


Introducing video content into *Scars, Burns & Healing*

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A recent article in *Scars, Burns & Healing* incorporated video footage for the first time.¹ The paper looked into the possibility that usage of power tools, particularly dermatomes, which are commonly used in reconstructive surgery, may be an aerosol-generating procedure (AGP) and the use of video footage supported and complemented the conclusion that procedures using powered dermatomes were likely to be AGPs. In the context of the COVID-19 pandemic, there are likely to be many parallels in all areas where power tools are utilised in the operating room, and the increasing importance of targeted and tiered levels of personal protective equipment (PPE) based on risk.

The utilisation of videos in clinical medicine, medical education and research has increased over the years, finding applications across multiple disciplines and areas. Video-based observation has been used in primary care research,² evaluation of practices in prenatal and cancer genetic counselling,³ in vivo visualisation of oxygen free-radical production,⁴ medical education facilitation and performance feedback,^{5–7} and many other areas of clinical practice, examples of which are observational gait analysis,⁸ HIV prevention intervention⁹ and debriefing after transcatheter aortic valve replacement.¹⁰ The driver behind utilisation for educational purposes of visual messages, over or in addition to the verbal message, is the observation that the brain processes and stores images better than words. In fact, when neural correlates of memory for pictures and words were studied to delineate brain activity patterns using positron emission tomography, encoding of pictures resulted in greater cortical activity, leading to superior picture memory.¹¹ Hence online educational resources are increasingly becoming more and more diverse, integrating videos.¹² A well-established *Journal of Video Experiments (JOVE)*; <https://www.jove.com/>

journal), for example, provides a peer-reviewed repository of science videos, for scientific research and education. In other cases, capturing a video contributes directly to building scientific evidence of specific phenomena which would be difficult to visualise or otherwise document, such as oxygen free-radical production,⁴ gait analyses⁸ or continuous quality improvement in clinical practice.¹⁰

It should be noted that while the usage of photographic and video support in medical education and research enhances learning processes, more effectively documents visual phenomena and supports the progress of medical research, such use does raise fundamental ethical considerations around concerns and potential challenges of an ethical nature,^{13,14} particularly with the increasing development of open access publishing and diffusion of material over the World Wide Web, which add to the well-known complexities related to the fragmentation of the research ethics approval processes.¹⁵


A recently published report from a large cohort study of inpatients with COVID-19 has confirmed the high mortality risk associated with the disease in the general population, with increasing age, male gender, obesity and other chronic co-morbidities all being independent risk factors for a negative outcome.¹⁶ When considering healthcare workers (HCWs), it is known that AGPs could expose them to respiratory infections, although this exposure risk has not been fully quantified. In a meta-analysis of five case-control and five retrospective cohort studies evaluating the transmission of SARS to HCWs, multiple procedures were reported to be associated with increased risk of transmission, particularly in areas of anaesthesiology, respiratory and intensive care medicine, with tracheal intubation being the intervention generally most associated with risk.¹⁷ Nevertheless, the concerns around the



spread of COVID-19 have affected many other areas and domains of medical practice, including ophthalmology,¹⁸ otorhinolaryngology,¹⁹ cardiac surgery²⁰ and cardiopulmonary resuscitation.²¹ Many different factors are likely to be related to HCW infection, including the use and availability of adequate PPE, infection control measures, and training and performance of procedures with high risk of contact with infected bodily fluids and/or aerosol generation.²²

In conclusion, video content, whether for educational or specific scientific purposes, complements, enriches and, in some cases, entirely replaces the standard usual method of written publication, supporting students, educators and researchers.

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