Evaluation of Pharmacist-Initiated Discharge Medication Reconciliation and Patient Counseling Procedures in the Emergency Department

20/08/2025 11:14:20

Main Information

Primary registry identifying number
LBCTR2023095432

Protocol number
PIDMR3

MOH registration number

Study registered at the country of origin
Yes

Study registered at the country of origin: Specify

Type of registration
Retrospective

Type of registration: Justify
LBCTR website was not accessible

Date of registration in national regulatory agency

Primary sponsor
None

Primary sponsor: Country of origin
None

Date of registration in primary registry
19/03/2024

Date of registration in national regulatory agency

Public title
Evaluation of Pharmacist-Initiated Discharge Medication Reconciliation and Patient Counseling Procedures in the Emergency Department

Acronym

Scientific title
Evaluation of Pharmacist-Initiated Discharge Medication Reconciliation and Patient Counseling Procedures in the Emergency Department

Acronym

Brief summary of the study: English

This was a randomized controlled study that included adult patients discharged from the ED at the Lebanese American University Medical Center – Rizk Hospital (LAUMC-RH) with at least one discharge medication during the period of data collection from December 2021 to April 2022. The control group consisted of patients receiving the standard of care, while the intervention group was counseled at discharge by a pharmacy resident. The intervention group received follow-up calls at days 3, 14, and 30, while the control group wasonly followed-up with telephone calls on day 30 post-discharge. The pharmacy resident conducted the follow -up phone calls. Additionally, the pharmacy resident identified discrepancies that were reported to and discussed withthe prescribing physician and an intervention was performed if needed. The primary endpoint was the number of unintended medication discrepancies identified by the pharmacy resident that are categorized as: omission, commission, different dose/route/frequency, or different medication ordered. The secondary endpoints included the occurrence of ADEs, composite endpoint of re-admissions and ED visit at day 30, and patient satisfaction.

Brief summary of the study: Arabic

هذه دراسة شملت مرضى بالغين خرجوا من قسم الطوارئ في المركز الطبي بالجامعة اللبنانية الأمريكية – مستشفى رزق (LAUMC-RH) مع
2022. إلى أبريل 2021دواء واحد على الأقل للخروج خلال فترة جمع البيانات من ديسمبر
تتألف المجموعة من المرضى الذين يتلقون مستوى الرعاية، في حين تم تقديم المشورة لمجموعة التدخل عند الخروج من قبل أحد المقيمين
، في حين تمت متابعة المجموعة الضابطة فقط من خلال مكالمات هاتفية30 و14 و3الصيدلية. تلقت مجموعة التدخل مكالمات متابعة في الأيام
بعد الخروج من المستشفى. أجرى مقيم الصيدلية مكالمات هاتفية للمتابعة. بالإضافة إلى ذلك، حدد الطبيب المقيم في الصيدلية30في اليوم
.التناقضات التي تم الإبلاغ عنها ومناقشتها مع الطبيب الموصوف وتم إجراء التدخل إذا لزم الأمر
،كانت نقطة النهاية الأولية هي عدد التناقضات غير المقصودة في الأدوية التي حددها طبيب الصيدلية والتي تم تصنيفها على النحو التالي: الإغفال
ونقطة النهاية المركبة لإعادة ،ADEs أو العمولة، أو جرعة/طريق/تكرار مختلف، أو طلب دواء مختلف. وشملت نقاط النهاية الثانوية حدوث
.، ورضا المرضى30القبول وزيارة قسم الطوارئ في اليوم

Health conditions/problem studied: Specify

Medication reconciliation upon discharge from the emergency department

Interventions: Specify

Pharmacist-Initiated Discharge Medication Reconciliation and Patient Counseling Procedures

Key inclusion and exclusion criteria: Inclusion criteria

Participants were eligible if they met the following inclusion criteria: adult patients (≥18 years old) who were discharged from the ED with at least one newly prescribed discharge medication.

Key inclusion and exclusion criteria: Gender

Both

Key inclusion and exclusion criteria: Specify gender

Key inclusion and exclusion criteria: Age minimum

18

Key inclusion and exclusion criteria: Age maximum

100

Key inclusion and exclusion criteria: Exclusion criteria

Key exclusion criteria consisted of patients who were admitted from ED to LAUMCRH as inpatients, transferred to another hospital, or did not provide consent to participate in the study.

