Requirements for a communication device for non-verbal ICU patients

ICU TOUCH TO SPEAK

1. The system should run on all common browsers.
2. The system should be relatively quick to set up for a patient.
3. Once set up, patients and nurses should be able to use the system intuitively.
4. The system should be easy and fast to learn.
5. The system should allow a patient to initiate conversation.
6. Once set up, it should be capable of storing settings input settings between sessions and should be able to be reset easily when the device is allocated to another patient.
7. It should be relatively fast to use, with, as a suggestion, the user requiring no more than five actions to communicate a specific pain, feeling or need.
8. The interface should offer a range of clinical and social/emotional content relevant to patients, along with the ability to customise the content.
9. The software should comply with [New Zealand Government] standards for web accessibility.
10. Both voice output and text generation should be offered.
11. The voice should come in male and female options.
12. The device should be capable of voice banking when patients pre-record messages.
13. The system should be modular and extendable to fit future user groups.
14. The system should be relatively inexpensive.
15. The system should be reliable.
16. The system should be easy to maintain and update.
17. *The system should be able to be adapted to a user's needs for* augmentative or alternative communication strategies.
18. The system must not interfere with the operation of other hospital equipment including electronics.

Hardware
19. The hardware should respond to limited mobility capability e.g. switch-based and operate with either one or two switches; also touch screen.
20. The hardware incorporating the screen should be lightweight and easily moved.
21. The hardware should also be able to be activated with little physical effort.
22. The hardware should have a secure mount that positions the screen near the patient, holds it firmly in place and ensures it is not accidentally dropped or stolen.
23. The hardware should be easy to clean, waterproof, durable and capable of withstanding the rigorous cleaning regime in an ICU.