We're not making evidence-based decisions: Introducing a tool to assess strengths and weaknesses in healthcare providers

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In an ideal world, respiratory therapists (RTs) would use the evidence-based decision-making (EBDM) process to identify, appraise, and integrate new research evidence with clinical expertise and patient values to optimize patient care [1]. Competence in this process is essential to the development of best practices, programs, policies, services, and clinical practice guidelines that are current, evidence-based, maximally effective, and affordable. Lack of knowledge of the EBDM process or failure to apply it in practice may lead to the delivery of suboptimal or even ineffective treatment, poor patient outcomes, provision of unnneccessarily expensive services, and decreased patient quality of life [2, 3].

The need for EBDM competency is justified with the explosion of new knowledge pertaining to respiratory care in recent years and the challenges respiratory care professionals have faced in integrating this knowledge into practice quickly [4]. To demonstrate the challenges we face, one only needs to consider that since 2006 there have been approximately 30,000 English, peer-reviewed published studies pertaining to mechanical ventilation. It is not acceptable or realistic to rely solely on the sporadic and limited efforts of external bodies (societies, academics) to translate such knowledge for us. In fact, the timely closing of knowledge to practice gaps requires the collective effort of all respiratory care providers. The judicious integration of emerging knowledge transforms the way in which we care for individuals affected by respiratory disorders. Therefore, the more people we support in becoming proficient and confident in EBDM, the easier it will become to achieve our goals of timely, safe, and efficient integration of new knowledge into our practices.

There are significant gaps between what we know (best available evidence) and what we do (clinical practice) [4]. EBDM is an entry level competency for today's graduate RT; however, the majority of currenty practicing RTs were educated prior to this becoming a requirement and therefore, did not receive education in all components of the EBDM process. Consequently, many RTs do not possess comprehensive knowledge and skills (i.e., the ability and confidence to find, appraise, integrate, and implement new knowledge into practice) required of EBDM practice [5–8]. To support RTs in attaining full EBDM competency, we first need a better understanding of where their shortcomings are. To facilitate such understanding, a tool for assessing comprehension of the EBDM process (Halifax ACE Tool) for practicing healthcare professionals has been created [8].

The Halifax ACE tool, developed using a Delphi process, consists of 26 multiple-choice questions evaluating understanding of the five components of EBDM: (*i*) developing a clinical question, (*ii*) developing and implementing an appropriate search strategy for finding knowledge specific to the clinical question, (*iii*) identifying sources of evidence (internal and external), (*iv*) appraising knowledge for its validity and appropriateness to the clinical question, and (*v*) integrating (synthesizing) evidence. Knowledge and use of EBDM was then evaluated through pilot testing with individual healthcare providers from six different professions, including respiratory therapy. This work demonstrated a need for knowledge and skill development in various components of EBDM across these healthcare professions.

Having established content validity, the Halifax ACE Tool provides an opportunity for RTs wanting to assess their EBDM knowledge and skills. It is also a resource to support organizations (i.e., regulatory bodies, governments, and healthcare institutions) in the creation of continuing education programs that support the development of EBDM competency across the health professions. By improving RTs' confidence and ability in the EBDM process, knowledge-to-practice gaps will be reduced. The Halifax ACE tool and resources for supporting the development of EBDM skills in practising professionals are available for use free of charge. These resources can be accessed by contacting the authors.

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