

## PROFILE OF PATIENTS VISITING THE PEDIATRIC EMERGENCY SERVICE IN EL-BEHERA HOSPITALS

By

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### ABSTRACT

**Background:** *The emergency department (ED) is an essential component of the medical service offered in any hospital. Yet, the published information about patients profile and utilization of emergency services in both developing and developed countries is scarce. Visits caused by non-serious diseases remain a burden on the emergency department, preventing efficient and effective use of health services and compromising quality.*

**Aim of work:** *This study aimed to characterize the profile of patients visiting the emergency service in EL-Behera hospitals, Damanhour Teaching hospital, Central Abo Hommos hospital and General Kafr El-Dawar hospital, describing the epidemiology of patient presentations and outcome in the emergency department.*

**Patient and methods:** *This is a cross sectional study reporting the profile of patients visiting the ED for 3 months from January to March, 2019. The emergency departments served children up to the age of 18 years. Patients are first examined by a junior physician on a 24 hours basis. The emergency department offered diagnostic services in the form of basic laboratory tests and imaging as well as brief therapeutic measures. Our data were collected from the emergency department sheet initiated by the first examiner and completed by the emergency department senior. Forms were first checked for adequacy and completeness. The data included the following:*

- *Demographic characteristics: age / sex and season.*
- *Clinical history: symptoms / diagnosis and outcome within the first 24hours of presentation.*
- *Patients with previously diagnosed chronic conditions were noted.*
- *The outcome including discharge from the emergency department whether discharges on treatment or follow up, referral, hospitals admission, or mortality also is noted.*

*Our cases were collected by visiting the ED for 2 hours at the morning, 2 hours at the evening and 2 hours at the night. Every visit was once per week for 3 months in the*

3 study hospitals. During the time of the visit, the investigator was able to examine the majority of children coming for health service.

**Results:** The total number of registered ED visits during the study period (3months) at El-Behera hospitals (Damanhour Teaching hospital, Central Abo Hommos hospital and General Kafr El-Dawar hospital) was 130500 patients, the number of registered pediatric ED visits at this period was 29340 patients (22.5%). The sample of our study represented 600 patients by collecting random sample through regular visits to ED. Infants (1month-1year) represented the largest age group (52.5%) and boys represented the majority of cases (51.5%). The main presentation was cough (25%) and respiratory distress (21%), followed by fever (15.5%), diarrhea (11%), wheezy chest (11.5%) and then convulsion (4%). Long term illnesses were predominantly bronchial asthma(9%), hemolytic anemia(1%), congenital heart disease(0.5%), down syndrome(0.5%) and failure to thrive(0.5%). The overall mortality rate was zero.

**Conclusion:** Infants younger than one year are the largest group attending ED 315(52.5%). The respiratory emergencies are the main cause of attending ED 390(65%). Rural attendees are more than urban 375(62.5%) vs 225(37.5%). Chronic disorder is one of causes attending ED. The rate of hospitalization is low 72(12%). The case fatality rate is zero percent. The most patients attending ED at the evening were 285 (47.5%).

**Key words:** acute respiratory infections, emergency medical services, epidemiology.

## INTRODUCTION

The emergency department (ED) is an essential component of the medical services offered in any hospital. The available literature suggests that children account for approximately 4% to 10% of all emergency medical services offered in the United States. Visits caused by non-serious diseases remain a burden on the emergency department, preventing efficient and effective use of health services and compromising quality (Bazaraa et al., 2012).

There was not much published information about the utilization of emergency services in both developing and developed

countries. The availability of data would help to initiate guidelines for comparison with practices of others, to identify failures, to bring forward solutions, and to elaborate a strategy for promoting first line emergency services. Despite continued calls for additional research in the area of pediatric emergency medical services (EMS), there remain significant limitations in the available demographic characteristics, utilization rates, and outcomes of pediatric patients using the emergency department (Shah et al., 2008).

Although some ill children were treated in children's hospitals

or large pediatric units of medical centers, the vast majority were brought to community hospital emergency department (AAP, 2013).

Updated information on patient characteristics and common conditions associated with pediatric emergency departments visits might provide additional insight into the unique needs of the pediatric population and assist community emergency departments in improving their pediatric care resources (Matoussi et al., 2007).

### ***Aims of the Study***

The present study was intended to characterize the profile of patients visiting the emergency department in El-Behera hospitals: Damanhour Teaching hospital, Central Abohommos hospital and General Kafr Eldawar hospital, describing the epidemiology of patient presentations and outcome in the emergency department.

### ***PATIENTS AND METHODS***

#### **Study design:**

This was a cross sectional study of the registered visits to the pediatric emergency department of EL-Behera hospitals (Damanhour Teaching hospital, Central Abohommos hospital and General Kafr Eldawar hospital) for 3

months from January to March, 2019.

#### **Study Settings:**

- The pediatric emergency departments in every hospital (Damanhour Teaching hospital, Central Abohommos hospital and General Kafr Eldawar hospital) consist of room of receiving cases for history taking, examination and guidance for management, room for rehydration, room for oxygen therapy and nebulization, room for life threatening conditions and poisoning (for resuscitation, gastric lavage and monitoring) and room for receiving surgical and orthopedic conditions.
- The pediatric emergency departments contain all types of fluids, medications of resuscitation, analgesia, antiemetics, antiepileptic, instruments as for stitching, nasogastric tubes, endotracheal tubes, catheters, syringes and others.
- The emergency departments served children up to the age of 18 years.
- Patients are first examined by a junior physician.
- The emergency department offered diagnostic services in the form of basic laboratory

tests and imaging as well as brief therapeutic measures.

