

Evaluation of Patients' Perspectives of Using the Tracheostomy Patient Decision Aid for Medical Decision Making

Tzu-Chi Ou¹, Hsun-Hsiang Liao¹, Pa-Chun Wang^{1,2}, Chung-Liang Shih³

¹Joint Commission of Taiwan, New Taipei City, Taiwan

²Cathay General Hospital, Taipei, Taiwan

³Department of Medical Affairs, Ministry of Health and Welfare, Taipei, Taiwan

Introduction

Patients with stable disease and difficulty in weaning from ventilator in the short term have two treatment methods including tracheostomy and intubation. However, they are prone to fear and myths in tracheostomy because of lack of understanding and cultural factors, which leads to decision-making difficulties. According to research, Shared Decision Making (SDM) can help patients or their families understand medical options and make optimal medical decision¹. Therefore, we have developed the Patient Decision Aid (PDA) "Whether a Patient Who Can't Wean Off Ventilator In a Short Period of Time Is Going To Receive a Tracheostomy". Through the definition of the applicable subject and condition, introduction of medical options and comparison, the patient or their families are aware of the advantages, disadvantages, risks and side effects of different treatment. Also, considering what the patient or their families care about, PDAs help them to make the most appropriate medical decision. This study is to evaluate this aid to help patients or their families, and to explore the impact of the traits of them.

Methods

A nation-wide survey was conducted from May 2 to September 21, 2018. Medical staff used this tracheostomy PDA while conducting SDM with patients or their families who needed to make medical decision for respiratory failure. After the end of the visit, we assessed the patient's or their family's perception of how useful the tracheostomy PDA. A total of 168 valid questionnaires were returned^{2,3}.

Results

The 95% of people who responded to this questionnaire are family members of the patients. The participants are mostly between 40-59 years old, the education levels are between the primary school to university, and the average of overall perception of the use of the tracheostomy PDA from the patients and their families during the visit was 74.2 points. More than 90% of patients or their families agreed that the use of the tracheostomy PDA for SDM was helpful for the visit (Figure). There was no significant difference of the overall perception of the use of this tracheostomy PDA in the participant's identity, gender, age or education level (Table). After the intervention of the tracheostomy PDA, the proportion that the decision could not be determined decreased by 9.5% (39.3% to 29.8%).

Participants' characteristics of using Tracheostomy PDA

Variable	N (%)	Mean* (SD)	p value
Overall	186 (100%)	74.2±18.3	
Respondenta			0.78
Patient	9 (5.4%)	75.8±12.5	
Family	159 (96.6%)	74.1±18.5	
Sexa			0.61
Male	71 (42.3%)	75.0±19.2	
Female	97 (57.7%)	73.6±17.6	
Ageb			0.69
<18 years old	0 (0.0%)	-	
19-29 years old	10 (6.0%)	74.2±16.2	
30-39 years old	24 (14.3%)	76.1±16.3	
40-49 years old	53 (31.6%)	74.3±18.3	
50-59 years old	38 (22.6%)	73.9±18.2	
60-64 years old	28 (16.7%)	74.2±17.2	
≥ 65 years old	15 (8.8%)	73.9±17.2	
Educationb			0.64
Illiterate	0 (0.0%)	-	
Primary school incompleteness	3 (1.8%)	78.0±16.1	
Primary school	7 (4.2%)	77.0±15.7	
Junior high school	20 (11.9%)	74.3±17.3	
Senior high school or equivalent	49 (29.2%)	74.2±18.3	
College or equivalent	79 (47.0%)	73.9±18.2	
Master	8 (4.8%)	74.1±17.3	
Doctor of Philosophy	2 (1.1%)	74.3±15.0	

Conclusions

Patients and their families have a positive overall perception about the SDM visit process with the tracheostomy PDA.

The PDA not only help the participants make medical decision but help them understand the pros and cons of treatment option. In the future, we can strengthen the development quality of the PDA. Based on feedback from the participants, such as unclear medical terms or uncertain follow-up care, lack of cost explanations, etc., it can help organizations develop PDA to better meet the needs of the applicable object. In addition, PDA can reduce the proportion of people whose decision cannot be made and it can promote the most appropriate medical decision making.

References

1. Edwards, A., & Elwyn, G. (2006). Inside the black box of shared decision making: distinguishing between the process of involvement and who makes the decision. *Health Expectations*, 9(4), 307-320.
2. Graham, I.D. and A.M. O'Connor. User Manual – Preparation for Decision Making Scale [document on the Internet]. 1995 [cited [modified 2010; cited 2016 12 05]. 3 p.; Available from: http://decisionaid.ohri.ca/docs/develop/User_Manuals/UM_PrepDM.pdf
3. Bennett, C., et al., Validation of a preparation for decision making scale. *Patient Educ Couns*, 2010. 78(1): p. 130-3. Ottawa Hospital Research Institute Patient. Patient Decision Aids. 2017; Available from: https://decisionaid.ohri.ca/eval_prepdm.html

Acknowledgement

This research was funded and supervised by the Ministry of Health and Welfare (MOHW), Taiwan, under Tender Project (Grant number: M06A7489, Shared decision making programme Project)

The opinion of using Tracheostomy

