

February 25, 2018

Howard Backer, MD, MPH, FACEP
Director, California Emergency Medical Services Authority
10901 Gold Center Drive, Suite 400
Rancho Cordova, CA 95670

Dear Dr. Backer:

This is the 36-month report on the Ventura County EMS trial on the paramedic use of the air-Q sp. On page 2 is a table of the results through December 2107.

There has been a total of 274 patients with an attempt to place the device with complete documentation in 270. Since the 18-month report there have been only 4 attempts - with 100% success – 2 “no air leak” and 2 “small air leak”, none with regurgitation or other complication.

Overall There were 9 failures to insert. We have defined a successful insertion as “no air leak” or “small air leak”. There were 217 cases of successful insertion, for an overall success rate of 80.0%

The air-Q was initially made the primary airway device, to be utilized after initial cardiac arrest measures (CPR, defibrillation, vascular access, first medication(s)). Revisions in Cardiac Arrest Management training has been a confounder in evaluating cardiac arrest outcomes, but we did not see an improvement during the initial portion of the trial. Because of this we altered our airway treatment protocol in July 2015 to make the air-Q an optional advanced airway device, to be considered if bag-mask ventilation was inadequate.

The two primary concerns with the device was an inadequate securing mechanism and regurgitated stomach contents. An improved securing device, similar to a standard endotracheal tube holder, is now available and has worked well. The manufacturer is just now shipping a more effective suction mechanism to address regurgitation.

The role of supraglottic devices in the management of cardiac arrest patients remains unclear. The air-Q appears to be an effective airway. The improved suction device may reduce the incidence of regurgitation but this has not been evaluated to date. We recommend that the air-Q be added to the Paramedic Local Optional Scope of Practice.

Sincerely,



Angelo Salvucci, MD, FACEP
Assistant Medical Director

Ventura County EMS Agency
Use of air-Q
December 12, 2014 to December 31, 2017

Note: on July 10, 2015, the air-Q was moved in priority of airway management from primary to secondary, to be used only if BLS airway management techniques were not successful

Total patients with an attempt to place air-Q		273	%
Ease of Use	Very Easy to Use	71	26.0%
	Easy to Use	106	38.8%
	Neither Easy nor Difficult to Use	58	21.2%
	Difficult to Use	29	10.6%
	Impossible to Use	5	1.8%
	Not Documented	4	1.5%
Did patient vomit with air-Q?	Yes	70	25.6%
	No	199	72.9%
	Not Documented	4	1.5%
If vomiting, did air-Q allow adequate suctioning? (N=70)	Yes	32	45.7%
	No	34	48.6%
	Not Documented	4	1.5%
Did securing strap function well?	Yes	171	62.6%
	No	98	35.9%
	Not Documented	4	1.5%
Was seal adequate for ventilation?	Yes, no audible air leak noted	139	50.9%
	Small audible air leak noted	77	28.2%
	No, large audible air leak; unable to ventilate	44	16.1%
	NA, unable to insert	8	2.9%
	NA, "not placed due to rigor"	1	0.36%
	Not Documented	4	1.5%
Complications	NO complications	174	63.7%
	Failure to ventilate	46	16.8%
	Gastric distention	19	7.0%
	Bleeding	15	5.5%
	Unable to insert	11	4.0%
	Difficult to insert	3	1.1%
	Unable to insert "rigor"	1	0.36%
	Not Documented	4	1.5%