



American Committee for
SHAARE ZEDEK
Medical Center in Jerusalem

Shaare Zedek Highlights 2014

2014 saw unprecedented growth at Shaare Zedek Medical Center. We welcomed new, first rate physicians and expanded the nursing staff, incorporated advanced medical equipment, opened new departments and clinics, continued our building momentum and received a permit to expand the Hospital even further.

This past year we successfully treated a record number of patients – **a 10% increase from the previous year**. Our Obstetrics and Gynecology Wing continues to break records and on the last day of the year we delivered our 22,417th birth, an unparalleled number in Israel and throughout the western world (15,890 were born in our main campus and the remainder at the Shaare Zedek City Center Campus, formerly known as Bikur Cholim).

Many breakthrough surgeries, treatments and examinations were performed this past year; some were done for the first time in Israel and many were among the first in the world. Shaare Zedek was also at the forefront of medical research and development, spearheading many national and international studies. The December issue of the periodical *Ha'Refuah*, published by the Israeli Medical Association, was dedicated to studies by Shaare Zedek physicians.

Allow us to share with you some of our achievements this past year.

January

The installation of the new PET/CT unit, among the most advanced in the world, was completed. The unit joins two new MRI devices that were installed in the last two years. The advanced equipment positions Shaare Zedek with the leading centers in Israel and around the world. A significant issue for people is the short period of time needed to receive results. In addition, the wide girth of the device and the comfortable bed help reduce the fears that usually accompany the exam.

Prime Minister Benjamin Netanyahu successfully underwent a routine gastro examination at Shaare Zedek. The examination was performed by Prof. Eran Goldin, head of the Department of Gastroenterology at the Hospital.

February

An impressive **inaugural ceremony** marked the opening of the Huberfeld Neonatal Intensive Care Unit (NICU), the largest and most advanced) in Israel, the new Shapiro Hochstein Maternity Ward and new nursery, all part of the **Next Generation Building**. The Huberfeld NICU has 70 stations with the best equipment, the highest level of sterility with the option to isolate each room, and advanced control systems for maximum safety. The new maternity ward implements all the knowledge accumulated in

the Obstetrics Department and offers improved conditions for both mother and child, the possibility for rooming-in, unique breastfeeding rooms, expansive waiting areas, a luxurious dining room and family rooms, all in accordance with the most up-to-date medical standards.

When completed, the Next Generation Building will include the Wilf Children's Hospital Inpatient Department on the Nagel Family 7th Floor, the Wilf Children's Hospital Outpatient Department on the Friedman Family 6th Floor, the Jean and Eugen Gluck Department of General Pediatrics, Maternity and Delivery Suites, In-Vitro Fertilization and Outpatient Clinics, Women's Health Center and the MRI Imaging Complex.

Hadassah Medical Center experienced a severe economic and managerial crisis, and Shaare Zedek made special arrangements to treat the many people that came here seeking medical attention in the wake of the crisis. **Shaare Zedek is the largest hospital in Jerusalem and usually treats more than 80,000 hospitalized patients a year and more than half a million ambulatory patients. The Weinstock Department of Emergency Medicine on the Fanya Gottesfeld Heller Floor sees more than 120,000 patients each year. Following the Hadassah crisis the number of patients increased by more than 30% and the Hospital had to reinforce its staff to handle the influx.** "We work tirelessly to help all who seek treatment. It's our duty", said Shaare Zedek Medical Center CEO Prof. Jonathan Halevy. "We expect the crisis at Hadassah to be resolved, but as long as they experience a slowing down in their activity, we will do our best to supply the medical needs of the city's residents."

A multi-national team of researchers, headed by Prof. Efrat Levy-Lahad, discovered a **genetic defect that appears more commonly in people of Georgian origins** and causes an auto-immune disease called PAN among this population. The disease is characterized by high fever and rash, damage to internal organs, and can be fatal in extreme cases. As a result of this research, it's now possible to perform a genetic test for the mutation, prescribe a medicinal treatment and even perform pre-implantation genetic diagnoses on fetuses with parents who were diagnosed as carriers.

March

Prof. Petachia Reissman, Director of the Department of Surgery, presented a **new method of laparoscopic surgery for pancreatic tumors under the guidance of an ultrasound** at the international forum: Innovations in Surgery. The surgery was broadcast from Shaare Zedek by video conference to 25 leading hospitals around the world, including Mass General in Boston, Johns Hopkins in Maryland, Cleveland Clinic in Ohio, Mt. Sinai and Cornell in New York, Shaare Zedek in Israel and more. The Surgical Wing at Shaare Zedek is the only Israeli department to take part in this forum. The permanent invitation extended to Prof. Reissman is a great honor and a credit to this Hospital's professionalism and to the level of surgery and Israel.

Dr. Dov Wengrower, head of the Endoscopic Unit in the Digestive Diseases Institute, offers a **new treatment using radio waves to treat patients with Barrett's Esophagus Syndrome**, which until now necessitated a complicated surgery. The new method replaces the surgery with a minimally-invasive gastroscopy and prevents the development of cancer among people suffering from this condition.

