

# The key to humanitarian urology: do not import the surgeon, create trained local surgical teams

J. Rubio-Briones & A. Gallioli



Humanitarian surgical missions provide substantial benefits to the involved surgeon and to the recipient communities. These missions should be planned and executed with the final aim to train local teams to implement innovative or standard surgical techniques.

When we choose to study medicine during high school, we embark on a whirlwind of study and training so competitive that our initial aim to try to heal or save sick individuals becomes blurred. Instead, we are driven towards the legitimate pursuit of curricular enrichment to secure a better social and professional status. This reality might find parallels in Nietzsche's concept of the 'Übermensch' (described in *Thus Spoke Zarathustra*, 1883–1885), which posits that the quest for personal excellence and self-transformation drives human progress and development. Indeed, rational self-interest fosters efficiency, innovation and the advancement of healthcare systems, but simultaneously widens the disparities between high-income countries and low- and middle-income countries.

Humanitarian surgery is a kind of surgery done without profit, usually in countries without health resources, and channelled by non-governmental organizations (NGOs). Defining and delineating humanitarian surgery and establishing a structured programme for its development is a complex endeavour<sup>1</sup>. Nevertheless, this type of surgery offers undeniable benefits for both individuals and communities.

## Benefits for the community involved

The benefits of humanitarian surgery for hospitals and communities involved are clear, starting from the opportunity to receive surgeries that would be otherwise inaccessible owing to lack of resources, infrastructure or specialized personnel. The benefits for patients, who might otherwise face lifelong disability (for example, living with a permanent cystostomy), are equally evident.

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Yet, emphasizing the collective over the individual, education must remain the ultimate goal. The precarious conditions and day-to-day survival faced by many people in low- and middle-income countries undermine the concept of a healthcare community, as public health systems in these countries are often non-existent. This situation fosters an individualistic approach focused solely on resolving specific problems. Our duty is to prioritize comprehensive training programmes that strengthen hospitals and their communities, ensuring sustainable optimization of surgical practices.

The approach adopted by [Surg For All](#), an NGO focused on the training and establishment of local surgical teams in low- and middle-income countries, although not unique nor claiming superiority, might serve as an example of what many other NGOs and colleagues strive to achieve with different strategies<sup>2</sup>. Our model includes several stages. First, the triage of hospitals that are equipped to implement an integrated surgical project based on safety, electrical infrastructure and staff availability to maintain their activity independently. Second, the training of local surgical teams (physicians and nurses) in Spain to learn a specific surgical technique. Third, the provision of surgical materials and infrastructure, ideally co-financed with the receiving hospital to increase their responsibility for the care and maintenance of the resources provided. Last, conducting the necessary surgical missions until local teams achieve independence in the learned techniques<sup>3</sup>. An exemplary model of a successful humanitarian

surgical project is the [Catherine Hamlin Fistula Foundation](#) in Ethiopia, which successfully established a self-sufficient healthcare centre specializing in the treatment of devastating genitourinary fistulas in women<sup>4</sup>.

### Benefits for the surgeon involved

A constant experience reported by numerous surgeons across multiple humanitarian missions is the profound sense of personal fulfilment gained from thinking outside the box. Confronting uncommon challenges with limited resources fosters creativity and surgical flexibility. This effect is amplified by the 'surge' of gratitude received from patients and families in need, which is pure, direct and sincere.

A rational self-interest combined with altruism leads to an enriching experience. Learning to maximize resource optimization and questioning the dogmas of daily practice is highly rewarding. For instance, in low- and middle-income countries, the utility of sophisticated technologies such as laser treatments for benign prostatic hyperplasia is overshadowed by the effectiveness of well-executed adenectomies or transurethral resection of the prostate. This context compels surgeons to assess the cost-effectiveness of certain techniques to treat a larger number of patients without forgetting that these communities also deserve access to surgical innovations.

Arguably, the most gratifying benefit of humanitarian surgery on a personal level is the satisfaction derived from exponentially increasing the problem-solving capacity achieved through teaching and mentoring colleagues who lack access to similar training or resources. Humanitarian missions underscore the importance of prioritizing education over merely affirming the individual need to improve surgical skills or seek a novel personal experience, although this pitfall is occasionally observed.

Facing individual and team challenges through an NGO or a governmental or international organization makes the surgeon feel like an integral link in the chain. The frustration that might derive from using strategies such as subcapsular orchiectomy to treat most patients with prostate cancer is mitigated by the achievement of teaching local personnel how to properly manage PSA levels and how to carry out radical prostatectomies through optimization, adaptation and education.

Last but not least, the simple enjoying of different cultures and landscapes enriches the individual experience of each person as a human being and not just as a healthcare worker.

### Current perspectives and challenges in humanitarian surgical missions

Reaching international coordination (for example, mediated by the World Health Organization or the United Nations) to reduce the gap between surgical practices in high-income countries and in low- and middle-income countries would be desirable. However, we believe that progress should not depend only on waiting for this desirable coordination. Existing technological advances already facilitate surgical missions, including telemedicine, telementoring and artificial intelligence algorithms<sup>5</sup>, which are beginning to democratize radiology and pathology services in underserved regions. Robotic telesurgery for populations in low- and middle-income countries remains challenging in the short-to-medium term but might be a feasible solution in the long term.

We argue that the human potential of all trained surgeons in high-income countries should be channelled into a mandatory commitment to participate in a humanitarian project after completing their training programmes. Current educational systems do not mandate or adequately reward such commitments, and only a few public systems provide coverage for these programmes. These initiatives are not solely about performing surgeries in low- and middle-income countries but often involve collaborating in educational programmes and telemedicine initiatives or reusing valuable surgical materials.

We have observed a growing awareness among young surgeons about health inequities. This phenomenon, combined with the ease of travelling and the increased availability of opportunities, has led to an increased number of volunteers for these initiatives. This trend must be directed towards integrating surgical missions into global health strategies led by international organizations. However, a risk that certain hospitals or communities might become 'NGO-dependent', neglecting their development towards autonomy, exists. Comprehensive training programmes, shared financial support and a planned timeline are essential to mitigate this risk. Another issue requiring international oversight is the unethical practice of conducting missions to enhance the surgical skills of Western teams in rare pathologies without contributing to the local development. These practices, although fortunately rare, are unacceptable and must be condemned.

In conclusion, we believe all NGOs conducting surgical missions must adopt a collaborative and ethical approach that involves recipient communities in the planning, execution and final implementation of innovative surgical techniques that are lacking or non-existent in their settings. The focus must always remain on educating and training local healthcare personnel (physicians and nurses). Additionally, promoting the integration of support for humanitarian surgical missions within governmental agendas is essential to ensure these efforts remain a powerful tool for advancing global health equity.

**J. Rubio-Briones**<sup>1</sup>✉ & **A. Gallioli**<sup>2</sup>

<sup>1</sup>Department of Urology, VITHAS Hospitals, Valencia, Spain.

<sup>2</sup>Department of Urology, Fundació Puigvert, Barcelona, Spain.

✉ e-mail: [jrubio@surgforall.org](mailto:jrubio@surgforall.org)

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### Competing interests

J.R.-B. is the President of Surg For All, a non-governmental organization involved in teaching surgery in West Africa. A.G. declares no competing interests.

### Related links

**Catherine Hamlin Fistula Foundation:** <https://hamlin.org.au/>

**Surg For All:** <https://surgforall.org/>