CHAPTER SEVEN
Medical and Operational Overview of Basrah Children’s Hospital
Chapter 7 - Medical and Operational Evaluation

This report describes all medical and administrative operations observed in some departments that were evaluated.

This section will provide “a day in the life of the clinics and departments” visited and it will provide the reviewer with an insight on the functioning of those day-to-day operations.

7.1 Departments and Units Visited

7.1.1 Outpatient Department

The activity level in the Outpatient department is indicated as per hereunder:

<table>
<thead>
<tr>
<th>Name of outpatient clinic</th>
<th>Number of patients</th>
<th>Date of opening the clinic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical pediatric clinic</td>
<td>2616</td>
<td>27/9/2010</td>
</tr>
<tr>
<td>Surgical pediatric clinic</td>
<td>392</td>
<td>1/5/2011</td>
</tr>
<tr>
<td>Oncology pediatric clinic</td>
<td>3716</td>
<td>6/10/2010</td>
</tr>
<tr>
<td>Dentistry outpatient clinic</td>
<td>713</td>
<td>1/10/2010</td>
</tr>
</tbody>
</table>

There are 4 operational outpatient clinics within the hospital:

7.1.1.1 Pediatric Medical Clinic

- It consists of 2 clinics. The pediatric specialists attend to the clinic daily and receive patients referred to the outpatient clinics from primary health centers available in Basra as well as patients referred from other Basra hospitals.
- A special form is completed at the reception in the outpatient department in order to obtain basic demographic patient information (information about age, sex, address, etc...).
- The patients are examined by the nursing staff who check the vital signs as well as weight, height and head circumference.
• The consultant performs a history and physical examination and decides on subsequent testing necessary.
• The patient’s form is then saved in the outpatient medical records.

**Positive findings:**
• The reception has a special form to be completed by or for the patient.
• Patient files are properly stored in the OPD medical records.
• The rooms in general are clean. They are equipped with a sphygmomanometer, otoscope, ophthalmoscope, thermometer, tape measures for head circumference, gloves, tongue depressors, face masks, a pediatric examination couch, an E.C.G machine, a nebulizer machine, oral dehydration therapy set-up and an ultrasound for echocardiography.
• The walls of the clinic are filled with posters and pictures of cartoon characters. Toys are available in the waiting areas as well.
• The pharmacy of the outpatient room is clean. All drugs are safely secured in place and labeled with expiration date. All drugs have been documented in the records and are checked daily. The electrical window is functioning properly.
• The senior doctors had training courses in their medical pediatric specialty outside Iraq and one of them had training courses in NICU/ PICU care.
• The pharmacist in the outpatient pharmacy had training courses in pharmacology outside Iraq.

**Negative findings:**
• The sonar device in the outpatient clinics does not work because its memory is not functioning properly; the patient is sent to the internal sonar room in the Radiology department.
• The E.M.G (Electromyography) room is available and fully equipped, a nurse is present but the doctor is not available.
• Patient form is written in English and the data entry is in Arabic.

7.1.1.2 *Pediatric Surgical Clinic*

It consists of 2 clinics that are attended each day by one on duty pediatric surgery specialist.

**Positive findings:**
• All the rooms are fully equipped with new and up-to-date medical devices as well as instruments needed for dressing and wound suturing.
• The furniture is clean and well maintained.
• The patient form is completed by the surgeon and then the data is entered into the computer and documented in the records.
• All instruments used in the minor procedure room are cleaned locally by antiseptic and then centrally by Autoclave.
Negative findings:
- The E.N.T room is available and fully equipped but not operational as of yet (Please see staff section).
- The ophthalmology room is available and fully equipped but not operational as of yet (Please see staff section).
- The endoscopy suite still lacks certain components of the endoscope device to make it fully operational. All couches in the outpatient surgical clinic are not covered with disposable exam couch cover sheets.

7.1.1.3 Dental Clinic

This clinic receives pediatric cases from the outpatient clinics but the bulk of the cases comes from oncology wards in need of a dentistry consultation especially those dealing with oral medicine.

