

Admission to A General Hospital Medical or Surgical Purpose, Comparing Study

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Abstract: Background: People are sent to the hospital for many reasons, not just for serious operations or treating life-threatening emergencies. There are several types of hospitalization and hospital admission for inpatient management Investigating the causes of hospitalization of patients in the west of Iraq can be helpful for healthcare programmers in scheduling a healthy and joyful and reducing their mortality and morbidity. **Objectives:** To compare between different causes of admission among hospitalized patients in a secondary health care in Iraq. **Methods:** A cross sectional study was carried out on patients admitted to al-amiriyah general hospital, during the period between 1st January to 1st July 2023. A total of 3357 patients, 2131 female and 1226 male who was admitted constituted the study group. **Results:** There were (63.47%) female's patients and (36.53%) male's patients. The prevalence of various causes of admission in this study was: Gynecology and obstetrics (36.99%) of the patients, General Surgery (34.82%) of the patients., Pediatric and neonate (24.81%) of the patients and Internal Medicine and hemodialysis (3.38%) of the patients. **Conclusions:** The admission rate is high in our hospital. The average length of hospitalization was 2 days. Percentage of the admission were higher in rural population than in urban one. Most of the patients were admitted for surgical purpose. The Gynecology and obstetrics disease was the leading causes of admission followed by different surgical disease.

Keywords: Admission rate, internal medicine disease and surgical operation.

INTRODUCTION

Hospital admission means admission of a covered person to a hospital as an inpatient for medically necessary and appropriate care and treatment of an illness or injury.

Hospital admission means the period between the time of a participant's entry into a hospital as a bed patient and the time of discontinuance of bed-patient care or discharge by the admitting physician. The day of entry, but not the day of discharge or departure, shall be considered in determining the length of a hospital admission. (www.sondercare.com).

Different Healthcare Admissions and Hospitalizations:

The most common are Elective Admissions, Direct Admissions, Holding Admissions, and Emergency Admissions. Depending on the needs, these admissions bring different levels of medical care.

1-Elective Hospital Admissions

Elective hospital admissions make up most admissions, though how many depends on the hospital. These stays are when someone has a known medical condition or complaint that requires further treatment or surgery and hospital care, but patients can work with their doctor to alter the time of the admission for convenience. A doctor will make a hospital bed reservation for the

patient on a specific day that can change as needed.

The doctor may tell the patient to go to the hospital in advance for lab tests, X-rays, ECGs, or other prescreening tests. For seniors aging at home, as well as patients with mobility needs, an in-home hospital bed for resting before or after the elective date can make the experience more comfortable.

2-Direct Admission Hospitalization

Direct admission would occur after the patient has seen or spoken to their doctor, who feels they must admit them to the hospital for immediate medical care. The doctor may arrange an ambulance to take the patient to the hospital or request that they go to the hospital themselves; the doctor may be able to make a bed reservation, too.

3-Holding Admission Hospital Stays

Holding or observation admission often takes place through the emergency department. The patient is admitted for diagnostic testing and, unless something shows up that requires another level of care, they will be discharged within 24 to 48 hours.

4-Emergency Admission Hospitalization

Finally, there are emergency admissions, which go through the hospital's emergency department. Patients are admitted for acute, an emergency

condition which requires immediate treatment like burns, drowning, road accidents, fall, heart attack. Or a medical emergency is any serious injury, condition, or symptom posing an immediate risk to someone's life or health. If they need emergency care, the hospital may admit the patient to a floor, a specialized unit, or an observation unit.

Admission Procedure:

Admission of a patient means allowing and facilitating a patient to stay in the hospital unit or ward for observation, investigation, and treatment of the disease he or she is suffering from (<https://nursingenotes.com>).

Purpose of admission procedure includes:

To provide immediate care or to provide comfort and safety to the patient or to be ready for any emergency or to obtain information about the client so as to establish therapeutic nurse patient relationship or to involve patient and family in care or to assist proper discharge planning of care.

Prepare for Hospital Admission:

Everyone should have the following information stored in a safe, central location in case of hospital admission (www.linkedin.com).

Identification like a driver's license, medical card, emergency contacts (relatives and friend's names and phone numbers), and name(s) of the primary care physician and the specialists that treat the patient.