- In addition, more significant short term periods of observation and or hospital management (< 24 hours) were offered.
- By the end of the 24 hours, they would have been either discharged with treatment or admitted.

### Data collection:

Our data were collected from the emergency department sheet initiated by the first examiner and completed by the emergency department senior. Forms were first checked for adequacy and completeness. The data included the following:

- Demographic characteristics: age / sex and season.

- Clinical history: symptoms / diagnosis and outcome within the first 24hours of presentation.
- Patients with previously diagnosed chronic conditions were noted.
- The outcome including discharge from the emergency departments whether discharge on treatment or follow up, referral, hospitals admission, or mortality also is noted.

Our cases were collected by visiting the ED for 2 hours at the morning, 2 hours at the evening and 2 hours at the night. Every visit was once per week for 3 months in the 3 study hospitals, the following table demonstrates number of visits and patients examination in the three study hospitals.

Hospital	no. of visits	Time of visits (hrs)	Number of patients examined (total no.=600)		
			At morning (8am-)	At evening (2pm-)	At night (8pm)
Damanhour Teaching Hospital	12	24	39	57	51
Central Abohommos Hospital	12	24	48	117	69
General Kafr Eldawar Hospital	12	24	36	111	72
Total	36	72	123	285	192

During the time of the visit, the investigator was able to examine the majority of children coming for health service.

### Time of the study:

From January to March, 2019.

### Inclusion criteria:

- Age, from birth up to 18 years.

- Gender, both genders were included.
- Acute diseases and exacerbations on top of chronic diseases.
- Verbal consent was taken from parents of each participate in the study.
- Privacy of all data was assured.

**Exclusion criteria:**

- Surgical cases.
- Burns.
- Orthopedic cases.
- An approval of the local ethical committee was obtained before the study.
- The patients/and or parents have the right to withdraw from the study at any time.

**Ethical considerations:**

- The aim of the study was explained to the parents of each participate before collection of data.
- The authors declared that there is no conflict of interest regarding the study and publication and no financial support.

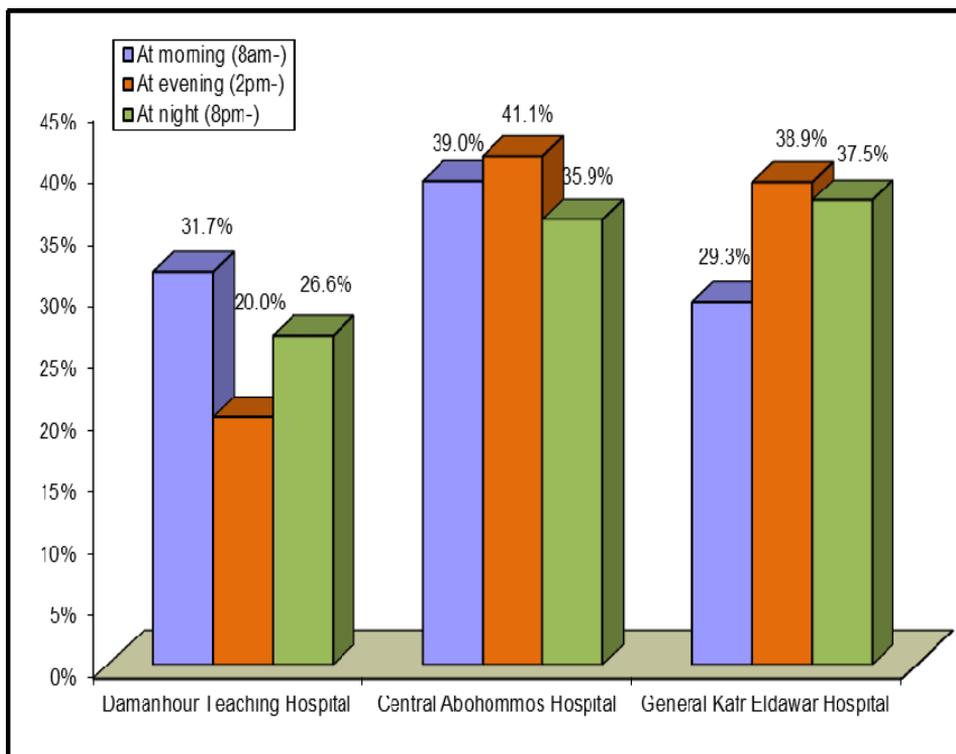
**RESULTS**

**Table (1): Correlation between time of studied patients and studied hospitals**

Hospital Time	Damanhour Teaching Hospital	Central Abo hommos Hospital	General Kafr Eldawar Hospital	Chi-square test		
				$\chi^2$	P- value	Sig
At morning (8am-)	39	48	36	5.497	0.064	NS
At evening (2pm-)	57	117	111	5.964	0.051	NS
At night (8pm-)	51	69	72	1.247	0.536	NS

This table shows that there was no statistically significance correlation between time of

studied patients and studied hospitals.



