

**THE EFFECTS OF ACCESS BLOCK IN THE EMERGENCY  
DEPARTMENT, HOSPITAL UNIVERSITI SAINS MALAYSIA**

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I hereby certify that the work in this dissertation is my own except for the quotations and summaries which have been duly acknowledged.

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## **ABSTRAK**

Kajian terhadap kesan kelewatan kemasukan ke wad di Jabatan Kecemasan Hospital Universiti Sains Malaysia, Kubang Kerian, Kelantan.

### **Pengenalan:**

Jabatan Kecemasan merupakan pintu masuk bagi rawatan dan pengendalian pesakit dalam di hospital. Kesesakan dan kelewatan kemasukan ke wad telah dikenalpasti sebagai cabaran utama di Jabatan Kecemasan dewasa ini. Kelewatan kemasukan pesakit ke bahagian pesakit dalam (wad), telah dikaitkan dengan peningkatan tempoh keberadaan pesakit di dalam wad, peningkatan ‘morbidity’ dan kematian serta merupakan masalah asas yang menyebabkan kesesakan di Jabatan Kecemasan. Kajian ini menentukan kesan kelewatan kemasukan pesakit ke wad khususnya terhadap kadar keberadaan pesakit di hospital dan hubungkaitnya dengan kematian.

### **Objektif:**

Mengkaji kesan kelewatan kemasukan ke wad di Jabatan Kecemasan, Hospital Universiti Sains Malaysia, Kubang Kerian.

**Metodologi:**

Kajian 'retrospective' telah dikendalikan di Jabatan Kecemasan, Hospital Universiti Sains Malaysia, Kelantan dalam tempoh bulan Jun 2016 hingga Ogos 2016 melibatkan semua pesakit yang berdaftar di Jabatan Kecemasan dalam tempoh tersebut. Data diperolehi dari buku rekod pendaftaran pesakit di Jabatan Kecemasan. Fail perubatan pesakit dikaji untuk mendapatkan maklumat lanjut yang diperlukan berhubung kajian yang dijalankan. Perkaitan di antara kelewatan kemasukan pesakit ke wad dengan tempoh keberadaan pesakit di hospital dan kematian dianalisis dengan menggunakan analisis perbandingan dan kaedah regresi lojistik.

**Keputusan :**

Sejumlah 270 pesakit telah direkrut untuk kajian ini. 104 (38.5%) pesakit telah mengalami kelewatan kemasukan ke wad dalam tempoh masa yang sepatutnya iaitu melebihi 4 jam. Majoriti daripadanya, (74, 71.1%) adalah kes-kes perubatan berbanding (30, 28.9%) kes-kes pembedahan. Purata tempoh kelewatan kemasukan ke wad bagi kes-kes perubatan adalah 9 jam 18 minit sementara bagi kes-kes pembedahan adalah 7 jam 41 minit. Manakala purata jumlah hari pesakit berada dalam wad adalah 6.35 hari (95% CI=5.27 ke 7.42 hari) bagi kes-kes yang direkodkan lambat dimasukkan ke wad, berbanding 5.98 hari (95% CI=4.56 to 7.40) dalam kes-kes yang dimasukkan ke wad dalam masa yang ditetapkan. Untuk kematian, didapati 9 kematian dalam kumpulan yang menghadapi

kelewatan kemasukan ke wad dan 3 dalam kes yang selainnya (3.6% and 1.2% masing-masing,  $P= 0,031$ ).

**Kesimpulan:**

Masalah kelewatan kemasukan ke wad merupakan perkara yang sememangnya terjadi yang melibatkan lebih kurang 38% daripada jumlah kes yang dimasukkan ke wad melalui Jabatan Kecemasan, HUSM. Kesannya mempunyai hubungkait dengan kadar keberadaan pesakit di dalam wad dan mempunyai kesan yang signifikan terhadap kematian. Walaubagaimanapun, kajian yang lebih mendalam perlu dilakukan di masa hadapan bagi mengenalpasti magnitud sebenar permasalahan ini terhadap kualiti perkhidmatan Jabatan Kecemasan khususnya dan hospital amnya.