Positive findings:
- The dentist had training courses in Slovenia as well as in Lebanon.
- All instruments used by the dentists are cleaned locally by antiseptic and centrally by an autoclave available in the room.
- All dental materials as well as masks and surgical gloves are available
- Patient records are filed properly.
- There is one computer available in the room and is being used only for statistical purposes.

Negative findings:
- Only one dentist is available; if the dentist is off, the clinic will be closed.
- The dentist used Dettol as antiseptic instead of Sodium Hypochlorite 1:10.
- There is a minor procedure room for the dentist; it is available but not operational.
- The dentist has no training courses in oral preventive medicine.
- The dentist has no training in pediatric oral tumor cases

7.1.1.4 Oncology Outpatient Clinic

This clinic receives pediatric oncology patients referred from other hospitals in Basra as well as the southern governorates of Iraq. Patients are referred for consultation, follow-up on prior admissions or for receiving chemotherapy in the outpatient setting.

The pediatrician who has experience in oncology examines patients and sends for laboratory investigation especially for C.B.C, platelets count and blood film as well as renal function test, then decides how many courses of chemotherapy the patient needs to be given.

Positive findings:
• All rooms in the Oncology Clinic are clean and supplied by new medical devices and instruments for examination. And all records in all rooms are accurate and clean.
• All chemotherapeutic drugs were available at the time of the visit.
• A satellite sample collection lab is present in the clinic. Samples are then sent to the main laboratory of the hospital.
• There is a special form available in the clinic illustrating the protocols of chemotherapy courses.
• A room attended by a nurse is dedicated for vaccinating infants and Pediatrics: this is especially established to vaccinate the oncology patients; the available vaccine is only for Hepatitis “B”. The nurse staff responsible for this room has knowledge about immunization as well as the storage of vaccine. All equipment used for cold chain system are available: a refrigerator, thermometer, ice box and containers for handling the vaccines. The temperature of the refrigerator was 8°C which is suitable for storage of hepatitis “B” vaccine.
• There are 2 separate areas in the clinic prepared for administering chemotherapy medications. Both areas are clean and the nurse staff working at the time of this visit were very particular while dealing with those patients.
• The senior doctors had training courses in Oncology for 6 months.
• The room for chemotherapeutic pharmacy is very clean. No one is allowed to enter the room unless he/she wears a gown, head cap, mask as well as gloves in order to ensure that the room is kept sterile. All the walls of the room are filled with posters of procedures illustrating preparation of chemotherapeutic drugs and how to dilute them. All the waste products of chemotherapeutic drugs including syringes, the container of vials and intravenous drip are treated centrally by autoclave through a special technique.

**Negative findings:**

• There are no appointment schedules that can distribute the patients more evenly during the working days. We noticed that the bulk of patients came on Sundays and Wednesdays, which overloaded the clinic and other departments especially the laboratory, pharmacy, X-Ray department, as well as the inpatient wards.

The radiotherapy clinic is available but not operational.
7.1.2 Wards

There are 5 wards present in this hospital as follows:

The general observations are:

- Hand hygiene leaflets are installed on the wards corridors.
- Cleaning procedures are substandard and are carried out by non-qualified staff. Work is carried out according to verbal instructions. There was no direct training or supervision. Uncontrolled use of cleaning agents and sprays was noticed.
- Same cleaning tools that are used to clean semi-clean and dirty zones are used for the medical room and patient wards.
- No clear work procedures and duties are available for the paramedical staff.
- Paramedical staff working in the oncology wards did not have any training courses with regard to this sub-specialty.
- Admissions can be done directly to the wards due to closure of the admission unit on the ground floor.

7.1.2.1 Ward A

This ward deals with general pediatric cases; the total number of beds is 11. The total number of rooms available is 5 and the beds are distributed as follows:

- 2 rooms contain 3 beds
- 2 rooms contain 2 beds
- One isolation room
- Eight pediatric specialists admit the cases to this ward
- Bed occupancy rate is 71.4%

**Positive findings:**
- All the pediatric specialists had training courses in their specialty.
- All the records used for filling inpatient information were accurate and all fields were filled appropriately.
- The case history chart of a sample patient was reviewed and was found to include the statistical chart which is sent to the statistics department in the MOH, temperature chart, resident notes, consultant/specialist notes, drugs given to patients (filled into chart by pharmacist) as well as the discharge notes. All information is accurate and is written in a scientific way.
- The examination room is equipped with all instruments and devices required by the doctors as well as all medical consumables, including cotton, gauze, etc...
- All emergency drugs are available and kept in the examination room in a locked cabinet.

