Commentary

Communication in the Toronto critical care community: important lessons learned during SARS

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Abstract

The SARS outbreak in 2003 pushed Toronto's health care system to its limits. Staffing shortages, transmission of SARS within the ICU, and the influx of critically ill SARS patients were some unique challenges to the delivery of critical care. Communication strategies were a key component in the critical care response to SARS. Regular teleconference calls, web-based training and education, and the rapid coordination of research studies were some of the initiatives developed within the Toronto critical care community during the SARS outbreak. Other critical care communities should consider their communication strategies in advance of similar events.

Keywords communication, critical care, disease outbreaks, SARS

In the spring of 2003, Toronto found itself in the midst of a worldwide outbreak of SARS. The Toronto outbreak followed a biphasic course lasting from 5 March to 12 June. A total of 375 probable and suspect cases of SARS (as defined using World Health Organization criteria [1]) were reported in Ontario, of which 44 died [2]. The vast majority of these cases were contracted in hospital by patients, visitors, and health care workers [3]. This unexpected outbreak pushed Toronto's health care system to its limits and presented many challenges to the delivery of critical care.

Supply of critical care beds became a major problem. Years of cost constraints and a lack of critical care nurses had resulted in bed reductions and high occupancy rates in ICUs throughout Ontario. This made it difficult to find beds for the influx of critically ill patients with SARS. Furthermore, with the high rate of transmission of SARS to health care workers; fear, staff quarantine, SARS development, and emotional stress further limited the supply of critical care staff. Compounding this problem, as SARS transmission occurred, entire critical care units began to close for quarantine periods. For example, 73 ICU beds were closed during various phases of the SARS outbreak, representing 38% of the tertiary care university medical/surgical ICU beds (some of which housed important regional programs such as trauma) and 33% of the community ICU beds in Toronto [4]. Such closures limited beds for all critically ill patients. In addition to the difficulty of bed access, SARS necessitated several changes to the delivery of critical care, especially with regard to infection control measures. Such changes needed to be rapidly and widely disseminated, as well as taught to frontline workers.

We quickly learned that communication strategies both within the critical care community and between the critical care group and others (such as hospital administrators, government, and public health officials) were key weapons in the fight against SARS. The purpose of this report is to describe the unique communication strategies that we undertook in the critical care community during the SARS outbreak. We hope that this information will help others to deal with similar events in the future.

Following an insurmountable number of e-mails and telephone calls, it was recognized that the Toronto critical care community would benefit from regular teleconferences for several reasons. Because SARS was a new illness, a great deal was gained by providing a forum for the

ICU = intensive care unit; SARS = severe acute respiratory syndrome.

exchange of clinical information and advice. Many health care providers felt isolated during the outbreak because regular hospital rounds and meetings were cancelled. Furthermore, with infection control regulations limiting interhospital patient transfers, individuals had to manage cases that they might not usually have managed. Finally, regular communication would allow coordinated data collection for the purposes of better understanding the critical care aspects of the illness [4,5].

As a result, thrice weekly teleconference calls involving critical care clinicians, and invited representatives from public health, infection control, infectious diseases, government, and hospital administration were held. Participants were identified by searching individual e-mail contact lists, personal communication, and announcements to hospital administrators through the Ontario Hospital Association. During the calls clinical information and therapeutic challenges were discussed. In addition, we were able to dispel rumors, clarify media reports, synthesize the barrage of faxes and government directives, answer questions, and support those feeling isolated. The discussions generated new ideas about how to deal with this previously unknown illness, and identified leaders to focus on specific tasks.

A team of individuals was asked to work with infection control colleagues to develop guidelines for ICU practices considered to be high risk for SARS transmission (i.e. cardiac resuscitation, intubation, bronchoscopy, noninvasive ventilation, suctioning, high flow oxygen therapy, and high frequency ventilation). This group rapidly agreed on several recommendations, ensured the recommendations received government approval and mandates, disseminated the information on a broadly advertised website, developed instructional videos, and provided remote and local training [6]. Another important task was to identify, both within and outside Toronto, a workforce capable of working in the ICU in the event of a staffing shortage. Finally, leaders from the ICU community were appointed to deal directly with the Ministry of Health to bring forward (in one voice) critical care issues and to assist in finding system wide solutions to critical care challenges.

Other communication initiatives included a group of tertiary care intensivists making themselves available to provide 24-hour on-call clinical support and advice to any critical care provider. These individuals were available through a government sponsored toll-free line. In addition, software specific to SARS was developed for handheld computers and made available for broad distribution free of charge [7]. Finally, on a more personal level, ICU leaders needed to communicate regularly with critical care staff in quarantine and those who were admitted to hospital with SARS. At many institutions ongoing emotional support was provided to all levels of ICU staff through regular meetings and psychologic intervention [8].

Several lessons emerged from our experience, the most important of which is the need for preparedness. We were not prepared for SARS, or did we have a system-wide critical care communication strategy in place. Ideally, centers should have leadership and communication systems prepared to allow for the rapid expansion and modification of critical care services in the event of a disease outbreak. Fortunately, SARS appears to have disappeared, at least temporarily, from Toronto and the rest of the world. While we remain vigilant for a return of SARS there are ongoing communication initiatives within the Toronto critical care community. Education and training staff in the use of appropriate protective equipment continues. Efforts related to debriefing are also ongoing. Additional emotional and counseling support is being offered to those who are left with psychologic sequelae. This has particular importance in retention and recruitment of frontline workers. Finally, research initiatives continue in an effort to learn more about the events that occurred.

In summary, communication strategies were a key component in the critical care response to SARS. Other critical care communities should consider their communication strategies in advance of similar events. Despite the dramatic impact of SARS on our community, it was inspiring to witness the incredible spirit of cooperation that occurred at the local, national, and international levels.

Competing interests

None declared.

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