## **ABSTRACT**

### **Background:**

Emergency Department(ED) is the hospital's access door to inpatient treatment and management. Overcrowding and access block had been recognized as the major challenges in Emergency Department nowadays. Access block, or delays in admission of patients to hospital inpatient areas from ED, has been linked to increase the length of inpatient hospital stay, increase comorbidity and mortality as well as being the fundamental problem leading to ED overcrowding. This study is to determine the effects of access block in the ED specifically to the length of inpatient hospital stay and correlation with the patient's mortality.

### **Objective:**

To study the effects of access block in the Emergency Department, Hospital Universiti Sains Malaysia, Kubang Kerian.

**Methodology:**

A retrospective study was conducted in Emergency Department, Hospital Universiti Sains Malaysia, Kelantan between the period of June 2016 till August 2016 involving all patients registered at Emergency department. The data were obtained from Emergency Department registration record. Patient's folders were reviewed to get further information pertaining to the study. The relationship between access block with the patient's length of hospital stay and mortality were analyzed using comparative analysis and Logistic regression.

**Results:**

A total of 270 patients were recruited for the study. 104 patients (38.5%) were delayed to get the inpatient bed within the appropriate time frame which is more than 4 hours from the decision time of admission. Majority of these group (access block group), (74, 71.1%) were medical cases in comparison to surgical cases (30, 28.9%). Mean access block time in medical cases was 9 hours and 18 minutes while in surgical cases was 7 hours and 41 minutes. The mean length of hospital stay (LOS) in access block group was 6.35 days (95% CI=5.27 to 7.42 days), compared with 5.98 days (95% CI=4.56 to 7.40) in non access block group. For the mortality, there were 9 death in the access block and 3 in the non access block (3.6% and 1.2% respectively,  $P= 0.031$ ).

**Conclusion**

Access block is the real problem faced by the Emergency Department which affects about 38% of the total cases admitted via ED, HUSM. It is related to patient length of hospital stay and significantly related to the mortality as well. However, more details study need to be conducted in the future to really assess the magnitude of the problem affecting specially the Emergency Department service and hospital service quality in general.

# **CHAPTER 1**

## **INTRODUCTION**

### **1.1 INTRODUCTION OF ACCESS BLOCK**

Access block affecting the emergency department (ED), also known as boarding in the United States and Canada, can be described as a phenomenon comprising almost all the challenges in the world of modern EDs. We use the analogy of parallel universes to illustrate both the complexity and the severity of the problem. (Forero, McCarthy et al. 2011)

Access block is referred to as “the situations where patients in the ED requiring inpatient care are unable to gain access to appropriate hospital beds within a reasonable time frame”. (Australasian College for Emergency Medicine, 2002)(Fatovich, Hughes et al. 2009, Forero, Hillman et al. 2010)

To further define, access block is a situation where patients are unable to gain access to an inpatient bed from emergency department within a reasonable timeframe after the decision to be admitted is made which is 8 hours or more in Australia, 4 hours or more in United Kingdom.(Cameron and Campbell 2003)

### **1.2 THE EFFECTS OF ACCESS BLOCK IN THE EMERGENCY DEPARTMENT**

Access block has been linked to increase ED waiting time for medical care and leads to ED overcrowding. This overcrowding is generally accepted as a reason for decreased

efficiency and quality of care, and has also been linked to an increased incidence of adverse events.(Forero, McCarthy et al. 2011) Access block and consequent ED overcrowding exert influence on the quality of emergency care (Richardson, 2001), patient morbidity and mortality (Sprivulis, Da Silva et al. 2006), as well as staff and patient satisfaction. (Derlet and Richards, 2000)

Subgroup analysis showed that this "access block effect" occurred across different severities of illness and diagnoses. A strong relationship was found between longer LOS and arrival of access-block patients on the inpatient ward outside office hours (0800–1600 weekdays).(Richardson 2002)

There is an estimated 20–30% increased mortality rate due to access block and ED overcrowding. The main causes are major increases in hospital admissions and ED presentations, with almost no increase in the capacity of hospitals to meet this demand.(Forero, Hillman et al. 2010)

### **1.3 Rationale of Study**

The field of emergency medicine in Malaysia is now developing and expanding. It is not only the triage centre but become the front line in the patient management. Doctors in emergency department had to manage a wide spectrum group of patient from an acutely ill patient to the cold and stable cases. Increasing number of patients that needing medical attention in emergency department, had created a major problem of access block. The effects of access block almost always associated with ED crowding which lead to increase staff's and department's workloads. This in turn led to poor quality of patient's care and adverse events due to job stress.(Forero, Hillman et al.



