

Annual Hospital Antimicrobial Point Prevalence Survey in Ireland: 2019

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INTRODUCTION

- Antimicrobial point prevalence surveys (PPS) provide information on prescribing practices at a particular point in time, with an annual hospital PPS performed in Ireland by antimicrobial stewardship teams
- Results of periodic PPS may help identify trends, areas for intervention, determine local guideline compliance and quantify results of interventions

AIMS

- To analyse data collected in a national antimicrobial PPS from Irish hospitals
- To compare data from the 2019 and 2018 surveys

METHODS

- The PPS was carried out in September and October 2019, using an agreed protocol and data entry form
- Data were analysed by the HPSC

RESULTS

- Figure 1 displays an annual summary of key antimicrobial PPS findings in 2019 versus 2018

	2019	2018
Hospitals included (n)	45	44
Patients included (n)	8,916	8,814
Median prevalence of antimicrobial use (%)	40	39
% of antimicrobials prescribed for:		
• Community-infection	55	55
• Hospital-infection	25	23
• Medical prophylaxis	9	9
• Surgical antimicrobial prophylaxis (SAP)	8	8
% of SAP > 24 hours duration	57	68

Figure 1. Summary of PPS results

- The majority of antimicrobials (67%) were administered via the IV route in both 2018 and 2019
- Respiratory, intra-abdominal and skin/soft tissue infections (SST) were the most common body sites for which antimicrobials were prescribed in both years
- Figure 2 displays the rank order of antimicrobials prescribed in 2019 and 2018 PPS
- Co-amoxiclav and piperacillin-tazobactam combined accounted for 37% of all prescriptions, similar to 2018 (36%)

RESULTS

- Metronidazole ranked third in both years (6%). Despite its superb oral bioavailability, 70% of metronidazole prescriptions were via the intravenous (IV) route, with 42% prescribed in combination with an agent with anti-anaerobe activity
- Meropenem increased in ranking from 13th to 9th place from 2018 to 2019

