

accept patients with complex needs and would enable earlier and safer discharge from intensive care.

#### P465

##### Length of hospital stay prior to ICU admission and outcome

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**Introduction** We hypothesised that for the general ICU population, a longer length of hospital stay prior to ICU admission was associated with a poor outcome. Previous work in specific ICU populations has suggested that a longer length of hospital stay prior to ICU admission is associated with a higher mortality [1,2], and longer and therefore more costly ICU stays [3]. We undertook an evaluation of the relationship between pre-ICU length of hospital stay (LOS), and hospital mortality over a 1-year period.

**Methods** Using prospectively collected data, we undertook a retrospective evaluation of all patients admitted to the ICU of Glasgow Royal Infirmary from 1 August 2008 to 1 August 2009. Patients were identified from Wardwatcher (Critical Care Audit Ltd). Only the initial event was included in those patients with readmissions during the same hospital stay. The patients were divided into hospital survivors (Group A) and nonsurvivors (Group B). Statistical analysis was performed using SPSS version 15.0 for Windows (SPSS Inc, Chicago, IL, USA). Medians, interquartile ranges (IQRs) and Mann-Whitney U tests were applied as appropriate.

**Results** A total of 419 patients were admitted during the study period. After excluding those with missing data and the outliers, 397 were included in the data analysis. There were 268 in the survivor group (Group A), and 129 in the group that died (Group B). Median patient age: Group A, 50 (IQR 36 to 66), Group B, 62 (IQR 50 to 70),  $P < 0.001$ . Median APACHE II scores: Group A, 15 (IQR 10 to 20), Group B, 23 (IQR 18 to 29),  $P < 0.001$ . Median predicted hospital mortality (%): Group A, 15.9 (IQR 6.3 to 31.6), Group B, 46.8 (IQR 30.8 to 67.4),  $P < 0.001$ . Median pre-ICU LOS (days): Group A, 1 (IQR 0 to 2), Group B, 1 (IQR 0 to 4),  $P = 0.001$ . Median ICU LOS (days): Group A, 2 (IQR 1 to 6), Group B, 2 (IQR 1 to 7),  $P = 0.297$ . Median hospital LOS (days): Group A, 18 (IQR 7 to 36), Group B, 8 (IQR 3 to 23),  $P < 0.001$ .

**Conclusions** In our cohort, the critically ill patients who survived to hospital discharge were younger, were less severely unwell and had a significantly shorter length of stay prior to ICU admission. What cannot be determined from this study is the bias of individual clinicians when seeing referrals. Assuming we admit the patients we anticipate to have the best chance of hospital survival, patients with a longer length of hospital stay prior to ICU appear to have worse outcomes.

##### References

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#### P466

##### Intensive care admission triage for a pandemic: are government tools acceptable to UK intensivists?

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**Introduction** Triage criteria recommended by various governmental bodies are part of a process to cope with increased demand for intensive care resources during a pandemic [1]. It is unknown whether UK intensive care physicians agree with the proposed criteria that could automatically exclude a patient from receiving ICU care if adopted.

**Methods** We conducted an online survey amongst the members of the UK Intensive Care Society. We asked respondents to grade their opinion about each criterion of a Department of Health (DoH) triage tool and provide some additional information about their own health. We used Cronbach's alpha (CA) to assess how close the opinions of the respondents were with regard to each criterion and each of three sets of criteria. We used a chi-squared analysis to see whether these factors differed between intensive care consultants and nonconsultants.

**Results** A total of 550 questionnaires were returned; 182 (33.1%) were from intensive care consultants. For six of the DoH 11 criteria, the agreement score was  $>4/5$  indicating agreement or strong agreement. For both consultants and nonconsultants, the CA was  $>0.8$  (significant inter-responder agreement). A total 19.4% of those currently meeting exclusion criteria and 34.6% of those in good health would give up the chance of a level 3 bed voluntarily if they fulfilled one of the proposed criteria during a pandemic.

**Conclusions** The results indicate a general acceptance of the requirement for triage but nearly 40% have significant reservations about the proposed tool. Sixty-five to 80% of respondents would not withdraw from the triage process in a pandemic even if they knew the proposed criteria would exclude them. While approximately 60% of respondents accepted the triage tool, it seems the majority would not wish it to be used to determine their own care.

##### Reference

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#### P467

##### Patients' profile admitted to the ICU after establishment of a regulatory policy system for ICU patient allocation at public hospitals in Rio de Janeiro, Brazil

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**Introduction** The consolidation of intensive care fundamentals was accompanied by growth of ICUs and increased utilization of intensive care services. Unfortunately it was not followed by national health planning. The demographic changing profile with a higher number of elderly patients and a changing case mix with less trauma patient admissions, associated with the high prevalence of cardiovascular diseases and the early approach to septic patients, will have implications on intensive care organization. A regulatory policy system for public ICUs was started in Rio de Janeiro to ensure appropriate selection and allocation of patients who need intensive care. The aim of this study is to report the profile of patients admitted to the ICU since the beginning of this new policy.

**Methods** A retrospective, 1-year, analysis of data from the Regulation Center. A nonchecklist medical application form is transmitted by fax for ICU patient allocation. Requests originated both from the hospital emergency room (HER) and nonhospital emergency units of care (Unidade de Pronto Atendimento (UPA)). The age, gender and the main prevalent diseases were recorded. Acute cerebrovascular disease (CVD) was considered all forms of stroke, both ischemic and hemorrhagic injuries; acute coronary disease (ACD) was considered stable and unstable angina and acute myocardial infarction; sepsis for severe sepsis and septic shock; trauma for any severe trauma, multiple trauma, burns and brain trauma; pneumonia for any severe lung infection with or without respiratory failure; and cardiac failure for any severe heart failure and acute pulmonary edema due to cardiac disease.

**Results** There were 15,036 applications, 10,360 (68.9%) forms from HER and 4,676 (31.1%) forms from UPA. From 12,591 adult requests, 7,333 were men and 5,258 were women. Mean age was 61.54 years old, and 461 (4%) were  $>80$  years old. Major diseases that motivated the requests for admission were ACD (1,871, 15%), CVD (1,753, 14%), pneumonia with or without organ failure (1,678, 13%), sepsis (1,423, 11%), cardiac failure (825, 7%), trauma (741, 6%) and others (4,300, 34%).

**Conclusions** There was a significant number of ICU requests, mainly from in-hospital demand. The discussion regarding the indication of ICU care and knowledge of the patient profile may improve quality of the health critical care policy.

#### P468

##### Changes in very older person admissions to an ICU over a decade

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**Introduction** The UK population is getting older and consequently our attitudes, together with the number of very older person admissions