

Physiotherapy-led bronchoscopy in the ICU

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We previously published an article in *Australian Health Review* describing the implementation of a physiotherapy-led bronchoscopy service at Launceston General Hospital in Tasmania.¹ There has been increasing interest in this article from physiotherapy colleagues, and this letter hopes to address some of the questions asked.

From our intensive care unit (ICU) perspective, the physiotherapy-led bronchoscopy service has been well received and respected by all ICU medical and nursing staff. Due to our ICU acuity, demand can fluctuate, and the number of physiotherapy-led bronchoscopies indicated and undertaken can range from two to four procedures per week, to one per month. Since credentialing, the senior ICU physiotherapist has undertaken 48 bronchoscopies and has assisted in 10 percutaneous tracheostomy procedures by being responsible for the bronchoscopy component. There have been no major adverse events or complications during any physiotherapy-led bronchoscopies.

Although evidence suggests chest physiotherapy is as effective as bronchoscopy,^{2,3} we find physiotherapy-led bronchoscopy to be a valuable, time-efficient treatment for significant mucous plugging and assisting airway clearance in patients who are already sedated and occasionally paralysed and/or when other physiotherapy interventions may not be appropriate or successful. Physiotherapy-led bronchoscopies can help guide future chest physiotherapy, allows an assessment of airway integrity and can be a beneficial adjunct when used in combination with other chest physiotherapy interventions.

As identified when initiating the service, patients require an increase in sedatives, topical local anaesthetic and/or addition of neuromuscular blocking agents for bronchoscopies to occur safely, which physiotherapists are unable to prescribe or administer. To overcome this, we followed recommendations, and modified existing protocols from Alfred Health, Victoria, Australia, that ensures medical staff pre-prescribe the medications required and ICU nursing staff administer them. This protocol works well in our ICU and there have been no barriers to physiotherapy-led bronchoscopies due to medication prescription/administration limitations. Another concern was implementation of a physiotherapy-led bronchoscopy service may reduce physiotherapy time and resources available to focus on other physiotherapy duties within ICU, such as early mobilisation and rehabilitation. Anecdotally, we have not observed or had any reports of practice change to patients receiving timely and appropriate physiotherapy. Rather, physiotherapy-led bronchoscopy is part of a package of lung clearance therapies that spans from diagnosis (chest X-ray and physiotherapist lung ultrasound), ventilator and pharmacologic therapies for secretion burden, chest physiotherapy and where appropriate, bronchoscopy.

The senior ICU physiotherapist remains the only physiotherapist who has been credentialed in physiotherapy-led bronchoscopy. This is predominantly due to our ICU physiotherapy staffing model. We have one permanent full-time senior ICU physiotherapist, with the remaining physiotherapy staff being junior/new graduate level who rotate through ICU every 3 months. After credentialing was achieved, the senior ICU physiotherapist had to reapply to the credentialing body annually with evidence of safe and regular practice. This has now been extended to every 3 years. This process ensures accountability and ongoing safe practice.

Lastly, implementing a physiotherapy-led bronchoscopy service has increased work satisfaction with progression of scope and clinical development and has further enhanced our already existing culture of respectful and collaborative teamwork.

Received: 31 May 2022

Accepted: 31 May 2022

Published: 23 June 2022

Cite this:

Lockstone J and Brain M (2022)
Australian Health Review
46(4), 513–514. doi:[10.1071/AH22137](https://doi.org/10.1071/AH22137)

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Data availability. Data sharing is not applicable as no new data were generated or analysed during this study.

Conflicts of interest. The authors declare that they have no conflicts of interest.

Declaration of funding. This research did not receive any specific funding.

Acknowledgements. The authors would like to acknowledge and thank Dr Scott Bradley and Alfred Health (Melbourne, Australia) who kindly shared and gave permission for us to use and model documents and processes on their existing protocols and guidelines.

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