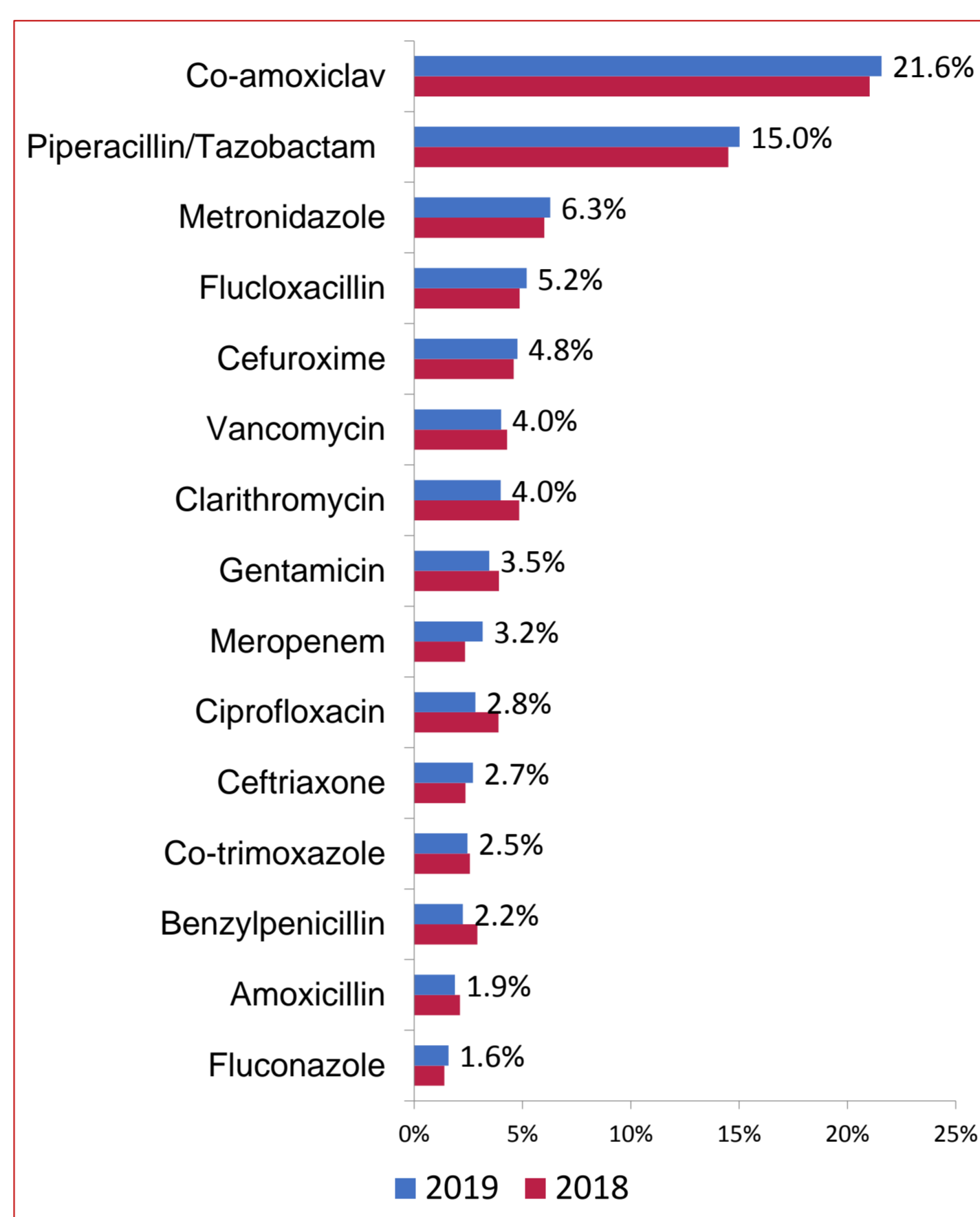


Figure 2: Top 15 antimicrobials prescribed in 2019 & 2018

- Figure 3 displays the % compliance with key indicators of good antimicrobial prescribing across both PPS
- A slight increase in compliance with local guidance was observed in 2019 (84%), along with an increase in the proportion of prescriptions which had been discussed with an infection specialist (29%)
- An increase in the proportion of prescriptions with a documented indication was observed in 2019 (92%)
- Of the antimicrobial prescriptions with a duration in excess of seven days on the day of the 2019 PPS, 26% were deemed potentially inappropriate
- A welcome increase in the proportion of prescriptions with a documented stop or review date was observed in 2019 (42%)

THANK YOU!

The annual antimicrobial PPS could not take place without the input of the antimicrobial stewardship teams of the participating hospitals

Key antimicrobial stewardship targets 2020:

- Reduce surgical antimicrobial prophylaxis (SAP) >24 hours duration
- Reduce duration of pneumonia treatment
- Reduce use of dual beta lactam therapy of community-associated cellulitis

