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Research Article

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Psychiatric Patients Boarding at the Emergency Department: Length of Stay and Consequences

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Summary

Objectives: *In this research audit we look at the length of stay for psychiatric patents boarding at the emergency room at Hamad General Hospital which is the largest government hospital in the state of Qatar.*

We also looked at other parameters like, the number of psychiatric patients who leave the ER against medical advice of their own will, whether they return afterwards within a week or not, and also, how many of the boarding patents were treated and discharged without being transferred to the psychiatry hospital.

Significant Findings: *It was found that out of the 357 boarding patents, only 95 (26.6%) spent less than 12 hours in the ED, and a cumulative of 115 patents spent more than 24 hours in the ED. What was also found was that from the 65 patents discharged y the psychiatry liaison team only 3 returned to the ED within 1 week.*

Principal Recommendations: *To find a safer alternative to patients boarding in the emergency room, in the form of increased in patent beds in Psychiatry, increased flow to community services in additon to adequuate staffing and ER resources including staff and doctors to care for the boarding patents.*

Conclusion: *After reviewing the national mental health strategy, as mentioned in the introduction as well, it is deemed that a need of 319 psychiatric beds is present in the state of Qatar currently. The mental health strategy also highlights plans for expansion of psychiatric services in all the various disciplines like community and home care as well, in order to reduce the number of patents boarding in the ER which goes in line with the recommendations that are produced through this audit.*

Background

What is the problem?

This study was undertaken in Hamad Medical Corporation, Qatar. The current HMC Mental Health Service provides inpatient, outpatient, day care, consultation and liaison services and community care to the whole population of Qatar. There are 65 acute inpatient beds at the main Psychiatric Hospital (45 male and 2 female) and 1 long term residential care beds for female patents and 5 long term male residential beds in different locations. Current population in Qatar is 2.7 Million. The National Mental Health Strategy defined a need of 319 Mental Health Beds for Qatar using the target of 12.5 acute psychiatry beds per 100,000.

Psychiatric patents awaiting an inpatient mental health bed, in the Emergency Department is a common occurrence in our hospital. Limited inpatient facility for psychiatric patents leads to longer length of stay of these patents in the Emergency Department and poses unique challenges to manage these patents due to inadequately equipped emergency department and lack of trained staff to manage these disturbed patents. It also leads to ED overcrowding and lack of available emergency beds for other specialties. A lot of additional staff nursing hours are required to o serve and care for these patents in the ED. There is also a risk of patents condition worsening, along with risk of aggression towards self and others during their stay in the ED and risk of absconding.

Consultation Liaison Psychiatry team was established in the Hamad Emergency Department in 2 14. The team comprises of Consultant Psychiatrists, Fellows in Consultation Liaison Psychiatry, Residents and Mental Health Nurses. The team reviews all the patents who are waiting for psychiatric inpatient beds and also new psychiatric referrals from emergency department and from other specialties during working hours. The team also reviews the boarding patents over the weekend as well. Out of hours psychiatric referrals from the Emergency Department are seen y the resident on call.

We looked at the pending psychiatric admissions from 1st January 2017 till 30th April 2017 to understand the length of stay of these patents in the ED department and to also to look at the demographics of these patents. We also wanted to look at the value of service y our

team in reducing admission to psychiatric unit y regular assessment and treatment. If patents conditions improved, we discharge them with after care in the form of medications and outpatient clinic appointment. We also wanted to look at whether these discharges were premature and the patents came back to ER within a week or two.

Literature Review

Psychiatric boarding can e defined as psychiatric patents waiting in the emergency department for inpatient psychiatric beds. It is a major contributing factor for emergency department crowding which is associated with increased morbidity and mortality. The decrease in inpatient psychiatric beds com in bed with the increase in mental health-related ED visits have amplified the number of patents boarding in the
ED [1].

In a study y Burke and Paradise, EDs are acting as a safety net for psychiatric treatment due to severe gaps in access to both inpatient and outpatient psychiatric care. In additon, they reported difficulty securing inpatient psychiatric treatment for patients as their hospitals have limited capacity for inpatient psychiatric care and must often transfer these patents to another hospital.

According to Zellar et al the factors contributing to the boarding of psychiatric patents in the ED include a lack of screening tools or evaluations by qualified psychiatric clinicians and a lack of appropriate levels of patient care.

