

Discharge Against Medical Advice From the Emergency Department: Results From a Private Hospital in Beirut

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Danielle Abou Khater¹, Joelle Kalaji¹, Alain Tanios², Charbel Ghosn², Robert Fakhoury³, Mariana Helou²

1. Department of Emergency Medicine, Lebanese American University Medical Center, Beirut, LBN 2. Department of Emergency Medicine, Lebanese American University School of Medicine, Beirut, LBN 3. Department of Cardiology, Lebanese American University School of Medicine, Beirut, LBN

Corresponding author: Mariana Helou, mariana.helou@lau.edu.lb

Abstract

Introduction: Discharge against medical advice (AMA) is a common problem worldwide. These patients experience higher mortality rates in the following month and higher Emergency Department (ED) revisit rates. This study examines the characteristics, reasons, and clinical outcomes of the patients leaving the ED AMA.

Methods: This is a cross-sectional study conducted at the ED of the Lebanese American University Medical Center from 2019 to 2022.

Results: Over the four years, 42,672 patients have presented to the ED. Among them, 2,767 have left AMA (6.4%). The numbers varied among the years, from 477 (3.6%) in 2019, going up to 751 (7%) in 2020, then to 907 (10%) in 2021, and 632 (5.8%) in 2022. Many reasons were found. The most common reason for leaving AMA was the financial coverage, which accounted for 1442 cases (52%). Other common causes were the COVID-19 isolation cost (started in 2020) with 677 cases (24.5%), cold cases referred to clinics (301 cases; 10.9%), and the long waiting time for a bed being available (284 cases; 10.3%). Other causes were only 63 (2.3%).

Conclusion: Discharge AMA varies from one ED to another but is mainly linked to the economic situation in the country, the financial coverage of the population, and the system within the hospital. Interventions at a larger scale shall be conducted to reduce the rate of its occurrence.

Categories: Emergency Medicine, Health Policy

Keywords: against medical advice, discharge, economic crisis, emergency, emergency department

Introduction

One of the biggest challenges facing the healthcare system is discharge against medical advice (AMA) from Emergency Departments (EDs), with a global prevalence rate between 0.07 and 20% [1,2]. It occurs when patients are discharged from the hospital against the advice of their healthcare provider to remain for further treatment. Patients who leave AMA face a higher risk of adverse health outcomes, often facing more costly and intensive healthcare needs down the line due to unresolved medical conditions or subsequent complications [3-5]. AMA discharges are associated with an increased relative risk of mortality as high as 10% at one month and a higher 30-day readmission rate compared to the readmission rate following standard discharge [4-9]. It is critical to understand the reasons behind patients' refusal of admission and discharges AMA to improve patient health outcomes and reduce the strain on medical services. Retrospective studies showed that higher AMA discharges were linked to younger age, male gender, history of substance use, psychiatric illness, lack of medical health insurance, low socioeconomic status, and lack of education [4,6-8,10-20].

Various reasons were found for patients leaving the ED, including family commitment, having children at home, financial problems, negative interaction with the ED staff, lack of medical improvement, disagreement with the procedure plan, and long ED waiting time [2,5,21-26].

Lebanon has faced mounting challenges since the country's economic crisis began in 2019. This crisis has led to hyperinflation, mass unemployment, and a drastic reduction in the availability of essential resources, placing an unusual burden on the healthcare system. The already fragile country also had to deal with the aftermath of the COVID-19 pandemic and the devastating Beirut Port explosion in 2020 [27,28]. These compounding crises have severely impacted the healthcare sector, reducing access to essential services and straining hospital resources [27,28]. Therefore, many patients are unable to afford the dramatically rising medical expenses, prompting them to delay or avoid seeking treatment altogether. In the context of emergency care, this financial burden may result in patients leaving without being seen by a physician or

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AMA of admission for treatment due to their inability to afford the necessary medical services, lack of insurance coverage, or fear of accumulating medical debt. Not only is patient safety compromised after such discharges, but there is also additional stress placed on emergency care providers who are challenged with cases where treatment must be left incomplete or prematurely stopped due to financial constraints [3,4].

Studies done in low-income and middle-income countries also suffering from economic hardships have shown a comparable trend, where financial concerns often drive patients to refuse care, leaving hospitals without being seen or AMA after being informed about their need for admission [23,29,30]. However, there is limited research on the specific role of economic crises in influencing AMA discharges, particularly in Lebanon, where the specific impact of the ongoing crisis remains underexplored.

