



مبادرة إيسا لخدمة الإنسانية
ISA AWARD FOR SERVICE TO HUMANITY

HOSPITAL 57357

CHILDRENS CANCER HOSPITAL FOUNDATION EGYPT

01 INTRODUCTION

Cairo. A city that never sleeps, a city that moves on a different rhythm like the river Nile on whose banks the city rests. Cairo. A city where the past and the present coexist in such close proximity, and where time turns moments into epochs and the future into a land that everyone yearns to belong.

This yearning for the future can be seen everywhere in the city: in the rush to march ahead and get things done, in the frantic hurry to wander from one place to the other, in the dreams of accomplishment that punctuate the steps of every young man and woman, and can be seen most clearly in the eyes of young children as they go to school to prepare their own place in Cairo's future and development.

But for some children, the future is not an easy destination. They may have the desire, the yearning and the longing to do great things but they are faced with unexpected impediments that could possibly turn their present into a whirlwind of uncertainties.

Cancer is one of the most dreaded diseases affecting young children in Egypt, claiming not only their lives and



potential but also robbing them of their future, or to be more precise, disturbing the very rhythm of Cairo's future. Each day, 46 children are diagnosed with cancer and one in 330 children are expected to develop cancer by the time they reach 18. In other words, the prognosis doesn't sound positive for 42 per cent of Egypt's population!

The Children's Cancer Hospital Egypt was conceived to meet this very need, as a place where young cancer patients can be assured of quality healthcare, and begin the steps to enjoy a safe, secure and healthy future.



Hospital 57357-Childrens Cancer Hospital Foundation

02 HISTORY

It all began in 1984.

A group of 16 young children were admitted to Egypt's National Cancer Institute's paediatric oncology ward. However, due to circumstances beyond anyone's control only three survived. The death of these children was shocking and unexpected and for the oncology physicians attending to them it proved to be a life changing experience.

Dr Sherif Abouelnaga — currently the CEO of Hospital 57357 — remembers that moment clearly as if it occurred only the other day. He recalls that he and his colleagues felt so helpless and devastated that they actually contemplated leaving the field of medicine altogether. They were so disappointed by the tragedy that they wondered if anything could be done to avert such calamities in the future.

Mercifully, despair turned into hope, and hope became the catalyst for a grand vision that would soon transform cancer treatment for young children in Egypt.

The physicians were aware that it was the sad state of patient care available at the time that was chiefly

responsible for the death of these children. They knew that if the conditions were more favourable, the casualty rates wouldn't have reached this tragic level.

It was then that they decided to do something about it. The survival rate for cancer in North America back in the 1980s was around 65 to 70 per cent, and they were determined to raise the survival rate in Egypt to the same level or higher. They were keen on introducing state-of-the-art healthcare for young cancer patients, and also, investing in up-to-date methods, advanced equipment and a safe operational environment.

In other words, to prepare the groundwork to actualise what would eventually become Hospital 57357's vision, that is, to be a worldwide icon of change towards a cancer free childhood.

The first initial support came from the well known and much beloved religious leader Sheikh El Sharawy who encouraged them not to quit but to pursue this vision.

When they went to meet him he was in the company of Abdullah Sallam, founder of Olympic Electric, Abou Shakra, owner of a restaurant chain, and Ahmed Abdul Tayma, former Minister of Religious Affairs and one of the original group of the 1952 Revolutionary Council.

The group of pediatric oncology physicians, devastated by what was happening to their young children with cancer that day vowed before Allah, that they would change the precarious conditions.



Each of these men then pledged to donate 50 LE per month, which formed the very first seed money donation for this grand project and went towards the development of a sound paediatric oncology care programme at the National Cancer Institute. Today, these men are no more but their families continue to carry their commitment to the monthly pledge, firmly believing in the value of this endeavour.

Donations formed the key lifeline to this project and helped in giving practical shape to the vision underlining its overall operations. Over the next ten years, a steady stream of donors provided the emotional and practical support needed to create a flourishing paediatric oncology

programme that rose from a one room ward of 8 beds and a tiny outpatient clinic to a 120 bed department and a modern outpatient clinic that saw 150 patients a day and over 1,200 new cases annually.