**Negative findings:**
- Special education for the patients and their escorts needs to be developed further with more educational tools.
- Patient control within the wards is poor.

**7.1.2.2 Ward B**
- This ward is for oncology cases.
- Total beds of 23 are distributed in 8 rooms as follows:
  - One isolation room
  - 2 rooms contain 2 beds
  - 3 rooms contain 3 beds
  - One room with 4 beds
  - One room with 5 beds
- Two pediatric specialists are responsible for admitting the cases in this ward.
- Bed occupancy rate is of 64%.
- The most common cases admitted in this ward are acute lymphoblastic leukemia, acute myeloid leukemia and lymphoma.

**Positive findings:**
- The specialists on this ward had training courses in Oncology outside Iraq (in Japan and Jordan for durations ranged from 3 months to 6 months).
- All medical records available in this ward are clean and all fields are completed accurately.
• The case history charts are accurately completed by nursing staff including the temperature chart as well as patient’s information.
• All information completed by doctors was accurate and scientifically completed.
• The scheme for chemotherapy drugs is present in each patient case sheet for patients receiving chemotherapy drugs. The doses of chemotherapeutic drugs are calculated by specialists only. (appendix D)
• The doctor examination room is clean and fully equipped by all medical devices and instruments used for examination; also all materials needed for examination are available. All emergency drugs as well as fluids are available in this room and locked in a cabinet.
• Medical waste products including chemotherapy drugs are collected in special containers and treated centrally by autoclaving.

Negative findings:
• There are no posters or illustrations on the walls of the ward educating the mothers about how to deal with oncology patients and how to take care of them especially from a psychological point of view.

7.1.2.3 Ward C
• This ward deals with surgical pediatric cases.
• The total number of pediatric surgeons is 5.
• The total number of beds is 25, distributed as follows:
  o 1 isolation room
  o 6 triple bed rooms
  o 1 six bed room

Positive findings:

• All pediatric surgeons have training courses outside Iraq.
• The medical records available in the reception of the ward are filled by medical staff and all are clean and accurate.
• The case charts of some of patients had been examined, all information are filled by nursing staff as well as the doctors and seems to be accurate and scientifically written, also the notes of the specialists.
• The doctor examination room is fully equipped with medical devices like sphygmomanometer, thermometer and height and weight scales. Surgical instruments are sterilized by autoclave.
• Life emergency drugs are available in this room; also different types of intravenous fluids are available in this room.
• Discharge notes are available to document the type of operation performed, and they describe the patient’s condition when discharged from the ward.
Negative findings:

- The number of patients admitted to this ward is very little compared to the number of pediatric surgeons available in this ward.
- The walls of this ward are not filled with posters and illustrations that educate the parents about common diseases in children.

7.1.2.4 Ward D

- This ward deals with oncology pediatric cases especially acute myeloblastic leukemia. It consists of 22 beds divided as follows:
  - 1 isolation room
  - 3 double bed rooms
  - 5 triple bed rooms
- Two pediatric specialists are present in this ward having experience in oncology and have been trained in Japan for 6 months.

Positives findings:

- All specialists had training courses in oncology outside Iraq.
- The medical records present in the reception are clean and all information regarding admitted cases are complete including patient name, age, address, date of admission to the ward and date of discharge.
- All case charts of the patients were checked. Information is filled by Doctors, pharmacists and nursing staff and seems accurate and scientifically written.
- Each patient who received chemotherapeutic drugs had a scheme for chemotherapy being calculated by specialist only.
- Doctor’s examination room is clean and supplied by the necessary medical materials needed for an examination including surgical gloves, masks, cotton and gauze.
- The examination room is supplied by life emergency drugs and different types of intravenous fluids are available.
- All notes describing patients’ conditions from admission till discharge had been documented in discharging cards.
7.1.2.5 **Intensive Care Unit**