April

New hope for thousands of people suffering from Hepatitis C: A revolutionary mixture of drugs that cures the disease within three months with virtually no side effects is expected to be available in the USA and Israel within the next year. The new treatment is the result of a three year comprehensive study led by Dr. Yoav Lurie, head of the Liver Unit, at Shaare Zedek and in 49 additional hospitals throughout the world. "This breakthrough in medicinal treatment is on par with such feats as the discovery of penicillin. The treatments completely cure those afflicted by the disease, that was considered up till now chronic," says Dr. Lurie.

News for pregnant women: Shaare Zedek Medical Center offers the CMA test (Chromosomal microarray analysis) without extra charge for pregnant women that undergo amniocentesis or chorionic villus sampling. The CMA test replaces the traditional microscope test and enables the identification of many problems that were not detectable in the past. The test is offered in a small number of hospitals and costs several thousand NIS. This expensive test is offered at Shaare Zedek without extra charge.

A new **Heart Imaging Unit**, directed by Dr. Arik Wolak, opened in the Department of Cardiology. The unit supplies the department's physicians with high resolution CT, MRI, PET etc. images that enable accurate diagnosis and the best treatment.

May

The Local Planning and Building Committee approved **a plan to expand the Hospital**. According to the vision, by 2035 the area of the medical center will double - from 11 acres to 20 acres – and the building rights will triple in size from about 100,000 square meters to about 283,000 square meters, not including the parking spaces.

June

Shaare Zedek celebrated the **20th anniversary of the foundation of the Cardiac Rehabilitation and Prevention Institute**, the largest of its kind in Jerusalem and the only one in the city that is integrated within a hospital. 300 people came to the event - present and past staff members alongside "institute graduates" that were rehabilitated in the institute. Heart diseases are the primary cause of mortality in Israel across populations, and such institutes as the one at Shaare Zedek play a key role in the battle to reduce the number of people afflicted with heart diseases and in improving the health of those already sick.

A new Sterile Supplies Unit, a vast sterilizing array for disinfecting and packaging supplies for the operating rooms, opened at Shaare Zedek. The array is state of the art, fully computerized and spreads across 960 square meters in three isolated sites to prevent contamination and errors. Over the last few years Shaare Zedek became one of the largest surgical centers in the country and its operating rooms are among the most advanced in the world. Sterilizing the operating equipment is a key element. The new area operates as an automated production line, fully supervised by a computer. The three sites are completely separated from one another. The first site receives the dirty equipment, processes it and washes it, the second site sterilizes and sorts the equipment and the third site packs the equipment, stores it and disperses it to the operating rooms as needed. **The Sterile Supply Department at Shaare**

Zedek prepares 18,000 OR kits each year, 32,000 sterile sets for the delivery rooms, trays for the catheterization room, respiratory equipment and more.

July

Shaare Zedek acquired a **special robot for spinal operations** - a breakthrough device in the field of spinal operations - as part of the expansion of the Orthopedics Department. In addition, the department welcomed two new physicians, Dr. Yair Barzilay, one of the doctors to spearhead the new system, as head of the Spine Unit, and Dr. Harel Arzi, an expert in the treatment of scoliosis. They join Dr. Alex Popov, an expert in minimally invasive back surgeries.

Shaare Zedek Medical Center played an active role in caring for wounded soldiers and civilians during **Operation Protective Edge**. These special patients were treated at the Hospital and received a lot of warmth and care from the staff as well as the hundreds of citizens that came to express their support and gratitude.

Shaare Zedek Medical Center has an ongoing collaborative program with the Division of Pediatric Urology at Cincinnati Children's Hospital Medical Center. Dr. Eugene Minevich, MD, FACS, FAAP, returned to Shaare Zedek to join Pediatric Urologist Professor Boris Chertin in treating three patients who were born with rare urogenital malformations.

August

For the first time in Israel - **a new type of stent to treat aneurysms in the aorta was implanted in a patient.** The procedure was performed on three patients at Shaare Zedek by Dr. Ilya Goldin, head of the Vascular Surgery Unit, and his team. Worldwide, the procedure was first performed in the USA in January 2014.

Shaare Zedek and Lev Academic Center (Tal Institute) signed a cooperation agreement. Up to now, the nursing training program at the Hospital spread over two and a half years and granted a diploma. Following this agreement, the program will expand to a four-year academic degree program and the graduates will receive a BSN from Tal Institute. "Until now the Shaare Zedek Nursing School offered up only a diploma program," said Tamar Glatt, the school head. "This allows our graduates to start working as registered nurses earlier. Approximately 90% of alumni later complete an academic degree in nursing. Recently the Israeli Council for Higher Education decided to cancel the diploma program. We decided to partner with Tal Institute, whose character fits that of the Medical Center."