Many important innovations also followed and these included the first clinical pharmacy in Egypt and the first coordinated volunteer blood donor programme at the NCI. Improved diagnostics services was also made possible through funding for virology, microbiology and cytogenetics labs. The improved services had a positive impact on the survival rates causing a rise in demand and soon the allocated space for children at the NCI became overcrowded.

As the pioneering physicians began to see renewed hopes for cure, they also began to recognise the need for improved conditions and so began to work towards developing high standards of dedicated healthcare facilities for their patients.

Media personalities, Amal Fahmy and Tarek Allam, joined as spokespersons for this noble cause and used their platform to explain to the general public about the project's requirements as well as highlight the issues surrounding cancer.

A group of businessmen offered to give 250,000 LE towards the project but were convinced to use this money to conduct the first national fundraising campaign. The success of this campaign helped in raising public awareness of the conditions facing these patients and prompted the government to establish ten regional cancer centers.

It was also at this time that the seed of the idea for developing a state-of-the-art cancer hospital for children began to take shape. Professor Dr. Mohamed Reda Hamza, Dean of the National Cancer Institute in 1995 looked for space to expand the existing space at the institute but then decided that building a separate hospital for children with cancer would be far more helpful in improving the survival rates.

Four women who were well known in Egypt for their philanthropy agreed to spearhead the drive to build the hospital. Former Secretary General of the 57357

Foundation and co-founder of the Hospital, the late Mrs. Ola Ghabbour, Mrs. Sohair Farghaly, Mrs. Fakreya Abdel Hamid and Mrs. Somaya Abouelenein along with businessman Eng. Hossam El Kabbani met with Dr. Mofid Shehab, then President of Cairo University and gained necessary approval to begin the process of constructing a dedicated children's cancer hospital.

It was decided that this hospital would be built and operated solely by donation and would be available to all children suffering from cancer regardless of their creed, race or ability to pay. Planning began in 1998 with the setting up of the Association of Friends of the National Cancer Institute (AFNCI). Its mandate back then was to improve the lives of cancer patients at the National Cancer Institute through facility development, upgrade and training.

Presently AFNCI has broadened its scope of activities to include support for Hospital 57357 and the National Cancer Institute as well as in establishing and supporting diverse strategic initiatives and sustainability projects throughout Egypt. In doing so, AFNCI pursues to raise the levels of cancer cure, comprehensive healthcare, education, and institutional philanthropy.

AFNCI played a key role in bringing together a number of NCI's paediatric oncologists with renowned businessmen

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and philanthropists and raised 8 Million LE in seed money from prominent business leaders and ordinary citizens in kickstarting the project. Dr. Ahmed Fathy Sorour, Speaker of Parliament was approached to assist in the process of obtaining land close to the NCI.

The donation drive gained increased momentum and soon the hospital brand became instantly associated with 57357 - which was the bank account number for all donations.

Thus began the start of a great movement in the march towards actualising the vision for a cancer free childhood,

and in the establishment of a state-of-the-art hospital that offers the best possible healthcare service — totally and completely free!

AFNCI was responsible for tendering and implementing the design and construction of the hospital project as well as provide support in health management and fundraising activities.

In 2004, the Children's Cancer Hospital Foundation 57357 (CCHF 57357) was formed to take the hospital into the start-up and operational phase.



CCHF 57357 is a legal independent non-profit organisation whose vision is “to be the unique worldwide icon of change towards a cancer-free childhood.”

Its mandate is to oversee the strategic direction for the Hospital 57357 Project and also provide on-going financial support in collaboration with the hospital’s Executive Management. This joint effort ensures its financial sustainability and in securing its place as a center of excellence in care, research and expertise. It also helps in strengthening its current and future programmes, and in bolstering facility expansions that would double the hospital’s capacity and transform it into a Health Sciences Campus.

Soon enough Hospital 57357 Management realised that the sustainability of the institution as a leading paediatric

oncology centre rested mainly on its commitment to Research, Smart Education and Quality Care, and in using them as the main steering wheels for development and progress.

The mission of the hospital is as follows: building a sustainable foundation to prevent and combat cancer through evidence-based research, smart education and free quality care provided with passion and justice to alleviate the suffering of children with cancer and their families.