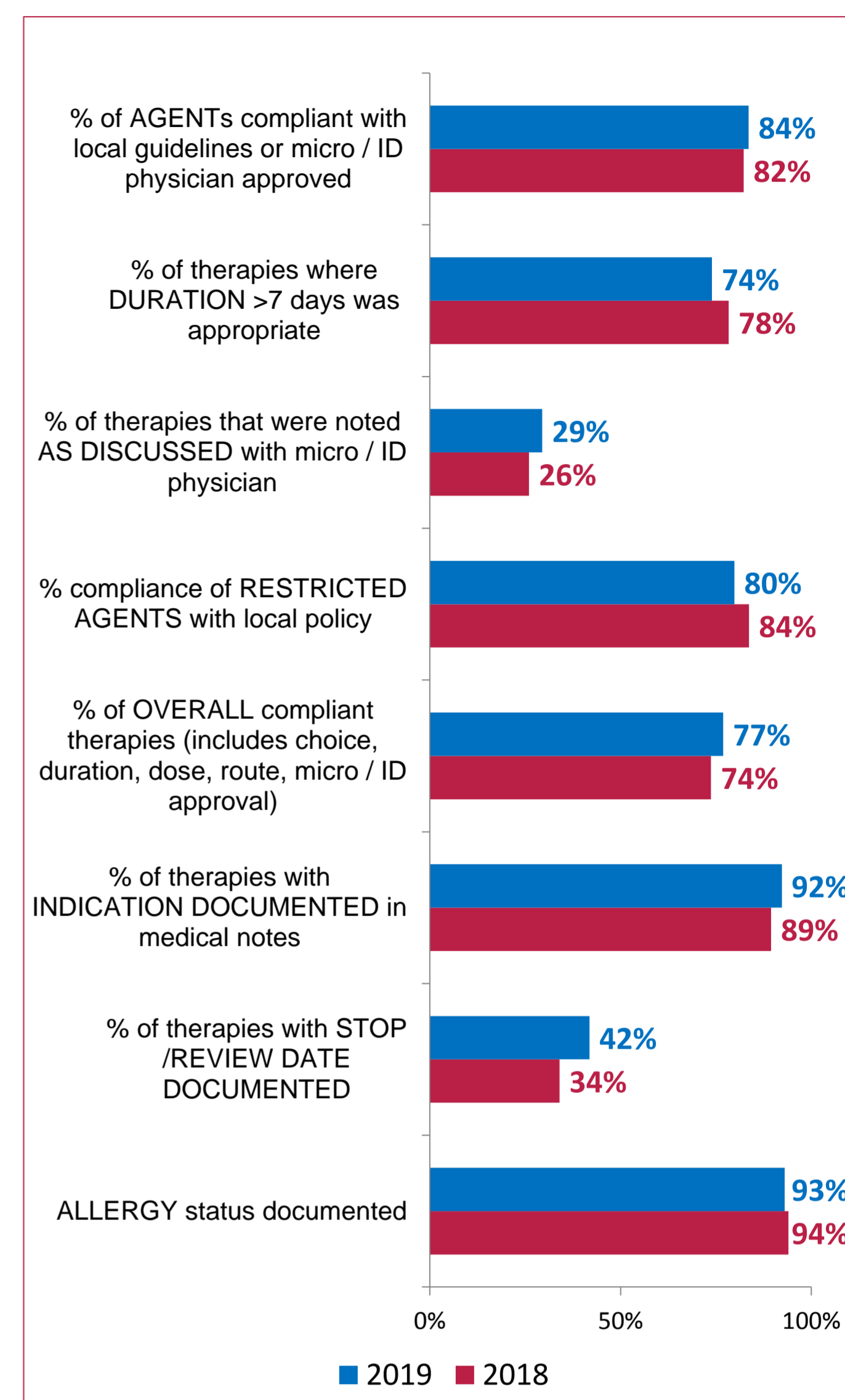


Figure 3: Compliance with key indicators of good antimicrobial prescribing in both PPS: 2019 & 2018

DISCUSSION

- The highest number of hospitals to date participated in the antimicrobial PPS 2019
- At 40%, the median prevalence of antimicrobial use was higher than that observed in previous PPS
- A welcome reduction in SAP duration >24 hours was observed, but remains high, contrary to evidence-based practice
- Considering the prevalence of respiratory and SST infections, additional areas for improvement include pneumonia treatment duration and avoidance of dual beta lactam treatment for community-associated cellulitis
- Over one quarter of prescriptions with a duration >7 days were potentially inappropriate and further evaluation in future PPS may provide additional insight
- A focus to shift prescribing to more narrow spectrum agents is required, considering the level of co-amoxiclav and piperacillin / tazobactam prescription.
- A metronidazole educational intervention focusing on its excellent bioavailability is required, along with education for prescribers of the anti-anaerobic spectrum of other agents