2010) Not only that, access block in ED will also cause delay in appropriate inpatient treatment. As the results, the length of inpatient hospital stay as well as hospital costs will increase. Excessive numbers of admitted patients will also result in increased morbidity and mortality. (Forero, Hillman et al. 2010) Following an extensive literature search, to the best of our knowledge, there is limited study done particularly in Malaysia on the effects of access block in the emergency department specifically on the effects of length of inpatient hospital stay and correlation with the patient mortality. We aim to study the effects of access block that occur in emergency department in relation to inpatient length of hospital stay and mortality.

## **CHAPTER 2**

### **OBJECTIVES**

#### **2.0 OBJECTIVES**

##### **2.1 General Objective**

To study the effects of access block in the emergency department (ED) HUSM

##### **2.2 Specific Objectives**

1. To determine and compare the mean access block duration in between medical and surgical cases
2. To investigate the mean inpatient length of hospital stay (LOS) and compare it between access block and non access block group
3. To compare the relationship between total inpatient admission to the mortality of patients among access block and non access block group

**CHAPTER 3**  
**MANUSCRIPT**

**The Effects of Access Block in the Emergency Department, Hospital Universiti  
Sains Malaysia, Kubang Kerian**

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## **ABSTRACT**

### **Background**

Access block is a major problem in emergency department that may impede the whole hospital services. However, not many study conducted in Malaysia to identify the consequences of access block to the patient's length of hospital stay and mortality.

### **Objectives**

This study is to investigate the effects of access block that occur in the Emergency Department, Hospital Universiti Sains Malaysia (HUSM), Kelantan.

### **Methodology**

A retrospective study was conducted on admitted patients in Emergency Department, Hospital Universiti Sains Malaysia Kubang Kerian between Jun 2016 and August 2016 to determine the relationship between access block with the length of inpatient hospital stay and mortality

## **Results**

A total of 270 patients were recruited for the study. 104 patients (38.5%) were delayed to get the inpatient bed within the appropriate time frame which is more than 4 hours from the decision time of admission. Majority of these group (access block group), (74, 71.1%) were medical cases in comparison to surgical cases (30, 28.9%). Mean access block time in medical cases was 9 hours and 18 minutes while in surgical cases was 7 hours and 41 minutes. The mean length of hospital stay (LOS) in access block group was 6.35 days (95% CI=5.27 to 7.42 days), compared with 5.98 days (95% CI=4.56 to 7.40) in no access block group. For the mortality, there were 9 death in the access block and 3 in the no access block (3.6% and 1.2% respectively, P= 0.031).

## **Conclusion**

Access block is the real problem faced by the Emergency Department HUSM. It is related to patient length of hospital stay and significantly related to the mortality as well. However, more details study need to be conducted in the future to really assess the magnitude of the problem affecting specially the emergency department service and hospital service quality in general.

Keywords: Emergency Department, Access block, length of hospital stay, mortality

## **INTRODUCTION**

Emergency departments are designed to provide an acute and immediate treatment to all patients attended to ED and subsequently will be referred to other appropriate departments for the definitive treatment and management.

Access block becoming one of the serious issues in the emergency departments (ED). It becomes a serious phenomenon comprising almost all the challenges in the ED. Though it is a technical-administrative topic, but due to its strong relations to mortality, access block is gaining more and more evaluations by various centres.