The Institution’s mandate remains clear — to work towards expanding and transforming 57357 from a paediatric oncology health care centre into a full fledged health sciences campus; and to take a leading role in smart education and in raising cancer awareness and prevention through AFNCI.

03 OVERVIEW

The Children's Cancer Hospital Egypt — popularly known as Hospital 57357 — is the ultimate example of what can be achieved when people work together for the common good.

The hospital is a unique institution. It was built by donations, and even today, continues to operate and to be sustained through donations. Egyptians from all walks of life were inspired by its vision and mission and rallied around the call to set up a state-of-the-art paediatric oncology hospital and thus secure a better future for children with cancer.

The support came not only from Egypt but also from all over the world — particularly from the Arab world. With 320 beds, Hospital 57357 is the largest hospital of its kind in the world, and was modeled on St Jude's Research Hospital, Memphis, Tennessee, US. Hospital 57357 was established in 2007 with the goal of providing the best comprehensive family centered quality care and offering a chance for a cure to all children with cancer seeking

its services and it would be provided to them — free of charge and without any discrimination!

Since the inception of the 57357 Project, the focus was on how to provide the best comprehensive quality care as well as look for an opportunity for a cure. Hence, the Hospital is constantly offering its patients with a wide range of the most advanced diagnostics and treatment

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services including chemotherapy, radiotherapy, surgery, bone marrow transplant, multi-disciplinary clinics, physical rehabilitation, socio-psychological care, palliative care, survivorship care, art therapy and in-house schooling.

Right from the start Hospital 57357 administrators and top management realised that carrying out research in medical and non-medical areas of hospital operations was a pre-requisite to seeing any progress in achieving cure and in securing a better future for children with cancer. Hence the adoption of the most advanced health informatics system by Cerner was a necessary step in this direction and in enabling the complete digitalisation



of hospital operations, its acquisition of a strong database, and eventual transformation into a paperless hospital.

The 57357 Project is taking decisive steps to increase the childhood cancer survival rate in Egypt from less than an estimated 40 per cent to an overall 75 - 80 per cent that corresponds to survival rates in many western countries. Furthermore, it is also attempting to create a new system of healthcare where the most advanced treatment and

scientific approaches practiced today are used for the benefit of patients.

Presently, after 10 years of operations, the hospital is recording a 72 per cent average over-all survival rates. It is more than a hospital but stands as a leading example for healthcare, a change agent and a comprehensive institution for fighting childhood cancer.

04 DESIGN & FEATURES

Hospital 57357 has been designed to facilitate family centered care and create a warm and friendly atmosphere at all times. It is the largest hospital of its kind in the world with 260 beds and a 60 bed in-patient branch, which is located at Tanta, a Governorate in Egypt's Delta region, around 90 km from Cairo.

The hospital includes specialised clinical pharmacy that offers wide scope of services including clinical rounds, outpatient services, drug dispensing, intravenous drug admixture, pain management, personalised medication management, drug information services, nutritional support services, drug compounding, patient education and palliative care services.

Apart from Intensive Care and Bone Marrow Transplant units, Hospital 57357 also incorporates a comprehensive surgery department able to conduct complicated tumour surgery such as neuro, micro, and ophthalmic thanks to some of the latest equipment such as surgical microscope (Leica OH5), the latest version of intra-operative MRI and others. It has a large outpatient capacity, and is able to accommodate 400 patients per day. Multi-specialty clinics include pain, cardiology, dental and ophthalmology.

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Amongst the many firsts to its credit, Hospital 57357 introduced the first specialised department of psychology, social work and psychiatry in Egypt for paediatric oncology patients; the first child life programme and in-hospital school in Egypt for hospitalised children; the first clinical nutrition department in Egypt; and the first comprehensive physiotherapy department for oncology patients in Egypt. The department offers services in various areas such as hydro-therapy, electrotherapy and also incorporates some of the latest work out equipment. It has the only international standard bio-bank in Egypt for collection, process, storage of bio-specimen for future research, and has achieved considerable progress in being completely digitalised and in reaching its goal of becoming an almost paperless hospital. State-of-the-art diagnostics and laboratory support encompasses CT, MRI, PET/CT scans, nuclear medicine, cytogenetics laboratory, virology, cord blood storage



and stem cell collection and storage. The radiology department, on the other hand, is equipped with two of the latest CT scans that minimise radiation exposure while ensuring fine resolution pictures and minimum time for service delivery.