The aim of this study is to identify the primary reasons behind AMA discharges in Lebanese EDs, with a particular focus on the impact of the ongoing economic crisis on these decisions. By addressing these reasons, this study can offer insights to policymakers, hospital administrators, and healthcare providers on how to mitigate preventable AMA discharge and improve patient care, therefore reducing the subsequent complications following incomplete treatment resulting from AMA discharges.

Materials And Methods

The Lebanese American University Medical Center (LAUMC) is a private teaching university hospital in Beirut with an estimated 1500 ED visits per month. This cross-sectional study was conducted at the ED of LAUMC. All patients presenting to the ED are triaged by the triage nurse, an admitting file is opened, and the patient is admitted inside the ED to be examined and assessed by the ED resident/ED physician. Any patient who refuses the medical care or medical advice for admission or procedure and wants to leave before management or treatment is completed will have to sign the against medical advice form.

The study is a cross-sectional study. All medical records of 42,672 patients who were admitted to the ED from January 2019 to December 2022 were reviewed. All patients who either left without being seen by a physician or discharged themselves AMA after signing the preprinted against medical advice form were included in the study. We excluded patients aged less than 18 years. The data was retrieved from the patients' charts uploaded in the hospital database system and the ED database. The data recorded included patients' characteristics and reasons for leaving AMA. All data collected during the study remained anonymous, ensuring participants could not be identified. Furthermore, only authorized members of the research team had access to the data.

Statistical analyses were performed using IBM SPSS Statistics for Windows, Version 27 (Released 2020; IBM Corp., Armonk, New York, United States). Descriptive statistics were calculated for the total study sample, with numbers and percentages for all the variables. This study was approved by the Institutional Review Board of the Lebanese American University (IRB # LAUMCRH.MH2.21/Nov/2024).

Results

Over the four years, 42,672 patients have presented to the ED. Among them, 2,767 have left AMA (6.4%). These patients had an average age of 52 years old.

The numbers varied among the years, from 477 (3.6%) in 2019, going up to 751 (7%) in 2020, then to 907 (10%) in 2021, and 632 (5.8%) in 2022. As illustrated in Figure 1, the total number of patients leaving AMA is compared to the total number of patients admitted to the ED. In 2019, 477 patients left AMA from a total of 13130 patients admitted to the ED (3.6%); in 2020, 751 left AMA from 9834 ED admissions; in 2021, 907 left AMA from 8963 ED admissions, and in 2022, 632 left AMA from 10745 ED admissions.

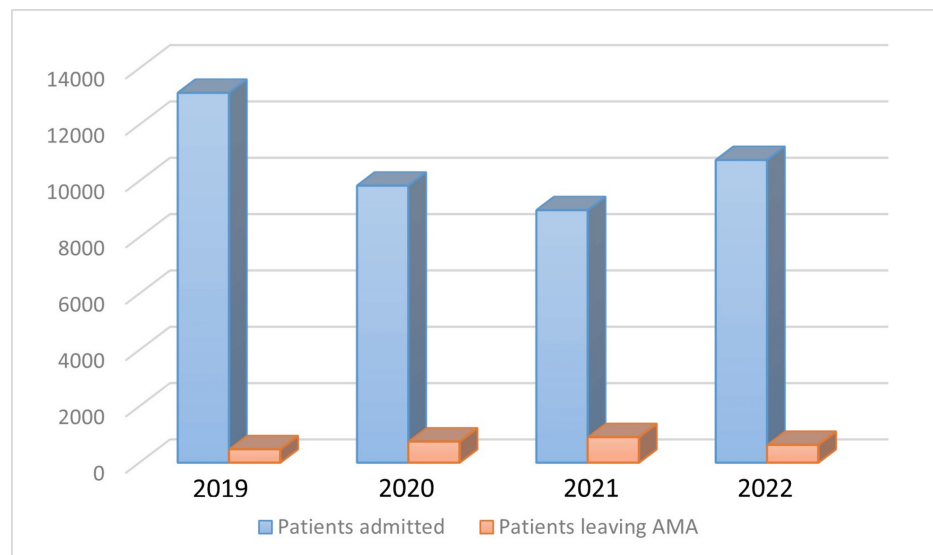


FIGURE 1: Number of patients leaving against medical advice

AMA: Against medical advice

The most common reason for leaving AMA was the financial coverage, which accounted for 1442 cases (52%). Other common causes were the COVID-19 isolation cost (started in 2020) with 677 cases (24.5%), cold cases referred to clinics (301 cases; 10.9%), and the long waiting time for a bed being available (284 cases; 10.3%). Other causes were only 63 (2.3%).