According to the Australasian College for Emergency Medicine (ACEM) access block is defined as "the situation where patients are unable to gain access to appropriate hospital beds within a reasonable amount of time, no greater than 8 hours" and 'overcrowding' refers to "the situation where ED function is impeded by the number of patients waiting to be seen, undergoing assessment and treatment, or waiting for departure, exceeding the physical or staffing capacity of the department".(Forero, McCarthy et al. 2011)

Access block significantly contributes to overcrowding in the ED and reflects a systemic lack of capacity within the health system rather than inappropriate patient presentations to the ED. (Richardson and Mountain 2009) When the ED becomes overcrowded, physical capacity and safe staffing resources are exceeded, impeding the functionality of the ED and delaying care. This is distressing for patients and has a substantial impact on staff workload. Exposure to access block has been associated

with significantly longer length of stay and increased morbidity and mortality. (Richardson and Mountain 2009)

Access block is also causing a significant length of stay in hospitals (LOS). In a tertiary hospital in Canberra, Australian Capital Territory, mean LOS was 4.9 days in those who experienced access block (95% CI, 4.7–5.1), compared with 4.1 days in the no-block group (95% CI, 4.0–4.2;  $P < 0.0001$ ); in other words, access block patient experience mean of stay of 0.8 day longer. Altogether, the excess inpatient LOS (compared to average no-block inpatient LOS) for access-block patients amounted to over 700 bed-days per year. Apart from that, strong relationship was found between longer LOS and arrival of access-block patients on the inpatient ward outside office hours (0800–1600 weekdays). (Richardson 2002).

Another study done in a hospital in Melbourne, compared with patients who stay in the ED for 4–8 hours, those who remain for 8–12 hours are about 20% more likely to stay in hospital longer than the state average for the relevant admission problem. This rises to 50% if ED length of stay (EDLOS) is greater than 12 hours. Conversely, there is about 30% less likelihood of inpatient length of stay (IPLOS) exceeding state average LOS (SALOS) if EDLOS is four hours or less. (Liew, Liew et al. 2003). Access block also adversely impacts on staff by increasing work-related stress and reducing job satisfaction.

There is an estimated 20–30% increased mortality rate due to access block and ED overcrowding. The main causes are major increases in hospital admissions and ED presentations, with almost no increase in the capacity of hospitals to meet this demand. (Forero, Hillman et al. 2010)

With that concern, a research on that need to be carried out and the end points of this study is to review the effects of access block in ED HUSM so that robust measures can be undertaken in the future.

## **METHODOLOGY**

This study is a cross-sectional, observational study involving a quantitative, retrospective review of the ED records of all patients during the study period, June 2016 till August 2016. According to the internal statistics of ED, the average daily ED attendance in 2016 was nearly 170 cases, and the medical admission rate constituted about 61% of all emergency admissions. A systematic random sampling method was applied in selecting samples that fulfil the inclusion and exclusion criteria. The ED records of all registered patients were retrieved during this period. All surgical and medical patients that received care in ED and required admission to general ward respectively were included in the study. Psychiatric patient, paediatric group patients and patients admitted to ICU and CCU were excluded as well as those patients who take at own risk discharge from ED and patients who were admitted only to observation ward in ED and subsequently discharge or transferred to other hospital.

Data which included the number of patients presenting to the hospitals; the number of patients admitted; the number of deaths among those admitted through the EDs; the number of admitted patients who gained access to an inpatient bed within 4 hours and the number of patient who cannot gained access to inpatient within 4 hours were retrieved from the ED record books. Patient's data included registration number, age, diagnosis, decided time of patient's admission by the respective doctor, admission time to respective ward, duration of waiting time and outcomes of patients after



admission were recorded. Inability to gain an inpatient bed and treatment within 4 hours duration from the decision made by the respective managing doctor or team was considered as access block.

The patients then will be follow-up till discharge or die. We will review patient's folder to know the progress and outcome of the patient after she/he discharge from hospital at the record office. Comparative analysis will be performed based on the categorized data. Data collected were analysed using the Statistical Package for Social Sciences (SPSS) version 22 (SPS Inc, Chicago, IL, USA). Numerical data were expressed as the mean, median, mode, and standard deviation. Categorical data were expressed as frequency and relative frequency. A 95% confidence interval (CI) was used for continuous variable. Statistical test used in this study were independent t-test, Chi-Square test, Fisher-Exact test and Cohort test. Significance was accepted at  $P < 0.05$ .

The study was approved by the Research and Ethical Committee, School of Medical Sciences, Universiti Sains Malaysia [ ref no; USM/JEPeM/17010049 ] and was conducted in accordance with the guidelines of International Conference of Harmonization (ICH).

