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.

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Editorial

Invited editorial from the social media editor of JPRAS; Leadership in the time of COVID-19

> "The greatest danger in times of turbulence is not the turbulence – it is to act with yesterday's logic." – Peter Drucker[1]

COVID-19 has made change an uncomfortable new norm. The pandemic precipitated restructuring at a pace and scale unheard of in peacetime. Organisations and individuals must actively reflect, share and learn from their successes as well as oversights and failures.[2] We have an opportunity to redesign healthcare systems, not by the unhappy accident of a global pandemic, or by chance, but with deliberate intent and an understanding of system complexity.[3]

We hope to capture this moment in time to document examples of creativity, innovation and exemplary leadership over recent months, and to consider how we meet the fresh challenges of the recovery phase. It is difficult to accurately analyse evolving information and make effective decisions in the midst of a pandemic. Declining incidence in some regions presents a moment of respite in which to review the response and look ahead.[4]

Leadership problems require political collaboration; they can't be solved with science alone or by returning to tried and tested solutions. Applying a continuum, or toolbox approach of management and leadership skills when solving complex problems is part of the art of Leadership. Plastic surgery as an international specialty has never been more connected. In this moment we must ask the right questions, and collaborate on a scale not previously possible.[5]

> **"Leadership at all levels. At all stages."** Project Lift, NHS Scotland[6]

Clinical level

Plastic surgeons have contributed to the efforts against COVID-19 by restructuring departmental services or redeploying to other fields more stretched by the virus. Testing ourselves as people and professionals, while balancing concerns of personal safety against professional responsibility has never been more challenging. For some the contribution has been the ultimate price.[7]

The crisis precipitated a rapid change in services, priorities and capacities. The public sector commitment didn't cease, but some aspects rightly stalled with all but the most urgent cases postponed. The aesthetic sector has faced very different challenges with complete cessation of service in the face of public need and PPE shortages. The use of WALANT surgery and regional anaesthesia with sedation has become a more widely accepted norm, even in the context of free flap surgery.[8,9] The role of a plastic surgeon has been varied during the crisis. The next 12 to 18 months will remain uncertain for us all as we reshape services, restart practice and plan next steps in careers.

Rapidly adopting and up scaling available IT solutions as well as reflexive changes in data protection standards allowed healthcare systems to do what was right in service of patients and staff within very short timeframes.[10] Clinical skills and doctrines have been reassessed in the virtual context. This allows delivery of doctor-patient relationships without the stresses of travel, parking and hospital waiting rooms. In turn there may be added benefit of overall sustainability of health and surgical care with a reduced carbon footprint. Co-designing services with patients to ensure that we achieve high standards and satisfaction through Patient Reported Experience Measures (PREMs) will enable healthcare to protect what has been gained in the COVID-19 era. To return to "business as usual" would be a tragic missed opportunity for systemic improvements across our healthcare system.

Academic level

There can be no doubt that a pandemic requires rapid, effective research activity to guide the response at all levels:

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public health measures to prevent spread, vaccine development, and therapeutic strategies to name but a few.

At present in the UK ethical approval for studies that do not directly relate to COVID-19 has been significantly delayed and in some cases suspended.[11] Research has, where practicable, been reframed to take COVID-19 into account, and research collaboratives, such as CovidSurg, formed to investigate the consequence of infection on patient outcomes.[12] Prior international crises with a heavy burden of trauma have seen great advances in plastic surgery; the current pandemic is seeing virology and immunology come to the fore. As the crisis shifts gears research priorities and funding must still include the challenges faced by the patients we serve, and we must be prepared to advocate for them through continued research and development.

Despite this uncertain climate, JPRAS has seen a significant increase in sub-mission rates with 9% of submissions in the preceding 30 days of writing this editorial relating to COVID-19. In total there have been nearly 500 submissions since lockdown began in the UK on the 23rd of March 2020. It is likely there are two factors at play, one is the need to engage as a community on the issues, challenges and opportunities presented by the pandemic. Secondly, elective surgery was greatly reduced over the first phase of the pandemic, resulting in increased flexibility of clinical practice and perhaps more time to complete projects. Part of the opportunity presented by COVID-19 will be adjusting the balance of clinical versus creative and innovative time for the medical workforce to the betterment of everyone; as Leonardo da Vinci recognized *"It is at the moment that they are working the least, that minds achieve the most."*

Many academic surgeons including academic plastic surgeons, combined UK wide efforts to source and produce PPE at the height of the pandemic.[13] The MedSupplyDriveUK teams used a community effort to respond in real time to the current crisis. Advanced problem solving and project management skills gained during academic research experience, leadership development, and other facets of personal and professional development beyond solely clinical work translate well to other spheres, and may act to equip the profession for crisis management.