September

The Hospital's Oncological Institute celebrated 20 years of activity in a conference titled "Innovation with a Personal Touch." Leading experts from Israel and the world presented on the latest in cancer treatment to an audience of doctors, nurses and the general public.

Groundbreaking research done at Shaare Zedek and published in PNAS (*Proceedings of the National Academy of Science*) recommended that **every woman of Ashkenazi origin undergo genetic mutation testing for the presence of the BRCA gene mutation.** The research, conducted by Prof. Efrat Levy-Lahad, head of the Fuld Family Department of Genetics at the Hospital, and in collaboration with Sheba Medical

Center and Terem Emergency Medical Centers, investigated the chances of the gene mutations BRCA1 and BRCA2 occurring in the general population of women of Ashkenazi origin. The researchers unequivocally recommend that each woman of Ashkenazi origin be tested for the common mutations in these genes even if there's no history of breast cancer in their family and they don't exhibit signs of illness. This is a reversal of the current medical recommendations in the subject.

Senior researchers from the US and Shaare Zedek participated in the **2nd Annual Breast Cancer Symposium**, held at the Hospital. The symposium was dedicated to prevention and early detection of breast cancer - from genetic testing to treatment. The speakers presented different scientific approaches, new research about early detection, current and future treatments and breast cancer prevention.

"As a leading center for diagnosis and treatment of breast cancer, we are proud to host this important symposium," said Shaare Zedek Director-General Prof. Jonathan Halevy. "Great advancements in breast cancer research, early detection and treatment of the disease take place here. The opportunity to join our knowledge with the knowledge accumulated in other leading centers allows us to provide our patients with the best treatment and care."

A tiny device for monitoring heart arrhythmia was placed in a patient at Shaare Zedek. It is ten times smaller than the old device and has monitoring, recording and auto memory capabilities that last three years. According to Dr. Aharon Medina, director of the Electrophysiology Unit at Shaare Zedek, "The continuous monitoring allows the medical team to recognize sudden and unexpected arrhythmias with very high precision. The device is recommended for patients that experienced recurring fainting and loss of consciousness – cases where other diagnostic methods wouldn't work, and allows the physician to review the heart's behavior both during the incident and during the minutes leading to it."

12,000 physicians from around the world watched as **Dr. Yaron Almagor, director of the Invasive Cardiology Unit at Shaare Zedek, demonstrated in a live telecast the very first worldwide implantation of a new stent.** The new stent is covered with a microscopic net that sticks to the arterial wall and prevents particles from reaching the brain. This helps improve disturbances in blood flow to the brain.

A new **Pediatric Liver Unit**, directed by Dr. Eyal Shteyer, opened as part of the Institute of Pediatric Gastroenterology and Nutrition.

October

Shaare Zedek's renowned **Weinstock Family Department of Emergency Medicine on the Fanya Gottesfeld Heller Floor**, which has gained vast experience in dealing with diverse types of trauma and emergency medicine in recent years, was one of Jerusalem's hospitals treating casualties from multiple terror attacks.

November

The Women's Clinics moved to their new location on the 9th Floor of the Next Generation Building as part of a comprehensive plan to improve the obstetrics services. Other improvements that are underway are the construction of a new Obstetrics ER, an additional OR and more delivery rooms. The new clinics are spacious, meticulously designed and equipped with the best technology.

Shaare Zedek has 25 different clinics for women that offer varying services such as pregnancy follow-ups, tests for detection and prevention of various diseases, treatments for women after menopause, and more, all done by the best experts in the field.

For the first time in Israel a **thoracoscopy with only one incision** was performed at Shaare Zedek. During a regular thoracoscopy, the operating tools and a camera are inserted into the infected area through several small incisions. This method replaces an open surgery. "The new method has many advantages," explains Dr. Danny Fink, Director of the Cardiothoracic Surgical Unit. "The recovery is fast, the patient experiences a lot less pain and is left with just one little scar instead of several scars of varying sizes."

December

A new Oral and Maxillofacial Surgical Unit, directed by Dr. Eran Regev, opened at Shaare Zedek. The new unit includes an inpatient department alongside an outpatient clinic and offers counseling, treatment and surgeries of the mouth cavity, the jaws and the face, under local or general anesthesia. The unit's physicians will also offer counseling services to the Department of Emergency Medicine.

20 new and advanced ultrasound devices were installed in different departments throughout the Hospital, all of them fitted to the specific needs of the receiving department. They offer very high image resolution and a convenient working environment for the physician. The new devices expand the variety of tests that the Hospital can now offer and their dispersion among the different departments saves the time and effort previously needed for transporting a device across the Hospital.

Prof. Boris Chertin, director of the Department of Pediatric Urology, **reconstructed a 13-year-old's vagina using mucous membrane taken from the patient's cheek**. This is the first surgery of its kind in Israel and one of the first globally.

22,417 babies were born at SZMC this year. This number is unparalleled in Israel, and probably around the world.