## **RESULTS**

A total of 270 patients were recruited for the study. 104 patients (38.5%) were delayed to get the inpatient bed within the appropriate time frame which is more than 4 hours from the decision time of admission. Majority of these group (access block group), (74, 71.1%) were medical cases in comparison to surgical cases (30, 28.9%) (Table 1).

Mean access block time in medical cases was 558.03 min (9 hours and 18 min) while in surgical cases was 460.80 min (7 hours and 41 min) (Table 2). Using an independent t-test,  $P=0.196(>0.05)$  which concludes that the mean access block duration is not significantly different between medical and surgical cases.

The mean length of hospital stay (LOS) in the access block group was 6.35 days (95% CI=5.27 to 7.42 days), compared with 5.98 days (95% CI=4.56 to 7.40); ( $P=0.704$ ) in the no access block group. The mean length of stay in the presence or absence of access block is shown in Table 3. However, analysis using Chi-Square test showed that there was no association between the access block and patient's outcomes (inpatient length of hospital stay). There were 9 deaths in the access block and 3 in the no access block (3.6% and 1.2% respectively,  $P=0.031$ ) (Table 4). This is significantly related to the length of waiting time in ED which was delayed in getting inpatients treatment. However, further test showed a poor positive correlation which might be due to multiple factors in this study. Further study needs to be carried out in order to investigate the magnitude of this problem.

Table 1. Number of Cases in Access Block Group

| <b>Group Statistics</b> |          |          |
|-------------------------|----------|----------|
| <b>Number of Cases</b>  | <b>N</b> | <b>%</b> |
| Medical Cases           | 74       | 71.1     |
| Surgical Cases          | 30       | 28.9     |

Table 2. Independent-Sample T Test of Mean Comparison of Access Block Duration Between Medical Case and Surgical Case

| <b>Variables</b>      | <b>Mean (SD)</b>    |                      | <b>T statistics (df)</b> | <b>p</b> |
|-----------------------|---------------------|----------------------|--------------------------|----------|
|                       | <b>Medical Case</b> | <b>Surgical Case</b> |                          |          |
| access block duration | 558.03<br>(348.95)  | 460.80<br>(336.09)   | 1.301                    | 0.196    |

Table 3. Mean LOS Between Non Access Block and Access Block

| <b>Variables</b>      | <b>Mean (SD)</b>        |                     | <b>T statistics (df)</b> | <b>p</b> |
|-----------------------|-------------------------|---------------------|--------------------------|----------|
|                       | <b>Non Access Block</b> | <b>Access Block</b> |                          |          |
| access block duration | 5.98<br>(8.657)         | 6.35<br>(5.524)     | 248                      | 0.704    |

Table 4. Correlation of Access Block to Mortality

| <b>Variables</b> | <b>p</b> | <b>Correlation (Φ)</b> | <b>Cohort %</b>         |                     | <b>Relative risk (95% CI, lower-upper)</b> |
|------------------|----------|------------------------|-------------------------|---------------------|--|
|                  |          |                        | <b>Non Access Block</b> | <b>Access Block</b> |  |
| Mortality        | 0.031    | 0.152                  | 3.6                     | 1.2                 | 0.532<br>(0.371-0.764)                     |

## **DISCUSSION**

Emergency Medicine (EM) practices specifically in HUSM which is one of the teaching hospitals for the Master Programme evolved dramatically. With the conceptual thought that every patient deserves the best treatment, in addition to public awareness regarding their health status, more and more patients came to hospital via ED HUSM to get medical consultation. Patients were managed according to the current standard of practice. As a result, we were facing with a known universal problem, the access block.

Majority of the cases attended to ED were medical cases which comprise about 61% of total attendance. The rest of the cases were distributed in the range of surgical, O&G, paediatric, psychiatric, ophthalmology and ENT cases. We found that, most of patients that required hospital admission were medical cases compared to surgical cases. These were corresponding with the wide range of medical diagnosis or diseases. From a study done in HUSM by Illiana Syahmun in 2012, they recorded the similar trend of admission cases in majority which was medical cases. Out of these admission, we study the duration of length of ED stayed to determine the mean access block duration in between both groups (medical and surgical). There was no previous study that exactly compare the mean access block duration as such. In reference to this study result, mean access block time in medical cases was 558.03 min (9 hours and 18 min) while in surgical cases was 460.80 min (7 hours and 41 min). The discrepancy of 1 hour and 37 min even though not statistically significant but it reflects that most of the patients were suffering from medical illness. As suggested by most of the previous study and literatures, the ideal time for patients boarding time from ED to the ward were within 4 hours. There were multiple factors attributed to these but the main issue was due to hospital bed occupancy. (Richardson 2006) . Bed-occupancy rates do seem

