Ventilator evaluation form

This document helps you evaluate and compare the ventilators at your hospital. It evaluates the subjective experience of using the ventilator inspired by the established PSSUQ evaluation method.[1] This method is subjective but has been shown to give an accurate indication of how easy a device is to use.

Before having your staff do the evaluation, make sure they receive a short training on the ventilators you want to evaluate. Then select from the tasks that are listed below that you feel are appropriate and have the users go through each chosen task. After completing the tasks, users should read through each statement on the second page and rate their experience on a scale from 1 (disagree) to 7 (agree). Finish by compiling and adding the total user scores and then compare between the ventilators. A higher score indicates better ventilation user experience.

Tasks	What to do in each step
1. **Perform a Pre-use check (PUC).**	1. Follow instructions for the Pre-use check
2. **Adjust ventilatory settings and alarm limits. Start ventilation.**	2a. Adjust ventilator settings 2b. Adjust alarm limits 2c. Start ventilation
3. **Find and perform different maneuvers/functions.**	3a. Inspiratory hold 3b. Expiratory hold 3c. Nebulization 3d. O_2 boost 3e. Suction support disconnection
4. **Confirm visibility of parameters from a distance.**	4. Use a distance view if available, stand in the doorway and look at the ventilator screen in the room.
5. **Adjust screen configuration.**	5. Try out different views, scaling, additional measured values or what you normally use.
6. **Setting and managing/handling alarms.**	6a. Activate alarm, battery alert and disconnect the power cord from the wall outlet 6b. Recognize battery alert 6c. Clear alert/Silence alarm
7. **Switching between different ventilation modes.**	7a. Switch modes 7b. Return to previous mode
8. **Stop ventilation and go to stand-by.**	8. Turn off ventilation and go into stand-by

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Questionnaire

Based on the above tasks, indicate how much you agree or disagree with each statement by giving a rating from 1 (disagree) to 7 (agree). A higher score indicates a better ventilation user experience.

1.	Overall, I am satisfied with how easy it was to use this system.	
2.	I was able to complete the tasks and scenarios quickly using this system.	
3.	I felt comfortable using this system.	
4.	It was easy to learn to use this system.	
5.	I believe I could become effective quickly using this system.	
6.	The system gave error messages that clearly told me how to fix problems.	
7.	Whenever I made a mistake using the system, I could recover easily and quickly.	
8.	The information (e.g., online help, on-screen messages and other documentation) provided with this system was clear.	
9.	The organization of information on the system's screen was clear.	
10.	I liked using the interface of this system.	
11.	I found the alarms easy to act on.	
12.	This system had all the functions and capabilities I expected it to have.	
Total score:		

References

1. Lewis JR. Psychometric evaluation of the PSSUQ using data from five years of usability studies. Int J Hum Comput Interact. 2002;14:463–88.

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