

the higher severity score due to the associated trauma and mechanism. The initial management of burns with multiple trauma remains attention to the priorities of circulation, airway and breathing. The treatment of either the burn or the associated injuries may be compromised by their combined presence, and a team approach is essential to their optimal management [3]. Only patients with major burns that required hospitalizations have been included. So, this study is the visible tip of the iceberg. All military care providers should be familiar with the assessment and treatment of burns in military settings.

#### References

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##### A comparison of mortality scores in burns patients on the intensive care unit.

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#### Introduction

Burn injuries are amongst the most severe physical and psychological insults a patient can experience and morbidity is extensive with variable mortality [1]. Studies have repeatedly confirmed factors associated with high mortality, which include increasing age, extent of burn and presence or absence of inhalational injury [2]. Predicting mortality from burns is useful in identifying those that may benefit from treatment or those in whom initiation of treatment is futile and not in the best interests of the patient. The objective of this surveillance study was to evaluate and compare the predictive value of Baux [3], Modified Baux (m-Baux) [4], and the Intensive Care National Audit and Research Centre (ICNARC) scores for overall outcome in our cohort of burns patients admitted to the ICU over the last 5 years.

#### Methods

A single centre, retrospective surveillance study was carried out on all patients with a total body surface area burn (TBSA)  $\geq 15\%$  admitted to the ICU between February 2011 and February 2015.

The Baux, m-Baux, and ICNARC scoring systems were compared with data analysis performed using logistic regression models. The fitness of each model was assessed using the Hosmer-Lemeshow, the Cox-Snell, and the Nagelkerke R<sup>2</sup> statistics.

#### Results

45 patients were admitted to the ICU with burn injuries  $\geq 15\%$  TBSA, none were excluded from this study. 17 patients died resulting in a mortality rate of 37.7%. On all three measurements, the Baux score had the highest R<sup>2</sup> value (0.21, 0.25, 0.33).

We found that the odds ratio for survival changes by 0.96 (95% c.i. 0.92 to 0.98) for each increase in Baux score by one unit.

#### Conclusions

Our data suggests that the Baux score is most useful for predicting overall mortality in patients with Burns versus the m-Baux and ICNARC scoring systems but all tests utilised have good discrimination and calibration for mortality prediction.

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##### Classification of pain and its treatment and an intensive care rehabilitation clinic

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#### Introduction

Treatment in an Intensive Care Unit (ICU) often necessitates uncomfortable and painful procedures for patients throughout their admission. There is growing evidence to suggest that chronic pain is becoming increasingly recognised as a long term problem for patients following an ICU admission [1]. Intensive Care Syndrome: Promoting Independence and Return to Employment (InS:PIRE) is a five week rehabilitation programme for patients and their caregivers after ICU discharge at Glasgow Royal Infirmary. This study investigated the incidence and location of chronic pain in patients discharged from ICU and classified the analgesics prescribed according to the World Health Organization analgesic

#### Methods

The InS:PIRE programme involved individual sessions for patients and their caregivers with a physiotherapist and a pharmacist along with interventions from medical, nursing, psychology and community services. The physiotherapist documented the incidence and pain location during the assessment. The pharmacist recorded all analgesic medications prescribed prior to admission and at their clinic visit. The patient's analgesic medication was classified according to the WHO pain ladder from zero to three, zero being no pain medication and three being treatment with a strong opioid. Data collected was part of an evaluation of a quality improvement initiative, therefore ethics approval was waived.

#### Results

Data was collected from 47 of the 48 patients who attended the rehabilitation clinic (median age was 52 (IQR, 44-57) median ICU LOS was 15 (IQR 9-25), median APACHE II was 23 (IQR 18-27) and 32 of the patients were men (67%). Prior to admission to ICU 43% of patients were taking analgesics and this increased to 81% at the time of their clinic visit. The number of patients at step two and above on the WHO pain ladder also increased from 34% to 56%.

#### Conclusions

Of the patients seen at the InS:PIRE clinic two-thirds stated that they had new pain since their ICU admission. Despite the increase in the number and strength of analgesics prescribed, almost a quarter of patients still complained of pain at their clinic visit. These results confirm that pain continues to be a significant problem in this patient group. Raising awareness in primary care of the incidence of chronic pain and improving its management is essential to the recovery process following an ICU admission.

#### References

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##### Pain management adequacy in critical care areas ,the process and the barriers perceived by critical care nurses

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#### Introduction

Despite the development and availability of effective analgesic procedures, pain is still underestimated and poorly managed, especially in the critical areas. Nurses' knowledge about pain plays a significant role in effective clinical decision making for pain management. The