Category :**ICU organization**

A187 - *Interventions and outcomes of the very old admitted to the intensive care unit*

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Introduction:

Old adults are the fastest-growing segment of the population in many developed countries [1]. Data paucity on the post-ICU outcomes in this population is perpetuated by the reluctance of physicians to admit very old patients (VOP) to the ICU [2,3].
The aim of this study was to assess the characteristics and the short and longer-term outcomes of critically ill VOP.

Methods:

We included all patients aged 80 y/o and over admitted to the ICU of a large tertiary hospital in 2018. We collected patient demographics (including frailty scores) along with data on admission diagnoses, treatment escalation decisions, and mortality. Frailty scores were assigned based on admission functional status, using a 9-item clinical frailty scale (CSF) [4].

Results:

A hundred and ninety-one patients with a median age of 84 (IQR 82-87 y/o) were included. More than half (51%) were frail and almost a quarter (23%) had a do-not-attempt-cardiopulmonary resuscitation (DNACPR) order in place before ICU admission.
Most VOP were admitted emergently (93.7%), with a non-surgical diagnosis (78.5%). Details on the interventions undertaken in both groups are shown in table 1. In our cohort, the ICU mortality was 30.4% and the 1-year fatality rate 60.2%. Higher frailty was associated with lower ICU death (16.3% vs 45.2%, $p<0.001$), but similar hospital and long-term mortality. Factors associated with non-survival at 1 year were higher SOFA scores (OR 1.2, 95%CI 1.001-1.4), DNACPR status on admission (OR 2.7, 95%CI 1.1-6.5), and non-surgical pathology (OR 3.5, 95%CI 1.5-8.8).

Conclusion:

Most of the VOP survived their ICU stay and almost 40% of them were alive at 1 year. Our results do not support ICU admission bias against this population. However, as we did not examine long-term sequelae, the burden of critical illness on functional outcomes could not be assessed.

References:

1. Waite LJ. Popul Dev Rev. 2004;30(Supp):3-16.
2. Guidet B et al. Ann Intensive Care. 2018;8(1):114.
3. Boumendil A et al. PLoS One 2012; 7(4):e34387
4. Church S. BMC Geriatr. 2020;20(1):393.

Table:

	Total (n= 191)	ICU survivors (n= 133)	ICU non-survivors (n= 58)	p value
Interventions in the ICU				
Invasive ventilation, n (%)*	101 (52.9%)	50 (37.6%)	51 (87.9%)	< 0.001
Non-invasive ventilation, n (%)**	22 (11.5%)	22 (16.5%)	0 (0.0%)	< 0.001
Catecholamines, n (%)	110 (57.6%)	61 (45.9%)	49 (84.5%)	< 0.001

Renal replacement therapy, n (%)	43 (22.5%)	19 (14.3%)	24 (41.4%)	< 0.001
Transfusion, n (%)	41 (21.5%)	27 (20.3%)	14 (24.1%)	< 0.001
ICU LOS (median), days (IQR)	3 (2.0- 6.5)	3 (2.0- 7.0)	2 (1.0- 6.0)	0.045

*Includes patients on NIV before invasive ventilation ** Includes patients on NIV only (never escalated to invasive ventilation)*