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### Provider Presence at Terminal Extubation

Cheryl Heffner BS, RRT Lehigh Valley Health Network, Cheryl.Heffner@lvhn.org

Daniel Ray MD, MS, FAAHPM Lehigh Valley Health Network, Daniel.Ray@lvhn.org

Craig C. Durie CRNP Lehigh Valley Health Network, Craig\_C.Durie@lvhn.org

Elke H. Rockwell Lehigh Valley Health Network, elke\_h.rockwell@lvhn.org

Hope Kincaid MPH, CPH Lehigh Valley Health Network, Hope.Kincaid@lvh.com

See next page for additional authors

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#### Authors

Cheryl Heffner BS, RRT; Daniel Ray MD, MS, FAAHPM; Craig C. Durie CRNP; Elke H. Rockwell; Hope Kincaid MPH, CPH; Kenneth Miller MEd, RRT-ACCS; and Jenna Sychterz BA, RRT

# **Provider Presence at Terminal Extubation**

# Cheryl Heffner, BS, RRT; Daniel Ray, MD; Craig Durie, CRNP; Elke Rockwell, PhD; Hope Kincaid, MPH; Kenneth Miller, MEd, RRT-ACCS; Jenna E. Sychterz, BA, RRT

# Introduction

- The majority of deaths in intensive care units involve withdrawal of aggressive interventions, including mechanical ventilation, also referred to as terminal extubation (TE).
- This procedure can result in an emotionally difficult experience for patients, families and clinicians, with a high propensity of patient physical distress.
- The presence of a provider at the bedside can be reassuring and allow for immediate assessment and clinical intervention when physical and emotional distress develops.
- The literature reports infrequent provider presence at TE with differing perceptions of as to the importance of provider presence.
- Using survey methodology, the goal was to identify experience, attitudes, and knowledge of clinical providers related to their presence at the bedside during terminal extubation.

# Methods

- To account for institutional processes and uniqueness of respondent groups, modifications were made to an existing survey.<sup>1</sup>
- Three respondent groups were identified as playing a key role in the terminal extubation of patients in an ICU: respiratory therapists (RRT's), critical care nurses and ICU physicians and advance practice clinicians (providers).
- The survey assesses perceptions of provider presence at TE, sufficiency of order sets and desirability of a TE protocol, as well as clinicians' level of education and experience, attitudes surrounding patient and family discussions and concerns regarding the procedure. (Fig1)
- The survey also allowed for additional comments.
- It was distributed to 125 RRT's, 549 critical care nurses and 269 physicians and advanced practice clinicians during an eighteen month time frame.

Resu	He
nesu	

• The return rate was 38.4% RRT's, 31.1% nurses and 11.9% providers (Table 1).

## • Few of the respondents received formal education on the TE process, and the majority felt it important to educate all clinicians on end of life procedures and patient care during and following TE. (Table 2)

• Additionally, the need for a protocol or standardized order sets for the procedure was identified by all respondent groups.

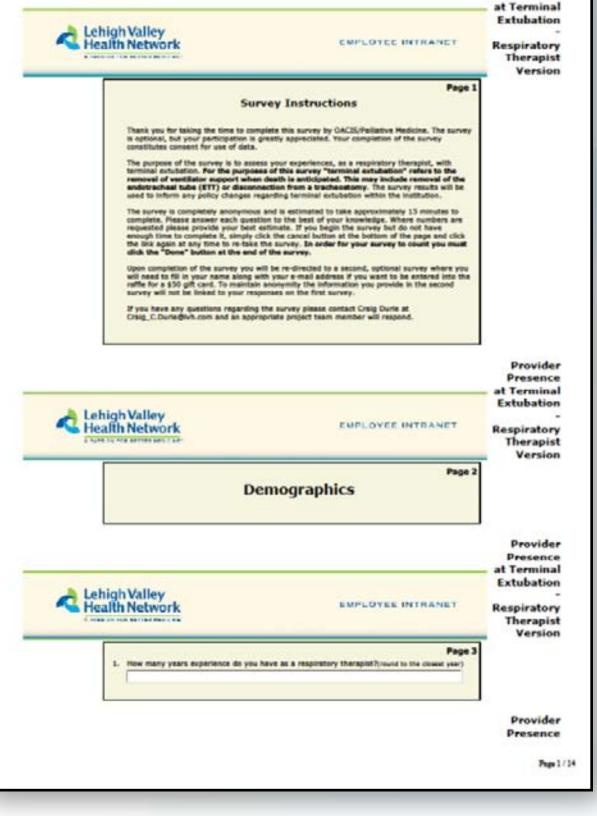
Table 1							
RRT n=59	RN n=171	Provider n=32					
38.4%	31.1%	11.9%					
10%	25%	50%					
		27%					
27.1%	18.2%	9.4%					
65%	64.9%	59.4%					
90%	90%	90%					
	RRT   38.4%   10%   27.1%   65%	RRT n=59RN n=17138.4%31.1%10%25%27.1%18.2%65%64.9%					

Additionally, the need for protocol or standardized order sets for the procedure was identified by all respondents.

