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Sebastian P. Nischwitz[a,b,*]
Hanna Luze[a,b]
Petra Kotzbeck[a,b]
Lars-Peter Kamolz[a,b]
[a]*Division of Plastic, Aesthetic and Reconstructive Surgery, Department of Surgery, Medical University of Graz, Graz, Austria*
[b]*COREMED – Cooperative Centre for Regenerative Medicine, JOANNEUM RESEARCH Forschungsgesellschaft mbH, Graz, Austria*
* *Corresponding author at*: JOANNEUM RESEARCH Forschungsgesellschaft mbH, COREMED – Cooperative Centre for Regenerative Medicine, Neue Stiftingtalstrasse 2, 8010 Graz, Austria.
E-mail address: sebastian.nischwitz@joanneum.at (S. Nischwitz).

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The role of enzymatic debridement in burn care in the COVID-19 pandemic. Commentary by the Italian Society of Burn Surgery (SIUST)

As healthcare systems worldwide buckle under the weight of facing the COVID-19 pandemic, burn care providers around the globe are faced with continuing essential burn care treatments under these extreme conditions. The main challenges reported are acute staff shortages due to infection or quarantine, shortage in operating rooms due to many being dedicated to COVID-19 infected patients providing ICU treatment as well as shortage in operating room supplies and ventilators, and the general need to minimize the burden on healthcare systems. Due to the above, we have recently seen national and international burn care associations stressing the need for shifting towards non-surgical care of burn patients [1–7].

The Italian healthcare system, unfortunately, has been overwhelmed by COVID-19, and it is likely that other countries may find themselves in the same situation in the near future as well. Aside from the need to alleviate surgical burden during these times, we, the burn specialists, are currently facing an additional problem associated with burn surgery – a non-predictable acute and severe shortage in blood products due to donation' decrease [8]. This shortage in combination with the limitations stated above is currently almost completely denying us the ability to perform burn surgery in the best logistic conditions.

Italy is one of the most experienced countries worldwide in the use of rapid enzymatic burn debridement with a concentrate of proteolytic enzymes enriched in Bromelain (NexoBrid®). Rapid enzymatic debridement has been proven to significantly reduce the utilisation of burn surgery and blood loss in 2 randomized controlled trials and in our five years of extensive clinical experience, part of the >6000 burn patients treated in the US, EU, Israel and India. It is currently the non-surgical burn debridement modality with the highest level of evidence worldwide. Burns incidents are not predictable, so especially in the present situation the management even of a limited injury incidents could be more challenging than ever. In view of the above, our combined experience as expressed in the consensus paper of the Italian burn society (SIUST: ITALIAN RECOMMENDATIONS ON ENZYMATIC DEBRIDEMENT IN BURN SURGERY: statements 10, 23–27) and the developing current situation we have decided to maximize the use of this modality of burn care wherever we feel it is feasible. The hospitals increased their NexoBrid® stockpiles for the treatment of burn victims, greatly improving our ability to cope with the current situation.

We recommend burn care providers worldwide to consider this modality in anticipation for the surge in numbers of COVID-19 patients worldwide and the impact on burn care.

Conflict of interest

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Rosario Ranno
Burn Unit, Ospedale Cannizzaro, Catania, Italy

Michelangelo Vestita*
Division of Plastic and Reconstructive Surgery and Burn Unit, University of Bari, Bari, Italy

Pasquale Verrienti
Burn Unit, Ospedale Perrino, Brindisi, Italy

Davide Melandri
Burn Unit, Ospedale M. Bufalini, Cesena, Italy

Giuseppe Perniciaro
Burn Unit, Ospedale Villa Scassi, Genova, Italy

Franz Wilhelm Baruffaldi Preis
Burn Unit, A.O. Niguarda Ca' Granda, Milano, Italy

Roberto D'Alessio
Burn Unit, Ospedale Cardarelli, Napoli, Italy

Giovanni Alessandro
Burn Unit, Ospedale Civico Fatebenefratelli, Palermo, Italy

Edoardo Caleffi
Burn Unit, Ospedale Maggiore Az. Osp., Parma, Italy

Antonio Di Lonardo
Burn Unit, Ospedale Cisanello, Pisa, Italy

Paolo Palombo
Burn Unit, Ospedale Sant Eugenio Di Roma, Roma, Italy

Maria Alma Posadinu
Burn Unit, Ospedale Civile, Sassari, Italy

Maurizio Stella
Burn Unit, Ospedale CTO Torino, Torino, Italy

Bruno Azzena
Burn Unit, University Hospital of Padova, Padova, Italy

Maurizio Governa
Burn Unit, Ospedale Civile Maggiore, Verona, Italy

Giuseppe Giudice
Division of Plastic and Reconstructive Surgery and Burn Unit, University of Bari, Bari, Italy

* *Corresponding author.*
E-mail address: michelangelovestita@gmail.com (M. Vestita).

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