

## Supplemental Methods.

The primary method of adjudicating death was electronic health record (EHR) chart review and linkage with the Social Security Death Masterfile (SSDMF). Approximately 89% of deaths were captured through EHR review and/or SSDMF (78 of 87). The remainder were captured through obituary searches and/or the Tennessee Department of Health, which captures any reported death in the state.

Information regarding location of death and health utilization prior to death came from EHR documentation and/or detailed obituaries (both independently abstracted by 2 trained physicians). The EHR records captured direct interactions with the University's extended clinical enterprise (outpatient palliative care providers, associated hospitals that share discharge summaries, etc.) and less direct interactions (e.g., scanned documents obtained by PCPs, nephrologists, or phone conversations between bereaved family members and individual(s) from the healthcare team that the family member/deceased patient seemed to be close to).

Manual chart reviews met rigorous standards<sup>1</sup> including abstracter training, clear description of inclusion/exclusion criteria and key variables, use of standardized abstraction forms for all information, monitoring abstracters performance (all charts were abstracted twice by separate physicians), and considering how to handle disagreements between abstracters. Several previous studies manually abstracting similar information from medical charts noted a high degree of interrater agreement (90-100%).<sup>2,3</sup>

**Supplementary Table 1. End-of-life care characteristics**

	Total (N=87)	SQ Yes (N=31)	SQ No (N=56)	P value
<b>Nursing Home/Skilled Nursing Facility use in last 30 days before death</b>				0.9
Yes	16 (18)	6 (19)	10 (18)	
No	61 (70)	21 (68)	40 (71)	
Unknown	10 (11)	4 (13)	6 (11)	
<b>Nursing home duration in last 30 days before death*</b>	22 (15-88)	32 (14-105)	19 (18-37)	0.9
<b>Advance care plan documentation</b>	32 (37)	10 (32)	22 (39)	0.5
<b>Medical Order (i.e., physician orders for scope of treatment or similar)</b>	20 (23)	6 (19)	14 (25)	0.3
Treatment limitations (DNR/DNI/CMO) †	18 (21)	6 (19)	12 (21)	
Aggressive care (Full code) †	2 (2)	0 (0)	2 (4)	
<b>Dialysis modality preference</b>				0.04
Conservative management	17 (20)	1 (3)	16 (29)	
Maintenance hemodialysis	27 (31)	11(35)	16 (29)	
Maintenance peritoneal dialysis	14 (16)	7 (23)	7 (12)	
No preference specified	29 (33)	12 (39)	17 (30)	
<b>Dialysis access placed</b>	20 (23)	11 (35)	9 (16)	0.2
Arteriovenous Fistula ‡	16 (80)	8 (73)	8 (89)	
Arteriovenous Graft ‡	1 (5)	0 (0)	1 (11)	
Tunneled Catheter ‡	3 (15)	3 (27)	0 (0)	

\* Restricted to known users.

† Limited to those with advance directives

‡ Limited to those who had access placed

Continuous variables are presented as median (interquartile range) and categorical variables as N (%).

DNR do not resuscitate. DNI do not intubate, CMO conservative management only, SQ surprise question.

**Supplementary Table 2.** Renal replacement therapy planning and use in patients with estimated glomerular filtration rate  $\leq 20\text{ml/min/1.73m}^2$

	Total (N=210)	SQ Yes (N=119)	SQ No (N=91)	P value
<b>Dialysis modality preference</b>				0.004
Conservative Management	18 (9)	3 (3)	15 (16)	
Maintenance Hemodialysis	82 (39)	50 (42)	32 (35)	
Maintenance Peritoneal Dialysis	63 (30)	39 (33)	24 (26)	
No preference specified	47 (22)	27 (23)	20 (22)	
<b>Dialysis access placed</b>	86(41)	55 (46)	31 (34)	0.9
Arteriovenous fistula *	74(86)	50 (91)	24 (77)	
Arteriovenous graft *	6(7)	1 (2)	5 (16)	
Tunneled catheter*	6 (7)	4 (7)	2 (7)	
<b>Duration between SQ date and RRT preference date <sup>§</sup></b>	46(-136-752)	4 (-218-796)	51 (-70-611)	0.05
<b>Dialysis modality initiated</b>	54 (26)	32 (27)	22 (24)	0.3
Hemodialysis **	37 (69)	21 (66)	16 (73)	
Peritoneal Dialysis**	17 (31)	11 (34)	6 (27)	
<b>Advance care plan documentation</b>	59 (28)	28 (24)	31(34)	0.09
<b>Medical Order (i.e., physician orders for scope of treatment or similar)</b>	20 (10)	8 (7)	12 (13)	0.1

\* Limited to those patients who had access placed.

<sup>§</sup> Range includes negative values when event occurred before surprise question capture date.

\*\*Limited to those patients who were initiated on dialysis

Continuous variables are presented as median (interquartile range) and categorical variables as N (%).

SQ surprise question, RRT renal replacement therapy,.

*Supplemental material is neither peer-reviewed nor thoroughly edited by CJASN. The authors alone are responsible for the accuracy and presentation of the material.*

**Supplementary Table 3: Predictors of Advance Care Planning documentation**

	<b>OR (95% CI)</b>
Age (80 year old vs. 70 year old)	1.86 (1.38 - 2.49)
Gender (Male vs. Female)	1.29 (0.85-1.97)
Race (White vs. Black)	4.28 (1.90-9.64)
Surprise Question response (No vs. Yes)	1.32 (0.85-2.05)

Logistic regression was used to model presence of a documented advance care plan (advance directive, living will, durable power of attorney) with the following a priori variables of interest: age, race, gender and surprise question response. Age was included in the model as a nonlinear term.

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## References

1. Gilbert EH, Lowenstein SR, Koziol-McLain J, Barta DC, Steiner J. Chart reviews in emergency medicine research: Where are the methods? *Ann Emerg Med.* Mar 1996;27(3):305-308.
2. Hickman SE, Nelson CA, Perrin NA, Moss AH, Hammes BJ, Tolle SW. A Comparison of Methods to Communicate Treatment Preferences in Nursing Facilities: Traditional Practices Versus the Physician Orders for Life-Sustaining Treatment Program. *Journal of the American Geriatrics Society.* 2010;58(7):1241-1248.
3. Hall P, Schroder C, Weaver L. The last 48 hours of life in long-term care: a focused chart audit. *J Am Geriatr Soc.* Mar 2002;50(3):501-506.