- This unit had been opened on 15/8/2011.
- It consists of 2 parts:
  - 7 cubicles for the Pediatric Intensive Care Unit (PICU)
  - 8 cubicles for the Neonatal Intensive Care Unit (NICU)
- The total number of admitted cases from 15/8/2011 until now is 40; six of them (15%) in the PICU, and 34 cases (85%) in the NICU. Most of the cases were surgical cases.
- PICU:
  - One ward has 4 beds
  - 2 private rooms, single bed each
  - 2 isolation rooms
- NICU: It consists of 8 incubators, 7 of which are functioning properly and one that needs repair. Most of the cases admitted in this unit are postoperative surgical cases as well as some medical neonatal cases that need intensive care.

**Positive findings:**
- The specialist in this unit had training courses in Japan for 6 months and 1 month in Egypt.
- Strict instructions are implemented in this unit. All staff or visitors should wear a gown, head cap, mask as well as surgical gloves and disposable overshoes.
• The beds of the PICU are fully equipped with a monitoring system for vital signs.
• The incubators in the NICU are very clean and are sterilized by diluted hypochlorite solution (1:10 ratio).
• All incubators are supplied with a monitoring system for vital signs and centrally supplied by oxygen. A phototherapy device is available with each incubator.
• Mothers of patients/infants wait outside the unit and are admitted for breastfeeding when required.
• Most of the walls of the ICU are filled with tables and diagrams including Apgar score evaluation of neonates, suggested dosage schedule for antibiotic, management of diarrhea, etc…
• There is a computer in the reception of the unit used for statistical purposes.
• Lifesaving drugs and intravenous fluids are available.
• Medical records and case sheets are completely filled scientifically.
• The medical waste products are thrown in containers and then treated centrally by autoclaving.
• Regular and spot swabs are taken from different parts of this unit to ensure a fully sterile environment.

**Negative findings:**
• The mothers breastfeed their babies in N.I.C.U and not in a breastfeeding room because it's being used for storage of medical materials and intravenous fluids.
• Blood gases analysis device is present but no one is trained on how to use it.

### 7.1.3 Operating Theatre Unit

• This unit has been operational since 1/4/2011.
• It consists of
  o 3 operating rooms
  o 5 pediatric surgeons work in this unit
  o 4 anesthetists
Positive findings:

- The specialists as well as anesthetists had training courses outside Iraq.
- Lifesaving drugs, all types of intravenous fluids and all types of all the surgical supplies are kept in a store.
- Medical records are available in this unit as well as surgeons and anesthetists notes about performed operations.
- The surgical waste products are collected in special containers and then treated centrally by autoclaving.

Negative findings:

- No proper control over the patient flow. During the visit we have observed that all the doors within the surgical department were open and no flow control was observed.
- General cleaning conditions are not acceptable as per the healthcare standards for such a highly specialized area.
- The medical staff does not seem to fully understand the standards for hygiene protocols within surgical departments.
- protocols within surgical departments.

7.1.4 Laboratory Department

- This department deals with all pathological investigations / tests carried out in the hospital.
- It consists of 4 branches:
  - Microbiology Unit which consists of the following:
    - Parasitology
    - Serology
    - Bacteriology
    - Immunology
  - Biochemistry and Endocrinology
  - Pathology
  - Hematology/Blood separation room
- The investigations carried in this department are the following:
  - In the serology room: ASOT titer, Widal test, LATEX test, CRP tests
In the hematology room: complete blood picture, E.S.R, W.B.C and deferential count, P.T and P.T.T, platelets count, and blood film

Microbiology: Blood cultures, C.S.F cultures, urine cultures, in the parasitology room G.S.E&G.U.E

Biochemistry and endocrinology room: thyroid function test, S.ferriten, L.F.T, lipid profile, renal function test, F.B.S, serum electrolytes including S.Na,S.K, S.Ca, S.Chloride,C.S.F PTN and sugar in C.S.F. Also immunology investigations like C3, C4, IgA, IgG, IgM

Pathology room: cytology and bone marrow biopsy

Blood separation room: blood group and RH, combs' test direct and indirect and cross match of the blood

**Positive findings:**

- The medical staff as well as the nursing staff in the laboratory have received hepatitis “B” vaccine.
- The procedures of carried investigations are shown on the walls of the room according to the type of investigations (APPENDIX-E-).
- Two laboratory doctors and a biologist had training courses in Oman.
- Every room in the laboratory is supplied with a computer.
- The records of all rooms in the laboratory are very clean and all information about investigations/tests is documented.
- Slides and tubes as well as all waste products of the laboratory are dispensed with in containers according to their types. They are then treated centrally for final disposal.

