UCI Health
Regional Burn Center

Voice Activated Tool: A Successful assistance for patients with limited hand functions

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Conclusion Statement

Voice activated tools can be successfully utilized for assisting patients with limited hand mobility due to burns or amputation

Introduction/Significance

Burn survivors require significant assistance in physical function and independence during their recovery and rehabilitation phase. Limited or lack of hand mobility could be contributed from burns to hands, amputation, splint application, bulky dressings, pain, and more. Prior to the implementation of this project, patients mostly depended on a soft touch call light which were less than optimal for most patients

Methodology

- Piloted in collaboration with the IT department, OT, nursing, patient, and patient's family
- Patient's room was enabled with uninterrupted source of wireless network connection
- Voice assistance was incorporated through both mobile phone and an added virtual assistance tool (Alexa)
- Patient's personal devices were used to promote utilization of stored information in the personal device
- Patient utilized VAT for a wide variety of purposes including calling nurses, ordering hospital meals, calling friends and family, listening to music, and more.

Data Source/Population

- A survey was done to evaluate the health care tam's opinion on VAT usage
- We handed out surveys to our health care team which included RNs, MD/PA, therapists, and nursing assistants
- The survey included questions that consisted of:
    - How staff felt about the piloted voice activated tool
    - How staff felt about our current alternative call light system
    - Whether or not they used our piloted VAT

Below the elbow amputation patient using VAT

Results

- 34 staff (77%) responded to the survey
- 100% of responders reported VAT as a successful tool and should be implemented to future patients
- 100% of responders stated that current tool (soft touch call light) is suboptimal due to sensitivity, not all patients can use it, and difficult to position on patient's bed
- 97% of staff stated that the VAT can increase the patient's independence, safety, communication needs, and emotional state

Applicability of Research

The use of the voice activated tool (VAT) could be successfully implemented in our unit or other hospital units including paralyzed patients, blind patients, orthopedic conditions, or trauma in order to improve patient care as well as patient satisfaction due to the independency that the VAT allows them to possess.