In the study by Nicks and Manthey found that the total length of stay of patents waiting in ED was 18.2 hours and for non-psychiatric patents was 5.7 hours. So, psychiatric patents awaiting inpatient placement remain in the ED three times longer than no psychiatric ED patents [2].

According to a study published online in Annals of Emergency Medicine ("Analysis of Emergency Department Length of Stay for Mental Health Patents at Ten Massachusetts Emergency Departments"), for patents admitted to the hospital from the emergency department, the average length of stay was 4.2 hours for medical/surgical patents and 16.5 hours for mental health patents. For patents who required transfer to another facility, the average length of stay in the emergency department for medical/surgical patents was 3.9 hours but 21.5 hours for mental health patents [3].

A id et al the practice of boarding psychiatric patents are known to increase psychological stress on patents who may already e in depressed or psychotic states, delays mental health treatment, consumes scarce ED resource, worsens ED crowding, delays treatment for other ED patents – some of whom may have life-threatening conditions and can have a significant financial impact on the services [4].

Objectives and Scope

In this research audit we look at the length of stay for psychiatric patents boarding at the emergency room at Hamad General Hospital which is the largest government hospital in the state of Qatar over a 4 months period. We also looked at other parameters like, the number of psychiatric patients who leave the ER against medical advice of their own will, whether they return afterwards within a week or not, and also, how many of the boarding patents were treated and discharged without being transferred to the psychiatry hospital.

Methodology

Audit Sample Size and Selection

Study design

A Facility- based descriptive analytical cross-sectional retrospective study was carried out between the months of January 2 17 and April 2 17 for the boarding psychiatric patients at Hamad hospital Emergency department, to determine their situation and consequences after admission order y psychiatry medical staff. Research took place in Hamad General Hospital emergency department. Study Population and study subjects:

All psychiatric patents that were boarding for admission to psychiatry hospital were included in this research. Cases were revised in the period; from first of January 2017 to 30th of April 2017.

Exclusion and inclusion Criteria

All above mentioned patents regardless of their gender, age or nationality were included. Excluded patents were patents for consultations only and no admission order was issued for them.

Study variables

Varia les include; boarding psychiatric patents social data (age, gender, nationality). The time that their spent waiting for admission per hours, whether under precautions or not, their diagnosis and if they presented with harm to self or to others and consequences (admitted, got discharge y CL team, Abscond or went DAMA).

Sample size and sampling technique

Total numbers of 357 patents who presented during study period and were under admission order y medical psychiatry staff were consecutively collected without exception according to their presentation in bed management statistical records.

Method of Data Collection

The data was collected retrospectively y reviewing patent charts. Data was coded and entered into an excel sheet and later analyzed.

Data Analysis

Our study showed that 97 (27.2%) of these patents were of Qatari origin, 138 (38.7%) were of Asian origin, followed y African as 63 (17.6%) and the remaining 59 (16.5%) belonged to other countries of origin showing a diverse patent population. (Figure 1)

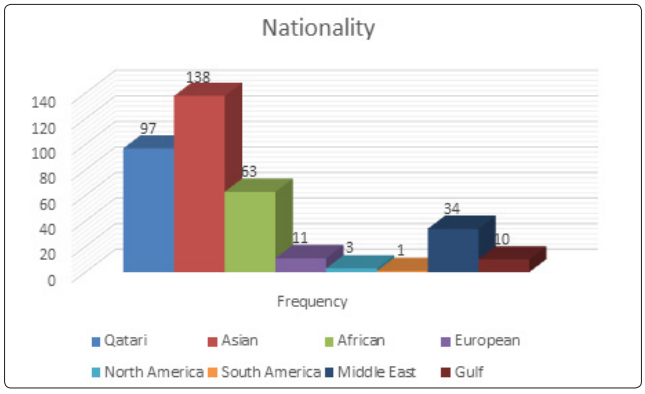


Figure 1: patient nationality

The age groups were 16 patents in below 2 years of age (4.5%), 136 in 2 -29 (38.1%), 114 in 3 -39 (31.9%), 75 in 4 -49 (21. %), 13 in 5 -59 (3.6%) and 2 in 6 and above group (3.6%). (Figure 2). Figure 2:

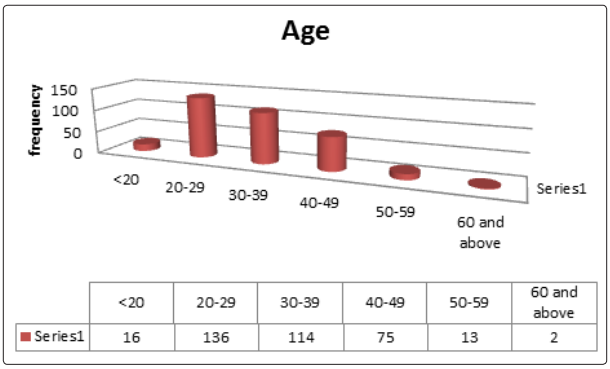


Figure 2

The gender distribution of the studied group was 235 males (65.8%) and 122 females (34.2%). (Figure 3)

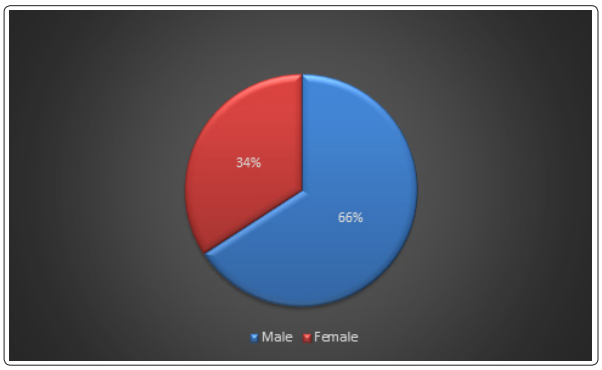


Figure 3

Out of the 357 patents, 19 (5.3%) left the emergency room on their own without being medically discharged (written as 'absconded). (Figure 4)

(However in another study conducted on absconding rates from the ED, the number during this period o tainted from nursing staffs Incident Reports is 33. Missing documentation can explain this discrepancy as the number during this current study {19} was obtained from reviewing primarily doctors notes in the electronic chart)

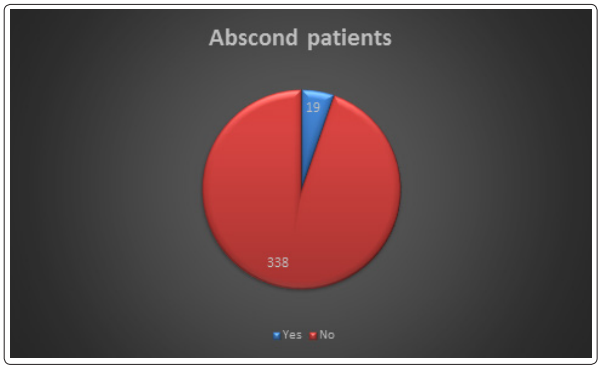


Figure 4

(5) Patents 1.4% chose to leave the emergency against medical advice (DAMA). (Figure 5)

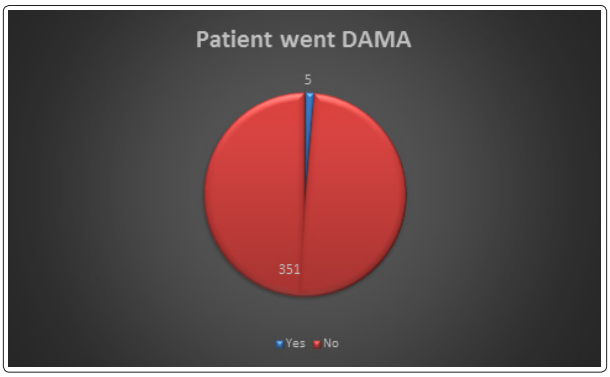


Figure 5

From the same group of patents, 268 (75.1%) got transferred to Psychiatry hospital. 65 (18.2%) were discharged after receiving treatment in the emergency room and did not eventually get transferred to the Psychiatry hospital. 5 patents (1.4%) left on their own responsibility against medical advice and after informing the doctor (DAMA). 19 patents (5.3%) left the ER without informing anyone (absconded). (Figure 6)

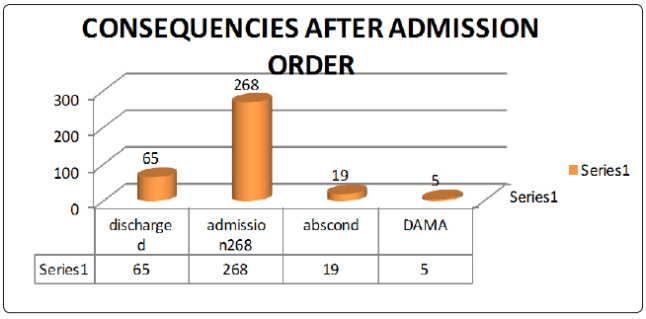


Figure 6

95 patents (26.6%) spent less than 12 hours in the emergency prior to being transferred to psychiatry hospital. 147 (41.2%) spent between 12-23 hours, 31 (8.7%) spent between 24-35 hours, 26 (7.3%) spent between 36-47 hours, 16 (4.5%) spent between 48-59 hours, 16 (4.5%) spent between 6 -71 hours and 26 patents (7.3%) spent more than 72 hours. (Figure 7)