**Negative findings:**

- In microbiology room all devices and media is available but there is no isolating room for preparation of culture media.
- Media preparation room had been changed to a Parasitological room.
- Biochemistry room is labeled as Endocrinology.
- The electrical device labeled Syncron Cx5 is still covered because the reagents for this device are not available.
- Blood gas analysis device is available but the reagents are not present.
- The Immulite 1000 device is present in the immunology room, but no one is trained to use it.
- No Standard Operating Procedures (SOPs): There are some printed out SOPs fixed on the walls of some of the laboratory sections, however there is no standard control system over checking whether the staff are following those SOPs or not.
Some of the room names were not related to the current function carried out inside the room.

Due to changes in the functions of some rooms and the addition of extra machines, the desirable cooling/ventilation is not available.

A small section was created, extracted from the corridor of the laboratory going to the morgue. This section is dedicated for bone marrow biopsy under both general and local anesthesia.

Patients have access to the lab corridors and you can find them sitting on the floor inside the corridors.

Three incubators were placed in serology room, which will increase the temperature of the room.

In the microbiology room, all devices and media are available but there is no room for preparation of culture media.

Media preparation room had been changed to a Parasitology room.

Biochemistry room had been labeled as Endocrinology.

7.1.5 X-Ray Department

- This department consists of the following existing units:
  - X-Ray Unit
  - Sonography/Ultrasound Unit
  - Fluoroscopy Unit: available but not operational
- Three x-ray specialist doctors are present in this department. Two doctors had 1 year training course on X-ray and sonography.
- This department receives patients from outpatient clinics as well as inpatients wards.

Positive findings:

- Two of the physician specialists had training courses outside Iraq.
- All records in this department are clean and accurately filled.
- Both plain X-Rays as well as contrast X-Rays are present, and all sizes of X-ray films are available.
- Mobile X-Ray unit is available on the wards.

Negative findings:
• None of the workers in this department is wearing radiation badges to measure the proportion of radiation they have been exposed to.
• Only two doctors have training courses outside Iraq.
• MRI and CT scan devices are not available.
• Two ultrasound units are available in this hospital. One of them is designated for use at the Outpatient department but is not properly operational. The other is designated for use at the imaging department and now is being used by the entire hospital.
• A fluoroscopy device is available but is not operational because the UPS is not working.
• There is no PACS system in this department.
• The conference room is not in use. Equipment used for presentations is not available.

No standard procedures are being followed by the medical staff.

7.1.6 Pharmacy

• It consists of many units including outpatient pharmacy, internal pharmacy, night shift pharmacy, clinical pharmacy and medical storage unit.
• 15 pharmacists work in this department and are distributed in the different units.

Positive findings:
• Two of the pharmacists including the chief, had training courses in Oman for 1 year.
• All records in different parts of this department are clean and accurately filled.
• Spot unannounced inventory daily checks of drugs are carried out in all units of this department.
• The supply of drugs in the wards is carried out under the supervision of clinical pharmacists.
• The clinical pharmacists give lectures on the latest drugs available as part of continuous medical education
• All types of drugs including sedation drugs as well as all types of surgical and medical consumables are available

Negative findings:
Two out of 15 pharmacists had training courses outside Iraq.
Most drugs are stored properly, but some are not.
Drug preparation room is being used as a pharmacists’ lounge.
Drug storage unit is not evenly distributed and some of the surgical and medical materials are not stored properly.
The illumination/lighting in the drug storage area is neither optimal nor adequate.

