AHMED GHALI MD FACC
Chairman, Critical Care Dept
Chairman, Medical Council
Dar Al-Fouad Hospital
EGYPT
Striving for Quality & Ethics

Setting New Standards:
The Egyptian Experience

Dar Al Fouad Hospital

In Collaboration with
Cleveland Clinic

Accredited by
Joint Commission International

Dar Al Fouad Hospital

May 2009
Part one : Introduction
  » Ancient Egyptian Medicine
  » Arab medicine in the past
  » Egyptian awarded Nobel Prize

Part two : About DAFH

Part three : Quality performance at DAFH
  » Challenges and benefits
Part one
Ancient Egyptian Medicine
Ancient Egyptian Medicine

Of all the branches of science pursued in ancient Egypt, none achieved such popularity as Medicine

Homer put it aptly in the Odyssey (IV, 229-232)
Ancient Egyptian Medicine

The incised relief of the wall of Kom Ombo temple that shows many ancient Egyptian medicine instruments.
Ancient Egyptian Medicine

The world’s first physician known by name was the Egyptian IMHOTEP.
The Netjert (Goddess) Ma‘at Shekhmet

(Ankh, udja, seneb)
Life, prosperity and health

The first lady doctor in the history who was expert in Obstetric & Gynecology, she invented contraceptive and breast cancer.
Ancient Egyptian Medicine

About 2500 B.C., Egyptian surgeons produced a textbook that told how to treat dislocated or fractured bones and external abscesses, tumors, and wounds.
We had a believe that **plastic surgery** is a recent invention. On the contrary, as research proved, ancient Egyptians were the first to apply this concept.

“Cairo Toe” this fake wooden add-on was used as a practical limb to replace a lost toe in people's feet.
It was only later, in the 12th and 13th centuries, when the Arabic medicine works began to be translated into Latin, that such knowledge passed to the west.
Ibn Al-Haytham’s optics, written in Egypt in the first half of the 11th Century, represented a theory of vision that went beyond Galen, Euclid and Ptolemy.
Mohamed bin Musa
Al Khawarizmi

Al Khawarizmi is recognized as the founder of modern Algebra.

The actual name of Algebra comes from the title of his most famous book. This book on algebra, in its translated form, was the principal mathematics textbook in European universities until the 16th century.

The Arabic number system, our decimal system, made mathematical calculations easier by using Zero.
Like many medieval physicians in the Arab world, Maimonides was a philosopher as well.
Ibn Razi also known as Rhazes

860 – 932 AD
He wrote 150 books on medicine and translate some of the works of the Greek doctors and included this information in his medical encyclopedia “Al- Hawi”.
Abdul Qasim Al- Zahrawi known as Albicasis

(936- 1013 AD) He wrote many books on Arabian medicine and surgery. One of his Books was “kitab Al Tasrif” Or “The book of concessions” was a guide for surgeons and it was illustrate.
The most famous of all Arab physicians was:

**Abu Ali Al Hussain Ibn Adullah Ibn Sina**

known as Avicenna

980–1037 AD. Two of his most important books were the book of healing “Al Kitab of Shifa” and the Canon of Medicine “Al Qanun fi al tibb”. The first book is a scientific encyclopedia covering philosophy, logic, natural sciences, geometry, astronomy, arithmetic and music. The second is the most famous single book in the history of medicine. It covered all aspects of medicine and became the standard medical text book for the next six hundred years. Ibn Sina had such a big impact on the progress of medicine because his books were read for such a long time.
Ibn Al-Baitar
C. 1188
One of the Arab famous doctors.
The development of efficient hospitals was another outstanding Arabic contribution to medicine.

Hospitals were built by rich Arabs in honor of Allah and the treatment provided in these hospitals was free.
Egyptians were awarded Nobel Prize
President: M. Anwar El- Sadaat (1918- 1982)

Won Nobel prize for peace 1978
Nagub Mahfouz (1911-2006) Egyptian Novelist

won Nobel price for Literature in 1988
Dr. Ahmad Zewail

1999 Nobel Prize in Chemistry
Mohamed ElBaradei

won the 2005 Nobel Peace prize

Head of the international Atomic energy Agency
Part two: Dar Al Fouad Hospital

DAFH
Board of Trustees in Dar Al Fouad

Prof. Fawzy George Estafanous, MD
Chairman, Division Of Anesthesiology And Critical Care Medicine, Cleveland Clinic Foundation, USA.

