

The ABCDEs of Airway Management in the Critically Ill

We've all grown up in acute care medicine drinking the ABC elixir to help guide us in resuscitation. While it has been criticized as being too simple an approach the premise of prioritizing resuscitation efforts remains valid. Criticism has revolved around a literal "in-series" interpretation, where each step is completed before proceeding to the next. In real life, resuscitation efforts involve a series of in-parallel orchestrated activities. A is for airway and remains a priority in resuscitation however, A does not equate to intubation. Until recently, the technical imperative of "getting the tube" has dominated resuscitation medicine educational efforts. Try asking a group of clinicians to state the first word that comes to mind when you say "airway". "Intubation" will be a very common response. As my friend Jorge Cabrera has said, patient's don't die from Acute Plastic Deficiency Syndrome. The focus on the technical challenges of placing an endotracheal intubation has been validated by several studies demonstrating an association between need for multiple attempts and the occurrence of major complications. Attempts at intubation however uncommonly directly cause complications, it's about what happens along the way or what didn't happen before intubation that makes the difference. The goal airway management is oxygen delivery which translates into maintaining oxygenation and ensuring adequate perfusion of vital organs. By definition, critically ill patients requiring intubation are often physiologically compromised, and our airway management efforts should be directed towards doing so while avoiding hypoxemia and hypotension. More recently, the importance of resuscitation prior to intubation has gained momentum and acceptance as we move from a hurried *rapid sequence* approach to a slow down 'fix your shit' first, [resuscitation sequence](#) one (Rich Levitan). Here is my quick take on an alternative alphabet approach to airway management in the critically ill physiologically impaired patient.

A: Ask for help, Open the airway, Apply oxygen.

B: Preoxygenate 1) Normal lungs- high FiO₂/high flow oxygen such as flush rate (30-40 lpm) face mask, with nasal cannula (10-15 lpm) underneath. 2) Abnormal lungs- (shunt physiology) use NIV, BVM with PEEP valve with nasal cannula (10-15 lpm) underneath or perhaps THRIVE.

C: Three things 1) replace losses (blood, fluid etc) 2) Customize your induction agent and consider dose reduction by 50% or more and 3) begin peripheral pressors such as norepinephrine for patients with shock index approaching 1.

D: Non-focal Disability is often related to inadequate oxygenation and perfusion. Consider Disassociating them with ketamine to make the agitated uncooperative patient compliant (AKA [DSI](#) (Weingart), Facilitated Cooperation) to support efforts to optimize oxygen delivery before intubation.

E: Now it's time to perform Endotracheal intubation. Consider performing an awake approach in the apnea intolerant patient. The risk to the patient is relatively low and it helps you maintain this important skill for use in more anatomically (and pathologically) challenging patients.



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