7.1.7 Physiotherapy

This unit opened on 4/4/2011 for the rehabilitation of handicapped pediatric patients, especially those on the Oncology wards.
This area is equipped with different devices including infra-red, shoulder wheel, quadriceps bench and ultrasound devices

Positive findings:
The rooms in this unit are clean and are filled with toys and pictures of cartoon characters.

Negative findings:
Physiotherapists are not present in this unit.
The devices available in this unit are not suitable for the age of patients.
Only one physiotherapy doctor works as part time in this unit (1 day a week).

7.1.8 Scientific Activities Committee

This committee is responsible for arranging continuous scientific educational lectures and training for the medical and paramedical staff. However the training is general and does not focus on specialties.
A pediatric consultant heads this committee which is attended by senior doctors as well as senior house officers, each in his/her specialty. They discuss issues like:
- Daily hospital operations report
- Case discussion
- Weekly medical journal
- Mortality report
Positive findings:
- The medical topics discussed are up to date with regards to the daily observations that the medical staff have over the patient cases.
- Discussion over the latest medication that are also available in the hospital.

Negative findings:
- The head of this committee also gives lectures in Basra University, so he has limited time to offer.
- Not all the senior doctors attend because of their work load schedule.
- The senior house officers are not very interactive during discussion.
- The medical team lacks motivation for research and publication.

7.1.9 Information Technology

Positive findings:
- They have different modules applied within the hospital like LIS, RIS, OPD and ADMIN.
- Doctors can access patient information based on certain access levels.

Negative findings:
- Data entry and survey needs are the main current use for these modules. Still the information technology application in the health sector in Iraq needs updating.
- We understood that the IT system (HMIS) was implemented and the staff was trained in Oman to operate it. The system now is non-operational. Some staff members stated that they will not attempt any work flow improvement until the system is implemented. So, there seems to be a disconnect situation as we have investigated this with the vendor and he provided us with documentation to the contrary.

7.1.10 Administration

- Manual paper work system is the standard form of work preparation.
- A Master key is given to anyone without strict control over door access system.
- Partial e-mail communication system is in place, connected to the Higher Health Authority in Basra. This is accessible to only two people. Other forms of communication are done by a sealed letter that is delivered by hand.
- The hospital applies its own staff coding system. Each employee has a unique number where his file has the same number within the system in order to facilitate tracking and documentation.
- For patient and staff information handling, there are 3 levels of information security: (top secret, secret, normal).
- The hospital arranged a contract with a company to service both Cleaning and Reception.
7.1.11 Medical Records

- Medical Records as hard copies are used in the Hospital.
- The unit is using a software for data entry of the medical records that are not properly cleaned.
- They usually have 2 copies of medical records, one for archiving, and the second to be disposed later.
- There is no clear policy regarding the archiving of medical records.
- The duration to keep the patient medical record is not clear for the staff.
- The medical record storage is not central. There are medical records at the admissions, OPD and OPD oncology. This might make it difficult to get complete patient details when needed.

7.1.12 Educational and Learning Activities

- They include the following:
  - Daily report
  - Case discussion
  - Weekly journal
  - Death report
- Senior staff whose presence is important are usually busy with other tasks and thus do not attend.
- The case discussion is not interactive. It is didactic.
- No proper referencing and quoting of certain sentences.
- Poor references mostly based on the few available library book resources and free internet journals.
- Need more orientation on presentation tools and skills to enable delivering the right information as much as possible

7.1.13 Finance
• Treatment is free since it is a public hospital; an admittance ticket is to be paid by the patient for the first time which is equal to 45 cents.
• Salaries are paid by this department. We noticed staff gathered to collect salaries at that department.
• The Financial module of E-hope (HIS system) which was installed does not match the financial system within this hospital or the governmental financial system.
• No revenues, depreciation, balance sheet or profit and loss are produced while all financial issued reports are required to be sent to the Higher Health Authority in Basra. However, the only reports being sent to this Authority are the total expenses and total cash income.
• The cash income is not used by the hospital. Their expenses are controlled by the amount given from the Health Authority.
• according to the new salary scale of the MOH, depending on their level of education as well as years of experience, except for the following categories:
  o All doctors who work as part time receive their salary from the Ministry of Higher Education or from the hospital they come from.
  o All workers in cleaning services receive their salary from the contracted outsourced company.