Sir, Magdy Yacoub.
Professor of Cardiothoracic surgery. Royal Brompton, UK.

Prof. Floyd D. Loop, MD
Chairman, Department of Cardiothoracic Surgery, Cleveland Clinic Foundation, USA.

Prof. Delos M. Cosgrove, MD
EX- Chairman, Board of Governors, Executive Vice President, Cleveland Clinic Foundation, USA.

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Associate Chief, Cardiothoracic Surgery. Texas heart Institute, USA

Prof. Jorge M. Garcia, MD
Senior Cardiothoracic Surgeon, Washington Hospital Center, USA

Prof. Mehdi Razavi, MD
Senior Invasive Cardiologist, Cleveland Clinic Foundation, USA

Prof. Anwar Balbaa
Prof. of Cardiothoracic Surgery, Cairo University

Prof. Mohamed Atia
Prof. of Cardiology, Ain Shams University
“Our mission is to serve the community through providing high quality medical services at an affordable price.”
Dar Al Fouad Hospital vision is to be a leader in compliance to the best-known international quality standards of Joint commission International aiming at increasing our market share in Egypt and the Middle East area.
The Hospital covers more than 33 medical specialties, seven among them are considered as driving forces:

- Cardiology
- Cardiothoracic Surgery
- Liver Transplant
- Oncology
- Orthopedic Surgery
- Emergency Medicine
- Neuroscience
For more than 10 years, Cleveland Clinic Foundation (CCF) has been ranked as the first Hospital in the USA in the fields of Cardiology and Cardiothoracic Surgery.

In 1999, a collaboration agreement was signed between DAFH and CCF. This agreement ensures continuous technical, medical, and administrative support to be provided by the CCF as well as exchange programs for physicians and personnel for training. It also allowed CCF to have a Board seat in DAFH.
Location And Construction

- The Hospital is located in 6th of October City
- Total land area is 42,000.00 SQM
- Total Built area is 24,000.00 SQM
Facilities – ICU

- ICU & CCU each has 16 Beds
- Cubical units each attached with its bathroom
- A nurse is supported for every two-patients
Facilities – Patients’ Rooms

Patients’ rooms are supported with:

- Bed Head Unit
- Nurse Call System
- Internet & Telephone Connections
Facilities - OR

- The Hospital includes 7 Highly equipped operation rooms
Facilities - ER

- Air and ground ambulances are available, equipped with top-notch telecommunication and medical facilities.

Car Ambulance
Air Ambulance
Facilities - Hotel

- The luxury Hotel Novotel is connected to the Hospital
- Offering rooms and suites for patients & patients' companions who require to be close to the Hospital
Quality at Dar Al Fouad Hospital
At the start of DAFH, the aim was to provide a world class cardiology & cardiothoracic services. This was empowered by affiliation with CCF.

The affiliation was a good guide for DAF in developing P&P, protocols, forms, staff training at Cleveland and onsite.
The value of accreditation

Accreditation is regarded as:

A. One of the key benchmarks for measuring the quality of an organization.

B. Accreditation standards provide the catalyst for organizational management strategy.

As DAF’s mission is to provide high quality medical service, hence JCI accreditation served as a tool to achieve our mission.
The value of accreditation

Typical results of hospitals becoming accredited:

- Better business plan, Improved policies,
- More effective and efficient operations,
- Stronger risk management strategies,
- Reduction in incidents,
- Enhanced team awareness,
- Credibility with government and third-party payers,
- Marketing edge,
- Greater customer trust,
- Professional self-respect.
What does JCI accreditation of our hospital mean to us?

- JCI standards are the most rigorous in the healthcare industry.

- DAF being JCI accredited means that it’s committed to providing the highest level of quality care to their patients.

- Patient safety is a priority for a healthcare organization.

- JCI standards focus on patient safety during all steps of care.
The value of accreditation as a marketing strategy

There are 3 parallel issues around Medical Tourism:

- **International Healthcare Accreditation**, 
- **Evidence-based Medicine**, and
- **Quality assurance**.
Preparation for Accreditation

- DAF decision to prepare for accreditation was in August 2003.
- Many activities were done to prepare.
- The target date of survey was July 2005.
- Mock survey was done by the quality team of CCF in April 2005.
- Accreditation to DAF was granted after a single survey.
- Reaccreditations was granted also after a single survey in August 2008.
During Preparation for Accreditation

Many committees were already available & during preparation they become more active & empowered to take actions to improve services:

- Medical Council Committee,
- Quality Committee,
- Infection Control Committee,
- Drug Committee,
- Code blue committee
- OR Committee,
- Blood Bank Committee,
- Mortality & morbidity committee.

