LETTER TO EDITOR

Introducing 'A-Z' algorithm for extubation

Dear Editor,

Weaning and extubation are terms that are commonly encountered in critical care. In an intensive care setup, weaning is a process in which a patient is suspended off the ventilator following resolution of illness, whereas extubation refers to the removal of the endotracheal tube from the trachea. Although both these processes follow each other closely in clinical practice, it is essential to understand these terms as two discrete processes that pose distinct problems.

Extubation failure is defined as inability to sustain spontaneous breathing subsequent to removal of the artificial airway, essentially an endotracheal tube or tracheostomy tube, and necessitating re-intubation within a specified time period, either within 24-72 hours [1,2] or up to 7 days. [3,4] Substantial literature exists about weaning predictors and outcomes, most being inaccurate in predicting extubation outcome. To predict "extubation failure" is essential, as both delayed and failed extubation have detrimental consequences such as prolonged ventilation and intensive care stay, need for tracheostomy, increased cost of treatment and mortality. [5-7]

Table 1: A-Z criteria for extubation in an intubated or in patient with tracheostomy

A	Patient fully Awake
B	Normal Breathing pattern
C	Good Cough reflex, CROP score-13
D	Look for the Danger signs: - nasal flaring, intercostal retractions
E	Normal serum Electrolytes
F	FiO_2<50
G	Normal blood Gas analysis, GCS>8
H	Hemodynamicaly stable, no Hypothermia or Hyperthermia
I	Intense chest physiotherapy
J	Never take it as a Joke
K	Be Kind and supportive to patient
L	Lateral positioning of patient post extubation
M	Make arrangements for probable reintubation
N	No Neuromuscular blockers or sedatives
O	Observe for amount and colour of laryngeal secretion
P	PaO_2/FiO_2>150-200 PEEP: 5-8 cm
Q	If any Queries, do not extubate
R	RSBI: 60-105
S	Spontaneous breathing trail should be tolerated
T	Correct Timing; not at odd hours of day
U	Utilize essential manpower
V	Vocal cord –rule out edema by air leak assess
W	Work of breathing of the patient should be normal
X	Recent chest X-ray should be normal
Y	Why (Y) the patient was intubated should have been addressed
Z	Don't sleep (ZZZZZZZZZZZZZZ) and keep eye on patient post extubation

FiO_2: Fraction of inspired oxygen; GCS: Glasgow coma scale; PaO_2: Partial pressure of O2 in arterial blood; PEEP: Positive end-expiratory pressure; RSBI: Rapid shallow breathing index; CROP: Compliance, rate, oxygenation and pressure

In this letter, we describe a self-formulated algorithm using English alphabets as a checklist to be used as a guideline prior to extubating a patient [Table 1]. The checklist depicted in the algorithm would help minimize complications, improve patient care and reduce the risk of reintubation.

We conclude that the above formulated algorithm may be helpful for residents and staff working in the intensive and critical care setup by providing an easy and quick checklist prior to weaning process for prevention of failed extubation and decreasing the morbidities associated with it.

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Author's Contributions

The authors contributed equally to the paper and confirm that they have read and approved the final version of the manuscript.

Competing Interest

Nil

Funding

Sources of funding: None

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Please cite this paper as: Munakomi S, Tamrakar K. A-Z criteria for extubation. *Int J Stud Res* 2014;4(2):56-7.

Received: 11 Aug 2014, Accepted: 20 Aug 2014

Access this article online	
Quick Response Code:	**Website:** www.ijsronline.com
	DOI: 10.4103/2230-7095.149784