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## Case study

# Discharge against medical advice in a pediatric emergency center in the State of Qatar

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## ABSTRACT

**Objective:** The objective of this study was to analyze cases that had left the Pediatric Emergency Center Al Sadd, Doha (PEC) against medical advice, with the aim of developing policies to help reduce this occurrence.

**Methodology:** All patients that were admitted to the main PEC observation room for treatment and/or investigation and subsequently left against medical advice from February 18, 2007 to June 18, 2007, were followed by a phone call, and a questionnaire, which was completed by the departmental patient representative.

**Results:** 99,133 patients attended the facility during the study period. Of those, 106 left the facility against medical advice. Ninety-four guardians were successfully contacted. 90% of the cases were in children below 2 years of age. In 87% of the cases the mother was the main decision maker for leaving against medical advice. Domestic obligations were the leading cause of DAMA (discharge against medical advice), reported in 45% of the cases. Respondents reported that the consequences of DAMA were well explained by medical staff before they left the facility however, they had not met with the departmental patient representative during their stay.

**Conclusion:** As the majority of DAMA cases occurred in infants, medical staff should address the concerns of this group early on in the course of treatment. Maintaining communication and providing support, in particular for mothers of higher risk groups may help to reduce the rate of DAMA cases.

### BACKGROUND

Discharge against medical advice (DAMA) refers to those patients who refuse medical care and make the choice to leave the hospital when an admission or longer stay is required for further investigation and/or observation. In active care hospitals in the United States, discharge against medical advice ranges from 0.4%-4.4% [1] and is reported to be much higher in psychiatric and HIV patients [2–4]. Studies have found that patients discharged against medical advice have a higher risk of hospital readmission [5], have a higher rate of mortality [6,7], which is likely to lead to an increase in health care costs [8].

In the State of Qatar, the total number of patients leaving against medical advice has been escalating in the main Pediatric Emergency Center (PEC), Al Sadd, Doha, Qatar in the last 4 years, in particular during the peak and winter months. However, the ratio of DAMA's to the total number of patients seen in the facility was maintained at 0.25–0.75% between the years 2004–2006 (Figs. 1 and 2).

#### OBJECTIVES

The objectives of this study were to identify the leading causes of discharge against medical advice from the facility, identify patients at risk, find out if the risks of leaving the facility against medical advice were well-explained by the medical staff, explore what was thought of the services rendered, and what can be done to minimize discharge against medical advice cases.

#### METHODOLOGY

This study was performed at the PEC in Al Sadd, Qatar. The PEC is the main pediatric emergency center in the state of Qatar with approximately 200,000 visits annually. It has a capacity of 42 observation beds providing most inpatient facilities, except for intensive care monitoring. Patients admitted to the PEC are usually managed for up to 48 h.

The study period was decided based on the highest DAMA prevalence reported during 2004–2006. All patients who were admitted to the main facility's observation room for treatment

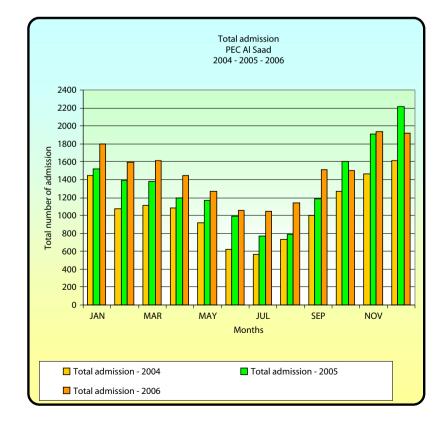


Figure 1. Total admission of patients to the PEC Al Sadd, 2004–2006.

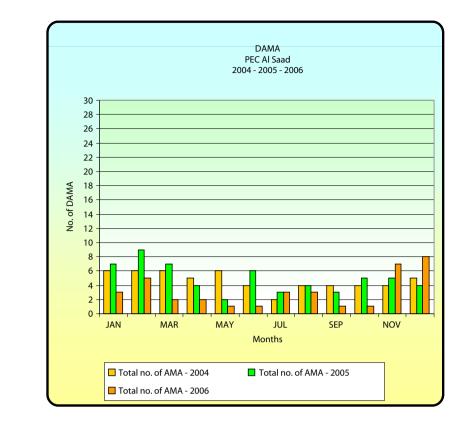


Figure 2. Total number of discharge against medical advice (DAMA) cases reported at the PEC Al Sadd 2004–2006.

and/or investigation and were recorded as having left against medical advice from February 18. 2007 to June 18, 2007 were followed by a phone call and questionnaire within 24 h during weekdays, and after 48 h of a weekend. The questionnaire was jointly developed by the study authors and was completed by the patient representative. PEC patient representative's were bilingual in Arabic and English, and were experienced in managing patients' complaints and concerns at the PEC for more than seven years. Access to Urdu, Tagalog, and French speaking staff were available daily when phone calls were made. Patients who did not respond to the call were followed-up for three consecutive working days before being excluded from the study. DAMA patients were identified daily from the DAMA list and patient demographics, diagnosis and contact numbers were extracted from the emergency visit charts. Phone calls were made during the working hours of 8:00 AM-3:00 PM from Saturday to Thursday. The information that was collected included the following: the reasons for the DAMA, who was the decision maker in choosing to leave the facility, were the consequences of DAMA adequately explained before a decision was taken by reading back the list of possible adverse consequences, which was signed by the attending guardian. Additional information that was collected included: if the family would consider revisiting PEC Al Sadd for the same illness, if the family met with the PEC patient representative, how they would evaluate the facility and the services provided to them on a scale from excellent to bad and what could have altered their DAMA decision.