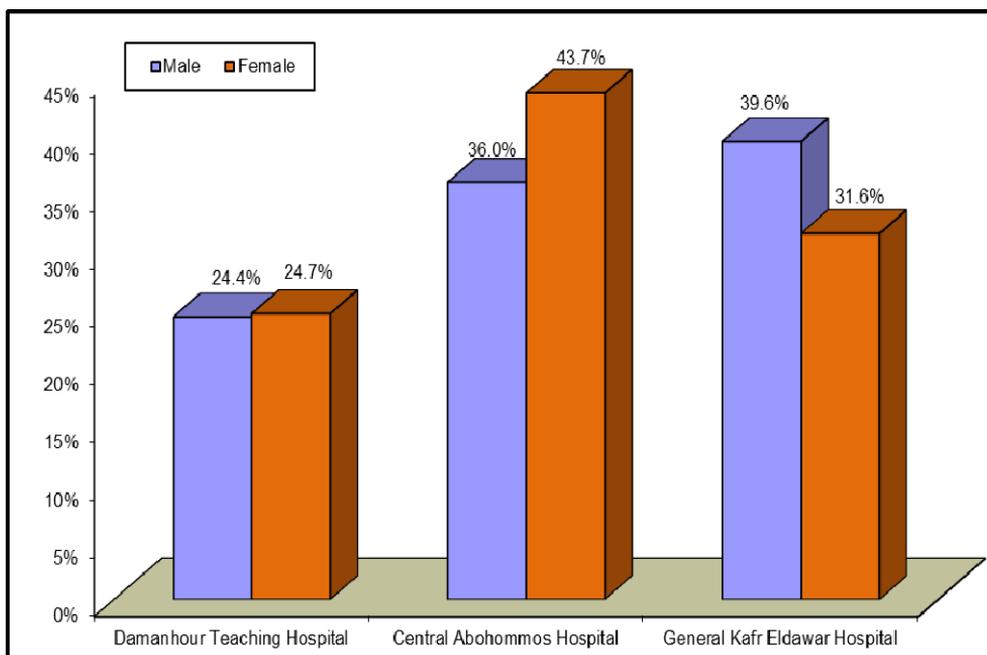
**Figure (1): Correlation between times of studied patients and studied hospitals.**

**Table (2): Comparison of gender in the three studied hospitals**

Hospital	Sex		Chi-square test		
	Male	Female	$\chi^2$	P-value	Sig.
<b>Damanhour Teaching Hospital</b>	90	57	0.006	0.937	NS
<b>Central Abohommos Hospital</b>	133	101	3.522	0.061	NS
<b>General Kafr Eldawar Hospital</b>	146	73	3.888	0.049	S
<b>Total</b>	<b>369</b>	<b>231</b>			

This table shows that there was statically significance

correlation between gender and General Kafr Eldawar Hospital.



**Figure (2): Correlation between gender and the three study hospitals**

**Table (3): Comparison of age group in the three studied hospitals**

Hospital	Age group				Chi-square test		
	<1 month	1- month	12- months	5years-18years	$\chi^2$	P-value	Sig.
<b>Damanhour Teaching Hospital</b>	9	80	50	8	3.165	0.367	NS
<b>Central Abohommos Hospital</b>	16	120	77	21	0.274	0.965	NS
<b>General Kafr Eldawar Hospital</b>	14	115	65	25	2.822	0.420	NS
<b>Total</b>	<b>39</b>	<b>315</b>	<b>192</b>	<b>54</b>			

This table shows that there was no statistically significance

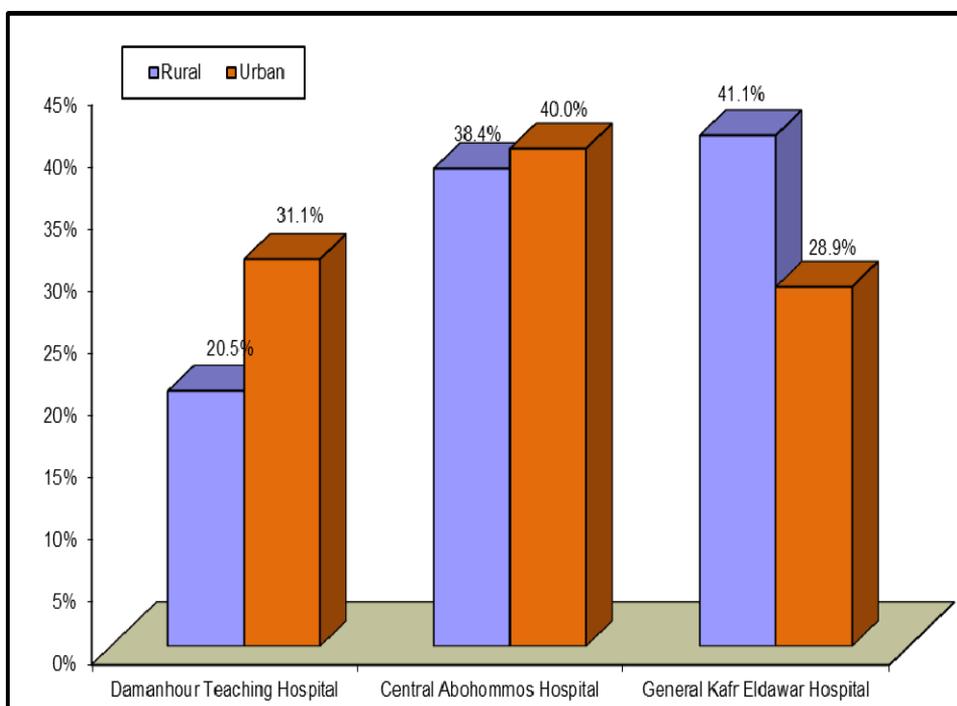
correlation between age group in the three study hospitals.

