Methods. We performed a two-arm, cluster-randomized, crossover quality improvement study over 8 months to compare the impact of weekly ICU rounds with an ASP team vs. usual care. The primary outcome was antibiotic use (AU) in days of therapy (DOT) per 1,000 days present during and following ICU exposure. Our cohort consisted of ICU patients in 5 ICUs in Duke University Hospital. The unit of randomization was rounding team, which corresponded to half of the ICU beds on each unit. Each team was randomized to the intervention for 4 months followed by usual care for 4 months (or vice versa). The intervention involved multidisciplinary review of eligible patients to discuss antibiotic optimization. Patients not on antibiotics, followed by infectious diseases, post-transplant, on ECMO, or with a ventilator assist device were excluded from review. Intervention impact was assessed with multivariable negative binomial regression rate ratios (RR). AU was assessed over time before and after the study period to assess global and unit-level trends.

Results. We had 4,683 ICU-exposed patients. Intervention effect was not significant for the primary outcome (table). The intervention order was not significant in the model. Eligible patients were lower in the cardiothoracic ICU (CTICU) compared with other units (table); the intervention led to a significant decrease in AU when the CTICU was removed (RR = 0.93 [0.89-0.98], P = 0.0025). Intervention impact was differential among ICUs, with the greatest effect in surgical and least in CTICU (table). AU level decreased in all ICUs, driven by 4 of the 5 ICUs (table, figure).

Conclusion. The effect of ASP rounds on AU was mixed for different types of ICUs. The direct effect on AU (intervention vs. control) was small because the analysis addressed the whole ICU population and thus was subject to biases from exposures after an ICU stay, ineligible patients, and lack of blinding. However, we observed an overall decline in AU during the study period, which we believe represents indirect effects of increased ASP activity and awareness. Additional ASP resources to round more than weekly may result in greater effect.

Table. ICU distribution of patients, rates of antibiotic use and change in antibiotic use over time

| ICU type     | N patients | % Excluded from weekly rounds | RR (95% CI) | % change in AU 1/2017 to 12/2018 |
|--------------|------------|-----------------------------|------------|----------------------------------|
| Surgical     | 992        | 67.6                        | 0.90       | 12.6                             |
| Cardiac      | 1037       | 66.6                        | 0.85       | 7.9                              |
| Medical      | 866        | 52.1                        | 0.92       | 3.3                              |
| Neurologic   | 1047       | 61.3                        | 0.83       | 4.4                              |
| Cardiothoracic| 921       | 87.0                        | 0.91       | 14.8                             |
| All ascites  | 4683       | 60.3                        | 0.97       | 1.0                              |
| All ICU      | 7562       | 62.7                        | 0.93       | 5.8                              |

Figure 1. Antibiotic use (days of therapy per 1000 days present) for all five units trended over time from 1/2017 to 12/2018. Study period from 10/2017 to 6/2018

Disclosures. All Authors: No reported Disclosures.

1879. A 20/20 Vision: Successful Integration of a Prescribing Dashboard for Outpatient Antimicrobial Stewardship to Target 20% Reduction by the Year 2020
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Background. Nebraskan (NE) ranks among the highest states for per capita antibiotic (AB) use in outpatient (OP) settings. Nebraska Medicine (NM) partnered with NE Antimicrobial Stewardship Assessment and Promotion Program (ASAP), a program funded by NE DHHS via a CDC grant, to reduce AB prescribing for acute bronchitis in OP settings.

Methods. The antimicrobial stewardship (AS) pilot program targeted NM OP clinics during winter 2018. All OP facility clinicians were notified of the availability of online AS educational videos. In addition, 5 primary care clinics (PCC) received clinician-directed interventions that included acute respiratory infection management pocket guides and posters for display in workrooms. Another 5 PCC received both clinician- and patient-directed interventions (examination room patient empowerment posters, Be Antibiotic Aware pledge cards and brochures). We compared AB prescribing rates for acute bronchitis between January and April 2017 and January and April 2018 among the 2 PCC groups and a control group of 5 immediate care clinics/ emergency departments (ICC/ED). Clinicians in all 10 PCC were surveyed to assess usefulness of the AS campaign.

Results. A total of 593 acute bronchitis diagnosis encounters were included. AB prescribing rates for acute bronchitis for the 15 sites decreased from 53.7% to 43.6% (P < 0.02). Prescribing rates were unchanged in ICC/ED that received only notification of online educational videos (40.8% vs. 41.5%, P = 1.00) but were reduced in clinics that received clinician-directed (74.5% vs. 33.3%, P < 0.01) and patient-directed (61.1% vs. 48.8%, P = 0.07) interventions. Azithromycin was the most commonly prescribed AB (31.5% in 2017 and 29.8% in 2018). After the AS campaign, only the clinician-directed intervention group saw a reduction in azithromycin prescribing (33.3% vs. 13.9%, P < 0.05). Out of 51 clinicians who completed the survey, 45% felt campaign tools facilitated meaningful discussion with patients. Workroom posters and pocket guides were reported by 47.1% and 39.2% to be somewhat or extremely helpful, respectively.

Conclusion. This OP AS campaign led to a significant reduction in AB prescribing. Successful OP AS campaigns need multifaceted approaches but targeted clinician interventions appear most beneficial.

Disclosures. All Authors: No reported Disclosures.