to influence ED performance in New South Wales. Based on published hospital performance data, there is a significant negative association between bed occupancy rates and ED admission performance ( $r = -0.48$ ;  $P = 0.03$ ) in the 20 largest general public hospitals with EDs. The number of beds which were very limited plus those patients with chronic illness that required prolonged hospital stays occupied most of the beds. Again, it is the administrative issue when talking about hospital bed numbers and limited budget. However, this factor was not explored in current study. Further study can be done to properly evaluate the actual cause. Once the magnitude of the cause had been identified, a collaborative solution can be carried out by the hospital management and administrative department together with the state and Ministry of Health regarding the hospital budget.

In assessing the effect of access block, this study showed that the mean length of stay for a patients in access block group was 6.35 days (95% CI=5.27 to 7.42 days), compared with 5.98 days (95% CI=4.56 to 7.40) in no access block group. By looking at the present data, patients who experienced access block had a mean inpatient LOS 0.37 days longer than those who had no access block. However, statistical analysis showed no significant correlation between access block and no access block group with mean inpatient LOS. In comparison to a study at tertiary hospital in Canberra, Australian Capital Territory mean LOS was 4.9 days in those who experienced access block (95% CI, 4.7–5.1), compared with 4.1 days in the no-block group (95% CI, 4.0–4.2;  $P < 0.0001$ ); in other words, access block patient experience mean of stay of 0.8 day longer. Altogether, the excess inpatient LOS (compared to average no-block inpatient LOS) for access-block patients amounted to over 700 bed-days per year. Apart from that, strong relationship was found between longer LOS and arrival of access-block patients on the inpatient ward outside office hours (0800–1600

weekdays).(Richardson 2002) This could be due to some unmodifiable and independent factors such as age of patients, the severity of patient illness and diagnosis, and even some feature of presentation, such as time of arrival in the ED, causes both longer ED time and longer inpatient stay (eg, because of difficulty in accessing investigations). Richardson furthermore suggested some possible explanations of long LOS in access block patients (but lack of data from his study); (1) access-block patients were “sicker”, requiring longer “work-up” in the ED and then longer duration of care on the ward (2) difference in time of arrival in the ED, causes both longer ED time and longer inpatient stay. The festive season or long holidays also had an effect on the LOS and this usually coincided with a period of recognized hospital overload. This factor also need further study in the future to evaluate the contributing factors affecting the LOS.

The third objective of this study was to investigate the relationship between access block with the mortality. There were 9 death in the access block and 3 in the no access block (3.6% and 1.2% respectively,  $P= 0.031$ ). This study revealed a significant correlation between the access block and mortality. There was almost a similar study done by Drew B Richardson in 2006 in quantifying the relationship between emergency department overcrowding and 10-day patient mortality. They found that the mortality was significantly more in overcrowding group. The possibility is because of delayed in getting inpatients treatment. Patients who experience access block may receive different treatment from the no-block group. For example, care during a prolonged stay in the ED may differ from that in an inpatient ward, where staffing or organizational issues in ED is the factor. In ED, there is fast patient turnover. Staffs need to manage new cases as well as those who were stranded in ED. Human factors such as tiredness and stress may impede the optimum management. So, it is whether directly or indirectly causing delay in the inpatient treatment which might worsen the

condition of the disease. As a result, the mortality is increase once patient admitted to the ward. This possibility requires further investigation, even though mortality is significantly related to access block but the magnitude of correlation not so strong. It might be due to the small sample size and short study duration. It is crucial to do further study related to access block in the future to evaluate on the consequences of it either in HUSM in particular or the Malaysian Public Hospital in general so that the system can be improved.