**Table (4): Comparison of residence in the three studied hospitals**

Hospital	Residence		Chi-square test		
	Rural	Urban	$\chi^2$	P-value	Sig.
Damanhour Teaching Hospital	77	70	8.506	0.004	S
Central Abohommos Hospital	144	90	0.151	0.697	NS
General Kafr Eldawar Hospital	154	65	8.998	0.003	S
<b>Total</b>	<b>375</b>	<b>225</b>			

This table shows that there was statistically significance correlation between rural and

urban in Damanhour Teaching Hospital & General Kafr Eldawar Hospital.



**Figure (3): Correlation between residence and the three studied hospitals**

**Table (5): Presenting symptoms of patients visiting the ED in the three studied hospitals (n=600)\***

Symptom	No. patients	%
Cough	150	25%
Respiratory distress	126	21%
Wheezy chest	69	11.5%
Sore throat and Rhinorrhea	93	15.5%
Diarrhea	66	11%
Vomiting	45	7.5%
Jaundice	12	2%
Convulsion	24	4%
Disturbed conscious level	9	1.5%
Poor feeding	12	2%
Hypoactivity	6	1%
Dark urine	9	1.5%
Renal colic	6	1%
Bleeding	3	0.5%
Pallor	21	3.5%
Headache	3	0.5%
Tachycardia(Palpitation)	3	0.5%
Joint pain and swelling	3	0.5%
Fever	93	15.5%

This table shows that respiratory symptoms represent the main complain attending ED (56%) then GIT symptoms (20.5%).

\*Because a patient could have more than one of these symptoms, the sum of the presented symptoms is 783.

**Table (6): Correlation between the respiratory diseases and sex distribution among the studied group**

Respiratory system	Sex		Chi-square test		
	Male	Female	X <sup>2</sup>	P-value	Sig.
Bronchiolitis	90 (24.4%)	60 (26.0%)	0.063	0.802	NS
Pneumonia	9 (2.4%)	6 (2.6%)	0.005	0.944	NS
Bronchial Asthma	33 (8.9%)	21 (9.1%)	0.001	0.975	NS
Stridor	6 (1.6%)	6 (2.6%)	0.228	0.633	NS
Pertussis	3 (0.8%)	0 (0.0%)	0.629	0.428	NS
URTI	75 (20.3%)	30 (13.0%)	1.766	0.184	NS
Common cold	21 (5.7%)	27 (11.7%)	2.314	0.128	NS
TTN	0 (0.0%)	3 (1.3%)	1.605	0.205	NS

This table shows that there was no statistically significance correlation between the

respiratory diseases and gender in the three hospitals.

**Table (7): Correlation between the respiratory diseases and the age in the studied group**

Respiratory system	Age group				Chi-square test		
	0day to 1month	>1month to 1year	>1year to 5years	>5years to 18years	X <sup>2</sup>	P-value	Sig.
Bronchiolitis	0 (0.0%)	141 (44.8%)	9 (4.7%)	0 (0.0%)	46.287	0.000	HS
Pneumonia	0 (0.0%)	12 (3.8%)	3 (1.6%)	0 (0.0%)	1.764	0.623	NS
Bronchial Asthma	0 (0.0%)	3 (1.0%)	45 (23.4%)	6 (11.1%)	25.975	0.000	HS
Stridor	0 (0.0%)	0 (0.0%)	12 (6.3%)	0 (0.0%)	8.673	0.034	S
Pertussis	0 (0.0%)	0 (0.0%)	3 (1.6%)	0 (0.0%)	2.136	0.545	NS
URTI	0 (0.0%)	21 (6.7%)	51 (26.6%)	33 (61.1%)	38.646	0.000	HS
Common cold	0 (0.0%)	39 (12.4%)	9 (4.7%)	0 (0.0%)	6.388	0.094	NS
TTN	3 (7.7%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	14.457	0.002	HS

This table shows that there was highly statistically significance negative correlation between (bronchiolitis & TTN)

and the age of the studied group and positive correlation between (URTI & asthma) and the age of the studied group.