Type of study

Interventional

Type of intervention

Educations programs

Type of intervention: Specify type

N/A

Trial scope

Safety

Trial scope: Specify scope

N/A

Study design: Allocation

Randomized controlled trial

Study design: Masking

Open (masking not used)

Study design: Control

N/A

Study phase

N/A

Study design: Purpose

Health services research

Study design: Specify purpose

N/A

Study design: Assignment

Parallel

Study design: Specify assignment

N/A

IMP has market authorization

IMP has market authorization: Specify

Name of IMP

Year of authorization

Month of authorization

Type of IMP

Pharmaceutical class
N/A

Therapeutic indication
N/A

Therapeutic benefit
Reduction of reconciliation errors

Study model
N/A

Study model: Explain model
N/A

Study model: Specify model
N/A

Time perspective
N/A

Time perspective: Explain time perspective
N/A

Time perspective: Specify perspective
N/A

Target follow-up duration

Target follow-up duration: Unit

Number of groups/cohorts

Biospecimen retention
None retained

Biospecimen description
N/A

Target sample size
100

Actual enrollment target size

Date of first enrollment: Type
Actual

Date of first enrollment: Date
01/12/2021

Date of study closure: Type
Actual

Date of study closure: Date
30/05/2022

Recruitment status
Complete

Recruitment status: Specify

Date of completion
30/05/2022

IPD sharing statement plan
Yes

IPD sharing statement description

Data available upon request

Additional data URL

Admin comments

Trial status

Approved

Secondary Identifying Numbers

No Numbers

Sources of Monetary or Material Support

No Sources

Secondary Sponsors

No Sponsors

Contact for Public/Scientific Queries

Contact type	Contact full name	Address	Country	Telephone	Email	Affiliation
Public	Elsy Ramia	Lebanese American University - Byblos	Lebanon	03-167962	elsy.ramia@lau.edu.lb	Lebanese American University
Scientific	Elsy Ramia	Lebanese American Univeristy - Byblos	Lebanon	03-167962	elsy.ramia@lau.edu.lb	Lebanese American University

Centers/Hospitals Involved in the Study

Center/Hospital name	Name of principles investigator	Principles investigator speciality	Ethical approval
Lebanese American University Medical Center Rizk Hospital	Dr. Elsy Ramia	Pharmacy Education	Approved

Ethics Review

Ethics approval obtained	Approval date	Contact name	Contact email	Contact phone
Lebanese American University- University Medical Center Rizk Hospital	17/09/2021	Ms. Karmen Baroudi	karmen.baroudy@lau.edu.lb	03953388

Countries of Recruitment

Name
Lebanon

Health Conditions or Problems Studied

No Problems Studied

Interventions

Intervention	Description	Keyword
Medication Reconciliation and Discharge Counseling	Patients were randomly assigned to either the control group or the intervention group with a 1:1 allocation, by block randomization using a block size of 4. Patients in the control group received the standard of care provided by the ED staff (physicians, medical residents, and/or nurses) upon admission and discharge whereby patients only received a prescription of the newly prescribed medications at the ED, with no formal medication reconciliation done. Patients in the intervention group received a pharmacist-conducted medication reconciliation and discharge counseling by the pharmacy resident. Prior to discharge from the ED, the pharmacy resident also documented any unintended medication discrepancies detected, and reported it to the prescribing physician. Interventions were made to the medical team and changes were done as needed. The pharmacy resident conducted follow-up telephone interviews with all patients after ED discharge to collect relevant patient outcome measures: day 30 in the control group and days 3, 14, and 30 in the intervention group. The resident addressed drug-related questions and referred medical concerns to the prescribing physician. Patients had the option to withdraw consent at any time during the study.	Medication Reconciliation, Counseling, Pharmacist

Primary Outcomes

Name	Time Points	Measure
the number of unintended medication discrepancies identified by the pharmacy resident categorized as: omission, commission, different dose/route/frequency, or different medication ordered.	at day 30 post discharge	the number of unintended medication discrepancies identified by the pharmacy resident categorized as: omission, commission, different dose/route/frequency, or different medication ordered as analyzed by the pharmacy resident.

Key Secondary Outcomes

Name	Time Points	Measure
the composite endpoint of hospital readmission, ED visits, and physician contact	at 30 days post-discharge	Number of hospital readmission, ED visits, and physician contact as reported by the patient

Trial Results

Summary results

Among 81 patients, 42 (52%) patients were randomly assigned to the intervention group, and 39 (48%) patients to the control group. At day 30, The mean number of medication discrepancies was significantly lower in the intervention group (p = .000). 63.6% of patients in the control group had at least one medication discrepancy identified. The most common type of discrepancy was drug commission and drug omission; they mostly occurred in the control group and this difference was statistically significant. 10 patients from the control group reported concerns on day 30, as compared to none from the intervention group (p = 0.003). Overall, patients from the intervention group had a better understanding of their medications that was statistically significant.

Study results globally

Date of posting of results summaries

Date of first journal publication of results

Results URL link

Baseline characteristics

Participant flow

Adverse events

Outcome measures

URL to protocol files