7.1.14 Central Sterilization Supply Unit (CSSD)

• The Staff is composed of:
  o 1 nurse with a 2 years diploma degree in nursing
  o 3 secondary school graduates
• Staff work based on their experience, no training courses on the CSSD concept and its work flow is given.
• The sterilization process and workflow is not implemented properly. The shortages of staff resulted in having the 4 staff members walking between the dirty and clean utilities continuously. This is contrary to the sterile environment policy.
• Lack of continuous education on contingency procedures, such as in the case of injuries caused by sharp instruments.
• The gloves used are not strong enough especially during the manual washing and cleaning of the instrument.
• Lack of supervising role inside this department.
• No toilets are available inside this department.
• No air spray gun or water flushes next to the cleaning sink in the dirty room.

7.1.15 Library

• 1 college graduate librarian
• Few recently published books are available.
The internet is the main source of research through subscriptions in some medical web sites.
Most of the books were donated by the hospital staff.

7.1.16 Kitchen and Food Services

- There is a contract to deliver the basic food ingredients and delivery is performed on daily basis.
- Checking of food is done by the kitchen staff from the hospital and a third party checking. The Health Authority has appointed an inspector with a 2 years diploma in dietary and became part of the Quality Assurance Unit.
- Basic principles of food preparation are implemented.
- The head of this unit is a college graduate from the college of agriculture in landscaping; the assistant is a college graduate from the college of agriculture, in food and dietary section.
- Food preparation is usually done on the same floor.
- The kitchen needs more cleaning.
- No special gloves or hand sanitizers are used while cooking the food.

7.1.17 Quality Assurance Unit

- This is a unit that was implemented internally within the hospital structure and managed on voluntary basis; there is no structure for such a committee within the ministry categories.
- It is composed of employees from different departments and units, such as OPD, scientific department, lab, radiotherapy, IT, accounting, pharmacy, library, public health, logistics, nursing, etc…
- This committee did one previous assessment till now.

7.1.18 Central Stores and Materials Handling

- Due to the distance between the main stores and the hospital building (200 m), the absence of proper transportation equipment, and the unfavorable weather conditions, the overstocking of the sub-stores in the main hospital creates unnecessary overloading of supplies.
- Due to the lack of proper transportation trolleys for materials transportation, most of the items are carried by hand by the cleaning staff.
- Poor air conditioning in the stores is noted.
- 3 employees with a 2 years diploma degree work in store administration.
• Elevators: Most of the elevators are not working. This causes operational problems for patients and staff. Relatives are seen assisting or carrying their patients using the stairs.

• Medical waste management requires review in terms of procedures vis-à-vis waste types, segregation and control of waste and disposal.

![Figure 7-1: Medical Waste containers do not have clear labels](image)

7.2 Prevention and Control of Infections

• Basic staff hygiene measures and infection control were noted to be nonexistent.

• The “infection control supervisors” could not convey to trainees the basics of infection control and hygienic practices.

• Hospital cleaning is outsourced to non-specialized companies. The cleaning contractors are always changed upon contract expiration or contract cancellation which causes cleaning interruptions.

• Paramedical staff accommodations adjoining the hospital suffer from appalling and sub-hygienic living conditions. The staff come from different governorates and may stay for 20-30 days, and they do come in contact with patients in the hospital.

• Food is transported in plastic bags using the stairs.

• In the surgical ward we noted a lack of proper hygiene measures.

• In ICU: Hygiene concepts need to be formalized, mainly for surgical staff going directly to the critical care. All doors between clean areas and dirty areas are opened, which affects the proper flow of clean and dirty items, and although some of the doors were closed, both clean and soiled items although in sealed bags are going through the same corridor.

In one of the rooms in the unit it was noted that the housekeeper left her clothes as well as her food on the floor. This practice is a source of infection.

The storage room is clean but some of the medical materials have not been stored properly.

• In Radiology, no hygienic preparation is conducted such as antiseptic solutions and/or having hand sanitizers for both staff and patients.
• The nursing staff as well as the housekeeping staff lacks the proper knowledge in dealing with medical waste products and the type of containers to be used for their disposal.

