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EDITORIAL **FOCUS ON BURNS**

Burns workforce planning

Marcus Wagstaff PhD FRCS (Plast) FRACS 0000-0003-3160-3720 [1,2 a]

[1] Department of Plastic and Reconstructive Surgery, Royal Adelaide Hospital, Adelaide, South Australia, AUSTRALIA.
[2] University of Adelaide, Adelaide, South Australia, AUSTRALIA.

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Every burns unit in Australia and Aotearoa New Zealand is providing multidisciplinary adult and paediatric care at an enviably high standard and they are all centres of excellence. The Australian and New Zealand Burns Association (ANZBA) robustly supports every aspect of care and training across the network through mutual communication and collaboration. This collaborative approach enabled the effective and collaborative delivery of care during disasters such as the 2020 Australian bushfires and the 2019 White Island (Whakaari) eruption in New Zealand. Every unit recognises, however, that metropolitan, rural and remote care and training can be improved and engages in research and quality improvement to that end.

Workforce planning is crucial to any productive workplace, and earlier this year the Australian Society of Plastic Surgeons (ASPS) published its commissioned review, *Mapping burn surgery in Australia*, a considerable body of work citing extensive sources, and recognising the importance of workforce planning to sustain burn care into the future.[1] It records, in detail, the current workforce in Australia and the published work both nationally and internationally on burns training, exposure, funding and attitudes to a career in burn surgery—along with advances in burn care technology and cost.

Without attempting to simply regurgitate this document, this editorial principally addresses the medical workforce which, in Australia, is shared between plastic and reconstructive, general and paediatric surgeons. The future workforce requires constant and active succession planning at the leadership level, and for that the document recognises and reports the impediments to following a career in burn surgery: the nature of burn operations, the nature of burn care, the expected level of on-call commitments, and the adequacy of exposure and training in burn surgery.

Conscious of the possibility of burnout in our careers, the report identifies the key risk factors are a reconstructive rather than cosmetic practice, long work hours, on-call more than two nights a week, and a lack of professional autonomy—all of which are relevant to burn surgery. That said, it also reports an encouraging increase in trainees considering a career in burn surgery from 21 per cent in 2004 to 49 per cent in 2021.

These identified factors need to be demonstrably addressed, visibly to trainees, to temper the intimidating nature of burn surgery, which can be confronting, visceral and physically and emotionally draining. This can only be achieved with well-staffed units of mutually supportive surgeons. This will lessen the on-call load, share the

[a] Corresponding author: Marcus Wagstaff Phd FRCS (Plast) FRACS; m.wagstaff@doctors.org.uk

responsibility of departmental decision-making and reduce the intensity of major burn operations.

From the report, training and exposure to burn surgery should be encouraged at the medical school level, with further exposure through the resident medical officer and unaccredited registrar grade with completion of the emergency management of severe burns (EMSB) course at this level. In New Zealand, all plastic surgical trainees must complete a burns placement. This was invaluable in providing care following the Whakaari volcano eruption in 2019. Australia is also prone to major disasters in bushfires and beyond, and therefore should logically adopt a similar approach. Given the prescribed training curriculum in general, plastic and paediatric surgery, exposure to all trainees can be facilitated as a minimum by participation in the out-of-hours on-call roster.

In South Australia, all plastic surgical education training (SET) registrars at the Royal Adelaide Hospital rotate through burns unit placements, and those at the Women and Children's Hospital are likewise trained in paediatric burn care. At the Royal Adelaide, out-of-hours support is provided by the plastic surgical consultant on call, with escalation to the burns consultant directly for burns with a total body surface area (TBSA) of 15 per cent or greater, any inhalation/intubated transfer, all chemical or electrical burns, circumferential burns of any depth or a toxic epidermal necrolysis admission via dermatology (abbreviated to 15ICE-CT). This recognises the potentially urgent specialist considerations of such injuries. This also prevents the burns fellow being called excessively. The burns consultant can then decide how best to mobilise the available medical personnel to attend to these cases, balancing training and service. This system is working well and, with three fellowship-trained burns surgeons appointed to consultant level, with one always onsite in working hours, it allows constant access to senior advice and high-level intervention.

Burn units are often not running at capacity, and therefore it is not unreasonable that burns consultants should have interests that lie elsewhere, such as in plastic surgery, research or private practice. Enabling this diversification in a well-supported unit can contribute to job satisfaction and balance. When the census goes up, or a major incident involving multiple burns occurs, then it is not unreasonable to adopt similar support from the allied plastic surgical unit and its trainees.

