

Using Electronic Orders to Establish Advance Directive Status for Nursing Home Residents

OVERVIEW

We use electronic orders to establish advance directive status for long-stay nursing home residents and determine natural rate of switching from full code to an order for less aggressive care over the course of one year.

BACKGROUND

- Advance directives are written statements of treatment wishes to be followed should a person become unable to communicate or advocate for herself
- Do-not-resuscitate, do-not-hospitalize, and no artificial feeding are common advance directives.
- Documenting preferences for less aggressive care reduces burdensome transitions and increases hospice use at the end-of-life.
- Given 45% of Medicare beneficiaries are in nursing homes within 90 days of their death, documenting nursing home residents' end-of-life care preferences is important for improving the quality of death in the US

PARTICIPANTS, DATA, & STUDY DESIGN

- Setting: 198 Nursing homes from one for-profit corporation, participating in a **PR**agmatic trial **O**f Video Education in Nursing homes (PROVEN). PROVEN is a cluster randomized trial of a video intervention to improve advance care planning.
- Subjects: Long-stay nursing home residents (90 of the last 100 days in nursing home) with and without advanced disease (advanced dementia, COPD, CHF)
- Study Period: October 1, 2016 September 30, 2017
- Data: Electronic advance directive orders (full code, Do Not Resuscitate, Do Not Hospitalize, No Artificial Feeding), Minimum Data Set (MDS, versions 2.0 and 3.0)
- Competing risks regression using Stata (stcrreg) to address the high rate of death in this population.

McCreedy, EM,¹ Loomer, L,¹ Palmer, J,² Mitchell, SL,² Volandes, A,² Mor, V.¹

1. Department of Health Services, Policy, and Practice, School of Public Health, Brown University, Providence, RI 2. Institute for Aging Research, Hebrew Senior Life, Boston, MA



<u>All</u>	Long-Stay	R

	Electronic Orders (N=7,123)	
Full Code (%)	36.8	
Do Not Resuscitate (%)	56.5	
Do Not Hospitalize (%)	4.7	
Feeding Restriction (%)	10.0	



RESULTS

Selected Resident Characteristics Associated with Cumulative Incidence of Conversion from Full Code to DNR or DNH

	<u>Sub Hazard</u> <u>Ratios</u>	<u>Robust SE</u>	<u>P>z</u>
	0.87	0.12	0.29
	1.04	0.01	0.00
	0.49	0.14	0.01
nt (CFS=2)	0.94	0.20	0.76
irment	1.03	0.21	0.87
nent (CFS=4)	2.89	1.00	0.00
	1.10	0.20	0.60
ross room	1.01	0.24	0.96
	1.49	0.31	0.06
	1.27	0.24	0.22
ment	0.51	0.16	0.04
g window	1.87	0.30	0.00

CONCLUSIONS & DISCUSSION

- Electronic orders can be used to establish advance
- directive status for nursing home residents
- At any one time, 37% of long-stay nursing home residents do not have an advanced directive for less aggressive care;
- 23% of residents with advanced disease do not have an advance directive for less aggressive care
- 16% of nursing home residents who are full code at
- baseline will switch to a preference for less aggressive care
- We need to develop interventions to improve advance care planning and the quality of death for nursing home

This work is supported by the National Institutes of Health (NIH) Common Fund, through a cooperative agreement (NIA) 4UH3AG049619-02) from the Office of Strategic Coordination within the Office of the NIH Director. The views presented here are solely the responsibility of the authors. ΦΦ

> BROWN School of Public Health