• Toilets Hygiene:
  o Most of the toilets are not clean.
  o There is no soap in the soap dispensers.
  o Many of the soap dispensers are broken.
  o Towel dispensers are either broken or with no towel inside.
  o Poor physical maintenance.

• Laundry: The mechanism for checking the linen contaminated with drops of blood and/or saliva to be sent to CSSD for sterilization is either not implemented or does not exist.

• The infection control had trained the staff and educated the patients in the oncology wards (B & D) regarding the hand cleaning and use of hand sanitizers. This training will need to be re-enforced.

7.3 Isolation Procedures

• Although the hospital was planned, designed and equipped taking into consideration international standards (AIA & ASHARAE) for isolation and segregation of clean, dirty, sterile and non-sterile zones. The current practices and operational policies seem to bypass the design.

• An example noted is the two doors for the airlock room that were opened together and the doormat was in front of the patient toilets inside this room. This issue is particularly sensitive in oncology hospitals.

7.4 Alterations to the Original Implemented Design

• We have observed that the original design and planning was changed in some areas to accommodate the management operational needs as seen fit. For example certain rooms were cancelled, closing of some corridors like the ones within the lab, and the addition of a bone marrow biopsy room, change of blood bank location, emergency doors closure, etc…

7.5 Medication and Medical Supplies Management and Use

• It was noted that some laboratory reagents are expired (this was reported to be due to the supply chain delay attributed to the MOH)

• We have observed that the chemotherapy vial was transferred from the chemo pharmacy in a broken container. The container was open all the way from the pharmacy until delivered to the ward reception and the cleaning staff was responsible
for transporting this container without any knowledge of how to deal with such preparation.

- In Radiology there was a lack of supplies, such as film envelopes.
- The electrical device labeled Syncron Cx5 is covered by nylon because the reagent of the device is not available.
- The reagent for the Blood gas analyzer device is not available.
- The minimum expiry range for medicines to be discharged to patients is 9 months.
- Supply chain for medicines is deficient and requires long routine procedures.
- Patient education on pharmaceutical intake is usually done by the physician and not by the pharmacist, which creates more load on the physician side.

7.6 Management of Communication and Information

In addition to the notes mentioned in the Information Technology section concerning the HIMS and e-mail, hereunder are additional notes:

- Coordination procedures between doctors, pathologists and imaging technicians are almost nonexistent or poorly coordinated.
- As the hospital is under the jurisdiction of the Iraqi MOH, organizational charts are to be approved by MOH. The proposed Hospital organizational chart is still under review by the MOH. Some departmental internal organizational charts were found (Please refer to the organizational charts provided during the visit at the end of this section).
- Manuals and job description for medical staff is not available in all departments.
- Please refer to section number 8, “Staff Qualification and Education” for lists of all the staff names, experience, position and assigned departmental location.
- Educational posters that educate mothers about most common diseases in the Pediatric field are not available.
- Most work is conducted using hardcopy forms and paper.
- There is no control structure for doors, and the master key is given to any person.

7.7 Access to Care and Continuity of Care

- No proper patient admission procedure due to the closure of the admissions unit on the ground floor.
- Patient referrals are neither controlled nor properly managed based on a policy or procedure. Patients may be seen in corridors waiting for admission.
- Lack of management of Oncology follow-up cases whose stay may vary; thus creating disruptions to other patients.
- Patient flow control to the assessment and clinic is managed by a receptionist who is a secondary school graduate with basic knowledge of the OPD workflow.
- Blood bank is an area extracted from the laboratory area; this affected the work, equipment and load distribution for both units as there is no controlled entrance.
• Due to the segmentation of this blood bank from the Lab, and since this segmented area was basically a corridor, the air conditioning is not working properly to supply the needed cooling/ventilation for the staff and machines.
• The sick baby’s entrance door to the primary care clinics is locked. The current entrance is disorienting to patients on where to go since there is no direct nurse station or reception desk observing the patient entrance.
• There is no photocopier in the whole OPD department. The staff has to walk to the other end of the hospital near the administration department to photocopy.
• Breastfeeding room is changed to a store and the mothers are breastfeeding their sick children inside the NICU.
7.8 Organizational Charts