Collaborative enterprise is a key component of successful research and COVID-19 has amplified that importance. The Reconstructive Surgical Trial Network (RSTN) in the UK was already pushing this agenda in the advancement of plastic surgery research.[14] As this crisis unfolds and recovery begins, it will be crucial to add our collective data and voices to these national and international research consortiums as we rebuild healthcare in a more informed and deliberate fashion.

Community level

The economic impact of COVID-19 will be significant. Recovery of economies and societies should not be measured by fiscal recovery alone, but also by the recovery of wellbeing.[15] This will be an important metric at societal scale, but also one to consider for ourselves within the health service and for the specific populations we serve.[16] We must each of us cultivate our own sense of wellbeing as well as a community of practice and shared experience. Moral injury is a significant risk within the wider population, but particularly within the health and social care sectors following COVID-19; focusing on individual and systemic wellbeing may be part of the antidote. Key to wellbeing is human connection; this can be designed into our health systems with patient and staff engagement. The personal and collective leadership required in implementing a connected and engaged health and wellbeing system starts with each of us, at every level.

It is said that to be successful at anything (and in this context, leadership) you should be "affable, available, able, aspirational, and altruistic". There is always a role for individuals in leadership and positional leadership, but this has evolved from traditional concepts of hierarchy and command and control to a more collegiate, connected and collaborative leadership style across health systems. We each of us can make a difference, at every level and every stage in our careers.

One of the greatest increases in productivity and leadership in plastic surgery during COVID-19 has been the use of online platforms to share knowledge, ideas, and techniques. Two thought and action leaders in this field are PLASTA and ICOPLAST, particularly at trainee level.[17,18] They have created connected professional spaces on instant messaging platforms, as well as vastly popular webinar series' and been the driving forces behind our new JPRAS Journal Club, in collaboration with our Editors.

Institutional level

One of the benefits of the COVID-19 response has been the disbanding of bureaucratic barriers and the dispensing of red tape in favour of nimble responses.[19] At times new organisations have sprung up to fill gaps in the establishment, applying start-up like principles to healthcare within the private, public and third sectors. This combined with a fresh approach to personal autonomy and accountability has seen a change in how healthcare policies are shaped and core business is delivered.

All surgical disciplines have been required to produce temporary clinical guidelines, and to contribute to system-level service realignment to provide surge capacity for management of patients with COVID-19. A notable challenge for plastic surgery was the relatively low priority of breast reconstruction in the initial priority setting exercise.[20] We each of us have a role as person-centred advocates within institutions, and as external critical appraisers, holding the systems and organisations to account. Lobbying and ensuring that the priorities set for recovery of services include those clinical problems unique to the plastic surgery patient population will be a key aspect in navigating our path out of the pandemic.

The provision of safe working environments for healthcare staff is paramount. The MedSupplyDrive team identi-

fied gaps in the market, unseen resources, and effectively lobbied to ensure the safety of NHS workers. The team advocate for the use of high quality reusable PPE for health and social care workers, they have been endorsed by the Confederation of British Surgeons, and engaged with health service and government officials locally, regionally and nationally to deliver their aims. A key finding from this work was in the power of linking disparate parts of the system together, connecting an otherwise silo-strewn system. This is an example of SMART principles being applied to healthcare delivery and design in new ways as a result of the pressures of the pandemic.

The Colleges and National Training Bodies will need to reimagine the delivery of national selection interviews and exams, which have been suspended, in order to provide the workforce of tomorrow. For organisations like BAPRAS, COVID-19 has led to a reinvention of the education and training with the creation of the webinar series' with a greater sense of community and immediate shared learning than ever before. Intiatives like this will be essential in maintaining community and in reducing variation across education and service delivery going forward.

Innovation level

Opportunities for innovation can be viewed as arising within seven domains; unexpected events, incongruities, process needs, industry changes, demographic changes, perception shifts, and new knowledge.[21] The unexpected events of recent weeks, and the numerous resulting changes in society and in the healthcare industry, are major drivers of innovation.

