



Aga Khan University Hospital's Heart and Cancer Centre

Heart disease and cancer, the leading causes of death in developed countries, are also emerging as growing problems in the developing world as a result of lifestyle changes. These include higher-fat diets, lower physical activity and increased consumption of alcohol and cigarettes. According to the World Health Organisation, 70 percent of new cancers in the next 15 years will occur in developing countries. In these countries, the conditions are affecting younger, working-age populations. Developing countries therefore face the growing burden of non-communicable diseases such as cancer, diabetes and heart disease alongside the existing burdens from infectious diseases.

In its efforts to play a fundamental role in Kenya's response to these new challenges while bringing international standards of health care to East Africa, the Aga Khan University Hospital Nairobi (AKUH, N) – in partnership with the Agence Française de Développement (AFD) – has established a world-class Heart and Cancer Centre. At a cost of over US\$ 50 million, the Centre will provide care and treatment comparable to the best centres in the West while develop-

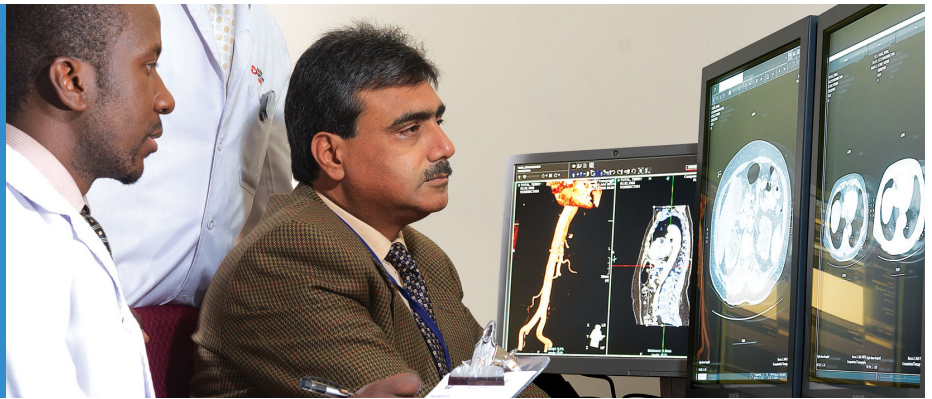
ing much needed human resources in the region. It is part of the University's programme for the Faculty of Health Sciences, which includes the expansion of the university hospital to a 600-bed tertiary care facility and the establishment of an Undergraduate Medical Education Programme, an Undergraduate Nursing Programme and a school of Allied Health Professionals. The new facility will form the hub of an integrated Aga Khan Development Network (AKDN) health system in East Africa which, when fully realised, will provide a continuum of care – from community and primary care to tertiary care – underpinned by teaching and research.

In recognition of the economic realities faced in the region, the AKUH, N's Patient Welfare Programme will ensure that world class treatment is available even to those who are not able to afford such specialised services. The Aga Khan University Hospital is already working with some government hospitals to ensure wider access to specialty care for the population.

The state-of-the-art facility will house modern diagnostic equipment and the latest therapeutic and rehabilitation services. The Centre will integrate the multidisciplinary approach to patient management that runs across the entire patient experience at AKUH, N where a wide spectrum of physicians and other health care professionals team up to deliver the most appropriate and evidence-based practices.

Among the capabilities of the Centre will be minimally invasive diagnostic cardiac procedures, such as the coronary angiogram. Clogged heart arteries can be unblocked rapidly using technologically advanced devices known as stents or balloons in a procedure known as coronary angioplasty. In some instances, the blockages are too severe and require open heart surgery. Open heart surgery is also performed for heart valve diseases as well as for correction of heart defects in children. The catheterisation laboratory and cardiac operating theatre, along with a six-bed Cardiothoracic Intensive Care Unit and a six-bed Coronary Care Unit, are other key components of the AKUH, N's Centre. The Centre brings

The Picture Archiving and Communication System (PACS) provides easy transmission of digital images enabling timely diagnosis and treatment.



Above: The entrance to AKUH's Heart and Cancer Centre. **Front Cover:** Radiation therapy or radiotherapy is the treatment of cancer (as well as some non-malignant conditions) by high energy radiation. It is similar to having a diagnostic x-ray performed of your body, except that radiotherapy uses very high energy x-rays. There are two commonly used methods of delivering radiation: one is by external beam (the linear accelerators commonly referred to as linacs) and the other is through the insertion of radioactive sources into the tissues or body cavities. The latter is called brachytherapy (short distance therapy).

For more information:

AGA KHAN UNIVERSITY HOSPITAL, Nairobi
 3rd Parklands Avenue
 Off Limuru Road
 P.O. Box 30270-00100
 Nairobi, Kenya
 Tel: (254 20) 366 2170
 Fax: (254 20) 374 1749
 Email: public.relations@aku.edu

together a large multidisciplinary team to enable accurate, comprehensive diagnosis and treatment of severe heart conditions.

The existing cancer programme will be strengthened by the new radiotherapy treatment being offered at the Centre. Radiation therapy or radiotherapy is the treatment of cancer (as well as some nonmalignant conditions) by high energy radiation. Software enhancements for these machines have contributed to greater conformity of dose distribution so that normal tissues and critical organs can be better protected.

In addition to the Centre's comprehensive facilities for cardiac and cancer programmes, the Centre also houses five modern operating theatres dedicated to cardiothoracics, obstetrics and gynaecology, urology, neurology and general surgeries. To complement the specialised cardiac intensive care units, there is a dedicated medical/surgical intensive care unit. All clinical units have dedicated conference/ seminar rooms for teaching purposes. Each of these is equipped with digital video conferencing and e-learning capabilities. Specialised areas such as cardiothoracic operating theatres and a catheterisation laboratory can also broadcast live cases to local and international partners for teaching and learning purposes. These units will also be equipped with a Picture Archiving and

Communication System (PACS), which will provide easy access to digital images for timely diagnosis and treatment. This system replaces the conventional use of radiology films.

Education and Research

AKUH, N continues to endeavour to become one of the world's leading centres of academic excellence on emerging chronic diseases while working to help address the critical health care priorities of the East African population at the policy level.

At the centre of this vision is the training of health specialists. The Centre will be an education and research facility which will train doctors for fellowships in cardiology and oncology. It will collaborate with international universities affiliated with the Aga Khan University as well as public universities in East Africa. Significant investments in training made by international partner institutions are also continuing.

In an effort to create a better understanding of the long-term risks of poor diet, a sedentary lifestyle, smoking, air pollution or lack of screening for cancer, as well as of the early warning signs and symptoms of these serious chronic conditions, the Centre will run public awareness campaigns as part of AKUH, N's ongoing public education programmes.

The Aga Khan Development Network (AKDN) is a group of private development agencies working to empower communities and individuals, often in disadvantaged circumstances, to improve living conditions and opportunities, especially in Africa and Asia. Its agencies work in over 30 countries for the common good of all citizens, regardless of their gender, origin or religion. Its underlying impulse is the ethic of compassion for the vulnerable in society.

