

# Departments of Surgery in South Africa — legacies of the past, challenges for the future

Among the most important constituencies of the *South African Journal of Surgery* are its readership and contributing authors. The needs and interests of our readers are being addressed in several ways. A new feature in this and the following issues of the *Journal* is a review highlighting one of the academic departments of general surgery in South Africa. Each of the eight heads of department has been invited to introduce and record the achievements and talents of his department in a remit that includes a synoptic background and biographical detail of previous opinion leaders and staff who have made seminal contributions to clinical surgery, teaching and research in South Africa. Within the brief are current research directions, registrar development, the thrust of undergraduate teaching and future prospects and challenges for surgery in that environment. Professor Brian Warren is the first to take up the gauntlet.<sup>1</sup>

Compared with other colonial countries, South Africa has a young history of medical education.<sup>2</sup> The first embryonic faculty of medicine, which had only preclinical studies, was started in 1912 at the University of Cape Town.<sup>3</sup> A full medical faculty was ultimately established in 1920 with Professor Charles F. M. Saint from Durham University, a protégé of James Rutherford Morison, appointed to the first chair of surgery.<sup>4</sup> The first two medical graduands of a South African university, Louis Mirvish and J. B. Solomon, were capped in December 1922 in Cape Town. The University of the Witwatersrand Medical Faculty came into being in 1920. The Medical Faculty of the University of Pretoria was established in 1944, followed by the University of Natal in 1951 and the University of Stellenbosch Medical Faculty in 1956. The University of the Orange Free State enrolled its first students in the Medical Faculty in 1971. The Medical University of Southern Africa admitted its first medical students in 1978 and the most recent medical school, the University of Transkei in Umtata, awarded its first medical degrees in 1990.<sup>5</sup>

The excellence of academic medicine in this country has enjoyed international recognition and is a precious national treasure, to be jealously guarded, nurtured and developed.<sup>6</sup> Now, more than ever, these academic departments, which constitute the intellectual backbone of the country and are the repositories of our surgical DNA, face critical constraints and challenges as they enter a new millennium. Diminishing state financial resources and spiralling costs have become an integral part of health care delivery.<sup>7</sup> The equitable restructuring of health care services in South Africa, which has complex interwoven First- and Third-World societies, is a daunting task and the process of change will inevitably be painful.<sup>2</sup> These requirements will make intense demands in ensuring effective health and welfare provision for disadvantaged groups in a country with a large rural population and limited access to sophisticated facilities.<sup>8</sup> Allocation of resources in the public sector is focused on national redistribution, which has led to a precipitous redirection of funding away from perceived high- tech and costly tertiary academic institutions<sup>8</sup>

toward long-neglected primary and community-based health care.<sup>9</sup> In resolving this plight, academic surgery will need to adapt to the changing circumstances and respond creatively to these new realities and responsibilities without abandoning its core missions of education, research and patient care.<sup>10</sup>

Other intramural dilemmas confront academic surgery. Faculty morale is at a low ebb. Practising in an unstable health care market, having less protected time to teach and conduct research, facing the concern of downsizing and increased call schedules, decreasing incentives and reduced rewards for scholarship, simmering public discontent with health care provision, excessive bureaucracy, the apocalyptic threat of AIDS and the burgeoning spectre of litigation<sup>11,12</sup> are pressures that have an adverse influence and a negative impact on morale.

Medical education and training are also under careful scrutiny. The optimal environment for both under- and postgraduate training remains a critical component of the equation for success in the complex and inseparable interrelationship of hospitals, medical schools and departments of surgery. Surgical undergraduate education is under siege within the tertiary teaching hospital system. The rapid turnover and complexity of patients has significantly affected the scope and teaching resources available to students. Medical educators argue that the clerkship within the super-specialised environment of the tertiary referral centre fails to prepare the student adequately for life as an undifferentiated graduate.<sup>13</sup> Undergraduate equity policies have fundamentally changed the profile of South Africa's medical students.<sup>9</sup> In 2003, 65% of undergraduate medical students at the University of Cape Town were women<sup>9</sup> and nationally only 36% of new entrants to medical schools were men. Unless the erosion of tertiary public institutions is reversed, the focus will be exclusively on primary and community-hospital-based health care.<sup>9</sup> The stresses and rigors of surgery remain demanding compared with the relaxed requirements of some other disciplines. Current surgical training demands are regarded as antithetical to the career development and family commitments of women trainees and the recent undergraduate demographic shifts and a reduced generic pool may ultimately have profound consequences for surgical staffing in the future.

At postgraduate level there are increasing registrar concerns regarding compromised training and teaching with reduced elective operating time and constraints on patient admission because of fewer hospital beds. This is compounded by a demanding workload, increasing personal debt, the lure of lucre, lack of quality family time, changing lifestyles and diminished job opportunities on completion of training.<sup>14</sup> Unless these vexing issues of registrar surgical training are adequately addressed,<sup>15</sup> there is likely to be a declining interest in surgical training by medical students.<sup>16</sup>

Surgery has become increasingly sophisticated and technology-driven. Minimal access procedures are now an established requirement in modern surgery. The equipment is

costly but necessary and therein lies the rub. Training the surgeons of the future is still the *de facto* responsibility of academic surgery, performed in public hospitals. The dichotomy becomes evident since without adequate funding, the consequent lack of technology compromises training which becomes the problem rather than the solution.<sup>17</sup> Ultimately the cardinal ethic of surgery is competence.<sup>18</sup> The fiduciary relationship between the public and the medical profession hinges on trust as the public is entirely reliant on the assurance that practising surgeons are trained and competent to provide accepted standards of modern surgical care.<sup>19</sup>

Inequalities in health care provision and insufficient funding are not unique to South Africa. The problem lies in reconciling utopian medical ideals and altruistic social goals with current economic realities.<sup>2</sup> The leadership of South African surgery will need to examine future priorities and obligations critically. The challenge to centres of excellence will be to find the correct balance between relevant research within the African context without compromising service commitments and fulfilling the essential training roles by providing high-tech skills and expertise for future specialists.<sup>8</sup> The successful department of surgery of the future will have to integrate entrepreneurial skills with its historical missions of patient care, research, teaching and community service to meet these demands.<sup>20</sup>

### J E J Krige

Department of Surgery  
University of Cape Town

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