Figure 1



Provider



## **Respiratory Therapists Provider Presence at Terminal Extubation Survey Results** n=59 (11 were incomplete and therefore excluded)

Table 2						Table 2						
How	many ye	ears experie t	nce do you herapist?	have as a r	respiratory	Do yo	u feel there would be a bedside during				care at the	
N	Valid				47			Frequency	Percent	Valid Percent	Cumulative Percent	
	Missin	g			1		No	3	6.3	6.3	6.3	
Mean 17.2						Valid	Yes	45	93.8	93.8	100.0	
Median					20.0		Total	48	100.0	100.0		
Mode					3	lf vou o	If you or one of your family members were ill with comfort care measur					
Std. Deviation					11.308		nged, would					
Skewne	ess				.072		you prefere to ha					
Std. Err	Std. Error of Skewness				.347		Not at all	6	12.5	12.8	12.8	
Kurtosis	5				-1.247		Not sure	9	18.8	19.1	48.7	
	or of Ku	rtosis			.681		During terminal extubation	12	27.1	27.7	69.6	
	Minimum					Valid	After terminal	9	18.8	19.1	78.7	
Maximum					38		extubation					
Percentiles 50				6.00 20.00		During and after terminal extubation	10	20.8	21.3	100.0		
	75				26.00		Total	47	97.9	100.0		
-							System	1	2.1			
		Your C	redentials: (I	RT)		Total		48	100.0			
			Percent	Valid	Cumulative		Did you receive any co	ollege/graduate	education o	on end of life	e care?	
	Nia			Percent	Percent		No	32	66.7	66.7	66.7	
\/al¦al	No	46	95.6	95.8	95.8	Valid	Yes	16	33.3	33.3	100.0	
Valid	Yes Total	2 48	4.2 100.0	4.2 100.0	100.0		Total	48	100.0	100.0		
	Total		redentials: (F			_			-	-		
	No   1   2.1   2.1   2.1						How many hours of education did you receive on end of li					
Valid	Yes	47	97.9	97.9	100.0		Valid					
	Total	48	100.0	100.0		N	Missing					
	-	Your Cr	edentials: (B/	A/BS)		Mean	Mean				8.19	
	No	333	68.8	68.8	68.8	Median					3.00	
Valid	Yes	15	31.3	31.3	100.0	Mode 1						

Table 2						Table 2							
How	many y	ears exper	ence do you therapist?	have as a	respiratory	Do you	u feel there would be a bedside during				care at the		
N	Valid				47			Frequency	Percent	Valid Percent	Cumulative Percent		
	Missing				1		No	3	6.3	6.3	6.3		
Mean	Mean					Valid	Yes	45	93.8	93.8	100.0		
Median					20.0		Total	48	100.0	100.0			
Mode	Mode						If you or one of your family members were ill with comfort care measures						
Std. Deviation				11.308	.308 in mind that some deaths may not be immediate and could be prole you prefere to have a physician present at the bedside								
Skewne	Skewness							ive a physiciar					
Std. Err	or of Sk	ewness			.347		Not at all	6	12.5	12.8	12.8		
Kurtosis	6				-1.247		Not sure	9	18.8	19.1	48.7		
Std. Err	or of Ku	rtosis			.681		During terminal extubation	12	27.1	27.7	69.6		
	Minimum Maximum					Valid	After terminal extubation	9	18.8	19.1	78.7		
25				6.00	During and after terminal extubation		10	20.8	21.3	100.0			
Percentiles 50		20.00			20.0			100.0					
75				26.00	Total		47	97.9	100.0				
						Missing	System	1	2.1				
		Your	Credentials: (F	RT)		Total		48	100.0				
		Frequenc	y Percent	Valid Percent	Cumulative Percent		Did you receive any co	ollege/graduate	e education o	on end of life	e care?		
	No	46	95.6	95.8	95.8		No	32	66.7	66.7	66.7		
Valid	Yes		4.2	4.2	100.0	Valid	Yes	16	33.3	33.3	100.0		
valiu	Total	48	100.0	100.0	100.0		Total	48	100.0	100.0			
	Total	ļ	Credentials: (R			-		_	-	-	-		
	No		2.1	2.1	2.1	Но	How many hours of education did you receive on end of lif						
Valid	Yes	47	97.9	97.9	100.0	N	Valid						
Vallu	Total	48	100.0	100.0	100.0								
			Credentials: (BA			Mean					32 8.19		
	No	333	68.8	68.8	68.8	Median					3.00		
Valid	Yes	15	31.3	31.3	100.0	Mode					1		
_						IVIOLE					<u> </u>		

Std. Deviation

Skewness

Lehigh Valley Health Network, Allentown, Pennsylvania

- Our survey demonstrated that there is a misconception by providers how often they attend terminal extubations.
- There has been insufficient education provide to all levels of clinicians on endof-life protocols and processes.
- All levels of clinicians demonstrated some ethical discord and some of degree of emotional distress, before, during, and after the extubation.
- Also it was felt that a provider should always be present during the terminal extubation procedure.

## **Clinical Impact**

 Survey results indicated a need for education on end of life procedures and care at the bedside during and following TE, as well as a protocol or standardized order set for the procedure.

## Next Step

- As the next step in this quality improvement project, a team has been convened with representatives from the three respondent groups focused on the development of a standardized protocol and an education component on care at TE.
- To provide a forum for emotional support prior, during, and after the terminal extubation procedure.

## **Reference:**

11.339

2.089

# Discussion

## Conclusion

1. David C. Willms and Jodette A. Brewer. Survey of respiratory therapists' attitudes and concerns regarding terminal extubation. *Respir.* Care, 2005, 50(8):1046-49.

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