The two latest technology MRI machines enable larger coverage, which ensures easier and more precise diagnosis. All the ultra-sound equipment in the hospital enable the fusion of ultrasound results with the corresponding CT and MRI imagery for better diagnostic results. The department is currently operating with the latest PACS (Picture and Archiving Communication Systems) technology, which provides economical storage and convenient access to radiology images from multiple modalities. The latest linear accelerators Versa HD machines with Volumetric

Modulated Arc Therapy (VMAT) technology is one of the most recent radiotherapy equipment and the first of its kind in Egypt.

The hospital also has a blood donation bank that includes a well-equipped clinic having the latest machines to help in separating blood components and also ensuring safe and constant supply when required.

Dedicated play areas across many of the hospital departments provide ease from the stress of waiting for children. It has been designed to meet the most rigid requirements for immune compromised patients and infection control, and also meets the highest standards for environmental issues such as waste and water management and energy consumption.

05 DEPARTMENTS

Anaesthesia and Pain Management Department

The Anaesthesia and Pain Management Department was set up to provide safe and efficient services for all patients as well as provide leadership in paediatric anaesthesia.

The focus on fundamental and applied research along with high quality standards and state-of-the-art equipment have provided the necessary groundwork in achieving patient safety and prevention of any complications.

The department also works towards establishing a system of continuous quality improvement programmes to ensure consistency with the highest professional standards. This is further accomplished by fulfilling the tripartite responsibilities of patient care, education and research.





Bone Marrow Transplant Unit

The Bone Marrow Transplant Unit (BMT) was established to provide advanced therapy for children with cancer and/or other diseases that affect their bone marrow. These diseases may include acute and chronic leukemia, lymphomas as well as immunologic and hematologic disorders.

The Unit comprising nine beds was launched in November 2009 and performed only autologous bone marrow transplant, and later in 2012 began performing allogenic transplants. It is expected that in the future, the Unit would be able to perform umbilical cord blood transplant.

Paediatric Oncology Intensive Care Unit

One of the most critical departments at Hospital 57357, the Paediatric Oncology ICU aims at reducing mortality and morbidity, improving health and enriching the quality of life of patients.

The entire unit accommodates 20 beds spread over 20 single rooms. Each of the rooms are equipped with total care beds, a monitor with outlets for oxygen, air suction, multiple syringe pump and multiple infusion pump and a mechanical ventilator. Each of the 10 beds have one central station containing a central monitor and desktop.



Medical Imaging Department

The Medical Imaging Department utilises some of the latest imaging modalities to aid in the diagnosis of diseases in young cancer patients. Having recently upgraded to a fully digital 1272 sqm department, Hospital 57357 is able to provide accurate diagnostic information regarding location, size and areas where the tumour has spread.

The department is both paperless and filmless and utilizes diverse imaging modalities such as conventional digital radiography, interventional radiology, fluoroscopy, ultrasonography, computer tomography, magnetic resonance imaging (MRI), digital mammography, bone marrow density DEXA, mobile X-Ray, intraoperative ultrasound, C-arm and intraoperative MRI.



Medical Social Services Department

Hospital 57357's social workers are an integral part of the healthcare delivery team. They deal with the unique social needs and requirements of both patients and their families such as multi-faceted issues affecting family dynamics, coping skills, sibling needs, and out of pocket medical costs such as transportation and loss of work time. The team interviews families and patients right at the beginning of diagnosis, makes an assessment and plans future strategies to solve their problems and ease their burdens. They are involved in finding ways to improve the quality of life for the child and the family in the case of long treatment, and are focused on providing maximum well-being of the patients with justice, mercy and without discrimination or favouritism.