**Table (8): Correlation between systemic diseases at the ED and sex distribution among the studied groups**

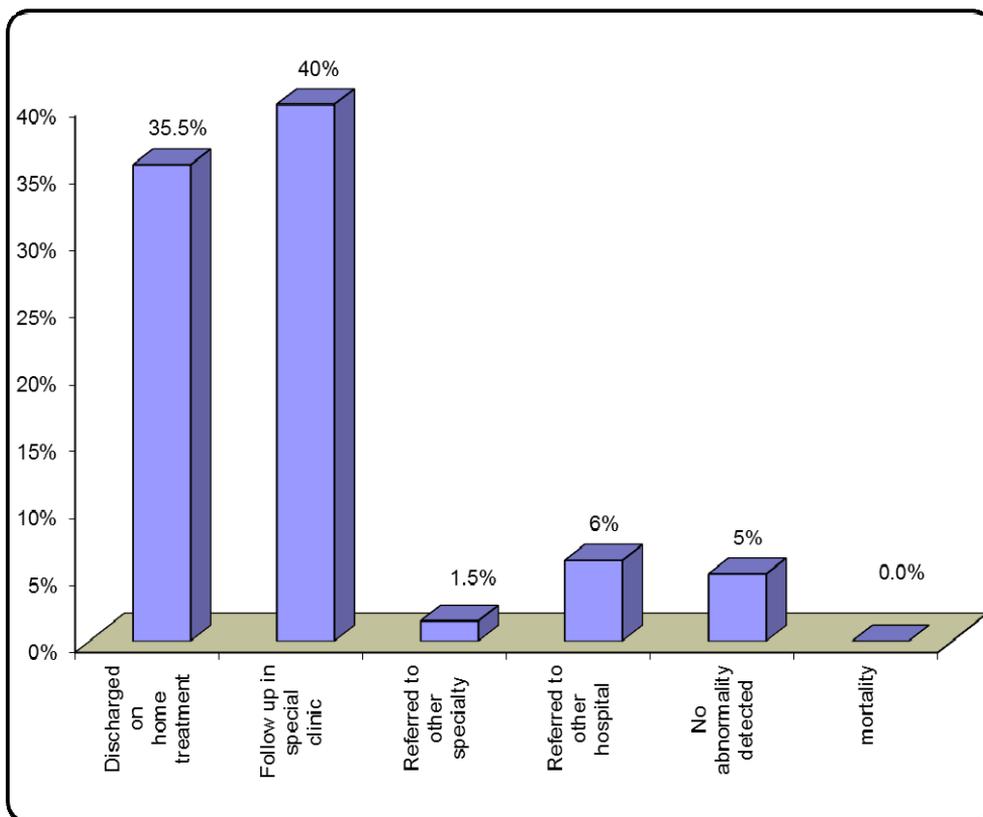
		Sex		Chi-square test		
		Male	Female	X <sup>2</sup>	P-value	Sig.
Gastroenterology & nutrition	Gastroenteritis with dehydration	48 (13.0%)	18 (7.8%)	1.316	0.251	NS
	Hepatitis A	0 (0.0%)	3 (1.3%)	1.605	0.205	NS
	Failure to thrive	3 (0.8%)	0 (0.0%)	0.629	0.428	NS
	Neonatal jaundice	3 (0.8%)	6 (2.6%)	1.021	0.312	NS
Hematology	Iron deficiency anemia	12 (3.3%)	0 (0.0%)	2.555	0.110	NS
	Hemolytic anemia	15 (4.1%)	0 (0.0%)	3.210	0.073	NS
	Hemorrhagic disease of newborn	6 (1.6%)	0 (0.0%)	1.265	0.261	NS
CNS	Febrile convulsion	3 (0.8%)	9(3.9%)	2.297	0.130	NS
	CNS Infection	9 (2.4%)	3 (1.3%)	0.314	0.575	NS
	Coma	3 (0.8%)	0 (0.0%)	0.629	0.428	NS
Nephrology	Nephritis	6 (1.6%)	0 (0.0%)	1.265	0.261	NS
Infection	Sepsis	6 (1.6%)	15 (6.5%)	3.322	0.068	NS
	UTI	6 (1.6%)	0 (0.0%)	0.116	0.733	NS
Endocrine system	Short stature	3 (0.8%)	0 (0.0%)	0.057	0.811	NS
	Hypocalcaemic convulsion	3 (0.8%)	0 (0.0%)	0.057	0.811	NS
Others	Arthritis	0 (0.0%)	3 (1.3%)	1.605	0.205	NS
	Poisoning	3 (0.8%)	0 (0.0%)	0.057	0.811	NS

This table shows that there was no statistically significance correlation between systemic diseases at the ED and gender.

**Table (9): Outcome of the studied group**

Outcome	No. (%) (Total no. = 600)
Hospitalization	72 (12%)
Discharged on home treatment	213 (35.5%)
Follow up in special clinic	240 (40.0%)
Referred to other specialty	9 (1.5%)
Referred to other hospital	36 (6.0%)
No abnormality detected	30 (5%)
Mortality	Zero

This table shows that most of our patients were follow up in special clinic (40%), discharged on home treatment (35.5%) and zero mortality rate.



**Figure (4): Outcome among the studied group**

**Table (10): Correlation between hospitalization of studied group and sex**

	No.	Sex		Chi-square test		
		Male	Female	X <sup>2</sup>	P-value	Sig.
PICU admission	18 (3.0%)	12 (3.3%)	6 (2.6%)	0.070	0.791	NS
NICU admission	12 (2.0%)	9 (2.4%)	3 (1.3%)	0.314	0.575	NS
Ipatient admission	42 (7.0%)	30 (8.1%)	12 (5.2%)	0.627	0.428	NS

This table shows that there was no statistically significance correlation between

hospitalization of studied group and gender.

### DISCUSSION

Appropriate information about the profile and outcome of ED visits is required for proper planning, evaluation and improvement of this integral aspect of health care (McCarthy, 2008).

