

**EV0157**

**ePoster Viewing**

**Severe sepsis, bacteraemia & endocarditis**

**Anergic state in elderly patients with sepsis. Different pathogens involved and different clinical presentation: no fever is not enough**

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**Background:** Sepsis is acquiring increasingly importance in the elderly. Yet, very few studies evaluate old people with sepsis at hospital admission.

**Material/methods:** We performed a retrospective single-cohort study of 316 septic patients admitted at our Hospital from 2013 to 2015. All the patients passed through the ED, where clinical and biochemical markers were assessed; blood cultures were taken at the ED or within 48 hours after hospitalization. Comorbidities were recorded. We compared the results between patients under 65, from 65 to 79, and over 80 years of age.

**Results:** Both mortality and blood cultures pathogens differed significantly between groups, whereas length of hospitalization did not [Table]. A significant difference with age-related gradient was found in renal and cardiovascular impairment (for both  $p < 0.001$ ), while differences in pulmonary impairment were slightly above the level of significance ( $p 0.053$ ). Among the vital signs and biochemical markers evaluated at the ED (body temperature, SBP, HR, RR, SpO<sub>2</sub>, WBC and PLT count, creatinine, bilirubin, INR, CRP), temperature and WBC differed between the three groups. On the contrary, neither the SIRS nor the MEWS score showed significant differences between age classes [Table]. The results of both scores, together with other hallmarks of organ damage (creatinine, bilirubin, INR) correlated significantly with mortality.

**Conclusions:** Our cohort study confirms an advanced average age of septic patients, with mortality but not length of hospitalization directly correlated with age. The prevalence of gram-negative isolates in patients over 80 reflects different risk factors and infection sources, and must be taken into account at hospital admission for starting appropriate diagnostic workup and antibiotic therapy. We found that

elderly people present at the ED with a significantly lower body temperature, which is balanced in the assessment of SIRS and MEWS by the other vital signs, markers and comorbidities. This is expected, yet far from trivial in clinical practice: no fever is not enough to lower the guard on sepsis.

	<65y n=82 (25.9%)	65-79y n=121 (38.3%)	≥80y n=113 (35.8%)	p
Mortality, n (%)	6 (7.3%)	22 (18.3%)	24 (21.2%)	0.028
Length of hospitalization, days mean (SD)	20.4 (14.4)	18.4 (11.0)	18.0 (10.0)	n.s.
Gram-negative isolations, n (%)	47 (57.3%)	68 (56.2%)	80 (70.8%)	0.044
Temperature, °C mean (95%CI)	38.4 (38.1-38.6)	38.1 (37.9-38.3)	37.8 (37.6-38.1)	p1: 0.010 p2: 0.009
WBC, cells/mm <sup>3</sup> mean (95%CI)	9.500 (7.700-11.200)	12.100 (10.600-13.700)	12.900 (11.500-14.300)	p1: 0.009 p2: 0.009
SIRS*-Positive, n (%)	61 (74.4%)	72 (59.5%)	68 (60.7%)	n.s.

MEWS*-Low, n (%)	40 (53.3%)	67 (56.8%)	69 (65.1%)	n.s.
MEWS-Medium, n (%)	22 (29.3%)	29 (24.6%)	22 (20.8%)	
MEWS-High, n (%)	13 (17.3%)	22 (18.6%)	15 (14.1%)	
*when RR was not available, SatO2 was used as reported in previous publications				
p1: Analysis of variance; p2: Post hoc analysis between <65y and ≥80y				