A list of all current medications – including strength and frequency – as well as any treatments or over-the-counter medications.

A list of all allergies, including the reaction the patient has to them.

A list of all medical conditions and all past surgeries or procedures.

Make sure to fill out a living will and appoint a medical power of attorney. This way, your wishes about end-of-life medical treatment are documented if you cannot speak for yourself.

Important personal items like smartphones, chargers, batteries, eyeglasses, mobility equipment, and hearing aids. Toiletries, like soap, shampoo, a toothbrush, toothpaste, deodorant, and a hairbrush. Moisturizer and lip balm.

Clean underwear, socks, and pajamas.

Being admitted to the hospital for care and recovery can be stressful; the problem can be more difficult if a patient has Alzheimer's disease or

dementia. An in-home hospital bed and other assistive equipment may help patients reduce the amount of time they need to spend in a medical facility and help them get back to familiar surroundings sooner.

Data from the Healthcare Cost and Utilization Project (HCUP) on the most common principal diagnosis in 2010 for all hospital stays in the United States show changes in the overall number of stays and the rate of hospitalization in the population. There were 39 million hospital stays in the U.S.A (1,26) stays per (10,000) population (Pfundner, A, 2013).

pneumonia and chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF) and cardiac dysrhythmias were among the 10 most frequent principal diagnoses for all hospital stays in the United States (Pfundner, A, 2013).

Mood disorders was the most common principal diagnosis among children ages 1–17. Osteoarthritis was the most common diagnosis among adults ages 45–64. Four of the most common conditions for uninsured hospital stay increased worldwide are: skin and subcutaneous tissue infections, mood disorders, non-specific chest pain, and alcohol-related disorders. The most common types of procedures performed during hospitalizations in 2010 were associated with maternal and newborn stays or cardiovascular and musculoskeletal conditions (Pfundner, A, 2013).

Acute renal failure was the most rapidly growing condition during last years, with an increase in the rate of hospitalization (Ralston, S.H. *et al.*, 2018). Cesarean section was the most common major operating room procedure performed and the rate of hospitalization with increased by 41 percent. Rates of hospitalization with diagnostic cardiac catheterization, knee replacement and spinal fusion approximately doubled (www.jstor.org).

AIM OF STUDY

The main purpose of this study was to compare between different causes of admission among hospitalized patients in a secondary health care in Iraq.

METERIALS AND METHODS

This is a prospective study was performed on patients admitted to al_ amiriyah general hospital, during the period between 1st January to 1st July 2023. A total of 3357 patients, 2131 female and 1226 male who was admitted constituted the study group.

Data were collected from follow up sheets of all patients, regarding age, sex, residence, type of operation, duration of hospitalization. Also, personal information of the patients was kept confidential.

For statistical analysis SPSS _20 (statistical package for social sciences- version 20) and the chi-square test was used to analysis the group's percentage in addition to statistical tables. Variables were described using frequencies and percentages. A p-value < 0.05 was considered to

be significant and a p-value > 0.05 considered to be not significant.

RESULTS

Of the 3357 patients studied, 2131 were females and 1226 of them were males. The male to female ratio was found to be 1:1.73. In this study distribution of cases admission according to the month, the percentage was high especially during May. as shown in table.1.

Table 1: distribution of cases according to the admission rate

Month	No.	Percentage
January	480	14.29%
February	667	19.88%
March	406	12.10%
April	498	14.83%
May	680	20.25%
June	626	18.65%
Total	3357	100%

In this study, the distribution of cases admission according to the department show that Gynecology and obstetrics department and

Surgery were noticed in a higher percentage as shown in table.2.

Table 2: distribution of cases according to the department

Department	No.	Percentage
Gynecology and obstetrics	1242	36.99%
General Surgery	1169	34.82%
Pediatric and neonate	833	24.81%
Internal Medicine and hemodialysis	113	3.38%
Total No.	3357	100%

With respect to the distribution of surgical cases admission according to the month. The percentage was high especially during May. p -value was not significant. p-value>0.05 as shown in table 3.

The geographical distribution of hospitalized patients shows that more than half of cases were from rural area as shown in figure 1.