These committees were to follow up the details of processes and their outcomes.
During Preparation for Accreditation

New services were developed:

1- Clinical pharmacy,
2- Structured pain management team,
3- Unit manager,
4- Ward pharmacists.
Key challenges Before Accreditation 2003-2005

A- The main challenge was the staff resistance to change especially:
1) To Teamwork: volleyball team not a golf team.
2) To be System managers.
3) To Develop standard procedures.
4) To Deliver care as an integrated team.

B- Change the concept of physician centered care to patient centered care.

C- Accepting the idea of continuous performance evaluation.
Key challenges Before Accreditation 2003-2005

D- **Staff Turnover** due to the fact:
Preparing for accreditation and delivering optimum quality of care required more effort at DAF, which is not the case in other hospitals in Egypt.

E- **Staff Communication** especially among physicians.
It was noticed that patients managed by more than one specialty their steps of care could be inappropriate due to lack of communication.

Solution was multidisciplinary meeting policy for patients managed by 3 specialties or more.
Learning Points to hospital leaders and Staff

Since we started to prepare for Accreditation there are important learning points that had an affect on patients outcome and raise the bar of quality of health service:

1. The “Patient First” philosophy had a good influence on staff and was reflected on patient satisfaction.
2. Empowerment of Staff, especially middle management and front line staff.
3. Important Communication between staff and with patients.
4. Working as a team and working within a system.
5. Staff performance appraisal and motivation enhances continuous quality improvement.
6. Continuous quality assessment & improvement is to be one of our daily functions.
DAR AL FOUAD HOSPITAL
Giza, Egypt
has been
Accredited
by
Joint Commission International

which has evaluated this hospital
and found it to meet the
international health care quality
standards for patient care
and organization management

Effective 7 July 2005 through 6 July 2008

Richard B. Tompkins
Chairman
Karen H. Timmons
Chief Executive Officer

Joint Commission International is a division of
Joint Commission Resources Inc., an affiliate of the
Joint Commission on Accreditation of Healthcare Organizations.
“The citizens of Egypt should be proud that Dar Al Fouad Hospital is focusing on this most challenging Goal – to continuously raise quality to higher levels”

“Ann K. Jacobson
Executive Director
International Accreditation
Joint Commission International
22nd September 2008”
Joint Commission International Re-Accreditation
Aug. 2008 - 2011

Dar Al Fouad Hospital
Cairo, Egypt
has been
Accredited
by

Joint Commission International
which has evaluated this hospital and found it to meet the international health care quality standards for patient care and organization management.
Effective 8 August 2008 through 7 August 2011

Mary T. Hoveland, MD
Chair
Karen H. Timmato
Chief Executive Officer

Joint Commission International is a division of Joint Commission Resources Inc., an affiliate of The Joint Commission.
Challenges to sustain Quality (2009)

Continuous Quality Improvement is our target since the first accreditation Accordingly:

1- Continuous auditing through tracer surveys, environmental surveys & medical files review
2- Monthly meetings with all the departments to discuss the auditing findings for improvement
3- Regular follow up of indicators results
4- Risk management and mortality review
Today

We succeeded in making quality of care is part of our daily work
Projects of Improvement

1. Reduction of nursing turnover.

2. Reduce patient complaint from food service.

3. FMEA for ward pharmacist medication service.
Outcome Measures
In Patient Census Activity

DAFH, 2000 – 2008
Out Patient Census Activity

DAFH, 2000 - 2008

2000: 20172
2001: 21274
2002: 25630
2003: 31392
2004: 45180
2005: 48700
2006: 58924
2007: 77194
2008: 93323