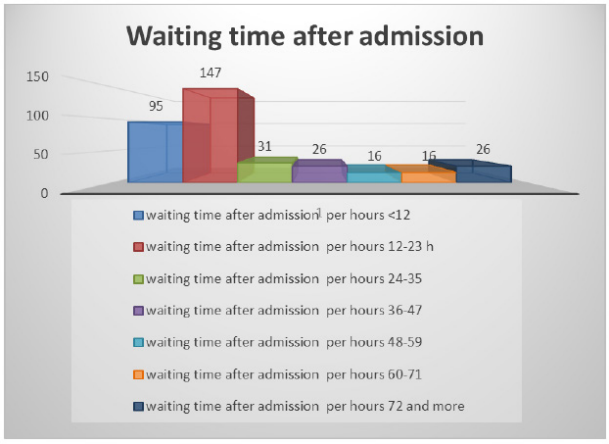


Figure 7

Out of the 357 patents, 74 (2.7%) had deliberate self-harm among presenting symptoms, while 47 (13.2%) had harm/aggression towards others.

235 patents (65.8%) had neither self-harmed nor harm to others. (Figure 8)

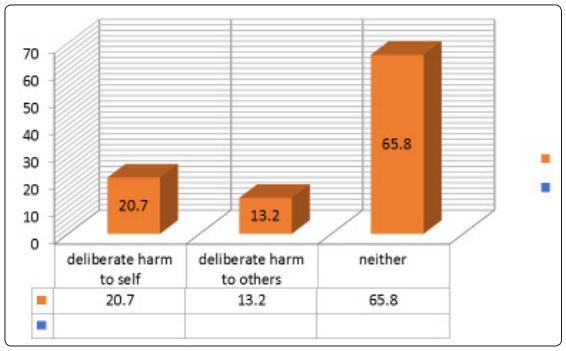


Figure 8

Deliberate harm to self or others in %:

The diagnostic impressions were as Bipolar disorder in 52 patents (14.6%), Major Depressive disorder in 196 (54.9%), Schizophrenia in 24 (6.7%), Psychosis (unspecified) in 41 (11.5%), Deliberate self-harm in 14 (3.9%), Su stance a use and dependence related disorders in 5 (1.4%), Personality disorder in 3 (.8%) and anxiety spectrum disorder in 3 (.8%). 19 (5.3%) patents were admitted with no working impression and needed further observation and evaluation. (Figure 9)

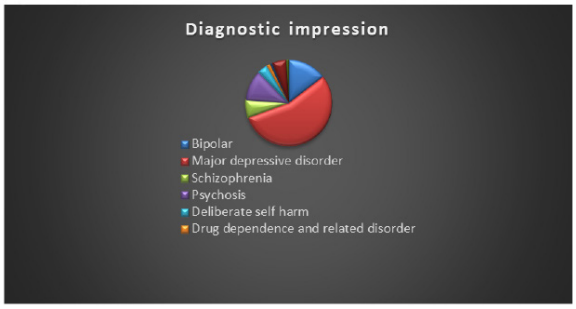


Figure 9

There were 1 9 patents (3 .5%) on Absconding precautions, 116 (32.5%) on suicide precautions, while 59 (16.5%) were on both suicide and absconding precautions. 73 patents (2.4%) were neither on suicide or absconding precautions. (Figure10).

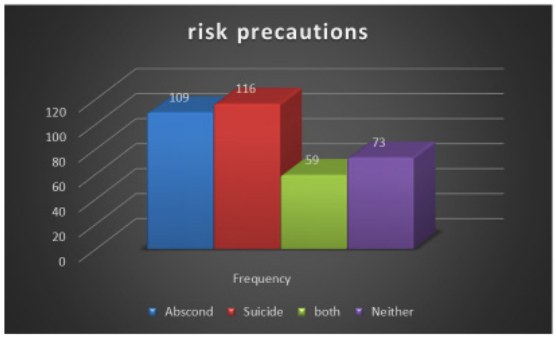


Figure 10

24 patents came back to the Emergency room within 1 week after discharge/DAMA/Absconding. Table (1).