Discussion

Over the four years, on average, 6.4% of the patients have left AMA with percentages varying across the years. This percentage was similar to that in some other institutions, such as 5.96 % in Kathmandu [23]. Percentages can go lower, as in Bahrain 2.5 % [5], Ghana 2.5 % [31], and the US 1.6% [20].

A similar study conducted in another hospital in Lebanon in 2012 found 1213 patients leaving AMA in an ED with 49000 ED visits per year [2]. The study does not report the exact total number of patients presented this year at the hospital. However, the percentage can be calculated to be around 25%, which is higher than what is found in other studies. The main increase was seen in 2021, with a percentage of 10%. This increase in 2020 and 2021 came along with the economic collapse that hit the country at the end of 2019 [32,33]. The issue of discharges AMA in Lebanon's ED is closely tied to the country's economic crisis, making it a critical challenge for both healthcare providers and policymakers. The economic downturn has significantly impacted the healthcare system, with hyperinflation and unemployment exacerbating patients' inability to afford necessary treatments. This financial strain has made hospital visits financially prohibitive for many, pushing patients to decline or prematurely discontinue care even when medical professionals strongly recommend further treatment. As seen in other low- and middle-income countries facing similar economic difficulties, financial hardship is often a major driver behind patients' decisions to leave AMA. In Lebanon, the high cost of healthcare, lack of insurance coverage, and fear of insurmountable medical debt are prevalent factors influencing patients to leave AMA. These discharges are not only a risk to patient safety, potentially leading to worsening health conditions and future emergencies, but they also place an additional burden on healthcare providers who face ethical dilemmas and resource constraints as they manage cases that may go untreated.

In our study, the most common cause for leaving AMA was the financial coverage, similarly seen in many other studies [2,5,21-26].

Addressing AMA discharges in Lebanon's context requires systemic interventions that go beyond the hospital setting, involving government efforts to stabilize the healthcare economy, increase insurance coverage, and implement policies that make healthcare accessible and affordable for all. Additionally, hospitals may benefit from implementing financial support programs or deferred payment options to reduce the likelihood of AMA discharges. A better understanding of the economic and psychosocial factors contributing to AMA discharges can inform such policies, ultimately improving patient outcomes and alleviating the strain on Lebanon's healthcare system during these challenging times.

Limitations

The study was conducted in one single private hospital, which limits the results to a single center. However, the data was retrieved over four years to recruit as many patients as possible. Also, our hospital is a major hospital in the capital city Beirut, with a large catchment area. This makes our results generalizable to hospitals with similar payment modalities.

Another limitation of this study is that patients were not followed up after their discharge, so no data could be available for morbidity or mortality. We also add the inability to establish causation due to the cross-sectional nature of the study. Our results are mainly descriptive in nature, and these results can help address the issues that needed intervention. A prospective study would be beneficial to conduct later on to assess these patients and confirm causality.

Conclusions

Rates of discharge AMA differ significantly from one ED to another depending on multiple factors. Key contributors include the socioeconomic and political situation in the country, the financial coverage available for the population, and hospital-specific policies. Addressing this issue requires interventions from the hospital administrators and at a larger scale to reduce the frequency of occurrence of AMA discharges, therefore limiting its consequences on the patients and the healthcare system and consequently promoting better health outcomes.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

Concept and design: Mariana Helou, Danielle Abou Khater, Joelle Kalaji, Alain Tanios, Charbel Ghosn, Robert Fakhoury

Acquisition, analysis, or interpretation of data: Mariana Helou, Danielle Abou Khater, Joelle Kalaji, Charbel Ghosn

Drafting of the manuscript: Mariana Helou, Danielle Abou Khater, Joelle Kalaji, Alain Tanios, Charbel Ghosn, Robert Fakhoury

Critical review of the manuscript for important intellectual content: Mariana Helou, Danielle Abou Khater, Alain Tanios, Robert Fakhoury

Supervision: Mariana Helou

Disclosures

Human subjects: Consent for treatment and open access publication was obtained or waived by all participants in this study. Institutional Review Board of the Lebanese American University issued approval IRB # LAUMCRH.MH2.21/Nov/2024. **Animal subjects:** All authors have confirmed that this study did not involve animal subjects or tissue. **Conflicts of interest:** In compliance with the ICMJE uniform disclosure form, all authors declare the following: **Payment/services info:** All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Other relationships:** All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

