Case Report

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Rapid Development of Cardiology Department at Amiri Medical Complex and its Significant Contributions to Afghanistan Cardiac Health

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ABSTRACT

Cardio-vascular diseases are one of the leading causes of deaths in Afghanistan accounting for 19% of the total annual deaths [1]. Cardiology at Amiri Medical Complex is developing as a key department, which has already treated a record number of cardiac patients in the history of Afghanistan in just three years of its establishment. The main focus of the cardiology department is the delivery of top-quality and timely cardiac care to patients in the hospital setting that is critical to its success. Over the last three years, there has been a significant improvement and many trail blazing achievements specifically in diagnosis and management of adult and pediatric cardiac patients with a mortality rate which is unique in the heart health history of Afghanistan and comparable to international centers.

Keywords
Cardiology, Rapid development, AMC contribution, Afghanistan.

Introduction
Cardio-vascular diseases are one of the leading causes of deaths in Afghanistan accounting for 19% of the total annual deaths [1]. It is estimated that in 2008, noncommunicable diseases (NCDs) accounted for 29 percent of all deaths; with an increasingly aging population, it is expected this percentage will increase as well (WHO, 2011). Of NCDs, cardiovascular diseases account for 15 percent of all deaths in Afghanistan [2].

The health system in Afghanistan has improved dramatically since 2002/1381 with the creation and implementation of the basic package of health services (BPHS) and later the essential package of hospital services (EPHS) [3]. The Ministry of Public Health (MoPH) acts as a steward for these programs, contracting most services out to nongovernmental organizations (NGOs) to provide primary through tertiary health care services throughout the country. Introduction of the BPHS and the EPHS created a cohesion in the public health system that had previously been absent [4].

The National Health Policy states that private health care facilities are a vital part of the national health care system (Article 10) [5]. In Afghanistan, the demand for health services is ever increasing in both scale and scope. There are 0.3 hospital beds per 1,000 people in Afghanistan; however, these numbers may vary substantially by area; WHO recommends one bed per 1,000 people. In addition, there are inadequate supplies of medicines, vaccines and equipment in healthcare facilities, and a significant shortage of healthcare workers at every level [6].

Private providers account for almost half of all outpatient visits and more than one-in-six inpatient stays. Although much progresses has been made more investment is needed to meet the growing demands of the population. Afghans spend an estimated US$285M annually abroad, seeking quality health care. Insufficient capacity for providing secondary and tertiary health care services, particularly cardiothoracic surgery, neurosurgery, organ transplant, and oncology (radiotherapy and chemotherapy), creates shortage of services that needs to be rectified by new investments in the health sector [7].

Keeping in consideration the crucial situation in the field of cardiology the department of cardiology was established at Amiri Medical Complex from the very day of inception of the facility. The department of cardiology at AMC is a continuation of the then
Escorts Amiri Diagnostic Heart center which was established in 2006 with the aim to provide diagnostic and curative services to cardiac patients in Afghanistan.

**Method and Results**

Amiri Medical Complex, 96 bedded, tertiary healthcare facility, located in capital Kabul, Afghanistan, was established in April, 2015. AMC is the extension of Escorts Amiri Diagnostic Heart Center established in 2006. From the day of its inception to date seventeen departments including adult/pediatric cardiology (invasive and non-invasive), cardiothoracic and vascular surgery, general and laparoscopic surgery, Nephrology & Dialysis, Endo Urology, Neurosurgery, Pulmonology, Gastroenterology including Endoscopic Retrograde Cholangio pancreatography (ERCP), Ophthalmology, Orthopedics, Radiology (Including 128 Slices CT Scan, Gynecology, Laboratory & blood bank are fully operational. There are three hundred and eighty-six staff including twenty-seven consultants, two hundred plus nurses & technicians, and eight expat staff rendering their professional services.

Since April 2015, approximately 0.17 M patients have visited the facility for treatment of which 0.1M (59%) has been treated for cardiac ailments. A total of 1,326 cardiovascular surgical procedures comprising of CABGs, valve replacements, corrective surgery for congenital heart disease and vascular surgeries have been done.

Over 5,000 cardiac catheterization lab procedures comprising of diagnostic coronary & peripheral angiographies, right heart catheterization study, coronary angioplasties with stenting, ASD & PDA device closure, aortic & pulmonary valve balloon dilatation procedures have been done.

The last one-year mortality rate for the cardiovascular surgical cases is 5.6% whereas for catheterization lab it is 0.4%.

Amiri Medical Complex has many firsts to its credits in Afghanistan healthcare sector. It is the first to start adult cardiac surgery & minimal invasive cardiac surgery and peripheral embolectomies. It is the first to start with successful CHD device closure and to implant IVC filter, and the first to start with temporary pacemaker’s implantation. Apart from its many firsts in the field of cardiology in Afghanistan, it is also the first to have successfully performed ERCP procedures. AMC is the first to have a new vision of architecture in Afghanistan to provide high comfort level to patients.

In just three years of its establishment, AMC has been granted ISO 9001-2015 by the UKAS management system for the management of patient and support services. It is also registered with the ministry of public health and ministry of economics of the Islamic Republic of Afghanistan. It is an active member of the Afghanistan private hospital association and registered with Afghan Medical Council. For lab external quality assurance services, AMC is affiliated with Bio-Rad Laboratories, Inc. USA, and also in process of registration with the national accreditation board for hospitals & health providers (NABH).

Being a rapidly growing health facility in scale and services AMC anticipates including more advanced services and infrastructure to cater the demands and provide further improved services to its patients. Keeping in view the low capacity for providing quality secondary and tertiary healthcare, AMC intends to upgrade the current facility to teaching institute whereby medical college and nursing school could be setup. Installation of a 2nd Cath lab & electrophysiological department, and permanent pacemaker insertion are in the pipeline along with the installation of MRI (1.5-3 Tesla).

**Conclusion**

In short time, the AMC cardiology department’s significant contribution to Afghanistan cardiac health with low mortality rate is a great breakthrough in the health history of Afghanistan.
References

2. New Jamhoriat Hospital Feasibility study, Aug 2012.  
3. MoPH, Basic Package of Health Services for Afghanistan, 2005/1384.  