Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Injury 51 (2020) 785–786

Contents lists available at ScienceDirect

Injury

journal homepage: www.elsevier.com/locate/injury

Editorial

Turning Adversity and Deprivation into Improvements in Medicine – The COVID Opportunity

As the medical world braces itself to deal with the ongoing disastrous effects of corona virus (COVID-19), this global effort should be seen as an opportunity to use the experience to redefine the practice of medicine and surgery. Historically adversity, mainly conflict, has resulted in advances in medicine; infectious diseases [1], blood transfusion [2], or the development of mobile hospitals [3], which are currently being rapidly employed worldwide to deal with the demands of this unprecedented pandemic.

A simpler and frugal approach to medicine has to be adopted by less resource rich countries by necessity. Currently, with such an overwhelming pressure on medical resources, the developed world finds themselves in similar predicament, which could benefit the future of medicine. The pressure of overwhelming demand will force medical systems to work more efficiently, maximising what is achieved with disproportionately small and potentially diminishing resources.

The necessity to self–isolate in order to minimise the risk of cross contamination and rapid spread of the COVID-19 has changed radically our practice. The technical ability to undertaken virtual consultations, potentially reducing the need for clinician support staff, transport staff and costs have be available for almost a decade but only recently has work been started on exploring the use of technology [4–6]. Virtual clinics are rapidly being adopted in light of international locked downs. In response to the need to free up resources, sub specialities within medicine are being forced to radically re-think current practices. An example is The British Orthopaedic Association (BOA) [7] guidance advocating a more conservative approach to orthopaedic acute conditions. It recognises “Surgeons will need to consider alternative ways to manage many aspects of urgent orthopaedic conditions and trauma. Changes to standard management plans may be required to minimise patient exposure to disease and overall impact on resources.” Once the pandemic has passed, the same BOA guidance could be re-framed to address the urgent need to develop the practice of medicine in a more efficient manner that achieves the same or superior clinical outcomes at less cost. Furthermore, the quest over the last decade for those surgical procedures that promote early weight bearing, becomes even more pertinent [8]. Rehabilitation pathways are forced to swiftly evolve incorporating virtual reality and telecommunication platforms. Remote interdisciplinary communication and virtual clinical forums have received within weeks an impressive boost highlighting the inexplicable inertia of this readily available technology. The clarity of thought forcing changes in how medicine is practiced internationally at this time should be harnessed going forward.

During the course of the pandemic, there will be eureka moments, when doctors or other health care professionals ponder why this was not done before. These moments should be captured in a simplistic manner, through the following web **keepitsimplesurgeon.com** or using the **Twitter #keepitsimplesurgeon or #keepitsimpledoctor**. These seeds of thought could form the basis of more complex analysis going forward [9,10], with a clinical outcome, patient experience and wider health economic approach.

It is currently unknown how long the COVID-19 crisis is going to last. By the time this threat to humanity would be over, many lives would have been lost. Joining our thoughts and resources together, we must not allow this ‘COVID Opportunity’ to bypass us without collating the knowledge and experience acquired to transform our future. We ought this to the lives lost already and to the ones that will be lost.

Declaration of Competing Interest

None

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https://doi.org/10.1016/j.injury.2020.04.001

References

[1] Gradmann C, Harrison M, Rasmussen A. Typhoid and the Military in the Early 20th Century. Clinical infectious diseases: an official publication of the Infectious Diseases Society of America 2019;69(Supplement_5):S385–S3s7.

[2] Palfreeman L, Pinkerton P. Transfusion in the Spanish Civil War: Supply and demand, the role of the "blood transfusion officer" and British planning for the outbreak of the Second World War. Transfusion and apheresis science: official journal of the World Apheresis Association: official journal of the European Society for Haemapheresis 2019;58(6):102671.

[3] Lockertsen JT, Fause A, Hallett CE. The Norwegian Mobile Army Surgical Hospital in the Korean War (1951-1954): Military Hospital or Humanitarian "Sanctuary?". Nursing history review: official journal of the American Association for the History of Nursing 2019;28(1):93–126.

[4] Nadarzynski T, Bayley J, Llewellyn C, Kidsley S, Graham CA. Acceptability of artificial intelligence (AI)-enabled chatbots, video consultations and live webchats as online platforms for sexual health advice. BMJ sexual & reproductive health 2020.

[5] van Lent LGG, Stoel NK, van Weert JCM, van Gurp J, de Jonge MJA, Lolkema MP, et al. Realizing better doctor-patient dialogue about choices in palliative care and early phase clinical trial participation: towards an online value clarification tool (OnVaCT). BMC palliative care 2019;18(1):106.

[6] Liddy C, Bello A, Cook J, Drimer N, Pilon MD, Farrell G, et al. Supporting the spread and scale-up of electronic consultation across Canada: cross-sectional analysis. BMJ Open 2019;9(5):e028888.

[7] BOAST. Management of Patients with urgent orthopaedic conditions and trauma during the coronavirus pandemic: BOAST; 2020 [Available from: https://www.boa.ac.uk/uploads/assets/ee39d8a8-9457-4533-9774e973c835246d/COVID-19-BOASTs-Combined-v1FINAL.pdf.

[8] Trompeter A. A call to arms: it's time to bear weight. BJJ 2020;102-B(4):403–6.

[9] Bryan S, Goldsmith LJ, Suryaprakash N, Sawatzky R, Mulldoon M, Le Mercier M, et al. A research agenda to improve patients' experience of knee replacement surgery: a patient-oriented modified Delphi study of patients of South Asian origin in British Columbia. CMAJ open 2020;8(1):E226–Ee33.

[10] Avby G, Kjellstrom S, Andersson Back M. Tending to innovate in Swedish primary health care: a qualitative study. BMC health services research 2019;19(1):42.