Out of these 24 patents, 3 were those who were out of the 65 patents discharged y the Psychiatry Consult Liaison Team, 16 were those who were transferred to psychiatry admitted and discharged and then came ack. Zero patents from the Discharge against medical advice came back and 5 out of 16 absconded patents came ack. And the difference was statistically significant. (P value.1). (Figure 11)

Table 1

Return to ER one week after discharge			
		Frequency	Percent
Valid	Yes	24	6.7
	No	333	93.3
	Total	357	100.0

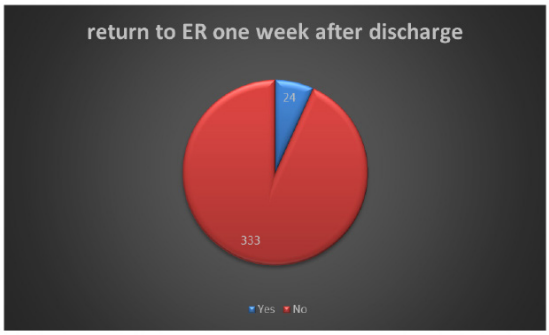


Figure 11

Risk precautions (suicide/a seconding) when cross tabulated with No. of hours spent y patents in the ER showed that among the group on a second precautions, 4 spent less than 12 hours in the ER, 38 spent between 12-23 hours, 7 spent between 24-35 hours, 7 spent between 36-47 hours, 5 spent between 48-59 hours, 5 spent between 6 -71 hours and 7 patents spent more than 72 hours waiting/ boarding at the ER.

Among those on suicide precautions, 19 spent less than 12 hours, 75 spent between 12- 23 hours, 4 spent 24-35 hours, 4 spent 36-47 hours, 6 spent 48 to 59 hours, 2 spent 6 - 71 hours and 6 patents spent more than 72 hours.

Among those on both precautions, 14 spent less than 12 hours, 23 spent between 12-23 hours, 9 spent between 24-35 hours, 4 spent between 36-47 hours, 5 spent 6 -71 hours and 4 spent more than 72 hours.

Among those on no precautions, 22 spent less than 12 hours, 11 spent between 12-23 hours, 11 spent between 24-35 hours, 11 spent between 36-47 hours, 5 spent between 48-59 hours, 4 spent between 6 -71 hours and 9 spent more than 72 hours. (Ta le 2)

Table 2

risk precautions * waiting time after admission per hours Cross tabulation								
Count								Total
		waiting time after admission per hours						
		<12	12-23	24-35	36-47	48-59	60-71	72 and more	
	Abscond	40	38	7	7	5	5	7	109
	Suicide	19	75	4	4	6	2	6	116
	both	14	23	9	4	0	5	4	59
	Neither	22	11	11	11	5	4	9	73
Total		95	147	31	26	16	16	26	357

Time spent boarding in relation to deliberate self-harm showed that among those with harm to self-22 patents spent less than 12 hours, 38 spent between 12-23 hours, 7 spent 24-35 hours, 3 spent 36-47 hours, 3 spent 48-59 hours, 1 spent 6 -71 hours and none spent more than 72 hours.

Among those with harm to others, 19 patents spent less than 12 hours, 14 spent 12-23 hours, 5 spent 24-35 hours, 3 spent 36-47 hours, 1 spent 48-59 hours, 2 spent 6 -71 hours and 3 spent more than 72 hours.

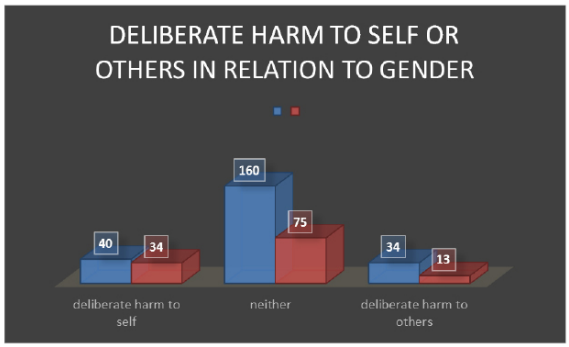
Among those with no deliberate harm to self or others, 54 spent less than 12 hours, 95 spent 12-23 hours, 19 spent 24-35 hours, 2 spent 36-47 hours, 11 spent 48-59 hours, 13 spent 6 -71 and 23 spent more than 72 hours. P value was. 61 (not significant). (Ta le 3)