### **LIMITATION AND RECOMMENDATION**

To combat access block, it is crucial to study and know the causes behind it. The factors contributing to access block should be identified prior to addressing the effectiveness of a measure. However, in current study we did not exactly study the causes affecting access block. It has been assumed that delay in transfer of patients from the ED to inpatient wards is solely the result of unavailability of inpatient beds. Other factors can contribute to these delays, including the need for prolonged ED assessment or stabilization, shortages of nursing and/or support staff delaying patient transfers, or patients expected to be discharged whose condition changes or who unexpectedly have abnormal test results. In order to overcome this problem, I would suggest that some improvement should also be done in term of hospital bed arrangement. Those stable patients that required continuation of care should be transferred to peripheral ward as soon as plan of management being done. It is the duty of managing doctors to identify those cases that can be transferred. Bed manager also play an important role in arranging the bed. They should actively monitor from time to time and alert when there are cases of access block.

## **CONCLUSION**

Access block will become an ongoing issue in emergency department. It has been viewed as a disease of EDs by some researchers that is only treated as a symptom and hence reach a partial recovery.

Access block will change the nature of the practice of emergency medicine if not properly managed. It is important to realize that access block has serious adverse effects to patient's management and outcome as discussed such as LOS and mortality. A multilevel, holistic bureaucracy instead of being in silo and interdepartmental teamwork approach is needed in order to reduce the effect of access block.

Access block reflects the hospital quality of care and teamwork is tested. Hence it should be promoted as a challenge to the millennials care givers in hoping to reach healthcare ultimate objective which is the patient wellbeing.



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MJEM accepts the following types of manuscripts according to these formats given:

### A. Editorial

- Concise but substantial comments on a particular issue concerning emergency medicine
- Abstracts: not more than 150 words
- Text: not more than 1200 words
- No table or figure
- References: not exceeding 15

### B. Original article

- Emergency medicine related original clinical research
- Abstract: according to headings; background, methodology, results and conclusion. Not more than 300 words
- Text: not more than 3500 words
- Tables and/or figures: not more than 5 each.

### C. Case reports

- Series of 3 similar cases in a case report presented at the emergency department or pre hospital care. The topics accepted are either:
  - Challenges in diagnosis
  - New treatment modalities
  - System improvements
- Abstract: not more than 200 words
- Text: not more than 1500 words
- References: not exceeding 20

### D. Letters

- A short report regarding a particular clinical, system, research or academic issues in emergency medicine
- Abstract: not more than 150 words
- Text: not more than 1000 words
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### E. Comments to the editor

- A short comments on articles published in MJEM for the past one year
- Text: 400 words
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### F. Review article:

The title for a review article is usually identified by the editors or advisors but can also be suggested by the author through communication with the chief editor. The article will be peer reviewed according to m-jem requirements. The topics will be emergency medicine related and the targeted readers are the doctors practising emergency medicine. M-jem will not accept article affiliated with a particular company or brand. A cover letter has to be signed according to m-jem requirements. The article has to be evidence based clinical practice according to these headings:

- Abstract: Concentrating on objectives, controversies, guidelines and conclusion. Not more than 300 words.
- Text: Not more than 2700 words
- Introduction
- Issues and controversies
- Local and/or international guidelines
- Tables: not more than 3
- Graphs/figures: not more than 3
- Authors' conclusions
- References: not more than 60 references

### **Manuscripts preparation:**

Manuscripts should be written in UK English using Arial 12 font and double spacing. Each manuscript must contain the following sections;

- 1 Title page
- 2 Abstract and keywords
- 3 Text
- 4 Acknowledgements
- 5 References
- 6 Figure legends (if stated)
- 7 Tables (if stated)
- 8 Figures (if stated)

Each section should begin as a separate document.

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This page will not be submitted to the reviewers to assist in the blinding process during reviewing. This page consists of:

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Grants or subsidies have to be stated in this section including the grant number or other external grants.

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The length depending on the type of manuscript submitted. Abstracts for original articles should include the background, objective, the methodology, results and conclusion. Abstracts for other manuscripts require the above sections.

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The subsections depend on the type of manuscripts as shown below:

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3. results,
4. discussion
5. conclusion

1. Case reports:

1. Background
2. Series of cases
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5. References

4. References

References should be numbered according to sequence mentioned in the text. The numbering system should follow the Arabic numerals for example 1,2,3. The number of references depends on the types of manuscripts stated previously.