References

1. El-Metwally A, Suliman Alwallan N, Amin Alnajjar A, Zahid N, Alahmary K, Toivola P: Discharge against medical advice (DAMA) from an emergency department of a tertiary care hospital in Saudi Arabia. *Emerg Med Int.* 2019, 2019:4579380. [10.1155/2019/4579380](https://doi.org/10.1155/2019/4579380)
2. Sayed ME, Jabbour E, Maatouk A, Bachir R, Dagher GA: Discharge against medical advice from the emergency department: results from a tertiary care hospital in Beirut, Lebanon. *Medicine (Baltimore).* 2016, 95:e2788. [10.1097/MD.0000000000002788](https://doi.org/10.1097/MD.0000000000002788)
3. Alfandre DJ: "I'm going home": discharges against medical advice. *Mayo Clin Proc.* 2009, 84:255-60. [10.4065/84.3.255](https://doi.org/10.4065/84.3.255)
4. Alfandre D, Brenner J, Onukwugha E: Against medical advice discharges. *J Hosp Med.* 2017, 12:843-5. [10.12788/jhm.2796](https://doi.org/10.12788/jhm.2796)
5. Abuzeyad FH, Farooq M, Alam SF, et al.: Discharge against medical advice from the emergency department in a university hospital. *BMC Emerg Med.* 2021, 21:31. [10.1186/s12873-021-00422-6](https://doi.org/10.1186/s12873-021-00422-6)
6. Baptist AP, Warrier I, Arora R, Ager J, Massanari RM: Hospitalized patients with asthma who leave against medical advice: characteristics, reasons, and outcomes. *J Allergy Clin Immunol.* 2007, 119:924-9.

