

# A response to comment on prognostic factors in burns

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Dear Editor,

We would like to thank Dr Ewington *et al.* for the commentary on our review about prognostic factors in burns.

First we would like to comment on the role of frailty in assessment of burns. The elderly population is of special interest in all fields of clinical medicine, owing to the ageing of the world population [1]. The definition of frailty is relatively concise. It is defined as a state of depletion of the homeostatic reserve due to changes accumulated during lifetime. In consequence, resolution of stressor sequelae is impaired [2]. Although the definition is straightforward, the methods of its application and quantification of frailty are not unequivocally accepted [3]. Ward and Romanowski in their papers used the Clinical Frailty Scale [4]. Other developed scales, to mention only a few, are the general Korean Frailty Index for Primary Care [5], the Modified Frailty Index 5 (mFI-5) [6], the more specialized Emergency General Surgery Frailty Index [7], and the Burn Frailty Index [8]. Some of them were evaluated in surgery patients, and the Burn Frailty Index was developed by Maxwell specifically to be used in burn patients [8]. A study comparing the usefulness of various frailty scales in a burn ward would be a welcome addition to the discussion about burn outcomes.

We would also like to address one more aspect of frailty. Generally, the term is connected with the elderly population, i.e. more than 65 years old. This is based on the fact that one's frailty is a sum of deficits accumulated over the whole lifetime [9]. Yet even

in younger age groups various tools used to assess frailty show a relatively high percentage of frail people [10, 11]. Research including patients undergoing orthopaedic surgery has proven that frailty assessment is a viable choice to predict complications even in younger groups [12]. Therefore we assume that frailty indexes will gradually become tools used also in younger groups of patients.

The comment on the mentioned Ward *et al.* article is available [13]. The authors elaborate more on the wound healing process, which can be altered at various stages owing to many factors. Therefore biological skin age should also be considered in quantifying the outcome, in the same way as frailty ("lack of fitness") is a more sophisticated way of expressing chronological age and loss of function. Although the idea could be of great merit in the clinical setting, to date there are no widely accepted and used biomarkers to help day-to-day wound assessment [14, 15].

We are grateful for the suggestion of adding the Denver MOF score and Sepsis-3 score to the article. As the excellent comment by Dr Ewington *et al.* elucidated all clinical aspects, we do not want to add anything.

In conclusion, we believe the addition of frailty scores, the Denver MOF score and the Sepsis-3 score to the discussion allows for a more complete view on the matter.

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