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SARS and the removal of personal protective equipment

In a reported cluster of cases of SARS among Canadian health care workers,1 infections occurred despite apparent compliance with recommended infection control precautions. In the report it was noted that contact with a patient or with a contaminated environment might have led to health care workers infecting themselves as they removed their personal protective equipment (PPE). Many health care workers apparently lacked a clear understanding of how best to remove PPE without contaminating themselves. However, the correct order of removal as presented in the report was extremely condensed (gloves first, followed by mask and goggles).1

In fact, little information about the appropriate sequence of removing PPE is available, and what *is* available often contains contrasting recommendations (Table 1).²⁻⁶ Moreover, for several of these sets of recommendations, hands potentially contaminated through con-

tact with patients' droplets and secretions present on the PPE could contact the nose, mouth or eyes while the health care worker is removing his or her mask and eye protection.

Careful hand hygiene plays a pivotal role in reducing the risk of transmission of SARS. Accordingly, the National Institute for Infectious Diseases in Italy has developed a procedure whereby the health care worker removes most PPE while wearing mask and eye protection and carefully decontaminates the hands before removing protection of the mucous membranes of the face. This procedure must be carried out in the health care worker's change area, outside the patient's isolation room.

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Rehabilitation in developing countries

A s Mohan Radhakrishna and Lalith Satkunam point out in their introduction to the recent *CMAJ* series on rehabilitation,¹ this important topic is not covered appropriately in medical schools. Furthermore, rehabilitation of those affected by physical and mental disability is neglected in developing countries, often as a result of corruption, poor management of financial resources and lack of natural resources.

Almost 10% of the global population is disabled in some way,² and most

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Order	Ontario Ministry of Health and Long-Term Care ²	WHO, Western Pacific Regional Office ³	Australian Government Department of Health and Ageing ⁴	Department of Diagnostic Imaging, Prince of Wales Hospital, Hong Kong ⁵	Tertiary neonatal centre, Prince of Wales Hospital, Hong Kong ⁶	National Institute for Infectious Diseases, Rome, Italy
1	Gloves*	Wash gloved hands	Gloves	Gloves	Hair and shoe covers, gown	Hair and shoe covers, gown
2	Hand hygiene†	Aprons, gowns and shoe covers	Eye protection	Hair cover	Gloves	Gloves
3	Eye protection	Gloves	Gown	Eye protection	Hand hygiene	Hand hygiene
4	Mask	Goggles	Mask	Gown	Eye protection	Eye protection
5	Hair cover	Hair cover and mask	Hand hygiene	Mask	Mask	Hand hygiene
6	Hand hygiene	Hand hygiene		Hand hygiene	Hand hygiene	Mask
7	_	_	-	-	-	Hand hygiene

Table 1: Procedures for removing personal protective equipment worn while caring for patients with SARS

Note: WHO = World Health Organization.

*Second pair. First pair and gown to be removed soon after providing direct patient care, while still inside the patient's room. †Hand-washing or hand-rubbing, or both, with alcohol or other antiseptic agents.