



DIVISION OF
**CLINICAL
HAEMATOLOGY**

Taking the fight against HIV to the next level



Professor
Nicolas Novitzky
Head of
Clinical Haematology

The Haematology Unit in the Department of Medicine is busy, very busy. It houses many different units and research projects – from groundbreaking work on HIV and HIV-related cancers to the only public sector haematopoietic stem cell transplantation programme in the country.

“Our work is challenging but rewarding and we are making great strides in several arenas,” says Professor Nicolas Novitzky, who heads up the Leukaemia Unit. He says the Haematology Unit serves as a regional centre for the treatment of haematological malignancies, while patients from all over South Africa come here for stem cell therapy. “But lately, of concern is the substantial increase in the numbers of HIV-related malignancies and particularly Burkitt’s lymphoma and leukaemia,” says Professor Novitzky.

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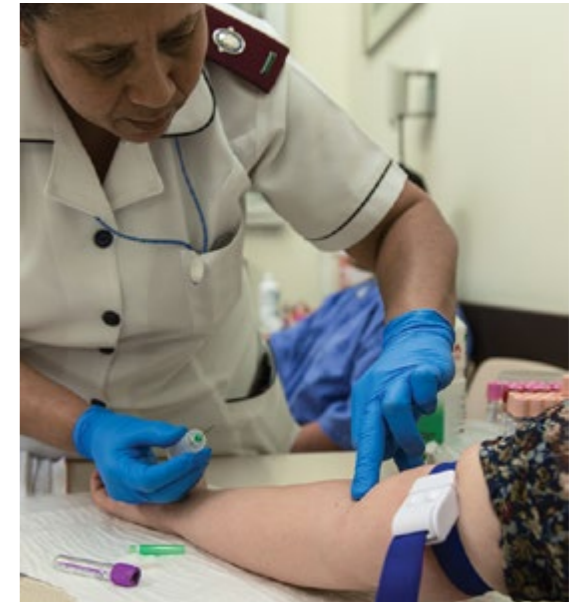


While the unit's workload has increased, the beds and allocated staff numbers seem to decrease, which has led to some innovations in treatment protocols. "We changed our treatment protocols to shorten the stay of patients in hospital and employed earlier high dose therapy and stem cell transplantation in a number of conditions, cutting lengthy stays in hospital. This led to a significant improvement in the overall survival of patients," says Professor Novitzky.

Other achievements have also been driven by necessity. One of the challenging issues in allogeneic stem cell transplantation remains graft vs host disease (GvHD), an immunological phenomenon. The unit developed a method of depleting T-cells in the transplant bag, so that the monoclonal antibody is not transferred to the patient, leading to optimal prevention of GvHD and minimal immunosuppression of the patient. In a dose cell response study, doctors were able to determine optimal antibody level, cell dose concentration to achieve maximum T-cell depletion without transferring the antibody in vivo.

But perhaps one of the most important successes of the unit has been the transformation of the transplantation programme from a research tool for highly selected patients to a therapeutic modality accessible to most patients with blood disorders who qualify for the treatment, regardless of their socioeconomic status.

"Indeed, in our unit, the outcomes of patients with aplastic anaemia are some of the best ever published, with 100% survival in a cohort of 32 consecutive patients studied," says Professor Novitzky. Moreover, depending on disease risk factors, the outcome of patients with haematological malignancies is also favourable with more than two-thirds surviving in the long term.



Sister Sharon Croy taking blood in the Haematology Clinic.

He points out that most of the programmes in South Africa are run by professionals who were trained in this department and using conditioning protocols designed at UCT.

Professor Novitzky admits that the greatest challenge remains HIV and the associated haematological problems. "South Africa has the highest burden of HIV/AIDS worldwide and the introduction of highly active antiretroviral therapy (HAART) has significantly reduced the incidence in HIV-associated cancers," says Professor Novitzky. But he is quick to point out that the same impact has not been seen for all HIV-associated cancers. Ongoing research is making great strides in understanding the disease pathology and potential types of cancer therapy treatments.

This means the unit is well placed to receive the steady increase of patients who – despite the roll-out of antiretroviral treatment to HIV-positive South African patients since 2004 – are continuing to appear at the doorstep of Groote Schuur Hospital.