The present study was an attempt to throw some light on the profile of patients visiting the emergency departments in EL-Behera hospitals: Damanshour Teaching hospital, Central Abohommos hospital and General Kafr Eldawar hospital, describing the epidemiology of patient presentations and outcome in the emergency department. Our study is considered one of the studies in Egypt that describe profile of patients attending to the ED.

A total of 130500 ED visits were registered over a period of 3 months. Pediatric patients constituted 29340 patients

(22.5%), this is in comparable to study of (Shah MN et al., 2008) that reported (27.3%).

The total number of cases collected in our study was 600 patients. It is assumed that the main reason was short period of study (3 months) and selection of patients was through random sample by regular visits to the ED, three visits (2 hours each) every week for three months in the three study hospitals. Another reason may be the huge numbers are not true emergencies attending to the ED but rather children requiring primary care services, probably due to easy access to the emergency services as a result of being free of charges and available 24 hours.

In our study the rural attendance to the ED was more than urban. This may be due to low socioeconomic level in rural areas that attending to the ED due to easy access to the emergency

services as a result of being free of charges. Another reason may be due to low medical services in rural areas. This is accordance with rates described in study of **(Singh et al., 2017)**.

In our study the most patients attending the ED at the evening (2pm-8pm) was 285 (47.5%) because this period was after the end of outpatient clinic. Another reason may be due to the end of work of parents coming with children. This is in comparable to the study of **(Ijaz N et al., 2018)** that reported (34.8%).

Our study has demonstrated that consultation for boys was higher 369 (61.5%). It is may be due to most cases attending to the ED from rural areas in which boy may be preferable. Several studies had reported similar findings **(Ijaz N et al., 2018, Singh et al., 2017, Salaria &Singhi, 2003)**. The study showed that most cases attending to the ED with their mothers only (41.5%) and mostly one relative came with (55.5%). And this occurred because the largest number of ED visits was younger than 1 year that may be still dependent on others mainly their mothers.

The study showed that neonates and infants younger than 1 year accounted for the largest number of ED visits 354 (59 %). It

is may be due to the most common cause of morbidity in our study is acute respiratory infections that occurs mainly in younger children. This is in accordance with rates described in the study of **(Bazaraa et al., 2012)** that reported (53.8%) and **(Karabocuoglu et al., 1995, Alpern et al., 2006)** that reported (57.7%).

The most common cause of infant morbidity and mortality worldwide has traditionally been acute respiratory infections **(Lindemans et al., 2009)**. The most common cause of morbidity in our study is respiratory infections (65%). It may be due to our study occurred in winter months. This is in accordance with the study of **(McDermott KW et al., 2018)**.

Acute bronchiolitis represented (25%) in our study. This may be due to the largest number of ED visits were younger than 1 year and our study occurred in winter months. This is in comparable to the study of **(Bazaraa et al., 2012)** that reported (6.8%). Cough, wheezy chest and respiratory distress accounted for 45.5% of ED visits in our study, and comparable results had been reported by other several studies **(Kouki et al., 2006, Infant Mortality, 2010)**, and similar to

the study of (**Bazaraa et al., 2012**) that reported (41.7%).

In our study, renal symptoms represented (2.5%). Our findings were in contrast to the study of (**Bazaraa et al., 2012**) that reported (6.2%).

CNS symptoms represented (8.5%). Our findings were in comparable to the study of (**Bazaraa et al., 2012**) that reported (9.3%).

In our study, hematological symptoms represented (4.5%). This may be mainly due to iron deficiency anemia that could be explained by low education and poor nutrition. This is in contrast to the study of (**Bazaraa et al., 2012**) that reported (17.9%).

The study showed that fever represented (12%). And this occurred because the most common cause of morbidity in our study was acute respiratory infections. This is in comparable to the study of (**Bazaraa et al., 2012**) that reported (9.8%).

Our study showed that acute diarrheal disease was reported in (11%) because our study was done in winter months. This is in comparable to the study by (**Bazaraa et al., 2012**) that reported (1.9%).

The study showed that pneumonia represented (2.5%).

This is in comparable to the study by (**Bazaraa et al., 2012**) that reported (27.6%).

The study showed that URTI and common cold were the most common respiratory related ED diagnosis and represented (n=51, 25.5%). It may be due to our study occurred in winter months. This is in accordance with the study by (**McDermott KW et al., 2018**) and in contrast to the study of (**bazaraa et al., 2012**) that reported (1.1%).

Our study showed that croup represented (2%). This is accordance with the study by (**Bazaraa et al., 2012**). This study showed that febrile seizure represented (2%) that occurs in the age 6m-5y. This is because it occurs in an age-related manner.

Urinary tract infection represented (1%) in our study that in contrast to the study of (**Bazaraa et al., 2012**) that reported (2.1%). The study showed that CNS infection represented (2%). While poisoning represented (0.5%). This is in contrast to the study of (**McDermott KW et al., 2018**). This may be due to presence of poison centers. Nephritis represented (2%) in our study that in contrast to the study of (**Bazaraa et al., 2012**) that reported (3.2%).

The study showed that patients attending to the ED with known chronic disorders were (11.5%). This is in comparable to the study of **(Bazaraa et al., 2012)** that reported (21%). In our study the asthma represented only (9%) of known morbidities.

