Conclusion. Our ASP was successful in reducing antibiotic consumption and AMR for important pathogens.

Disclosures. **All Authors**: No reported disclosures

33. Evaluating the Safety and Effectiveness of a Non-Severe Community-Acquired Pneumonia Pharmacist Pathway

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Session: P-04. Antimicrobial Stewardship: Outcomes Assessment (clinical and economic)

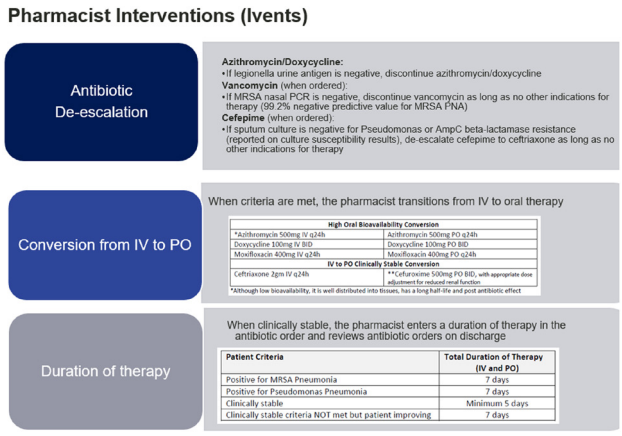
Background. One of the main roles of the SSM Health WI Regional Antimicrobial Stewardship Program is to create infection treatment pathways based on the Infectious Diseases Society of America (IDSA) practice guidelines. Treatment pathways are used to guide provider prescribing of antimicrobials for disease states such as community-acquired pneumonia (CAP). The objective of this study was to evaluate the safety and effectiveness of a non-severe CAP pharmacist pathway based on the updated IDSA and American Thoracic Society 2019 CAP practice guideline.

Methods. A retrospective chart review was performed on all patients placed on the non-severe CAP pharmacist pathway at SSM Health St. Mary's Hospital in Madison, WI from September 2020 through April 2021. Patients who initially started on the pathway were removed if they met prespecified criteria (Table 1). The primary outcome in this study was 30-day respiratory-related readmission rate. Secondary outcomes included average total length of antibiotic therapy, pharmacist interventions [intravenous (IV) to oral (PO) conversion, antibiotic de-escalation (including discontinuation of azithromycin with negative legionella urinary antigen), duration of therapy], and 30-day all-cause readmission rate.

Table 1. Criteria for Removal from the Pathway

Criteria for Removal from the Pathway
Suspected CAP ruled out
Antibiotics changed or broadened by provider
Antibiotics ordered for CAP and an additional infectious indication
Positive blood culture(s) or legionella urine antigen
Infectious disease or pulmonary consultation

Figure 1. Pharmacist Interventions



Results. A total of 119 patients were initiated on the non-severe CAP pharmacist pathway, of which 47 patients (40%) completed the pathway and 72 patients (60%) were removed from the pathway. Of the 47 patients who completed the pathway, there were no respiratory-related readmissions with a 30-day all-cause readmission rate of 6.4% (N=3/47). The average total duration of beta-lactam therapy was 6.8 days and the average total duration of macrolide therapy was 1 day due to de-escalation with a negative legionella urinary antigen result. A total of 61 pharmacist-driven interventions were completed [IV to PO conversion (N=15), de-escalation (N=27), and duration of therapy (N=19)].

Table 2. Summary of Results

Initiated on CAP pathway	Removed from pathway	Completed the pathway	Average doses of azithromycin	IV to PO Ivents	De-escalation Ivents	Duration of therapy Ivents	Respiratory readmission rate	All-cause readmission rate	Average total length of therapy
N=119	N=72	N=47	1	15	27	19	0%	6.4%	6.8 days

Conclusion. The findings of this study suggest that implementation of a non-severe CAP pharmacist pathway is safe and effective. No readmissions were related to non-severe CAP management and pharmacists completed guideline-driven interventions related to antimicrobial de-escalation, IV to PO conversion, and duration of therapy.