- [10.1016/j.jaci.2006.11.695](https://doi.org/10.1016/j.jaci.2006.11.695)
7. Hwang SW, Li J, Gupta R, Chien V, Martin RE: What happens to patients who leave hospital against medical advice?. *CMAJ*. 2003, 168:417-20.
 8. Holmes EG, Cooley BS, Fleisch SB, Rosenstein DL: Against medical advice discharge: a narrative review and recommendations for a systematic approach. *Am J Med*. 2021, 134:721-6. [10.1016/j.amjmed.2020.12.027](https://doi.org/10.1016/j.amjmed.2020.12.027)
 9. Moon BK, Ahn R, Min D, Shim J: Factors influencing early readmission after discharge against medical advice from the emergency department. *Healthcare (Basel)*. 2021, 9:[10.3390/healthcare9080986](https://doi.org/10.3390/healthcare9080986)
 10. Ibrahim SA, Kwok CK, Krishnan E: Factors associated with patients who leave acute-care hospitals against medical advice. *Am J Public Health*. 2007, 97:2204-8. [10.2105/AJPH.2006.100164](https://doi.org/10.2105/AJPH.2006.100164)
 11. Aliyu ZY: Discharge against medical advice: sociodemographic, clinical and financial perspectives. *Int J Clin Pract*. 2002, 56:525-7.
 12. Schlauch RW, Reich P, Kelly MJ: Leaving the hospital against medical advice. *N Engl J Med*. 1979, 300:22-4. [10.1056/NEJM197901043000106](https://doi.org/10.1056/NEJM197901043000106)
 13. Jones AA, Himmelstein DU: Leaving a county hospital against medical advice. *JAMA*. 1979, 242:2758.
 14. Long JP, Marin A: Profile of patients signing against medical advice. *J Fam Pract*. 1982, 15:551, 556.
 15. Weingart SN, Davis RB, Phillips RS: Patients discharged against medical advice from a general medicine service. *J Gen Intern Med*. 1998, 13:568-71. [10.1046/j.1525-1497.1998.00169.x](https://doi.org/10.1046/j.1525-1497.1998.00169.x)
 16. Smith DB, Telles JL: Discharges against medical advice at regional acute care hospitals. *Am J Public Health*. 1991, 81:212-5. [10.2105/ajph.81.2.212](https://doi.org/10.2105/ajph.81.2.212)
 17. Saitz R, Ghali WA, Moskowitz MA: Characteristics of patients with pneumonia who are discharged from hospitals against medical advice. *Am J Med*. 1999, 107:507-9. [10.1016/s0002-9543\(99\)00262-4](https://doi.org/10.1016/s0002-9543(99)00262-4)
 18. Jeremiah J, O'Sullivan P, Stein MD: Who leaves against medical advice?. *J Gen Intern Med*. 1995, 10:403-5. [10.1007/BF02599843](https://doi.org/10.1007/BF02599843)
 19. Seaborn Moyse H, Osmun WE: Discharges against medical advice: a community hospital's experience. *Can J Rural Med*. 2004, 9:148-53.
 20. Tsai JW, Janke A, Krumholz HM, Khidir H, Venkatesh AK: Race and ethnicity and emergency department discharge against medical advice. *JAMA Netw Open*. 2023, 6:e2345437. [10.1001/jamanetworkopen.2023.45437](https://doi.org/10.1001/jamanetworkopen.2023.45437)
 21. Lee CA, Cho JP, Choi SC, Kim HH, Park JO: Patients who leave the emergency department against medical advice. *Clin Exp Emerg Med*. 2016, 3:88-94. [10.15441/ceem.15.015](https://doi.org/10.15441/ceem.15.015)
 22. Abuzeyad FH, Farooq M, Elshehry AF, Hassan MA, Jawaid RF: The rate and reasons for discharge against medical advice. *Bahrain Med Bull*. 2017, 39:140-5.
 23. Pant MN, Jha SK, Shrestha S: Cases of left against medical advice from the emergency department of a tertiary care hospital in Kathmandu: a descriptive cross-sectional study. *JNMA J Nepal Med Assoc*. 2020, 58:992-7. [10.31729/jnma.5411](https://doi.org/10.31729/jnma.5411)
 24. Trépanier G, Laguë G, Dorimain MV: A step-by-step approach to patients leaving against medical advice (AMA) in the emergency department. *CJEM*. 2023, 25:31-42. [10.1007/s43678-022-00385-y](https://doi.org/10.1007/s43678-022-00385-y)
 25. Marco CA, Bryant M, Landrum B, Drerup B, Weeman M: Refusal of emergency medical care: An analysis of patients who left without being seen, eloped, and left against medical advice. *Am J Emerg Med*. 2021, 40:115-9. [10.1016/j.ajem.2019.158490](https://doi.org/10.1016/j.ajem.2019.158490)
 26. Nwashilli NJ, Agbonrofo PI: Discharge against medical advice (DAMA) in adult emergency department of a tertiary hospital in Nigeria. *West Afr J Med*. 2021, 38:1162-6.
 27. Lebanon Sinking into One of the Most Severe Global Crises Episodes, amidst Deliberate Inaction. (2021). Accessed: October 11, 2021: <https://www.worldbank.org/en/news/press-release/2021/05/01/lebanon-sinking-into-one-of-the-most-severe-global-crises-....>
 28. Devi S: Economic crisis hits Lebanese health care. *Lancet*. 2020, 395:548. [10.1016/S0140-6736\(20\)30407-4](https://doi.org/10.1016/S0140-6736(20)30407-4)
 29. Bhatta R, Aryal K, Ellingsen G: Opportunities and challenges of a rural-telemedicine program in Nepal. *J Nepal Health Res Counc*. 2015, 13:149-53.
 30. Udosen AM, Glen E, Ogbudu S, Nkposong E: Incidence of leaving against medical advice (LAMA) among patients admitted at the accident and emergency unit of the University of Calabar Teaching Hospital, Calabar, Nigeria. *Niger J Clin Pract*. 2006, 9:120-3.
 31. Bayor S, Kojo Korsah A: Discharge against medical advice at a teaching hospital in Ghana. *Nurs Res Pract*. 2023, 2023:4789176. [10.1155/2023/4789176](https://doi.org/10.1155/2023/4789176)
 32. Lobkowicz L, Lahoud J, Bou-Orm I: Addressing the COVID-19 emergency during the ongoing political and economic crisis in Fragile Lebanon: a call to action. *Confl Health*. 2021, 15:66. [10.1186/s13031-021-00403-3](https://doi.org/10.1186/s13031-021-00403-3)
 33. Helou M, Abou Khater D, El Ters F, Yammine K: The impact of the Beirut explosion on the mental health of Lebanese healthcare providers: a scoping review. *Cureus*. 2024, 16:e74240. [10.7759/cureus.74240](https://doi.org/10.7759/cureus.74240)