

# Navigating adversity: the orthopaedic surgeon and complications

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Orthopaedic surgery is an innovative and demanding speciality covering a broad anatomy and complex pathologies treated with a wide range of procedures.<sup>1</sup> Orthopaedic surgeons typically have heavy workloads and work long hours. The registrar training programme in Orthopaedic Surgery is arduous. Specialist orthopaedic practice, in both the private and public sectors, is associated with specific and increasing demands and difficulties.

On the one hand, we have an enduring professional obligation to advocate for surgery that improves quality of life and outcome. On the other, we practise in an era of relentless increase in our understanding of surgical pathology and surgical techniques; and treat patients in an environment of heightened and increasing patient expectations.

Surgery is interventional, and complications will occur even with the very highest level of skill. The only way to avoid this is for a surgeon not to operate. Surgical complications are not uncommon, and estimates of their frequency range from 8–12% across the world.<sup>2</sup> While in clinical practice, complications are most often recognised quickly and intuitively, defining a surgical complication is surprisingly elusive. There remains no standard definition.<sup>3,4</sup> Complications will arise in regular practice and, therefore, will be part and parcel of an orthopaedic surgeon's working life. However, dealing with one is always difficult.

In responding, the focus is on patients and their families. For the patient, apart from having to deal with the immediate physical sequelae, surgical complications have been identified as an independent predictor of impaired postoperative psychosocial well-being for a very long time after surgery.<sup>5</sup> The care and the outcome of the patient is the primary responsibility.

A key factor in the first intervention is what the United Kingdom General Medical Council refers to as the 'duty of candour' – tell the patient exactly what happened, what went wrong, and if appropriate, apologise. Patients will always want to know that they are cared for as a person and that their treating team continues to offer hope for a remedy and a reasonable outcome.<sup>6</sup>

The other side to surgical complications is less appreciated. *This is because the impact on the surgeon can be devastating.* Surgeons can be overwhelmed by guilt, self-doubt, depression, anxiety, and possibly, post-traumatic disorder. This has been referred to as a 'second victim syndrome'.<sup>7</sup> The term is better avoided today as patient advocacy groups have argued that such terminology may contribute to decreasing levels of accountability. This may distract from the very serious issues raised.<sup>8</sup>

Surgeons typically live pressurised lives. In a large study of more than 7 500 members, the American College of Surgeons identified that 40% of their respondents were burnt out, 30% screened positive for symptoms of depression, and their quality of life was

well below the population norm.<sup>9</sup> We may be worse off: a recent South African Orthopaedic Journal publication reported the burnout rate in the South African orthopaedic community at 72%.<sup>10</sup>

Surgeons may have some degree of stress immunity. Studies examining personality differences by speciality, identified surgeons as scoring more highly on a tough-mindedness scale, as less likely to be distracted by emotions when problem-solving and achieving higher scores on stress immunity.<sup>11,12</sup>

Witnessing patient harm because of a surgical complication remains a difficult experience. The fallout from such an experience may generate emotional and psychological symptoms and cause fear and uncertainty regarding professional ability.<sup>8</sup> The prevalence is not insignificant, with studies identifying a range of adverse effects on 10–43% of surgeons.<sup>7</sup>

In assessing what has happened, it is useful to distinguish between an error and a complication. An error may be considered an avoidable omission with potentially negative consequences, as assessed by peers at the time. On the other hand, complications are adverse events that are recognised as an acknowledged risk of surgical care.<sup>10</sup>

A surgeon's response to a complication may be considered either constructive (positive) or repressive (negative). A constructive response would include acknowledgement of the complication, communication with the patient, a plan for corrective intervention and identifying lessons that can be learnt. When appropriate, surgeons seek proactive avenues to deal with stress through exercise, humour, hobbies, vacation leave and/or religion. Inevitably there is also an association with adopting defensive practices, with reported rates as high as 63% of surgeons becoming more cautious after a complication. Further, medico-legal issues can have a negative reputational impact, and, in the current hostile climate, there is the spectre of criminalisation threats against a surgeon.<sup>9,13</sup>

Repressive behaviour can also occur. The worst-case scenario would be substance abuse; and this occurs in a minority of surgeons. Other less recognised repressive actions include a tendency towards disassociation, such as minimising social interactions, internalisation, self-distraction and denial. A particularly significant negative reaction is prolonged rumination which can occur in up to 43% of surgeons after a complication.<sup>13</sup>

Surgeon behaviour following a complication changes over time, although not in a linear or sequential fashion.<sup>13</sup> A typical first response is one of confusion, denial, intense emotions and physiological reactions. The situation is chaotic, with most attention directed, at this time, towards managing the patient and seeking reassurance. The most beneficial intervention at this stage is emotional support.

The next phase identified is one of realisation and exploration, where the surgeon appreciates the true impact of the complication and thinks beyond the initial event. The surgeon can then reasonably investigate the complication. This has been suggested as an early junction where surgeons may be willing to accept active support provided in a protective environment.

The third phase is where the surgeon is prepared to talk and may make important decisions, actively seeking professional help and support. This is the phase where proactive and organised support is necessary and, when available, most effective.

The stage of a surgeon's career can influence the response. Younger surgeons may experience greater emotional impact and have been reported to endure longer-lasting negative consequences. For senior surgeons, ethics, involving continuous learning and reflection, can develop surgical maturity, which allows one to better deal with the response to a patient's complication.<sup>13</sup>

So, what can we do about this?

Multiple studies over decades have identified the need for change within the medical profession and to create a safety net to address the needs of healthcare professionals managing a surgical complication.<sup>8</sup>

The first response to any problem should always be research. Better define, understand, and quantify the problem! The second is to identify and/or create support mechanisms that surgeons may access. Various initiatives are underway in this regard.<sup>14,15</sup> A third line of response is to develop a professional culture of community resilience. As a professional group, we should develop a programme based on readiness, responsiveness and revitalisation:<sup>16</sup>

**Readiness:** would reflect a professional leadership supporting initiatives that create the capacity or facilities to provide support when required.

**Responsiveness:** this is to ensure that support and facilities are accessible when required and allow for rational intervention.

**Revitalisation:** is developing an orthopaedic community with a strong sense of identity and belonging that supports an individual navigating adversity.

We practise in a time of change and risk. Uncertainty and hesitancy are constant, and so always is opportunity. Not everything is clear, and it is unlikely that it ever will be. Five centuries before Christ, the ancient father of medicine, Hippocrates, used to instruct his students that *'Life is short and Art is long; opportunity fleeting, experiment treacherous, judgment difficult.'*<sup>17</sup> We have travelled far since. But, despite better science and all our advances, his first aphorism has yet to become outdated.

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