

**Presentation Type:**

Poster Presentation

**Variation in Measures of Antimicrobial Use Across Four Nursing Homes, Atlanta, Georgia, 2019**

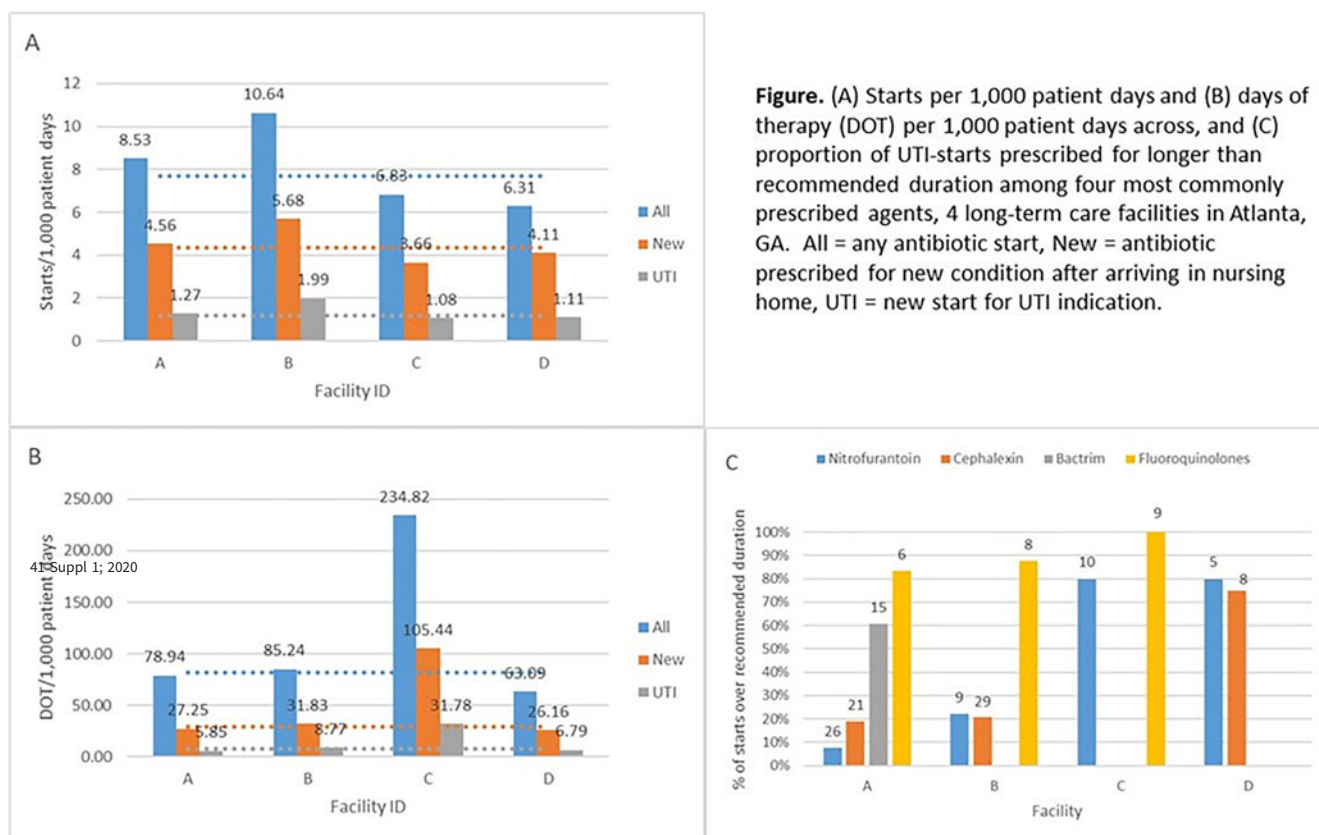
William Dube, Emory University School of Medicine; Sahebi Saiyed, Emory University, Department of Medicine, Division of General Medicine and Geriatrics; Patricia Comer, A.G. Rhodes Wesley Woods; Michael Hanichen, Emory Healthcare; Christie Klinzar, SAVA Senior Care, Northeast Atlanta Health and Rehabilitation Center; Crystal Price, A.G. Rhodes Wesley Woods; Scott Fridkin, Emory Healthcare and Emory University

**Background:** Although antibiotic stewardship programs (ASP) are now required in nursing homes, assimilating and responding to data to improve prescribing in nursing homes is novel. Four Atlanta-based skilled nursing facilities (SNFs) began collaborating (EASIL: Emory Antibiotic Stewardship in Long-Term Care) to share standardized prescribing data to allow interfacility comparisons and action. **Methods:** After SNF ASPs were evaluated and trained, standardized prescribing logs were submitted (January 2019 to June 2019) including the following data: start date, treatment site, prescriber attribution of order (ie, SNF order vs hospital order) and monthly resident days. SNF-specific point estimates of usage rates were calculated as pooled means for all antibiotic starts, SNF-order starts, and days of therapy (DOT), by treatment site per 1,000 resident days. Duration of urinary tract infection (UTI) therapy was assessed by calculating percentage of SNF-UTI starts over recommended duration defined by the

local treatment guideline. Rate ratios (RRs) of use were calculated to compare SNF-specific rates to the largest SNF. The 95% CIs were calculated using normal approximation. **Results:** Monthly starts ranged from 124 to 177, with a pooled mean of 7.8 antibiotic starts (any type), 4.5 SNF-order starts, and 1.2 SNF-UTI starts per 1,000 resident days. Approximately half of all starts were SNF starts (range, 43%–53%), and less than half of DOT were attributed to SNF starts (range, 35%–45%). Overall, SNF-order treatment sites were most often UTIs (29%), lower respiratory infections (17%), and skin and soft-tissue infections (17%). SNF-order UTI starts per 1,000 patient days varied at 1 SNF (SNF B RR, 1.57; 95% CI, 1.04–2.36). SNF-order UTI DOT per 1,000 patient days was more variable, with SNFs B and C having significantly higher rates (B RR, 1.49, 1.24, and 1.82; C RR, 5.42; 95% CI, 4.65–6.34) than SNF A (Fig. 1). The percentage of SNF-order UTI starts that were over recommended duration ranged from 8% (nitrofurantoin, SNF A) to 100% (fluoroquinolones, SNF C) (Fig. 1). **Conclusions:** Although UTIs are the single most common reason to prescribe antibiotics after arriving in a SNF, they account for a small fraction of overall starts and an even smaller fraction of DOT. We identified outlier prescribing by different SNFs using 3 metrics, suggesting that distinct corrective actions are necessary to target distinct prescribing challenges (starts, duration, and transitions of care).

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**Figure.** (A) Starts per 1,000 patient days and (B) days of therapy (DOT) per 1,000 patient days across, and (C) proportion of UTI-starts prescribed for longer than recommended duration among four most commonly prescribed agents, 4 long-term care facilities in Atlanta, GA. All = any antibiotic start, New = antibiotic prescribed for new condition after arriving in nursing home, UTI = new start for UTI indication.