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LETTER TO THE EDITOR

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ESTABLISHING ESSENTIAL CARDIOPULMONARY PHYSIOTHERAPY SERVICES IN ACUTE CARE SETTINGS IN CHINA

The global coronavirus 2019 (COVID-19) pandemic has necessitated dramatic and urgent responses from healthcare systems worldwide. The disease is hallmarked by acute respiratory distress syndrome (ARDS) and its complications, including deconditioning and poor functional outcomes (1).

Cardiopulmonary physiotherapists are core members of the intensive care team in acute care, particularly in the intensive care unit (ICU). They have well-established, evidence-based roles in the management of patients receiving mechanical ventilation, and the prevention of physical functional disability associated with immobility. Physiotherapists are therefore relevant and necessary for the care of patients with COVID-19 (2). Physiotherapy in acute care management is scientifically supported and relatively low-cost (3).

In response to the COVID-19 pandemic, a worldwide working group of recognized physiotherapists, practising in acute care, was set up to produce a specific guideline on the management of patients with COVID-19, founded on established evidence-based cardiopulmonary physiotherapy (4).

This letter calls for support, both globally and within China, to facilitate the establishment of a clinical acute care environment in China that cultivates interprofessional care consistent with international practice, in the interest of best global healthcare practices and in preparation for the next pandemic.

In China currently, patient management by qualified physiotherapists in acute care settings is almost non-existent. Despite the presence of internationally accredited physiotherapy programmes, qualified graduates do not have treatment rights in acute hospitals and critical care units, and thus cannot develop their clinical skills in acute care. The COVID-19 pandemic has highlighted the lack of qualified physiotherapists practising in acute care in China, especially in the ICUs. Patients with severe COVID-19 symptoms admitted to ICUs with ARDS and associated deconditioning therefore do not receive early interventions prescribed by physiotherapists.

The concept of acute care and perioperative rehabilitation is slowly becoming accepted by clinicians in China, and "Expert Consensuses" have been published (5). However, many of these guidelines regard cardiopulmonary physiotherapy as simply a raft of techniques, such as percussion, vibration and breathing exercise protocols (6). There are also recommendations that promote ultra-short-wave therapy for pulmonary inflammatory conditions (7, 8) and external diaphragm pacing, applied in community cardiopulmonary rehabilitation, purportedly to improve diaphragmatic function (8). Currently in China, these non-evidence-supported, protocol-based, "perceived" physiotherapy skills are practised by nurses and generic rehabilitation therapists. Importantly, such practices are not consistent with international therapeutic and safety standards for physiotherapy practice (9). These misconceptions and technical approaches must change, as they impede the development of the physiotherapy profession in China and the contribution of physiotherapists to acute care.

Physiotherapy entry-level education programmes with curricula consistent with international standards were established in China in 2004 (10); however, physiotherapy as a specific professional entity is not yet recognized by the Chinese government. Currently in China, the role of qualified physiotherapists is not recognised in acute or critical care settings. A critical care environment, in which each health profession has an established role consistent with international practice standards is essential for establishing high-quality intensive care. Furthermore, effective interprofessional collaboration improves patient outcomes in the ICU (11). Thus, established health professions practising in the ICU must also be familiar with each others clinical roles.

China is a resourceful country. Establishing an ICU environment consistent with international practice standards and cultivating interprofessional collaboration in China can be achieved by:

- Recognition, by healthcare leaders, of cardiopulmonary physiotherapists as core members of the acute care team.
- Promotion, by respiratory or intensive care leaders, of evidence-based physiotherapy management for patients in acute respiratory care and implementation of early mobilization based on clinical reasoning.
- Reducing dependence on nurses and generic rehabilitation therapists administering outdated "techniques" and interventions that are not supported by evidence, by the inclusion of physiotherapists.
- Broadening the focus of management to include evidence-based strategies that reduce the risk of pulmonary complications and physical dysfunction in acute care settings, by the inclusion of physiotherapists.

The establishment of effective intensive care teamwork in China that aligns with international practice could be facilitated by consistent messages from internationally respected academics. It is imperative that, when delivering educational workshops

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in China, international academics are mindful of supporting independent professional development and not encouraging the delivery of generic skills by non-specific disciplines. In Western countries, the physiotherapy profession has long been committed to being research-informed, and serving as an integral member of the ICU team. Internationally respected researchers and educators are willing to support entry-level physiotherapy education that meets the guidelines of the World Confederation for Physical Therapy (WCPT) (10). However, successful implementation of such education requires broad-based support from within the Chinese healthcare community.

In publishing this letter, we call for support, both globally and within China, to facilitate effective team collaboration among professions working in ICUs in China. Professions that are already well established have demonstrated effectiveness in intensive care management; cardiopulmonary physiotherapists should be encouraged to practise contemporary evidence-based practice in acute and critical care settings, thereby strengthening patient management. International support for this position is essential for consistency with best international healthcare practices.

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