

Evaluation of Azithromycin Usage Following a Pharmacist Discontinuation Protocol

Kelly Percival, PharmD; Patrick Kinn, PharmD, MPH; Lukasz Weiner, MD; Dilek Ince, MD
 University of Iowa Hospitals and Clinics, Iowa City, IA

Contact: Kelly Percival
 200 Hawkins Dr. CC101 GH
 Iowa City, IA 52242
 319-356-7328
 Kelly-Percival@uiowa.edu

Background

- Azithromycin usage is common in hospitalized patients with community-acquired pneumonia (CAP)
- Recommended total dose is 1500mg
 - 500mg daily x 3 days
 - 500mg day 1, followed by 250mg daily x 4 days
- It was observed that cumulative doses >1500mg were utilized at our institution
- November 2019 institutional empiric treatment guidelines emphasized cumulative dose
- April 2020 a pharmacist collaborative practice agreement (CPA) was created to allow azithromycin discontinuation after 1500mg

CPA Inclusion	CPA Exclusion
<ul style="list-style-type: none"> Pneumonia Received cumulative 1500mg dose 	<ul style="list-style-type: none"> Lab confirmed Legionella infection Lab confirmed or presumed Nocardia infection Lab confirmed or presumed Nontuberculous Mycobacterium (NTM) infection Use for immunomodulatory effect

Objectives

- The primary objective was to compare the proportion of patients receiving greater than 1500mg of azithromycin before and after CPA implementation
- Secondary objective was to evaluate CPA utilization

Methods

- Pre-implementation: January 2017-March 2020
- Post-implementation: April 2020-March 2022
- Pharmacist order mode utilized to determine CPA usage

Inclusion	Exclusion
<ul style="list-style-type: none"> ≥18 years old Received azithromycin between January 2017-March 2022 	<ul style="list-style-type: none"> <18 years old Immunomodulatory effect indication Single dose >500mg Cumulative dose greater than 5000mg

Results

- 8,373 patients were included
 - 5123 pre-intervention
 - 3250 post-intervention
- The proportion of patients receiving >1500mg of azithromycin (Figure 1):
 - 29.32% pre-implementation
 - 20.22% post-implementation
 - P<0.001
- CPA was utilized for discontinuation in a minority of patients during the post-implementation period
 - Majority discontinued per verbal order

Limitations

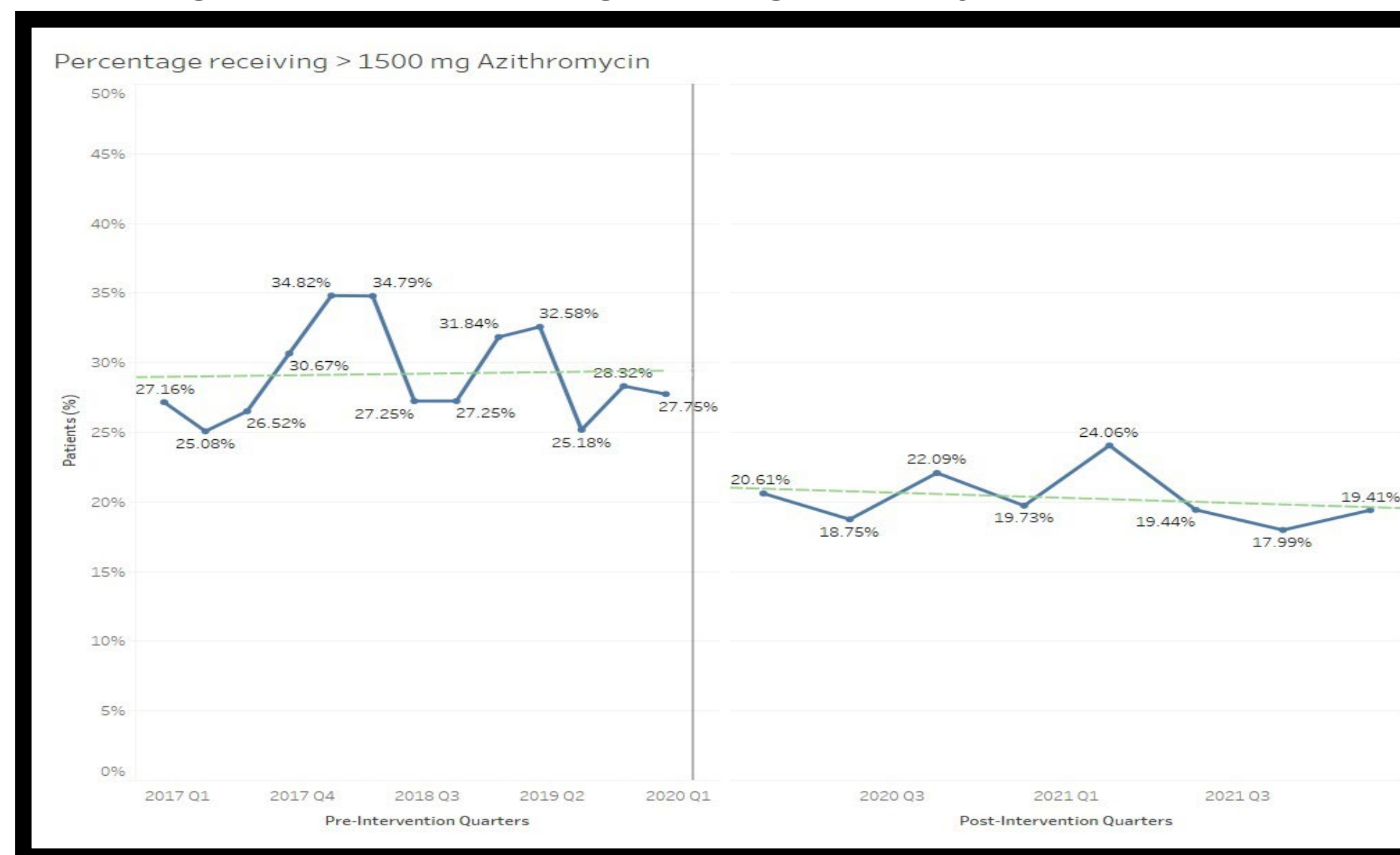
- Data includes potential usage for indications besides pneumonia such as COPD exacerbations
- Unable to determine specific reason for order modification by pharmacist for some orders

Conclusions

- Reduction in excessive azithromycin use was seen after CPA implementation
- CPA was underutilized
- Reasons for low usage of CPA should be further evaluated
- This intervention required minimal antimicrobial stewardship team time
- Unit-based pharmacists can be utilized in stewardship initiatives successfully
- Future directions would be to include COPD exacerbations in the CPA

Results

Figure 1. Percentage of Patients Receiving >1500mg Azithromycin



References

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