

Disclosures. All authors: No reported disclosures.

1837. Comparison of Antibiotic Use in Post-Acute and Long-Term Care Facilities Based on Proportion of Short Stay Residents Using a Long-Term Care Pharmacy Database

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Background. CMS requires participating long-term care facilities (LTCF) to have an antibiotic stewardship program (ASP). Common barriers encountered by LTCF include lack of antibiotic use (AU) data and inability to benchmark use. We initiated a project that utilized a long-term care pharmacy (LTCPh) database to obtain and compare AU data across enrolled LTCF.

Methods. We partnered with a regional LTCPh that dispenses and reviews medications for 40 LTCF, of which 32 agreed to participate. Prescriptions filled by the pharmacy were used to calculate antibiotic (AB) starts and days of therapy (DOT). Start and end dates were used to calculate DOT, if available. For those without an end date (<10%), duration was obtained by manual review of administration records. Bed-size and proportion of short-stay (Medicare-A) beds were estimated for each LTCF based on a cross-sectional evaluation of billing records at the LTCPh. Baseline resident-days (RD) during 2017 were obtained from each LTCF. The influence of short-stay residents on AB start rates and DOT was evaluated by grouping LTCF in three cohorts based on estimated proportion of short-stay residents.

Results. Data from 29 (90.6%) LTCF were included in the final analysis; 3 were excluded due to lack of RD data. Median bed-size was 57 (range 17-253). Overall, 13.9% of LTCF residents were in the short-stay category. Fifteen LTCF were estimated to have 5% to 20% of RD attributable to short-stay residents, six had <5% while eight had >20%. Antibiotic starts/1000 RD varied from 3.84 to 19.38 and DOT/1000 RD from 34.86 to 252.09, and showed strong correlation (Figure 1). The proportion of short-stay beds correlates better with AB starts/1,000 RD than DOT/1,000 RD (Figure 2). LTCF cohort with >20% short-stay residents had higher mean AB starts/1000 RD compared with LTCF with 5%-20% and <5% short-stay residents (13.08, 9.78, 7.45, respectively; $P < 0.05$ by one-way ANOVA). However, a similar trend was not noted for DOT/1000 RD (179.30, 128.29, 128.12, respectively; $P = 0.12$).

Conclusion. LTCPh can play an important role in supporting ASP in LTCF by providing AU data for benchmarking. Antibiotic use in LTCF is highly variable and may be influenced by the proportion of beds dedicated to short-stay residents amongst other factors.

Figure 1. Correlation Between Antibiotic Starts and Days of Therapy (DOT)

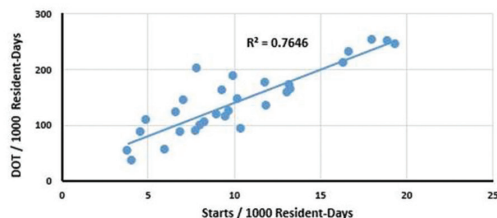
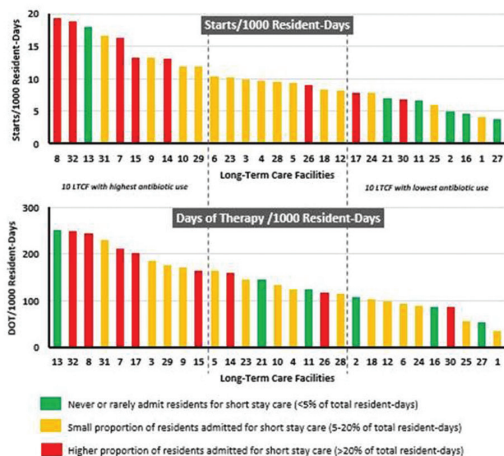


Figure 2. Distribution of Antibiotic Starts and Days of Therapy (DOT) Among Enrolled Facilities



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1838. Digging Deeper: A Closer Look at Core Elements of Antibiotic Stewardship for Long-Term Care Facilities

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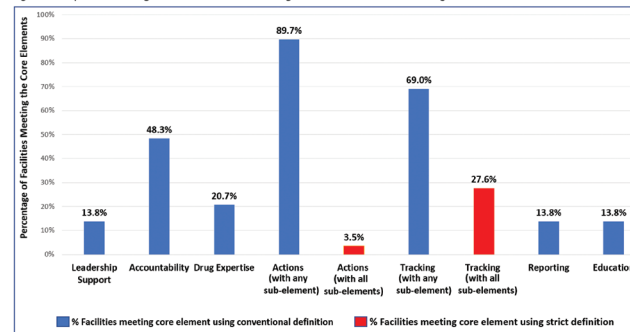
Background. The CDC encourages all long-term care facilities (LTCF) to develop antibiotic stewardship programs (ASP) consisting of seven core elements (CE). These CE include leadership commitment, accountability, drug expertise, action, tracking, reporting and education. However, action include three essential sub-elements (SE): policy development, practice implementation and pharmacist involvement. Similarly, tracking has two major SE; antibiotic use and outcome measures. Typically, a multi-component CE is considered met if any of the SE is present. We evaluated application of a strict definition that requires all major SE to be present for the action and tracking CE to be considered met.

Methods. A group of consultant pharmacists (CP) was trained to evaluate and lead ASP in their LTCF. Baseline ASP evaluation was conducted by CP in 29 LTCF using the CDC CE checklist between November 2017 and January 2018. CE credits were assigned to LTCF ASP using conventional (any SE) and strict definitions (all SE required). Results were compared among LTCF ASP using both definitions.

Results. None of the LTCF has all seven CE regardless of the definition. A median of two CE (range 1-6) were present based on conventional definition (CD) and 1 (range 0-5) using the strict definition (SD). Less than a quarter of LTCF ($n = 6$, 20.6%) met five or more CE with the CD and only one (3.5%) using the SD. Interestingly, when utilizing the CD, all (100%) LTCF met at least one CE as compared with only 16 (55.1%) when using the SD. The action CE is most frequently met when using CD and least frequently met when using SD (Figure 1). CP reviewing a proportion of antibiotic orders as a part of their monthly drug regimen review was the most common action and was met by 89.7% of LTCF. Only 2 (6.9%) LTCF had stewardship policies and 4 (13.8%) had implemented at least one stewardship practice. Similarly, 20 (69.0%) LTCF had tracking based on the CD with a majority (55.2%) tracking outcome measures and some (41.4%) tracking antibiotic use. However, only a quarter (27.6%) of LTCF were tracking both outcomes and antibiotic use.

Conclusion. Many LTCF have some components of action and tracking CE in place but are missing important SE. Data on CE should be collected in a manner that makes it easier to identify these deficiencies during LTCF ASP evaluation.

Figure 1. Proportion of Long-Term Care Facilities Meeting Individual Core Elements Using Conventional and Strict Definitions



Disclosures. T. Vanschooneveld, Merck: Grant Investigator, Grant recipient. M. S. Ashraf, Merck & Co. Inc.: Grant Investigator, Research grant.

1839. Expanding Antimicrobial Stewardship into the Community: Development of Patient and Provider Education Resources to Improve Antibiotic Awareness

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Background. Antibiotic stewardship programs are vital in the ambulatory setting to address the public health threat of antibiotic resistance. In 2016, the Centers