0 10000 20000 30000 40000 50000 60000 70000 80000 90000 100000

Bed Occupancy Rate

DAFH, 2000 - 2008
Average Length of Stay

DAFH, 2000 - 2008

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Length of Stay</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>5.9</td>
</tr>
<tr>
<td>2001</td>
<td>6.1</td>
</tr>
<tr>
<td>2002</td>
<td>6.4</td>
</tr>
<tr>
<td>2003</td>
<td>6.1</td>
</tr>
<tr>
<td>2004</td>
<td>5.6</td>
</tr>
<tr>
<td>2005</td>
<td>4.9</td>
</tr>
<tr>
<td>2006</td>
<td>4.9</td>
</tr>
<tr>
<td>2007</td>
<td>4.9</td>
</tr>
<tr>
<td>2008</td>
<td>4.9</td>
</tr>
</tbody>
</table>
Cardio-Vascular Services
Joint Commission International Indicators for Hospital Quality
HCOID 0020-200
First Quarter 2006 (1Q2006)
1 January through 31 March 2006

Indicator Data Summary for 1Q2006

- AMI-1 Aspirin on Arrival
- AMI-2 Aspirin Prescribed at Discharge
- AMI-3 ACEI or ARB for LVSD
- AMI-5 Beta Blocker Prescribed at Discharge Indicators
- AMI-6 Beta Blocker on Arrival
- HF-2 LVSF Assessment
- HF-3 ACEI or ARB for LVSD

Legend:
- Your Hospital Rate
- Overall Rate for Participating Hospitals
Joint Commission International Indicators for Hospital Quality
Dar Al Fouad Hospital (HC OID 0020-200)
1 January through 30 June 2006

Indicator Data Summary for Second Quarter 2006 (2Q2006)

- AMI-1 Aspirin on Arrival
- AMI-2 Aspirin Prescribed at Discharge
- AMI-3 ACEI or ARB for LVSD
- AMI-5 Beta Blocker Prescribed at Discharge Indicators
- AMI-6 Beta Blocker on Arrival
- HF-2 LVSF Assessment
- HF-3 ACEI or ARB for LVSD

Legend:
- Your Hospital Rate
- Overall Rate for Participating Hospitals
CARDIOLOGY AUDITING, DAFH, 07-08

% OF PATIENTS RECEIVED ASPRIN WITHIN 24 hrs 2007-2008
% OF PATIENTS RECEIVED ASA UPON DISCHARGE 2007-2008

CARDIOLOGY AUDITING, DAFH, 07-08
% OF PATIENTS RECEIVED BB WITHIN 24hrs 2007-2008

CARDIOLOGY AUDITING, DAFH, 07-08
% OF PATIENTS RECEIVED BB UPON DISCHARGE 2007-2008

CARDIOLOGY AUDITING, DAFH, 07-08
Number of Mortality for Isolated CABG Patients 2008

STANDARD < 2.5 %
NUMBER OF PATIENTS READMITTED WITHIN 7 DAYS AFTER DISCHARGE

2006 VS 2007 VS 2008
NUMBER OF PATIENTS READMITTED WITHIN 30 DAYS AFTER DISCHARGE
2006 VS 2007 VS 2008
AVERAGE TIME OF ANTIBIOTIC ADMINISTRATION BEFORE SURGERY FOR CARDIOTHORACIC PATIENTS, DAFH, 2008

THE STANDARD WITHIN ONE HOUR BEFORE SKIN INCISION
SICU
Fluctuations in average census follow variations in social seasons.
Nursing Care
Percentage of Nursing Turnover

DAFH, Jan 2008 – Jan 2009
Percentage of Newly Hired Nurses

DAFH, Jan 2008 – Jan 2009
Number of Patient’s Falls

DAFH, 2006 – Jun 2008

- **2006**: 6949 in-patients, 5 falls
- **2007**: 7635 in-patients, 4 falls
- **2008**: 4009 in-patients, 1 fall

Graph showing the decrease in number of patient falls from 2006 to 2008.
Percentage of Bed Sores Cases at DAFH, 2006-2008

The graph displays the percentage of bed sores cases at DAFH from 2006 to 2008. Each year is represented separately, with individual data points indicating the percentage of bed sores cases for each month within the year. The horizontal line at 1.8% represents the average percentage for all years combined.
Incidence of infection rate / no. of discharge
DAFH, 2007-2008

INFECTION RATE

0.4 0.9 1.4 1.9 2.4 2.9 3.4 3.9 4.4 4.9
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

4.3 2.86 2.1 2.89 1.82 2.29 1.93 3.33 2.45 2.26 1.79 3.1 2.8 3.6 2.2 3.2 2.1 3.8 2.4 1.6 2.8 2.45 2.8