Disclosures. **All Authors**: No reported disclosures

34. Stemming the Rise in Antibiotic Prescription for Community Acquired Respiratory Infections (ARI) During COVID-19 Pandemic in Singapore General Hospital (SGH)

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Session: P-04. Antimicrobial Stewardship: Outcomes Assessment (clinical and economic)

Background. In early months of COVID-19 pandemic, SGH recorded a year-on-year increase in antibiotic (ABx) use for community acquired acute respiratory infection (CA ARI) from Feb-Apr 2019 (48.7 defined daily doses (DDD)/100 bed-days) to 2020 (50.8 DDD/100 bed-days). To address concerns of misuse, the antibiotic stewardship unit (ASU) expanded prospective audit feedback (PAF) to CA ARI patients admitted to ARI wards, with low procalcitonin (PCT). PAF was conducted on day 2-3 of ABx, on weekdays. Doctors received feedback to stop/modify when ABx was deemed inappropriate. Here, we describe the impact of ASU's adaptive approach to curb rising ABx use in patients admitted for ARI during COVID-19 pandemic.

Methods. A Pre- & Post-intervention study was conducted. All patients started on ABx (ceftriaxone/co-amoxiclav/piptazo/carbapenems/levofloxacin) for CA ARI & PCT < 0.5μg/L were analysed. Those who died ≤48h of admission; admitted to intensive care; required ABx escalation; >1 infective sites; complex lung infection were excluded. Primary objective was to compare the proportion of ABx stopped ≤4 days (time to final infection diagnosis) Pre (22/3-18/4/20) & Post (21/4-13/7/20).

Results. 184 (Pre) & 528 (Post) ABx courses were analysed. ASU audited 51 (Pre) & 380 (Post) courses with the rest discontinued/discharged before review. Patients were largely similar in both periods; a third had low likelihood of bacterial infection (C reactive protein < 30mg/L). In Post, 73 feedback was given to stop ABx (often because symptoms suggested viral/fluid overload) & 18 to switch to oral ABx. 82 (90%) feedback was accepted. No ABx was restarted ≤48h or deaths ≤30 days due to ARI. 1 patient had *C. difficile* diarrhoea a day after ABx cessation as per ASU feedback.

Proportion of all ABx stopped ≤4 days was higher in Post than Pre [27/184 (15%) vs 152/528 (29%), p< 0.01]. Median duration of therapy of IV ABx was reduced (6.5 vs 3 days, p< 0.01), with corresponding shorter median length of stay (10.5 vs 6 days, p< 0.01).

Table 1. Baseline characteristics of study population

	Pre N=184	Post N=528	p-value
Demographics			
Age, in years	69 (58-80)	72 (59-82)	0.16
Male	91 (49.5)	298 (56.4)	0.10
Charlson's comorbidity index	4 (2-6)	5 (3-8)	<0.01
Congestive heart failure	22 (12.0)	78 (14.8)	0.34
Chronic kidney disease, stages 4-5 or receiving dialysis	12 (6.5)	57 (10.8)	0.06
Lung malignancy	17 (9.2)	57 (10.8)	0.55
Underlying structural lung disease (COPD/bronchiectasis)	29 (15.8)	79 (15.0)	0.80
Antibiotic courses			
Courses involving ceftriaxone/co-amoxiclav only	133 (72.3)	345 (65.3)	0.08
Courses involving anti-pseudomonal antibiotics	51 (27.7)	183 (34.7)	0.08
Courses involving antibiotics of intravenous route only	32 (17.4)	116 (22.0)	0.19
Laboratory investigations*			
Procalcitonin <0.06μg/L	62 (33.7)	153 (29.0)	0.23
C reactive protein measured	149 (81.0)	467 (88.4)	0.11
- C reactive protein <30mg/L	51 (27.7)	162 (30.7)	0.45
White blood cells counts measured	177(96.2)	512(97.0)	0.61
- White blood cells >10x10^9/L	77(41.8)	199(37.7)	0.32
- Neutrophil differential >80%	45 (24.5)	131(24.8)	0.92
Microbiology investigations			
Positive respiratory virus investigations (including COVID-19)	12 (6.5)	10 (1.9)	<0.01
Positive respiratory cultures	0 (0.0)	4 (0.8)	0.60
Positive blood cultures	0 (0.0)	2 (0.4)	1.00

Data are expressed as median (interquartile range) for continuous variables, and as number (percentage) for categorical variables. *Abbreviations: COPD chronic obstructive pulmonary disease*
**Laboratory investigations were performed within 1 day of admission*

Conclusion. PAF directly and indirectly reduced ABx duration in patients treated for CA ARI as prescribers become more conscious about stopping ABx when investigations show low likelihood of bacterial infection. ASU must remain agile during pandemics to detect emerging problems and adapt processes to counter early.

Disclosures. **All Authors**: No reported disclosures