Table 3: Waiting in hours in relation to deliberate harm to self or others:

	<12	12-23h	24-35	36-47	48-59	60-71	72and+	total
deliberate harm to self	22	38	7	3	3	1	0	74
neither	54	95	19	20	11	13	23	235
deliberate harm to others	19	14	5	3	1	2	3	47
total	95	147	31	26	15	16	26	356

Deliberate self-harm in relation to gender showed that 4 male patents had harm to self while number among females was 34. Harm to others was present in 34 males while number was 13 in females.

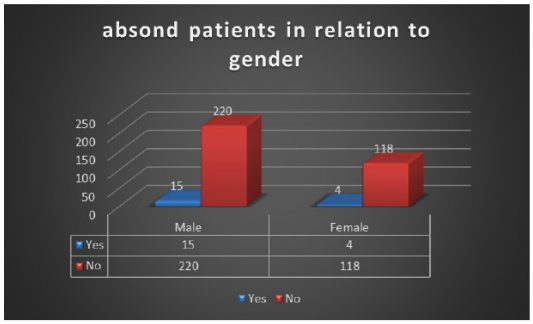
No harm to self or others was present in 16 males and 75 females. P value was. 51 (not significant) (Figure 12)



P value: .051 not significant

Figure 12

Among 19 patents who absconded, 15 were males and 4 were females. P value was. 215 (not significant) (Figure 13).



P value: .215 not significant

Figure 13

Consequences after admission order in relation to return to ER within one week:

From the patents who left the ER, it showed that from the 65 patents discharged y CL team 3 came back within 1 week, from the admitted (transferred) patents 16 came back, from the DAMA patents (discharged against medical advice) zero came back and from the 19 absconded patents 5 came ack. P value was . 1 (significant) (Figure 14)

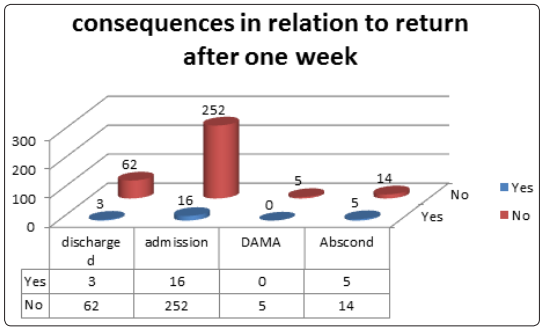


Figure 14

Main Findings

At the conclusion of our audit we found that out of the 357 boarding patents, only 95 (26.6%) spent less than 12 hours in the ED, and a cumulative of 115 patents spent more than 24 hours in the ED.

When precautions were taken into consideration, we noted that the patents on both suicide and abscond precautions spent less time waiting in the ED as only 4 patents spent more than 72 hours in the

ED, whereas 6 patents in the suicide precautions group spent the similar time, 7 patents in abscond precautions spent the same time and 9 patents in the no-precautions group spent more than 72 hours. This showed that patents on precautions often got priority for being transferred to psychiatry hospital.

From the patents who left the ER we looked at the return to ER within one week after discharge and found that from the 65 patents discharged y the liaison team 3 came back within 1 week, from the admitted (transferred) patents 16 came back, from the DAMA patents (discharged against medical advice) zero came back and from the 19 absconded patents 5 came ack. P value was. 1.

This shows that the majority of the patents discharged y the Liaison team did not return back to the ER and hence were 'appropriate and reduced the burden of boarding patents in the ER.

Recommendations

It is recommended to adopt methods to decrease the length of stay of psychiatric boarding patents in the emergency room as emergency rooms are ill-equipped to accommodate these patents, apart from increase in morbidity and other safety issues.

It is also recommended to increase bed capacity for acute patents who do need admission in order to move them swiftly out of the emergency room, whilst also expanding community and home care services to decrease the need for emergency room visits and admissions to the inpatient unit.

Conclusion

After reviewing the national mental health strategy, as mentioned in the introduction as well, it is deemed that a need of 319 psychiatric beds is present in the state of Qatar currently. The mental health strategy also highlights plans for expansion of psychiatric services including the liaison team in order to continue providing much needed care for the boarding psychiatric patents in the emergency room [1-4].

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