

## Widening online opportunity

Ronald V Trubuhovich

**TO THE EDITOR:** I do appreciate that budgeting for space in the College of Intensive Care Medicine's journal does not allow publication of every suitable paper submitted to *Critical Care and Resuscitation* (CCR). A possible solution for this problem — as already used by journals such as *Critical Care Medicine* and the *Journal of the American Medical Association* — could be for CCR to run an online parallel service featuring such articles. Although I am unaware of the economic considerations for and costs of such a venture, I would expect that, if such a solution were feasible and undertaken, it would be likely to ease pressure on print demand.

Online publishing might also be helpful for articles that would have been acceptable if they were not excessively lengthy, as reviews and medical history papers can be long or have less widespread interest, but still merit being published. *The New Zealand Medical Journal* has been published online for several years now (with an *NZMJ-Digest* of online selections printed about six times yearly) and the *Medical Journal*

*of Australia* has published online-only articles, although it does not do so currently (July 2014).

Articles by today's writers gain their widest exposure when indexed in an appropriate repository, thereby being made identifiable to deliberate or even casual literature reviewing by means of a search engine. Online publications as well would profit from such indexing. Perhaps also publishing the quarter's list of digital titles within the printed journal, or better, publishing a briefer abstract if that could be accommodated, would ensure indexing.

Respectfully, I would suggest that CCR might secure more response to papers published if, online, your admirable journal extended to interactive encouragement similar to the *BMJ's* Rapid Response or The National Center for Biotechnology Information's PubMed Commons.

Ronald V Trubuhovich, Honorary Specialist Intensivist  
Department of Critical Care Medicine, Auckland City Hospital,  
Auckland, New Zealand.  
rvt.met@pl.net

## Online availability of research equipment and consumables

Kimble R Dunster

**TO THE EDITOR:** Critical care research using large animal models usually relies on equipment designed for human use. This is often obsolete equipment from a hospital associated with the research group. However, appropriate equipment may not be readily available.

Online auction, clearance and retail sites list a vast range of medical and scientific equipment and consumables, both new and used. I performed a "thought experiment" to determine the online availability of equipment and consumables suitable for use in an adult ovine (ie, sheep) extracorporeal membrane oxygenation (ECMO) model.<sup>1</sup> This is a complex experimental model, requiring a wide range of equipment.

With the exception of the custom-built smoke generator,<sup>2</sup> all the equipment needed could be obtained online — patient and cardiac output monitors, pumps, ventilators, gas blenders, data acquisition devices, the furnace and even the ECMO pump. Much of the equipment was used, but some was new and being offered at prices as low as 10%–20% of the current price.

Semiconsumable items such as electrocardiogram leads, blood pressure transducer cables, and pulse oximetry and capnography sensors were available to suit the patient monitors. Often made by third-party suppliers, I have found these consumables range in quality from average to excellent.

## LETTERS

Similarly, surgical instruments of varying quality are available at a fraction of the price of the “brand names” used in hospitals. Consumables such as Swan–Ganz catheters are less readily available, but expired stock may occasionally be found online.

*Caveat emptor* is a maxim for all online transactions, and great care needs to be taken when purchasing medical and scientific equipment to ascertain that it is functional and suitable for the purpose. The sellers are usually not experts in medical equipment and cannot test the operation before sale. Compatibility with the mains voltage and frequency of the country in which the equipment will be used needs to be determined.

Purchasing in this way may be difficult as universities and research institutes are often unable to purchase online or from auction sites at all. The purchase of second-hand equipment can also present difficulties. Creative solutions involving using personal funds and being reimbursed may be needed if bargains are not to be missed.

I have purchased a wide range of research equipment and semiconsumable items online. I have made dozens of transactions and, with only one exception, these were completed easily with the supplied items in good order and fully matching their advertised description. When sellers accepted offers, an initial bid of 50%–75% of the listed price was often successful.

With care, substantial research budget savings may be made by purchasing online from unorthodox sources.

**Kimble R Dunster**, Technologist,<sup>1</sup> and Research Associate<sup>2</sup>

1 Critical Care Research Group, The Prince Charles Hospital, Brisbane, QLD, Australia.

2 Science and Engineering Faculty, Queensland University of Technology, Brisbane, QLD, Australia.

k.dunster@qut.edu.au

1 Shekar K, Fung YL, Diab S, et al. Development of simulated and ovine models of extracorporeal life support to improve understanding of circuit-host interactions. *Crit Care Resusc* 2012; 14: 105-11.

2 Riedel T, Fraser JF, Dunster K, et al. Effect of smoke inhalation on viscoelastic properties and ventilation distribution in sheep. *J Appl Physiol (1985)* 2006; 101: 763-70. □