Research Council (MRC), the MRC site in Verulam, KwaZulu-Natal, is being reviewed for accreditation and will become a down-referral site for the province.

In the public sector programme, Aurum provides support to the Department of Health at Madwaleni hospital (Eastern Cape), Tshepong Hospital (North West Province), and Baragwanath Hospital (Gauteng). In these sites, a total of 11,778 patients had been started on an HIV care programme, with 7,735 started on antiretroviral treatment. Support to the Tembisa Hospital will come on stream in the first quarter of 2008.

SME programme

In South Africa, small and medium sized companies (SMEs) employ more than half

of the workforce. However, most of these workers do not currently have access to adequate HIV/AIDS services. Aurum has been awarded a grant through the Center for Disease Control, using PEPFAR funding, to develop a replicable HIV/AIDS service delivery model for SMEs that takes cognisance of the current challenges faced. This project aims to significantly increase the access of targeted SME workers to services which will prevent them from contracting HIV, test them for HIV, and treat those who are HIV-positive. The project will train some workers to continue to educate the rest of the workforce with information that will alter the impact HIV/AIDS could have on their lives. Managers of targeted companies will be assisted to create a workplace that encourages practices that prevent workers from contracting the disease, while simultaneously reducing the discrimination experienced by workers who are already HIV-positive. An innovative component of this project is the creation of the 'Crossroad' concept – the establishment of HIV care facilities at major transportation hubs where people can access services on the way to and from work. To this end, a memorandum of understanding has been signed with the Metropolitan Trading Authority of the City of Johannesburg to work in taxi ranks in the city.

The award was made in October 2007 and achievements, as of the end of December 2007, included the recruitment of key project team members, and the development of a training curriculum for the counsellors that will be interacting with SME workers.

The training programme

A number of training courses have been developed by Aurum, and are being offered either at our Johannesburg office or at the treatment sites. Established courses have been revised to incorporate new developments and more interactive training methods.

The following courses have been provided through the year:

- » Physician's ART course
- » Nurse's ART course

- » Nurse's TB course
- » Running support groups
- » Basic counselling skills and VCT
- » ART adherence counselling
- » Couples counselling
- » Counselling children and PMTCT
- » Stigma and disclosure
- » Peer education on ART

A new course that has been developed and is scheduled to be held in 2008 is on sexuality and HIV prevention. A number of seminars have also been held during the year for all managers, doctors, nurses and counsellors who are involved in the programme. Topics covered in these seminars included: new advances in HIV care, paediatric diagnosis of HIV, adherence and retention, nutrition, TB screening, and antiretroviral therapy for children.

The research programme

The following research studies are currently under way:

- » **Evaluation of the HIV programme:** Various elements of the antiretroviral programme are being evaluated. These include:
 - a. Long-term outcomes of patients on treatment;
 - b. Treatment outcomes in experienced patients;
 - c. Comparisons of various regimens or drug doses used in the programme;
 - d. Comparisons of treatment outcomes in various cohorts; and
 - e. Comparisons of treatment outcomes by model of delivery or by sites.
- » **Adherence study:** The aim of the study is to explore and describe the predictors for non-adherence to ART and explain the main reasons for patients missing clinic visits and/or dropping out of the ART programme in the first 6 months of treatment. Recruitment to this study has been completed and interim results have been made available.
- » **Tenofovir project:** Treatment outcomes in patients taking tenofovir as part of their first-line regimen are compared to patients on either a

zidovudine- or a stavudine-containing regimen. This study is expected to commence in March 2008.

- » **TB screening in HIV-infected patients:** A retrospective and prospective study looking at screening for TB in HIV clinic participants is under way at Tshepong Hospital. Results for this study are expected around June 2008.
- » **TB screening amongst prisoners:** A study investigating the prevalence of TB among inmates and prison staff is planned for 2008.
- » **Resistance and treatment failure:**
 - a. **Surveillance for resistance:** Stored specimens obtained from patients started on the second-line regimen are tested for resistance to antiretrovirals to determine whether the second-line regimen is expected to be effective.
 - b. **Treatment failure and resistance:** The evolution of resistance in patients who have experienced treatment failure is to be determined.
 - c. Evaluation of outcomes of patients on second-line treatment

FUTURE PLANS AND OPPORTUNITIES

Community-wide integrated models of HIV/TB care

AURUM has embarked in a partnership with Thembisa Hospital in Ekurhuleni in an effort to increase HIV and TB coverage to the Tembisa community of 850,000 people. Plans are being made to provide an integrated model of care that will represent a partnership with the public sector and civil society.

Prevention with positives

In accordance with the current epidemiology and best practices in Africa, "prevention with positives" (PwP) programmes will be developed, both in the clinic and in counselling and testing settings. This will include integration of PwP into health worker training and other training.

Prevention in high-risk groups

Aurum as part of its SME initiative will target mobile populations with a view to the provision of targeted services and interventions to these groups.

Integration of TB screening into counselling and testing

TB screening will be added to the intake of counselling and testing clients in an effort to widen the scope of TB case findings in the various HIV scenarios. This will be coupled with an overall programme of rigorous TB screening at the HIV clinic and linkage to treatment and/or IPT.

TB contact tracing in the platinum mining industry

A proposal for this new initiative was submitted to PEPFAR for FY2008 and funding has been approved. The aim of the project is to improve and expand TB and HIV collaborative services to employees and contractors in the platinum mining industry and surrounding communities in South Africa. The project includes reviewing and ensuring comprehensive TB services as well as community HIV and TB case findings, based on households of employees with TB. The household component will include HIV counselling and testing, TB screening, INH therapy to contacts once TB has been excluded, referral of HIV-infected persons for HIV care and treatment, and referral of active TB cases for TB treatment. This project also includes an operational research component which will evaluate the feasibility of routine community/household contact tracing, contact TB testing, and HIV testing.

With these new projects as well as the drive to excel in the existing work, the HIV/TB care team is well positioned to grow the capacity of South Africans to make a difference to the communities in which we serve.

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