Table 3: frequency of surgical cases admission

Month	Male	Female	No.
January	94	68	162
February	139	86	225
March	117	84	201
April	107	99	206
May	125	102	227
June	65	83	148
Total	647	522	1169

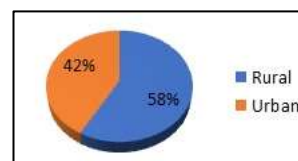


Figure 1: the geographical distribution of hospitalized patients.

Frequency of Internal medicine admission in the current study were mostly in winter season, here high prevalence rate observed. The rate in compering to hospital admission was (3.38%) as shown in table 4.

Table 4: frequency of Internal medicine admission

Month	General ward	Hemodialysis ward	No.
January	15	14	29
February	10	5	15
March	18	3	21
April	14	2	16
May	15	4	19
June	9	4	13
Total	81	32	113

With respect to the distribution of all surgical cases according to operation types, the percentage was

high in most major (very complex) and Medium operation as shown in figure.2.

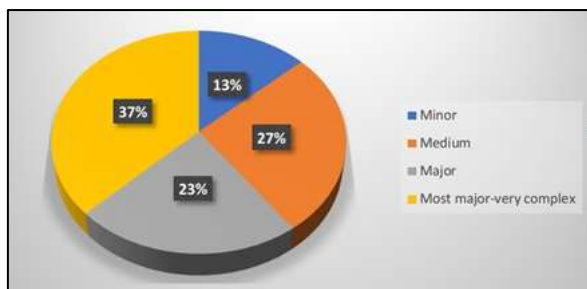


Figure 2: distribution of all surgical cases according to the operation types

With respect to the distribution of surgical cases admission in al _Fallujah teaching hospital

according to the month. The percentage was high especially during March.

Table 5: frequency of surgical cases admission in al _Fallujah teaching hospital

Month	No.	Percentage
January	343	15.54%
February	349	15.82%
March	429	19.44%
April	280	12.70%
May	425	19.27%
June	380	17.23%
Total	2206	100%

DISCUSSION

This study is the first study done to compare between different causes of hospitalization to the al_ amiriyah general hospital which represent a secondary health care according to Iraqi health care system. Since there were limited data on the causes of hospital admissions. However, the current study provides evidence that Gynecology and obstetrics causes with general surgery account for a significant and increasing fraction of the causes of hospitalization among people, we comparing our study locally with al _Fallujah teaching hospital, and nationally with study done in the United States of America.

Al_ amiriyah is discrete in al- Anbar province in the west of Iraq. Total number of population was about (110,000) people's (m. marefa.org).

The total number of beds in the hospital was (130). The number of Internal Medicine floor and Hemodialysis unit was (22) beds. The number of surgical floor was (18) beds, the number of Gynecology and obstetrics floor was (18) beds, the number of Pediatric floor was (22) beds, the number of private floor was (30) beds and The number of emergency floor was (30) beds (Monthly report: Al_ amiriyah General Hospital, 2023).

Al_ Fallujah is discrete in al- anbar province in the west of Iraq. Total number of population was about (540,000) people's. The total number of beds in the hospital was (400) (Al _Fallujah Teaching Hospital, 2023).

The results show that the average length of hospitalization was 2 days, between 1 and 5 days.

In this study the total number of patients admitted was (3357). The total number of patients

review the consulting clinic was (32122). The percentage of total number of hospital admission comparing to The total number of patients review the consulting clinic was (10,45%). The total number of patients review the emergency was (28820) patients (Monthly report: Al_amiriyah General Hospital, 2023).

Of the 3357 patients studied, 2131 were females and 1226 of them were males. The male to female ratio was found to be 1:1.73. The current study showed big difference between male and female regarding the admission rate.

In this study distribution of cases admission according to the month, the percentage was high especially during May. The rate was (20.25%). as shown in table.1. this may be due to different causes; climate is one of them.

The percentage of general surgery admission compared with the total hospital admission was (34.82%) as shown in table.2. The total number of patients was 1169. Male is predominating, in the top of surgical operation gallbladder surgery firstly then hernia especially umbilical and para umbilical one, then anal surgery including hemorrhoid, fistula and fissure. which are higher than in USA (4), its duo to different causes, firstly most of patients fallow their surgeon, secondly come from outside the discrete and thirdly economic reason. In compared with surgical cases admission in al _Fallujah teaching hospital, the total hospital admission was (2206) as shown in table.5. male is predominating, in the top of surgical operation appendicitis firstly, then gallbladder surgery, then different hernia surgery (9). This due to difference in population number and hospital capacity (theater number and surgical staff).

