Clinical Quandary
Ms. B is an 86-year-old woman with advanced dementia and multiple comorbidities who is a long-term care resident of a nursing home affiliated with a large hospital system. Her family is very involved; her daughter lives locally, and her son, who has her health care power of attorney, lives across the country. Mrs. B has returned from a recent hospitalization for sepsis due to a recurrent urinary tract infection, and the interdisciplinary team is reestablishing her care. This was her fourth hospitalization in the last six months. She doesn’t have a living will or advance care planning (ACP) discussions on record. The team would like to address her goals of care.

Clinical Question
Are there innovative, standardized, evidence-based interventions to engage a team in ACP for long-term care nursing home residents?

Reference

Bottom Line
This randomized clinical trial (RCT) suggests that ACP videos are not effective in reducing hospital transfers, decreasing burdensome treatment use, or increasing hospice enrollment (the results were not statistically significant). Notably, this study is one of the first large studies of its kind, and it occurred during a period of overall decrease in hospital transfers across the country. Unfortunately, there was low fidelity with the intervention, and the enrollment numbers were smaller than expected.

It is challenging to objectively implement successful ACP programs in the nursing home setting given the variability of stakeholders, environment, and circumstances. However, with a focus on health care system readiness and appropriate stakeholder support, video interventions could be a useful tool to engage patients, their families, and their health care team in these discussions.

Summary
Published in July 2020, this intention-to-treat RCT, conducted between February 2016 and May 2019, aimed to test the efficacy of ACP video programs on hospital transfers, burdensome treatments, and hospice enrollment. The Pragmatic Trial of Video Education in Nursing Homes (PROVEN) trial, assessed 12-month outcomes for each resident in 360 nursing homes. The intervention consisted of five 6- to 10-minute ACP videos offered to residents, families, and proxies on admission and every six months. The five videos were offered in English or Spanish on (1) general goals of care, (2) goals of care for advanced dementia, (3) hospice, (4) hospitalization, and (5) ACP for healthy patients.

The facilities were given two tablet computers loaded with the video programs; additionally, a password-protected website with the videos was accessible from any location. Designated facility champions, often social workers, completed a one-month training course on the use of the video modules either in person or virtually. The champions were instructed on the frequency of the video offerings (within seven days of admission or readmission, once every six months, and at specific decision points). The video topics were selected by the designated champion for each resident. The control groups continued using the existing ACP practices.

The participants in the study included residents from 360 nursing homes (119 intervention and 241 control) across 32 states from two for-profit corporations. In the intervention group, there were 4,171 residents with advanced illness and 5,764 residents without advanced illness. In the control group, there were 8,308 residents with advanced illness and 11,733 residents without advanced illness. The mean age of residents without advanced illness was 81 years, while the mean age of residents with advanced illness was 83 years. Across both groups, majority were white and female. Notably, about one-third of the residents in the advanced illness group were already enrolled in hospice at the time of study onset.

Of the residents in the advanced illness group, 43.9% of participants in the intervention group and 45.3% in the control group died. Using a 95% confidence interval, there were no statistically significant reductions in hospital transfers (primary outcome) or burdensome treatments and hospice enrollment (secondary outcomes), regardless of presence of advanced illness.

Fidelity of the video intervention was assessed via the electronic medical record and discussed with facilities once every two months. For purposes of the study, fidelity was defined as the proportion of patients who were offered the videos versus those who watched the videos. Based on review of electronic health records and the video reports for the intervention group with advanced illness, 55.6% were offered the opportunity to watch a video, and 21.9% were shown a video at least once. This means that only 1 in 5 residents with advanced illness viewed a video in the intervention group, which impacted the power of the study.

Of note, the facilities with higher quality ratings did have corresponding higher fidelity rates. Low fidelity proved to be a barrier to showing efficacy in use of a standardized video program for ACP. In an attempt to improve fidelity, the facility meetings were increased to monthly, and rounding on long-stay patients who had not previously watched a video were discussed beginning in January of 2017. Onsite visits by the PROVEN team took place to improve use and adherence.

In addition to low fidelity and facility adherence rates, several other reasons may have contributed to the nonsignificant findings in this study. First, the high utilization of hospice and end-of-life services before the study’s onset suggests that these facilities may have had effective ACP practices already in place. Second, the residents with advanced illness who were not enrolled in hospice may have had more complex dynamics than a video intervention could address. Third, the variability in provider practice styles and follow-up after viewing the videos may have affected treatment choices. Finally, the ACP videos may have had other positive impacts that were not measured in this study, such as enhanced resident and family satisfaction with goal-concordant care.

A strength of the study was the use of designated champions to discuss the content with residents and families. The champion in the facility was often the clinical social worker. These providers may be overburdened, given all their other expectations and care coordination duties. Given the complexities of ACP and because nursing homes employ people with varied skill sets and scopes of practice, it may be beneficial to train additional professionals to deliver the video intervention, such as nurses and therapists, in order to address ACP as a team. Moreover, given high staff turnover in nursing homes, it is not prudent to only train one champion.

With an increased champion base, facilities may identify more opportune times for patients and/or families to view the videos. For example, in a patient who has been unable to advance from a thickened liquid diet based on speech therapy recommendations, it is appropriate for this therapist to initiate ACP discussion surrounding the decision to liberalize a diet based on quality of life goals. This will open additional opportunities for future ACP discussions with other members of the team regarding hospital transfers and escalation of care in the event of disease complications, such as aspiration pneumonias.

This study has highlighted the difficulties with implementing a video intervention in an environment of systemic culture changes in skilled nursing facilities due to competing interests for staff time and frequent staff turnover. Opportunities exist to assess further, via intention-to-treat analysis, the facilities that had higher compliance and fidelity with video programming, which could support the use of these videos. Subsequently, implementation studies to increase fidelity across facilities would be warranted.

A video intervention could be an innovative way to engage residents, their family, and their health care team in ACP, especially in the time of COVID-19. Use of technology could allow distant family members and caregivers to be a part of the process as well. More data on the efficacy of this innovation is needed.

PRAGMATIC RESEARCH
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Advance Care Planning Video Intervention

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Dr. Little completed medical school at Midwestern University – Chicago College of Osteopathic Medicine, Internal Medicine residency training at St. Mary’s Health Center in St. Louis, MO, and Geriatric Medicine fellowship training at St. Louis University where she started her career as an academic geriatrician. She now works as an Associate Professor of Geriatric Medicine at Duke University. Her scholarly interests are interprofessional health education, deprescribing, and nonpharmacologic management of dementia.

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