Nuclear Medicine Department

The Nuclear Medicine Department provides accurate diagnostic information to enhance the radiology process and is used in the treatment of certain cancers such as neuroblastoma and thyroid. The department is equipped with the first 40 slice PET/ CT system (Siemens Bio-graph True Point), which is widely regarded to be one of the best technologies available for tumour diagnosis, follow up and treatment response assessment. The department also has two dual headed gamma cameras with HD 4 fully digital detector and loaded with software packages as well as a fully, computerised hot laboratory for control, documentation and thyroid uptake device.



Nutritional Therapy Department

The Nutritional Therapy Department was set up with three goals in mind - fulfill the daily nutritional requirements of the child; overcome any nutritional side effects from the disease and its treatment; and, guarantee normal growth and development of the child.

The department is also involved in preparing a knowledge bank detailing the importance of nutrition during the course of the disease, support initiatives in enabling children to get the right nutrients to fight the disease, and most crucially, support children to have the right diet that will help them to stay fit and healthy.





Paediatric Palliative Care Department

The Paediatric Palliative Care Programme seeks to improve the quality of life for children with cancer and their families, and as such serves their physical, emotional, social and spiritual needs. Palliative care services may include pain and symptom management; nursing; assessment and case management; spiritual care; social services; sibling support; volunteer support; respite care; 24 hour nurse on call; complementary therapies such as music, art, massage, and others; and bereavement care if needed. Services are usually provided at home, at the hospital and at the hospice facility.



Pathology Department

The department offers a full range of diagnostic services in surgical pathology, immune histochemistry, cytology, molecular pathology, cytogenetics, telepathology and image analysis. The following specialities are also present - neuropathology, bone and soft tissue pathology, lymph reticular system pathology, renal and supra renal pathology, and liver pathology.

The Pathology Department handles almost 6000 cases per year, and maintains an enhanced leadership role within the country and the wider region. It strives to provide a quality work environment that fosters unity, respect for diversity, teamwork and professional growth.

Paediatric Hematology/ Oncology Department

Hospital 57357's paediatric oncology specialists are at the forefront of offering the very best in comprehensive cancer care. Since the hospital's inception, they have greatly improved results and are at the cusp of reaching the global average over-all survival rates of 80-85 per cent. Patients also benefit from the hospital's vast paediatric and other subspecialty resources – neurologists, orthopaedists, diagnostic imaging specialists, pathologists, dentists and cardiologists.



Department of Pharmaceutical Services & Sciences

The Department of Pharmaceutical Services & Sciences is the most advanced of its kind in Egypt, and combines state-of-the-art pharmacy practices with the highest skilled clinical pharmacists in the country. Their efforts help in providing patients with unrivalled, world-class pharmaceutical care.



Evidence based medicine, hospital information systems and personalised medication management are all employed to maximum effect to set new standards. The department operates 24 hours a day, 365 days a year, to optimize, compound, dispense and monitor every single one of the millions of medication doses prepared by the pharmacy each year.



Radiation Oncology Department

The Radiation Oncology Department practices the latest techniques in modern radiotherapy. The team comprises doctors, medical physicists, radiation therapists, nurses and radiation oncologist front desk specialists. They work together to deliver the best care to patients and achieve international standards of care. This is accomplished by applying quality assurance measurements that are required for all procedures while at the same time conducting regular checks on a periodic basis. During

the course of their treatment, patients are seen every week by staff doctors, and then summoned for follow-up visits after they complete their treatment. The latest technologies are used for treatment and these include: 2 Elektra Versa HD linear Accelerators, Siemens Somatom Definition AS CT Simulator and Siemens Magnetom Area MRI Simulator

06 RESEARCH

Research is one of the key aspects contributing to Hospital 57357's mission statement to take a steering role in the fight against cancer.

Since inception, the hospital administrators and top management have recognised that research in medical and non-medical areas of the hospital remain a pre-requisite in improving cure rate and securing a better future for children. Hospital 57357 embraces a culture of evidence-based medicine in which research activities serve patients' needs, and discoveries are effectively translated to support and improve patient care. As such, research is one of the key aspects contributing to Hospital 57357's mission statement to take a steering role in the fight against cancer.

Importance is also given to bolstering international collaborations and strengthening interactions to further advance scientific research, training and education. As a result, the hospital has forged strong alliances with renowned international cancer centers, groups, and societies worldwide.