Registrars expressing an interest in burn surgery in their future career should be encouraged to complete a national/international fellowship in the discipline, training in the leadership and performance of burn surgery. Likewise, burns units should invest in a fellow themselves. In addition to contributing to senior trainee support, this invites the cross-fertilisation of ideas and contemporary innovation and therefore quality improvement.

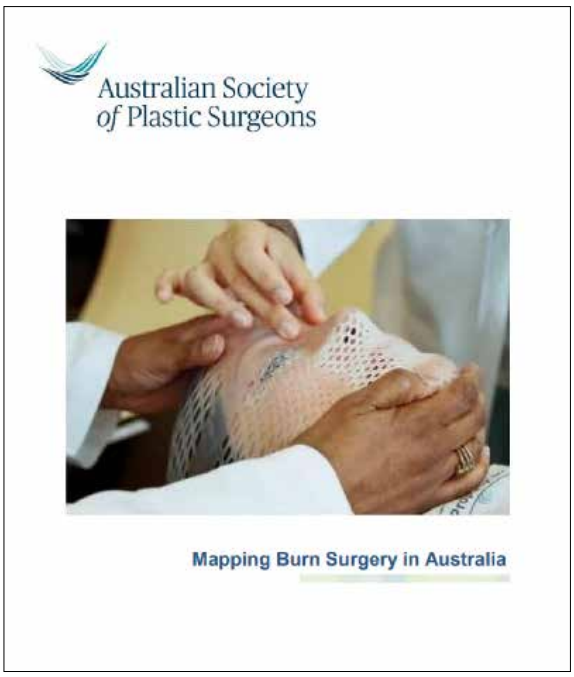
The *Mapping burn surgery in Australia* report recognises that a single-dedicated burns consultant on a unit can lead to over-dependence—particularly in a specialty that has a high ratio of acute to elective patients, and uncovers deficits when they take leave, which can be a disincentive for them to take time off. Although they may be the most experienced burns surgeon in the centre, the potential cost to their work–life balance and family may be significant and this model, even in a low-volume unit, should not be encouraged. It is also not attractive to potential future burns surgeons who have been trained under a different culture where work–life balance is an important consideration, and they understandably choose another career direction.

A two-consultant service is also not desirable as it requires a 1:2 commitment to the on-call roster, in a specialty of unpredictable emergency workload, which becomes 1:1 when one takes leave. Again, this is a disincentive to take leave as it can cause feelings of guilt of overburdening a colleague, or resentment if the balance of leave taken is not equal. There need to be enough experienced seniors able to cover the major burns to avoid this negative environment. It therefore takes at least three consultants to foster a healthy burns unit workforce. In my opinion, four is a good number for the larger units in Australia. This covers the above issues, but also provides buffers against the vicissitudes of life, such as long-term illness, early retirement and change in career direction.

Consultant appointees should be fellowship-trained, and supported into surgery at all levels of complexity, but also delegated to, respecting autonomy of decision-making in unit direction and patient care irrespective of whose bed card they are under. There is always more than one right decision, and when teams allow themselves to learn from each other, they grow in quality, trust and engagement. This leads to a collaborative and collegiate team affording supported autonomy, addressing one of the above identified risk factors

for burnout. Consultants should be encouraged to lead in particular interests within the unit, such as research, laser therapy, rural and remote care, and digital medicine to diversify their own roles and develop themselves and the unit further. There is only time for this wider development if the team remains well staffed.

Judicious division of the patient and unit management between the consultants does not lead to over-dilution. Surgical activity by the remaining team invariably increases when leave is taken, but creates a desirably comfortable working environment, which outwardly reflects in a positive, safer atmosphere with reduced stress and improved professional respect. This in turn creates an attractive proposition in burns surgery for juniors, and enables the crucial succession planning and disaster provision which still remain two of the many challenges that lie ahead.



The Mapping burn surgery in Australia report is available from the ASPS website: https://plasticsurgery.org.au

Reference

1 Australian Society of Plastic Surgeons. *Mapping burn surgery in Australia*. St Leonards, NSW: ASPS, 5 May 2022. [cited 2 March 2023]. Available from: https://plasticsurgery.org.au/wp-content/uploads/2022/08/Burns-Report-16-February-2022-FINAL.pdf.