Our findings were also in accordance with the study of **(Bazaraa et al., 2012)** that reported (10%) but in contrast to study of **(Ceballos-Martinez et al., 2003)** that reported (20.3%). Hemolytic anemia (G6PD Deficiency) represented (2.5%) of our study that occurs in male only. That the main reason was G6PD Deficiency is sex linked recessive disorder which seen mainly in males. This is in contrast to the study of **(Bazaraa et al., 2012)** who reported (11%). Congenital heart diseases represented (0.5%) this is in contrast to the study of **(Bazaraa et al., 2012)** who reported (23.3%).

The study showed that the rate of hospitalization was (12%). It is assumed that the main reason was most patients attending to the ED are not true emergencies. Another reason may be the short period of our study. This is in comparable to the admission rate described in Australia **(Acworth et al., 2009)** that reported (24%) and by **(Bazaraa et al., 2012)** who

reported (35%) but equal to that found in a national survey in the United States **(McCaig and Burt, 2003)** that reported (12%).

Our study had demonstrated that the mortality rate was zero %. This occurred because of the short period of our study and small volume of patient's sample. This was in contrast to the study of **(Claudet et al., 2009, Bazaraa et al., 2012)** that were associated with higher rates of mortality because of longer period of study and larger volume of patients sample.

Our study showed that patients discharged from the ED were (83%) this was in contrast to the study of **(Bazaraa et al., 2012)** that reported (64.1%). This study showed that (40%) of patients attending the ED follow up in outpatient clinic this is in contrast to the study of **(Bazaraa et al., 2012)** that reported (19.7%), patients discharged on home treatment represented (35.5%) this is supported by the findings of the study by **(Bazaraa et al., 2012)**, (6%) of patients were referred to other hospital that similar to the study of **(Bazaraa et al., 2012)** and (1.5%) of patients were referred to subspecialist this was in contrast to the study of **(Bazaraa et al., 2012)**.

Our study had demonstrated that the rate of PICU admission was (3%). This is in accordance with findings described by **Bazaraa et al., 2012**.

The study showed that rate of NICU admission was (2%). This is in accordance with the study of **(Bazaraa et al., 2012)**.

The study showed that rate of general ward admission was (7%). This was in contrast to the study of **(Bazaraa et al., 2012)** that was associated with higher rates of general ward admission this is due to longer period of study and larger volume of patient's sample.

### **CONCLUSION**

1. Infants younger than one year are the largest group attending ED.
2. The respiratory emergencies are the main cause of attending ED.
3. Rural attendees are more than urban.
4. The most patients attending ED at the evening.
5. The case fatality rate is zero percent.
6. Chronic disorder is one of causes attending ED.
7. The rate of hospitalization is low.

### **RECOMMENDATIONS**

1. A proposal to make the emergency ticket a small fee with the exception of cases of accidents, burns, coma, fractures and convulsion, in order to reduce the huge numbers attending to ED without emergency.
2. Working to increase the numbers of emergency doctors in order to overcome the huge numbers of frequent cases, which leads to raising the level of medical services.
3. Media awareness for citizens to provide state services and attention to ways to prevent infectious diseases.

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## خصائص الأطفال المرضى المترددين علي وحدات طوارئ الأطفال في مستشفيات محافظة البحيرة

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يمثل قسم الطوارئ جزءًا أساسيًا من الخدمات الطبية المقدمة في أي مستشفى. وتشير الدراسات المتاحة أن الأطفال تمثل ما يقرب من 4 ٪ إلى 10 ٪ من جميع الخدمات الطبية الطارئة المقدمة في الولايات المتحدة. وتظل الزيارات علي أقسام الاستقبال لاسباب غير خطيرة تمثل عبء ثقيل لتحقيق معايير الجودة ويمنع الاستخدام الامثل للخدمات الطبية.

لم يكن هناك الكثير من المنشورة حول استخدام خدمات الطوارئ في كل من البلدان النامية والمتقدمة. توفر المعلومات سيساعد على بدء المبادئ التوجيهية للمقارنة مع ممارسات الآخرين، وتحديد حالات الفشل، وتقديم الحلول، ووضع استراتيجية لتعزيز خدمات الطوارئ. على الرغم من الدعوات المستمرة لإجراء أبحاث إضافية في مجال الخدمات الطبية الطارئة للأطفال، لا تزال هناك قيود كبيرة في الخصائص الديموغرافية المتاحة، ومعدلات الاستخدام، ونتائج مرضى الأطفال الذين يستخدمون قسم الطوارئ.

على الرغم أن بعض الأطفال المرضى يتم علاجهم في مستشفيات الأطفال أو وحدات كبيرة لطب الاطفال في المراكز الطبية، يتم علاج الغالبية العظمى منهم في قسم الطوارئ بالمستشفى المجتمعي (العام او المركزي).

**وتهدف هذه الدراسة إلى:** توضيح خصائص المرضى الذين يترددون علي اقسام الطوارئ في مستشفيات البحيرة (مستشفيات دمنهور التعليمي وابوحمص المركزي وكفر الدوار العام) ووصف الحالة الوبائية للمرضي وتتبعها في اقسام الطوارئ.