Gynecology and obstetrics admission account for the majority of cases seen in (36.99%) as shown in table.2. The total number of delivery was 1109, (557) of them by cesarean section. Normal delivery was (552). This is compatible with other studies as in the USA (4).

For Pediatric and neonate admission the total number was (833) patients, in (24.81%) from hospital admission as shown in table.2 which is higher than other studies; in USA (2.8%) (4), which are related to high cases of infectious diseases in our patients due to dietary habits and poor sanitation of both water and food Which are run commonly in Iraq.

The geographical distribution of hospitalized patients shows that more than half of cases were from rural area as shown in figure 1. (1953) patients from rural area in (58.18%) compared to (1404) patients from urban area in (41. 82%).This is disagreement with other studies. Probably due to structure of our population and life style of the study area.

The percentage of medical floor admission compared with the total hospital admission was (3.38%) as shown in table.2. The total number of patients was 113. Male is predominating, (81) patients of them admitted to the general floor while (32) patients were admitted to the hemodialysis ward. This percentage was come lastly to all admission during the same period due to different causes including absence of RCU and neuromedicine unit in our hospital associated with population fear from infectious disease since covid -19. This result show disagreement with other studies for example (in the United States), Infectious and parasitic diseases, including malaria, bacterial diseases, and HIV disease, were the leading cause of admission accounting for 19.8% of all admissions.

The total number of all surgical cases was (1965) in the study period including different branches in our hospital and regarding the distribution of surgical cases according to operation types, the percentage was high in most major (731) in (37.20%) and Medium operation (524) in (26.66%) but major operation was (449) in (22.84%) and Minor operation was (261) in (13.30%) as shown in figure 2.

CONCLUSION

The admission rate is high in our hospital. The average length of hospitalization was 2 days. Percentage of the admission were higher in rural population than in urban one. Most of the patients were admitted for surgical purpose. The Gynecology and obstetrics disease was the leading causes of admission fallowed by different surgical disease.

RECOMMENDATION

Since most of the patients were admitted for surgical purpose, there is need for creation of specialized center instated of general hospital and change the health system to provide optimum services for our patient and decrease their seeking to traveling outside the governorate. The methods suggested to slow progression of diseases and decrease hospitalization includes: water and food

sanitation, control of diet, avoidance of nephrotoxins and smoking cessation. Although control of the D.M, Hypertension, hyperlipidemia and their complication have highly significant role in the health programs, and this is the main job of the primary health care sector which need to activated and take their responsibility to increase health level.

REFERENCES

1. <https://www.sondercare.com/learn/home-healthcare/different-types-hospitalization-hospital-admission/>.
2. <https://www.google.com/https://nursingenotes.com/7-types-of-hospital-admission>.
3. <https://www.linkedin.com/pulse/types-admissions-hospital-docthubhealthcoursesevents>.
4. Most Frequent Conditions in U.S. Hospitals, 2010. Anne Pfuntner, Lauren M. Wier, M.P.H., and Carol Stocks, R.N., M.H.S.A. February (2013).
5. Ralston, S.H., Penman, I.D., Strachan, M.W. and Hobson, R. eds. "Davidson's Principles and Practice of Medicine 23 rd. edition." *Churchill Livingstone, Philadelphia.* (2018). infectious disease.
6. <https://www.jstor.org/stable/>.
7. <https://m.marefa.org/>.
8. Monthly report: Al_amiriyah General Hospital; statistic unit, period between 1st January to 1st July 2023.
9. Al _Fallujah Teaching Hospital; statistic unit, (2023).

Source of support: Nil; **Conflict of interest:** Nil.

Cite this article as:

Jaber, R.S., Rafeeq, M.T., Obaid, A.C., Yaseen, M.B. and Abdullah, R.S. "Admission to A General Hospital Medical or Surgical Purpose, Comparing Study." *Sarcouncil journal of Medical sciences* 3.1 (2024): pp 35-40.