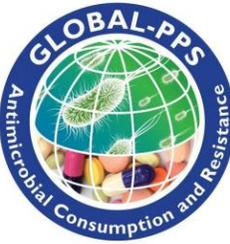


Point prevalence survey of antimicrobial use in 5 secondary hospitals in west side Saitama prefecture in Japan : focus on pneumonia therapy



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INTRODUCTION

•Antimicrobial resistance is a global health care threat, requiring action on international, national and local levels. To inform antimicrobial stewardship, surveillance of antimicrobial use is needed not only in tertiary referral hospitals but also in smaller, secondary hospitals using a uniform and standardized method.

METHODS

•A Point Prevalence Survey was conducted in 2019 in 5 secondary hospitals in Saitama prefecture in Japan, using Global-PPS methodology. Bed capacity ranged from 42 to 624 beds. As this survey had previously been performed by tertiary hospitals in Japan, we now focused on secondary hospitals. Survey included all inpatients receiving an antimicrobial on the day of PPS and collected details on antimicrobials, reasons for treatment and a set of quality indicators.

RESULTS

•21 wards were surveyed. Overall antimicrobial prevalence rate was 12.8% (149 out of 1,164 inpatients). Prevalence rates between hospitals varied from 5.9% to 50.0%. Reason for antimicrobial use was mentioned in records for 75.5% of prescriptions, yet documentation of stop/review date was only 56.4% (Fig 1). Out of 163 antimicrobial prescriptions, 124 (76.1%) agents were prescribed for treatment and 38 (23.3%) for prophylaxis. Main indication for antimicrobial use was pneumonia (44.8% of all prescriptions). Up to 63 out of 68 pneumonia patients on antimicrobial therapy were treated for a healthcare-associated pneumonia (HAP). Most commonly used antimicrobials for pneumonia were 3rd generation cephalosporins (30.1%), penicillins/beta-lactamase inhibitor (24.7%) and fluoroquinolones (13.7%). (Fig 2) Up to 58.9% of pneumonia prescriptions was based on CRP, Sputum was collected for 32.4% (22/68 patients).

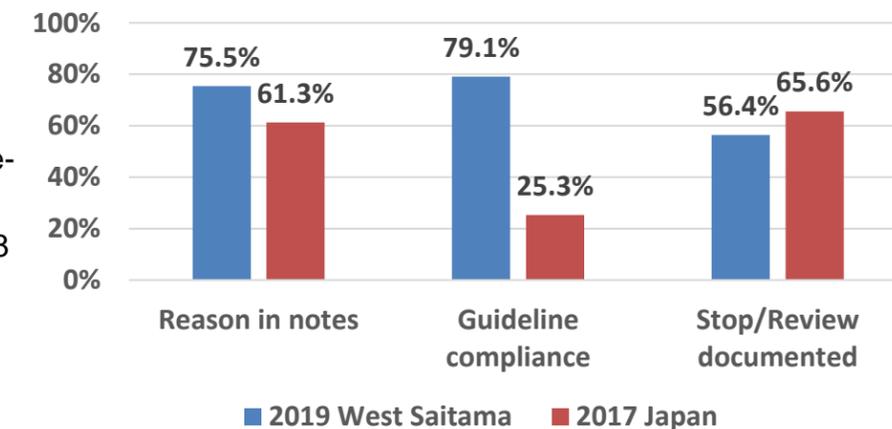


Fig.1 Quality indicators for overall antibiotic prescribing

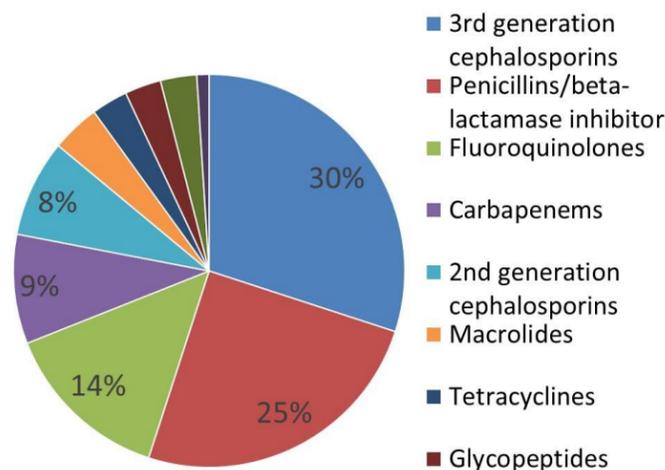


Fig. 2 Antimicrobial choice for pneumonia (ATC level 4)

CONCLUSION

Overall antimicrobial prevalence in secondary hospitals in Saitama was low compared to 2018 national prevalence rate of 22.6%. Proportion of HAP patients was especially high. Although Japanese Respiratory Society guideline recommends penicillins/beta-lactamase inhibitor for HAP, majority of patients was treated with 3rd generation cephalosporins. Whether this could be explained by shortage of ampicillin/sulbactam remains to be investigated. De-escalation of antimicrobial therapy is challenging due to suboptimal microbiology laboratory capacity in secondary hospitals. This survey provides basic information for designing efficient antimicrobial stewardship programs. Repeated PPS' are important to promote antimicrobial surveillance and appropriate use in future.