**وقد أجريت هذه الدراسة الوصفية على 600 مريض من المترددين علي اقسام الطوارئ بمستشفيات البحيرة (دمنهور وأبو حمص وكفر الدوار العام)، خلال فترة الدراسة (3 أشهر) من يناير 2019 إلى مارس 2019. كان عمر جميع المرضى يتراوح من يوم حتى 18 عامًا ومن كلا الجنسين، ومن الحالات الجديدة والمزمنة المشخصة من قبل.**

**وقد خضعت حالات البحث إلى:** تسجيل التاريخ المرضي والفحص السريري الكامل والفحوصات المعملية المطلوبة، إجراء الأشعة التصويرية المناسبة إذا لزم الأمر، إعطاء الدواء المناسب لكل مريض حسب حالته.

**وقد أسفرت نتائج الدراسة أن:** نسبة الذكور أكثر من الإناث 369 (61.5%) مقابل 231 (38.5%) مع نسبة الذكور إلى الإناث 1.6 : 1. وقد تم اجراء 36 زيارة لاقسام الطوارئ بمستشفيات البحيرة (دمنهور التعليمي , وأبوحمص المركزي,

وكفر الدوار العام) لجمع وتسجيل حالات الدراسة, بمعدل 12 زيارة لكل مستشفى, حيث تستغرق الزيارة الواحدة ساعتين في اوقات متفرقة من اليوم وتمثل ترددات المرضي علي وحدات الطوارئ اعلي نسبة خلال الفترة المسائية من الساعة الثانية ظهرا حتي الثامنة مساءا بنسبة (47.5%).

حيث كان الاطفال في السنة الأولى من العمر (1 شهر -1 سنة) هم المرحلة العمرية الأكثر ترددا علي اقسام الطوارئ بمعدل 315 حالة (52.5%).

ويمثل التردد الريفي أكثر من الحضر بمعدل 375 حالة (62.5%) مقابل 225 حالة (37.5%)، وقد حضر معظم الاطفال إلي وحدات الطوارئ مع أمهاتهم فقط بمعدل 249 حالة (41.5%) وكان مصاحب لمعظمهم مرافق واحد بمعدل 333 حالة (55.5%).

وكان عدد ترددات الاطفال علي وحدات الطوارئ في مستشفى أبو حمص أكثر من كفر الدوار اكثر منها مستشفى دمنهور بنسب (34%): (31.11%): (8.3%) علي التوالي. حيث سجلت امراض الجهاز التنفسي اعلي تردد علي وحدات الطوارئ بمعدل 390 حالة (65%) اثناء فترة الدراسة يليها امراض الجهاز الهضمي والتغذية بعدل 81 حالة (13.5%) يليها امراض الدم بعدل 33 حالة (5.5%) يليها امراض الجهاز العصبي بعدل 27 حالات (4.5%). وتمثل أعراض الجهاز التنفسي (السعال وصعوبة التنفس) (44%) من جميع الشكاوى. وتعد عدوي الجهاز التنفسي العلوي والتهاب

القصبيات الهوائية اكثر التشخيصات شيوعا بمعدل 303 حالة (50.5%). بينما يمثل الالتهاب الرئوي 15 حالات (2.5%), والالتهاب الحنجري (الخناق) 12 حالة (2%), والربو الشعبي 54 حالة (9%), النزلات المعوية 66 حالة (11%), وفقر الدم 27 حالة (4.5%), والتشنجات 12 حالة (2%) بينما يمثل التهابات مجري البول 6 حالات (1%). ولم تسجل اي حالة وفاة خلال فترة الدراسة. بينما سجلت حالات الحجز بالمستشفيات 72 حالة (12%), منها 18 حالة بوحدة العناية المركزة للاطفال و 12 حالة بوحدة الحضانات و 42 حالة تم حجزها بالقسم الداخلي للاطفال.

#### ومن خلال البحث نستنتج ما يلي:

1- يعد الاطفال الرضع الذين تقل أعمارهم عن سنة واحدة هم أكبر مجموعة متردة علي قسم الطوارئ بمعدل 315 حالة (52.5%).

2- حيث سجلت امراض الجهاز التنفسي اعلي تردد علي وحدات الطوارئ بمعدل 390 حالة (65%).

3- ويمثل التردد الريفي معدل أكثر من الحضر 375 حالة (62.5%) مقابل حالة 225 (37.5%).

4- وتمثل ترددات المرضي علي وحدات الطوارئ اعلي نسبة خلال الفترة المسائية من الساعة الثانية ظهرا حتي الثامنة مساء بمعدل 285 حالة (47.5%).

5- ولم تسجل اي حالة وفاة خلال فترة الدراسة (3 اشهر).

6- وتعد الامراض المزمنة هي أحد أسباب تردد قسم الطوارئ.

7- وسجلت الحالات التي تم حجزها بالمستشفيات الثلاثة معدل منخفض 72 حالة (12%).

**ومن خلال البحث نوصي بما يلي:**

1- اقتراح بجعل تكلفة رمزية لتذكرة الطوارئ باستثناء حالات الحوادث والحروق والغيوبية والكسور والتشنجات، وذلك لتقليل الأعداد الضخمة التي تتردد علي المستشفيات بدون طوارئ.

2- العمل على زيادة أعداد أطباء الطوارئ للتغلب على الأعداد الضخمة من الحالات المترددة مما يؤدي إلى رفع مستوى الخدمات الطبية.

3- توعية إعلامية للمواطنين لترشيد استهلاك الخدمات الطبية والاهتمام بسبل الوقاية من الأمراض المعدية مما يؤدي الي تقليل الاعداد المترددة علي اقسام الطوارئ.