Presentation Type:
Poster Presentation
Subject Category: Long-Term Care
Racial Differences in Infection Management and Palliative Care at End-of-Life in Nursing Homes Nationwide
Leah Estrada; Andrew Dick; Patricia Stone and Jordan Harrison

Background: Infections are common at end-of-life in older nursing-home residents. This often leads to the overuse of antibiotics and burdensome treatments. Improving infection management through palliative care at the end of life has been proposed as a key strategy to reducing inappropriate antibiotic use. Black nursing-home residents tend to reside in poorly performing nursing homes. We examined palliative care services in nursing homes with varying proportions of black residents. **Methods:** Cross-sectional, nationally representative nursing-home survey data (2017–2018) was combined with the Minimum Data Set 3.0 (nursing-home resident characteristics), the Certification and Survey Provider Enhanced Reporting data (nursing-home facility characteristics), and the Multidimensional Deprivation Index (county-level poverty estimates). The survey included 24 validated items on nursing-home palliative care services, as well as the nursing home's infection control program and integration of infection management and palliative care (summative score, 0–100). We used nursing-home facility-level multivariate regression to estimate the relationship between proportion of black residents and palliative care scores, before and after controlling for county-level poverty estimates, facility characteristics, and resident characteristics. We categorized proportion of black residents using methods reported in the literature (25%). **Results:** The mean weighted palliative-care score in our sample of 869 nursing homes (weighted n = 15,020) was 47.7 (SE, 0.70). In unadjusted analyses, nursing homes with higher proportions of black residents provided significantly fewer palliative care services than nursing homes with no black residents, with the greatest differences ($P = .027$) observed between nursing homes with >25% black residents (mean palliative care score, 43.82; SE, 2.31) versus nursing homes with no black residents (mean palliative care score, 49.47; SE, 1.08). These disparities persisted after adjustment for urbanicity and county-level poverty rates ($p < 0.01$) but were attenuated after further adjustment for resident and facility level characteristics ($p=0.138$). **Conclusions:** Our findings demonstrate that wide variations in nursing-home palliative-care services exist with increased proportions of black residents, even after accounting for community characteristics. Further research is needed to identify and understand the specific community characteristics that play a role in the provision of palliative care services. Palliative care is a method to reduce inappropriate antimicrobial use at the end of life and should be expanded with a focus on nursing homes with higher proportions of black residents.

Table 1. Mean palliative care scores by nursing home

	n	%	PC Services Score Mean (SE)	p-value
All Nursing Homes	15,020	100		
Proportion of Black Residents				
0	5,794	38.58%	49.487 (1.08)	0.077
< 3%	1,853	12.33%	49.807 (1.97)	
3-10%	3,439	22.89%	46.749 (1.43)	
>10-25%	2,101	13.99%	45.510 (1.89)	
>25%	1,834	12.21%	43.815 (2.31)	

Presentation Type:
Poster Presentation
Subject Category: MDR GNR
Evaluation of Ceftolozane/Tazobactam, Ceftazidime/Avibactam and Meropenem/Vaborbactam Against Multidrug-Resistant (MDR) *Pseudomonas*
Haider Shamsulddin; Jeffrey Lin; Julie Ribes and Thein Myint

Background: Data on the patient outcomes for newer β-lactam–β-lactamase inhibitor (BLBI) drugs compared to carbapenem-containing

Table 1: Baseline characteristics and patient outcomes

	New Beta Lactam - beta lactamase inhibitor combination *** (N=51)		Carbapenems and Other Antibiotics **** (N=92)		P-value
Mean Age	49		54		*0.06
Patient Characteristics	**Number**	**Percentage**	**Number**	**Percentage**	
Male	32	62.75%	61	66.30%	0.67
Blood Culture	31	60.78%	36	39.13%	**0.01**
Respiratory Culture	11	21.57%	63	68.48%	**<0.001**
Diabetes Mellitus	11	21.57%	25	27.17%	0.45
Immunosuppressed	21	41.18%	41	44.57%	0.69
Malignancy	13	25.49%	19	20.65%	0.51
Transplant	8	15.69%	26	28.26%	0.09
Outcomes					
AKI	16	32.00%	56	60.87%	**<0.001**
Readmission	6	11.76%	16	17.39%	0.37
Mean Length of Stay (LOS) days	22.6		37.8		*0.01
**Duration of Bacteremia (IQR) days	2		3		*0.34
90-Day Mortality	10	19.61%	46	50.00%	**<0.001**
Initial source of infection					
UTI	13	25.49%	8	8.70%	**0.007**
Pneumonia	27	52.94%	62	67.39%	0.09
Line related	1	1.96%	4	4.35%	**0.4
Abdomen	5	9.80%	18	19.57%	0.13

*T test unequal sample variances (one tailed)

** Fisher exact test

*** Newer beta lactams include ceftazidime/avibactam, ceftolozane/tazobactam, and meropenem/vaborbactam

**** Other antibiotics include one or more of the following: cefepime, piperacillin/tazobactam, gentamicin, tobramycin, or amikacin.