

Burn-injured patients – the preferably unheard

N Allorto,¹  DG Bishop² 

¹ Pietermaritzburg Metropolitan Department of Surgery, University of KwaZulu-Natal, South Africa

² Perioperative Research Group, Department of Anaesthetics, Critical Care and Pain Management, University of KwaZulu-Natal, South Africa

Corresponding author, email: nikkiallorto@gmail.com

***“There’s really no such thing as the ‘voiceless’.
There are only the deliberately silenced, or the
preferably unheard.”***

Arundhati Roy

Annually there are 11 million burn injuries globally, with 70% occurring in low- to middle-income countries, particularly in Africa and Southeast Asia. The impact is millions of disability-adjusted life years and 250 000 deaths per year. In South Africa, it is estimated that 1.6 million injuries occur annually and while the majority are minor, 10% are moderate or severe and require surgical care, with 3 200 of those requiring specialist surgical and multidisciplinary burn care. Burn injuries target a vulnerable group in society – children, the poor, the mental health care user and the epileptic.¹ Yet despite copious evidence describing the size and impact of the problem, meaningful societal and institutional change has yet to be implemented.²

The acute principles of management are initially simple – assess the burn size and depth, start intravenous fluid resuscitation for burns greater than 10% of total body surface area, administer analgesia, clean and dress the wound, and refer appropriately. Sepsis is a common complication, and the recognition and appropriate management of sepsis is key.³ Deep burns require excision and grafting, with moderate and major injuries needing more complex and specialist strategies.

The case series published in this issue of SAJS highlights the shocking reality of preventable deaths and severe morbidities in children who should have a good prognosis with correct management.^{4,5} This reflects a lack of understanding of the basic principles of resuscitation. The cases demonstrate failure to recognise sepsis and institute appropriate management. These principles should apply to any patient – why are they not being applied to a burn injured patient? Importantly, these poor outcomes are not the result of a lack of resources, where blame is often placed. This basic burn care should be accessible in South Africa, and the clinical care deficiencies likely reflect an underlying training problem. A paper published in the SAMJ in 2016 highlighted deficits in training at internship and registrar levels, with lack of skills development cited as a deterrent for working in the field of burns.⁶

Urgent academic and institutional reform is required. Basic principles of burns care should be part of training at

all levels – for medical students, interns, medical officers, and registrars. Burn care needs to be a core part of the curriculum, examined regularly and given priority within general surgical departments. Appropriate resuscitation and the identification and management of sepsis are transferrable skills, that could improve the care of patients in other medical fields. Thus, a sound understanding of how to resuscitate a burn injury may indirectly benefit other surgical patients.

The general lack of training in the basics of burn care extends further into the surgical domain. The definitive management of a deep burn is excision and grafting, which constitutes the standard of care. In small, uncomplicated burns, this is a simple procedure that can be done by any generalist surgeon and would address a large proportion of the burden of minor to moderate burns. Yet this simple surgery is not being done.⁷ Lack of training and access to equipment seem to be major barriers. This is compounded by a demonstrable lack of interest in making burns a priority, despite accessible solutions.

Allied to improvements in training, context-sensitive burn-care strategies are urgently required. When all definitive surgery for the simple burn falls to the burn unit or specialist referral centre, in addition to the burden of large surface area or complex burns, the problem becomes unmanageable. A lack of beds and operating time limit the access of burn patients to definitive care, and it is impossible to perform early excision and grafting for all deep burns, which is the standard of care in high-income countries. Further, the overwhelming benefit of early excision and closure has not been replicated in low-income settings.⁸ This is likely due to a failure of adequate resuscitation and implementation of holistic perioperative care that is so critical to the improved outcomes seen in early surgery. The burden is large enough that this cannot be the responsibility of the intensive care service alone but must become or return to be a skill of the attending surgeon.

How do we begin to change outcomes for the burn patient? Solutions are required at many levels. Firstly, training in basic principles of perioperative resuscitation, which is not far removed from resuscitation of the acute burn, must occur in the medical school and postgraduate surgical curricula. Secondly, surgical skill training must be prioritised, with access to basic equipment for general surgery registrars to enable skin grafting of minor burns as with resuscitation. These elements need advocacy at the level of the training

hospitals and reinforcement through real inclusion in the surgical curriculum and the soon to be introduced Colleges of Medicine of South Africa (CMSA) workplace assessment of surgical procedural competency of specialist and sub-specialist trainees. Finally, at tertiary burn unit level, a new approach to prioritisation of surgery for moderate and major burns is needed. The burden of injury requires strategies appropriate for our setting and not just “standard management” adopted in principle, but not practically achieved, from the high-income setting. A prioritisation strategy aimed at providing access to early surgery for those who most benefit should be developed, which is not solely dependent on time-based criteria.

Arundhati Roy, an Indian author best known for her novel *The God of Small Things* (1997) said that “There really is no such thing as the ‘voiceless’. There are only the deliberately silenced, or the preferably unheard.” The vulnerable patients that seem to be targeted by burns injuries do not have a voice, and while not deliberately silenced, are often the ‘preferably unheard’. It is the responsibility of the surgical community to hear the burn injured patient’s plea for access to basic care.

ORCID

N Allorto  <https://orcid.org/0000-0001-9339-4640>

DG Bishop  <https://orcid.org/0000-0001-9861-3646>

REFERENCES

1. Faurie MP, Allorto NL, Aldous C, Clarke DL. A closer look at burn injuries and epilepsy in a developing world burn service. *S Afr J Surg.* 2015;53(3,4):48-50.
2. Allorto NL, Wall S, Clarke DL. Quantifying capacity for burn care in South Africa. *Burns Open.* 2018;2:188-92. <https://doi.org/10.1016/j.burnso.2018.07.002>.
3. Singer M, Deutschman CS, Seymour CW, et al. The third international consensus definitions for sepsis and septic shock (Sepsis-3). *JAMA.* 2016;315(8):801-10. <https://doi.org/10.1001/jama.2016.0287>.
4. Osman Y, Mangray H, Allorto N. A case of bowel perforation secondary to burn conversion. *S Afr J Surg.* 2022;60(4):305-306. <https://doi.org/10.17159/2078-5151/SAJS3838>.
5. Osman Y, Allorto N. Delayed management of paediatric burn sepsis resulting in limb loss. *S Afr J Surg.* 2022;60(4):307-309. <https://doi.org/10.17159/2078-5151/SAJS3837>.
6. Allorto NL, Zoepke S, Clarke DL, Rode H. Burn surgeons in South Africa: a rare species. *S Afr Med J.* 2016;106(2):186-8. <https://doi.org/10.7196/SAMJ.2016.v106i2.9954>.
7. Den Hollander D, Albert M, Strand A, Hardcastle TC. Epidemiology and referral patterns of burns admitted to the Burns Centre at Inkosi Albert Luthuli Central Hospital, Durban. *Burns.* 2014;40(6):1201-8. <https://doi.org/10.1016/j.burns.2013.12.018>.
8. Wong L, Rajandram R, Allorto N. Systematic review of excision and grafting in burns: comparing outcomes of early and late surgery in low- and high-income countries. *Burns.* 2021;47(8):1705-13. <https://doi.org/10.1016/j.burns.2021.07.001>.