

Short-term and long-term mortality of octogenarians admitted to intensive care unit: a single centre experience

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Argomento: Altro

Introduction

According to the World Health Organization the older people are a rapidly growing proportion of the world's population. This trend will unavoidably lead to an increasing demand for healthcare resources, including intensive care (ICU). On the contrary ICU beds are limited and will probably decrease even more. These limitations pose great challenges to the ICU triage decision-making process. In fact the available literature does not allow to draw firm conclusions between elderly patients who will survive with a satisfactory quality of life and patients who will either die or have severe functional limitations and poor quality of life. Therefore it remains ethically challenging to deny the potential benefits of ICU admission to the very elderly. The aim of our study is to report the short and long-term mortality of octogenarians admitted to our general ICU.

Methods

Data of all patients aged ≥ 80 years admitted to our ICU from January 2013 to December 2016 were retrospectively reviewed. Primary end-points were ICU and in-hospital mortality. Secondary end-point was long-term mortality. Demographic data, reasons for ICU admission, length of ICU and hospital stay were also recorded. Differences in major outcomes between surgical and medical patients were evaluated.

Results

During the study period 1051 patients aged ≥ 80 years were admitted to our ICU and included in the study. Overall ICU and in-hospital mortality were 15,32% and 23,12% respectively. Both ICU and in-hospital mortality of urgent surgery patients were significantly higher than mortality in elective surgery patients (4.23% vs 0.90%, $p < 0.001$; 8.32% vs 3.48%, $p < 0.001$ respectively). Short-term and long-term mortality were significantly higher in medical patients (Table 1).

Conclusions

Our study supports the practice of admitting the very elderly to the ICU in the postoperative period. Further research is needed to better understand the decision to admit elderly patients to the ICU.

| Patients 80 ≥years old | Overall population (n=1051) | Medical patients (n=390) | Surgical patients (n=661) | | P value |
|---|-----------------------------|--------------------------|---------------------------|------------|---------|
| Demographic characteristics | | | | | |
| Age, years [mean±SD; median(IQR)] | 85±3.8; 84(82-87) | 85±3.9; 84(81-87) | 85±3.7; 84(82-87) | | 0.53 |
| Males (n, %) | 490(46.62%) | 198 (50.77%) | 292(44.17%) | | 0.038 |
| Cause of ICU admission (n, %) | | | | | |
| Medical | 390(37.11%) | | | | |
| Cardiological | 58 (5.52%) | 58 (14.87%) | | | |
| Pulmonary | 207(19.7%) | 207 (55.08%) | | | |
| Septic shock | 20(1.90%) | 20 (5.13%) | | | |
| Neurologic | 79(7.52%) | 79 (20.26%) | | | |
| Burn | 3(0.28%) | 3 (0.77%) | | | |
| Other | 23(2.19%) | 23 (5.90%) | | | |
| Surgical | 661(62.89%) | | | | |
| -Urgent/trauma | 297(34.63%) | | 297(44.93%) | | |
| -Elective | 364(28.26%) | | 364(55.07%) | | |
| Readmission rate (n,%) | 34 (3.23%) | 20 (5.13%) | 14 (2.12%) | | 0.0077 |
| Mortality (n,%) | | | | | |
| ICU | 161 (15.32%) | 127 (32.56%) | 34 (5.14%) | | <0.0001 |
| | | | Urgent/trauma | 28 (4.23%) | <0.0001 |
| | | | Elective | 6 (0.90%) | <0.0001 |
| In-Hospital | 243 (23.12%) | 165 (42.30%) | 78 (11.80%) | | <0.0001 |
| | | | Urgent/trauma | 55 (8.32%) | <0.0001 |
| | | | Elective | 23 (3.48%) | <0.0001 |
| 28-days | 246 (23.40%) | 162 (41.54%) | 84 (12.70%) | | <0.0001 |
| Three-months | 352 (33.49%) | 225 (57.69%) | 127 (19.21%) | | <0.0001 |
| Six-Months | 407 (38.72%) | 247 (63.33%) | 160 (24.20%) | | <0.0001 |
| One-year | 475 (45.19%) | 273 (70.00%) | 202 (30.56%) | | <0.0001 |
| ICU stay, days [mean±SD; median(IQR)] | 5±9.5; 2(1-5) | 8.3±11; 5(2-10) | 3.1±8.1; 1(1-2) | | <0.0001 |
| Hospital stay, days [mean±SD; median(IQR)] | 17± 24; 11(7-19) | 25±30; 18(11-28) | 14±20; 9(6-15) | | <0.0001 |