#### RESULTS

99,133 patients visited the department during the study period. 106 DAMA cases were identified. Ninety-four (94) cases responded to the phone calls. Table 1 summarizes the results. 76% of patients were children less than 12 months of age and 90% were below 2 years of age. The male to female ratio was equal. The reported reasons for DAMA included, domestic obligations (45%), a perception that the child was well enough to leave (36%) and the desire to seek a second opinion (10%). The remainder of the cases did not declare a reason for their DAMA decision.

Decision makers for DAMA were both parents in 49% of the cases, the mother in 38%, and only the father in 13%. All respondents thought the consequences of DAMA were well explained to them by the medical staff before they had left the facility. In 98% of the cases, the parent guardians reported

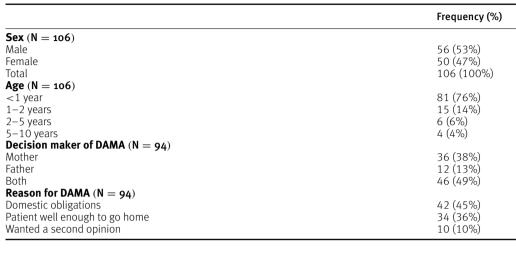


Table 1. Characteristics of children discharged against medical advice (DAMA)

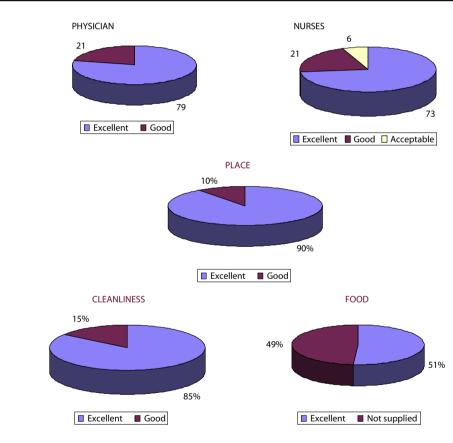


Figure 3. Respondents evaluation of the PEC facility.

that they would return to the facility for the same illness if needed. All the cases were recorded as having left the facility after the working hours of the patient representative, none of the respondents therefore had the opportunity to meet with the patient representative during their stay.

The family evaluation of the services that were provided at the facility is shown in Fig. 3. No suggestions were provided by guardians for what could have prolonged their stay and prevented them from leaving against medical advice.

#### DISCUSSION

Discharge against medical advice does not only jeopardize patient health, it is also thought to stress medical staff and health care resources. The reasons for DAMA tend to vary between patients;

commonly reported reasons are family problems/emergencies, personal obligations, feeling bored, feeling well enough to leave, and dissatisfaction with the treatment [4,9,10].

As 90% of the study cases occurred in infants, this put them in a group higher at risk of being discharged against medical advice. Similarly in a review of medical records at a southeastern Nigeria pediatric hospital, Roland et al., [11] found that infants constituted 52.2% of discharge cases against medical advice. In the majority of the DAMA cases reported in this study, mothers were the main decision makers in 87% of cases. These findings are of importance for medical staff to easily identify groups at a higher risk and where communication and other efforts should be focused early on in the course of treatment to reduce DAMA cases.

In one third of DAMA cases parents were found to have discharged their children after having thought their condition was improved and were ready to go home. This can be explained by either a high threshold requirement for discharge or a lack of understanding on the part of the family regarding their children's conditions. The latter explanation is thought to be the case as 100% of respondents indicated that the consequences of DAMA were well explained before their departure. The study found that none of the DAMA cases had met with the patient representative during their time at the PEC. This raises the question of whether a 24/7 patient representative/social worker consequently would help in decreasing DAMA decisions in health care facilities.

This study was not without its limitations and it is important to acknowledge a number of these. This study was conducted over a period of four consecutive months and thus the number of cases studied was limited. Larger studies conducted over a longer period of time are needed to further validate the findings. Although the patient representative was experienced in managing patient complaints, they lacked a medical background and their understanding of physician notes was limited. Finally, service evaluation was open to a degree of bias, as parents answering the questionnaire might have given more of an honest opinion of services provided to them, had they been able to answer anonymously.

#### CONCLUSION

This paper has highlighted the importance of medical staff addressing the concerns of groups higher at risk of DAMA early on in the course of treatment. Maintaining communication and providing support, in particular for mothers of infants that attend the PEC, may help to reduce the rate of DAMA cases. Continuous improvement of services offered at the PEC and implementation of the study findings in clear guidelines and intervention policies is necessary in this regard.

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