Effects of Language Barriers on Clinical Outcomes in PT-Driven Proning Sessions During the COVID-19 Pandemic

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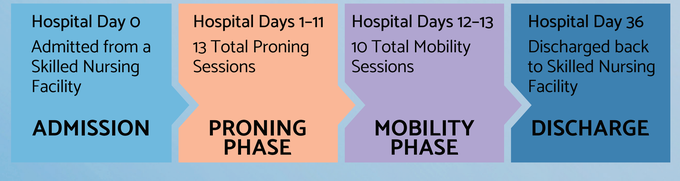
Background and Purpose

- Management of COVID-19 involves the use of prone positioning to improve patients' respiratory function and oxygenation.[1,2,3,4,5]
- Physical therapy (PT) plays a critical role in assessing movement dysfunction, including assisting patients with obtaining the prone position.[6]
- Verbal communication is critical to patient education and ensuring that patients understand the role of PT in the management of their care.[7,8]
- Language barriers may prevent patients from fully participating in PT.[8]
- The purpose of this care report is to describe how a language barrier impacted a patient with COVID-19's hospitalization and therapeutic management.

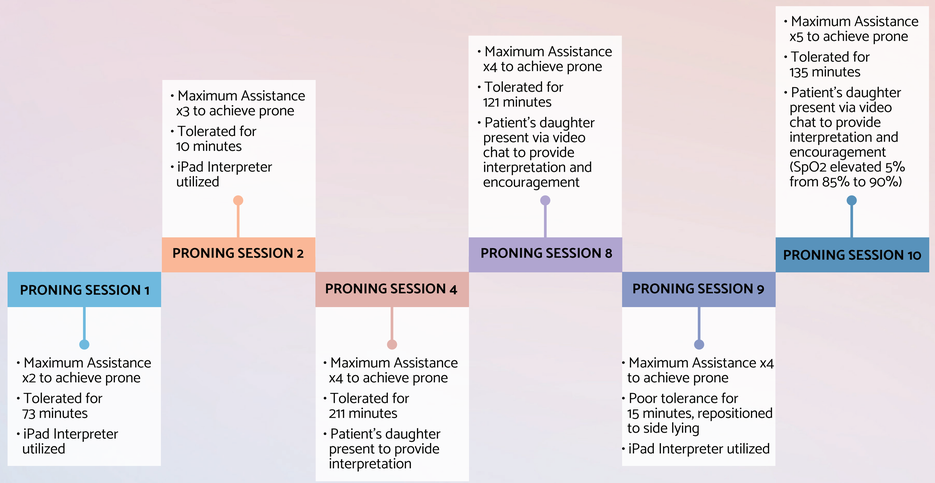
Case Description

- 88-year-old, Spanish speaking female admitted to the hospital with acute kidney injury, Alzheimer's dementia, and COVID-19 virus.
- Patient's prior level of function included requiring minimal assistance using a rolling walker for ambulating short distances and minimal assistance for performance of all activities of daily living.
- Upon evaluation, the patient presented with decreased range of motion, decreased strength, impaired balance, and decreased tolerance to activity.

Patient's Hospitalization Course



Highlights of Patient's Proning Course



Outcomes

Proning Session Number	Session 1	Session 2	Session 4	Session 8	Session 9	Session 10
Hospital Day Number	1	2	6	8	8	9
Position Achieved	Prone	Prone	Prone	Prone	Side Lying	Prone
Level of Assistance Required	Max Assist x2	Max Assist x3	Max Assist x4	Max Assist x4	Max Assist x4	Max Assist x4
Pre-Treatment						
SpO2 (%)	90	90	88	95	95	95
Supplemental Oxygen	Nasal Cannula: 1L	Nasal Cannula: 4L	Optiflow: 50L, 98%	Optiflow: 50:, 90%	Optiflow: 50L, 87%	Optiflow: 55L, 85%
Post-Treatment						
SpO2 (%)	94	90	90	92	94	94
Supplemental Oxygen	Nasal Cannula: 1L	Nasal Cannula: 4L	Optiflow: 50L, 98%	Optiflow: 50L, 90%	Optiflow: 50L, 90%	Optiflow: 55L, 85%
Interpretation Used	iPad Interpreter	iPad Interpreter	Daughter In-Person	Daughter via Video Chat	iPad Interpreter	Daughter via Video Chat
Duration of Prone Tolerance (min.)	73	10	211	121	15	135

Discussion

- This case study emphasized the importance of communication to maximize therapeutic management during the COVID-19 pandemic.
- The language barrier caused increased patient agitation in prone and poor patient education carryover.
- The use of cell phone video chat to include family in the social support of patients poses a potential solution to improving prone tolerance and education carryover.
- The use of video chat with the patient's family produced improved supplemental oxygen requirements, oxygen saturation, and prone tolerance.

Clinical Relevance

- Clinicians should understand all factors of communication that may impact the ability to care for their patients in the acute care setting including the sound of medical equipment, the maximum volume of any translation devices, and any auditory deficits of the patients.
- Incorporating family into patient care via video chat presents a potential solution to language or communication barriers to patient education in the acute care setting.

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