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Analysis of factors affecting the length of stay in the intensive care unit (ICU) among the aged patients with general anesthesia and non-cardiac surgery

Submission date
23/12/2024

Recruitment status
No longer recruiting

Registration date
02/01/2025

Overall study status
Completed

Last Edited
30/12/2024

Condition category
Other

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[ ] Results
[ ] Individual participant data
[ ] Record updated in last year

Plain English summary of protocol

Background and study aims
This study aims to understand why some older patients need to stay longer in the intensive care unit (ICU) after surgery. ICU stays can be very expensive, and this research looks at different factors related to the patient and the surgery that might cause longer stays.

Who can participate?
Participants in this study must meet three criteria:
They are younger than 60 years old.
They did not have general anesthesia or heart surgery.
Their stay in the ICU was less than 4 hours.

What does the study involve?
Participants will have their medical data reviewed to see if there are any common factors that lead to longer ICU stays. This involves looking at their health records and the details of their surgeries.

What are the possible benefits and risks of participating?
There are no direct benefits or risks to participants since the study only involves reviewing existing medical records. However, the findings could help improve care for future patients by identifying ways to reduce ICU stays.

Where is the study run from?
National Research Institute for Family Planning and Chinese PLA General Hospital (China)

When is the study starting and how long is it expected to run for?
March 2024 to October 2024.

Who is funding the study?
National Clinical Research Center for Geriatric Diseases (China)

Who is the main contact?
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Additional identifiers

Protocol serial number
S2024-555-01, NCRCG-PLAGH-2023003

Study information

Scientific Title
Analysis of factors affecting the length of stay in the ICU among the aged patients with general anesthesia and non-cardiac surgery

Study objectives
This study investigated the contributions of patient-related and procedure-related factors in prolonging the length of stay in the ICU (ICU LOS) among the aged with general anesthesia and non-cardiac surgery.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 01/01/2023, Medical ethics committee of PLA General Hospital (28 Fuxing Road, Haidian District, Beijing, 100853, China; +86 10 6693 7166; jfjzyygw@163.com), ref: S2024-555-01

Primary study design
Observational

Study design
Retrospective observational case control study

Study type(s)
Other

Health condition(s) or problem(s) studied
Analysis of factors affecting the length of stay in the ICU among the aged patients with general anesthesia and non-cardiac surgery

Interventions
The aged patients undergoing general anesthesia and non-cardiac surgery (2007 -2020) from a hospital, who aged over 70 years will be enrolled. Patient data from a hospital between December 2007 and June 2020 will be used in this study. Patient-related and procedure-related traits of patients were collected and are presented as continuous or categorical variables. The continuity variables included age, ICU admission and discharge times, laboratory tests (i.e. white blood cell count, mean erythrocyte hemoglobin, mean erythrocyte hemoglobin concentration, gammaglutamyl transferase level, urobilinogen level, urea level, alanine aminotransferase level, total bilirubin level, prealbumin level). Categorical variables included patient gender, surgical methods, pathological diagnoses, and ultrasound examinations.

Intervention Type
Other

Primary outcome(s)
Length of stay in the ICU (LOS), which was calculated as the difference between ICU admission and discharge times measured using patient records

Key secondary outcome(s)
There are no secondary outcome measures

Completion date
09/10/2024

Eligibility

Key inclusion criteria
1. Patients undergoing general anesthesia and non-cardiac surgery (2007 -2020) from a hospital, who are aged over 70 years
2. The operation method was general anesthesia and non-cardiac surgery
3. Patients stayed in the ICU for more than 4 hours

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Senior

Lower age limit
70 Years

Sex
All

Total final enrolment
546

Key exclusion criteria
Does not meet inclusion criteria

Date of first enrolment
06/12/2007

Date of final enrolment
17/07/2020

Locations

Countries of recruitment
China

Study participating centre
National Research Institute for Family Planning
No. 12, Dahuisi Road, Haidian District
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Study participating centre
Chinese PLA General Hospital
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Sponsor information

Organisation
Chinese PLA General Hospital

ROR
https://ror.org/04gw3ra78

Organisation
National Research Institute for Family Planning

Funder(s)

Funder type
Government

Funder Name
National Clinical Research Center for Geriatric Diseases

Results and Publications

Individual participant data (IPD) sharing plan
The dataset for this study will not be made available due to the sensitive nature of the patient information it contains. It is protected by confidentiality agreements and ethical guidelines. Although informed consent was obtained from participants, it specifically prohibits the sharing or publication of identifiable patient data in any public forum or setting, in accordance with privacy laws and institutional ethical standards.

IPD sharing plan summary
Not expected to be made available