Plastic surgeons are an innovative and creative group of individuals, and indeed we have already seen effective innovations arising from their efforts in numerous sectors. From the development of AI platforms, to rapid low-cost ventilator development, plastic surgery has adapted to COVID-19 with tenacity and fortitude. Social media profiles and websites encouraging online discourse and debate are advancing learning and development across the specialty, and healthcare as whole, and are doing so on a global scale.[22,23] Indeed, the radical changes to the medical education and training landscape stimulated by this pandemic offer the potential to combine sustained improvements in international collaboration and learning, with reduced environmental impact and loss of productive time to travel. These successful efforts have avoided the traditional hierarchy of surgery, and have provided simple, focused solutions to clearly identified needs.

Conclusion

Wider discussions across healthcare have produced similar lists of priorities and innovations in this first phase of COVID-19. Efforts are underway to capture and preserve the positive changes that have already been implemented.[19] Recent focus on personal health and wellbeing, developing co-created, patient-centred care models, and delivering effective training and continued professional development via remote platforms has demonstrated the value of flexible and collaborative leadership at all levels. This approach equips us well to respond effectively in the face of new opportunities and challenges as they arise.

What this era has shown us is that the conventions of surgery, and the measures of success are shifting. Where we were once cautioned to "publish or perish", a synonym for personal achievement, the social media era has seen an evolution to "have presence or perish" - be known and make sure your work is read. Recent weeks demonstrate that we are now arguably in the era of "connect and collaborate or combust"; to paraphrase Harry S. Truman, it is incredible what can be accomplished, if you don't care who gets the credit.

There has been controversy in plastic surgery circles about leadership, how it should be defined and ratified, what constitutes good, or less than. What is clear is that in response to this international crisis, plastic surgeons around the world, at every level, are stepping up to meet the challenges facing them, and leading from where they are.

Thank you.

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References

1. Cohen W. Peter F. Drucker and the COVID-19 Crisis. www.corporatelearningnetwork.com/leadership-management/columns/peter-f-drucker-and-the-covid-19-crisis;
2. Hollnagel E., Wears R.L., Braithwaite J. From Safety-I to Safety-II : A White Paper.
3. Plesk P, Wilson T. Complexity, leadership, and management in healthcare organizations. *BMJ* 2001;**323**:746–9.
4. Johns Hopkins Coronavirus Dashboard https://coronavirus.jhu.edu
5. Grint K. Wicked Problems and Clumsy Solutions: The Role of Leadership. *The New Public Leadership Challenge*. Palgrave Macmillan; 2010. p. 169–86.
6. NHS Scotland Project Lift https://projectlift.scot.
7. Manchester Evening News: Obituary for Dr Furqan Ali Siddiqui: https://www.manchestereveningnews.co.uk/news/greater-manchester-news/tributes-mri-doctor-fuqan-siddique-18183948
8. Lalonde D. Wide awake local anaesthesia no tourniquet technique (WALANT). *BMC Proc* 2015;**9**(S3):A81.
9. Bjorklund KA, Venkatramani H, Venkateshwaran G, Boopathi V, Raja Sabapathy S. Regional anesthesia alone for pediatric free flaps. *J Plast Reconstr Aesthetic Surg* 2015;**68**(5):705–8.
10. Information Commisioners Office Data Protection and Coronavirus Information Hub https://ico.org.uk/global/data-protection-and-coronavirus-information-hub/
11. NHS Health Research Authority https://www.hra.nhs.uk/covid-19-research/
12. GlobalSurg Collaborative https://globalsurg.org/covidsurg/.
13. MedSupplyDriveUK https://www.medsupplydrive.org.uk/
14. Reconstructive Surgery Trials Network http://reconstructivesurgerytrials.net

15. New Zealand Ministry of Finance. The Wellbing Budget 2019. https://treasury.govt.nz/sites/default/files/2019-05/b19-wellbeing-budget.pdf
16. Cylus J, Smith PC. The economy of wellbeing: what is it and what are the implications for health? *BMJ* 2020;**369**:m1874.
17. PLASTA https://www.plasta.org
18. ICOPLAST https://www.icoplast.org
19. Malby, B. 5/5/2020 'What do you want to keep from this time? Lessons for the NHS – don't let the 'old world bite back*' https://beckymalby.wordpress.com/2020/05/05/what-do-you-want-to-keep-from-this-time-lessons-for-the-nhs-dont-let-the-old-world-bite-back/
20. Royal College of Surgeons of England. Clinical guide to surgical prioritisation during the coronavirus pandemic.
21. Drucker P.F. The Discipline of Innovation. Harv Bus Rev. 2002, August. https://hbr.org/2002/08/the-discipline-of-innovation
22. ThePlasticsFella https://www.theplasticsfella.com
23. WeShare.Healthcare https://weshare.healthcare

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