2007
2008

4.82
0.41
2.62
Medication Errors
Medication Errors / 1000 Doses

DAFH, 2007–2008

Individuals - Med errors per 1000 doses

Medication Errors / 1000 Doses

DAFH, 2007–2008
Drug Dispensing Errors
DAFH, 2007 - 2008

2007 Nursing
2008 Ward Pharmacist
Patients’ Complaints
Percentage of Complaining Patients of the total Admitted Patients in DAFH 2008

- Total Complaining Patients: 16%
Patient complaint
Pareto for total Patient complaints

- Food: 50%
- Nursing: 80%
- Doctors: 94%
- H K: 97%
- Security: 98%
- Maintenance: 98%
- Radiology: 99%
- Lab: 99%
- Laundry: 99%
- Ward Clerk: 100%
- Account Office: 100%
- Pharmacy: 100%
- Biomedical: 100%
- Admission Office: 100%
Number of “Non Punctuality” complaints of Kitchen Services

- **2007**
  - Jan: 18
  - Feb: 44
  - Mar: 5
  - Apr: 27
  - May: 36
  - Jun: 24
  - Jul: 10
  - Aug: 8
  - Sep: 14
  - Oct: 29
  - Nov: 24
  - Dec: 21

- **2008**
  - Jan: 18
  - Feb: 19
  - Mar: 13
  - Apr: 11
  - May: 11
  - Jun: 11
  - Jul: 7
  - Aug: 9
  - Sep: 11
  - Oct: 5
  - Nov: 5
  - Dec: 7

- **2009**
  - Jan: 5
  - Feb: 4
  - Mar: 3

**Median**
Number of “Delay of Response” complaints of Kitchen Services

![Graph showing the number of Delay of Response complaints from January 2007 to March 2009. The graph includes months from January to March for each year, with data points for each month showing the number of complaints. The median is indicated by a horizontal line.](image)
Number of “Behavioral Problems” complaints of Kitchen Services

![Graph showing the number of behavioral problems complaints from January 2007 to March 2009. The graph includes data points for each month, with the median line indicated by a blue line. The years 2007, 2008, and 2009 are highlighted with different colors.]}
Number of “Delay of Response” complaints of Doctors

![Graph showing the number of complaints from 2007 to 2009, with data points for each month. The x-axis represents the months from Jan 07 to Mar 09, and the y-axis represents the number of complaints. The graph indicates the number of complaints for each month, with a median line at 10.]
Number of “Delay of Response” complaints of Nurses

Jan 07 – Mar 09

Median
## The post discharge patients calls

### 2007 VS. 2008

<table>
<thead>
<tr>
<th>Category</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of successful calls</td>
<td>73.5%</td>
<td>74.4%</td>
</tr>
<tr>
<td>Patients who ask to talk to the doctor</td>
<td>0.7%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Patients who haven't any request</td>
<td>54.6%</td>
<td>55%</td>
</tr>
<tr>
<td>Patients who have problems</td>
<td>8.8%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Patients who didn’t receive their medical reports</td>
<td>6.0%</td>
<td>6.5%</td>
</tr>
<tr>
<td>Patients asked for the way of reservation</td>
<td>3.4%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Percentage of failed calls</td>
<td>26.5%</td>
<td>25.6%</td>
</tr>
</tbody>
</table>
Staff Satisfaction
1. My work unit conducts business in an ethical manner.
2. DAFH provides a high quality care & service.
3. The person I report to treats me with respect.
4. My work unit provides excellent service.
5. I would recommend DAFH to friends or family who need care.
1. I am satisfied with my compensation package (total pay, benefits, etc.).
2. My pay is fair when compared with similar position and employers in this area.
3. DAFH make adequate use of recognition & rewards other than money to encourage a good performance.
4. DAFH treats employee with respect.
5. There is a climate of trust at DAFH.
Marketing Results
Medical Tourism at DAFH (2006 - 2008)

<table>
<thead>
<tr>
<th>Year</th>
<th>Non Arab</th>
<th>Arab</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>699</td>
<td>2460</td>
</tr>
<tr>
<td>2007</td>
<td>789</td>
<td>2636</td>
</tr>
<tr>
<td>2008</td>
<td>985</td>
<td>2962</td>
</tr>
</tbody>
</table>
Expansions

I. Kuwait Medical Center
Expansions

II. New DAFH Nasr City (East Cairo)
Thank you