

Background

- Outpatient Parenteral Antimicrobial Therapy (OPAT) at Cork University Hospital (CUH) allows patients requiring intravenous antibiotics to be safely managed at home following clinical stabilisation.
- CUH's OPAT service aligns with the National Irish OPAT Guidelines<sup>1</sup>, prioritising self-administered OPAT (S-OPAT) and maintaining a target readmission rate below 5%.
- This study aimed to summarise OPAT outcomes at CUH for 2024, compare these with prior year performance, and highlight barriers encountered—specifically, recent antibiotic supply delays from the designated manufacturing company and subsequent local contingency strategies implemented.

Methods

- All OPAT referrals at CUH during 2024 (n=279) were retrospectively reviewed, yielding 173 unique patients who were accepted by the service.
- Data collected included referral specialty, microbiological results, antibiotic regimens, intravenous catheter complications, readmissions, and bed-days saved.
- Comparisons were made with 2023 performance data, and adherence to the National Irish OPAT guidelines was assessed.

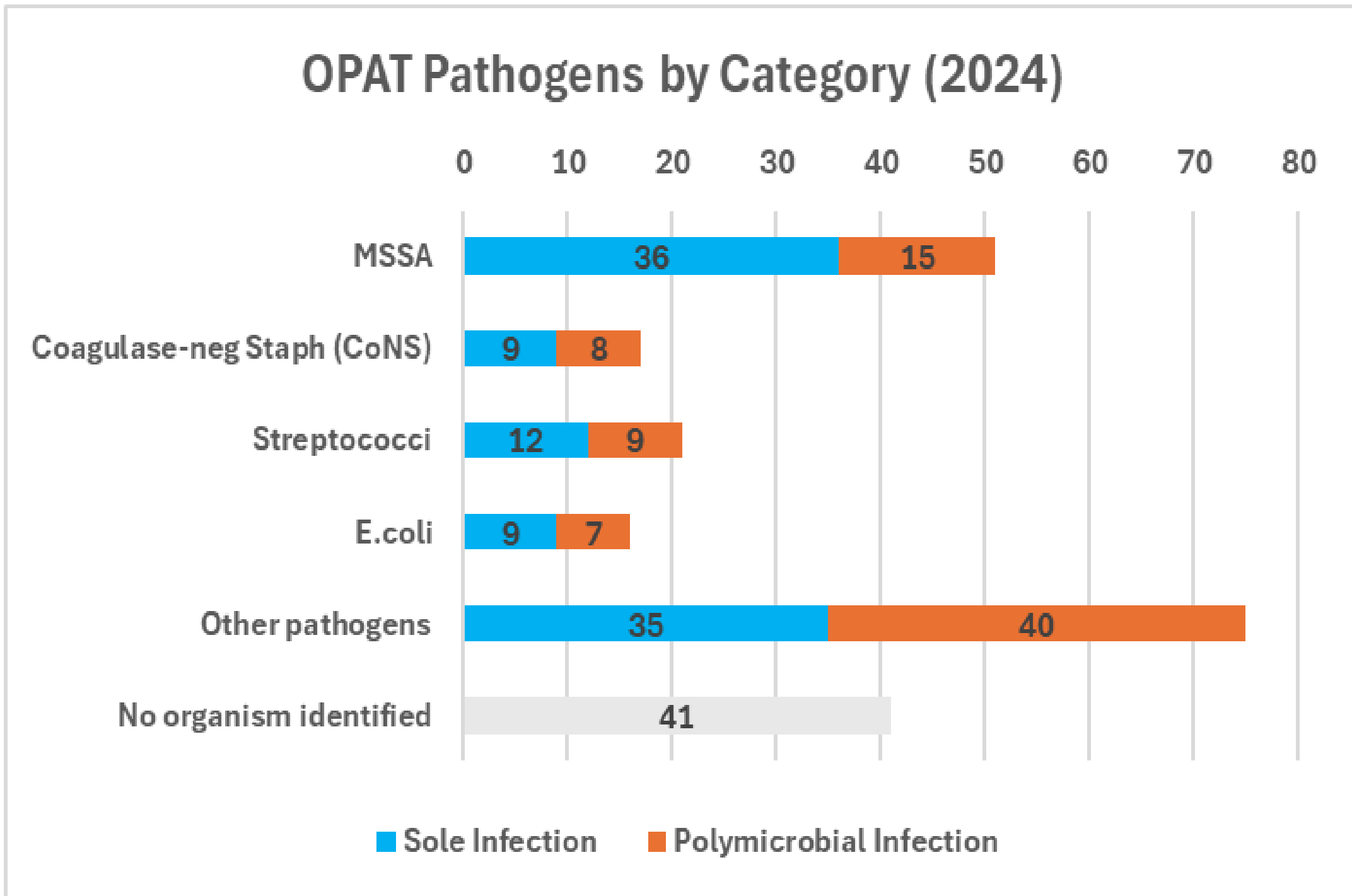


Fig 1. OPAT Pathogens (2024)

Results

Patient Characteristics and Antibiotic Use

- Of 279 OPAT referrals in 2024, 173 unique patients (average age: 60 years; male 60.7%) were enrolled in the service.
- Orthopaedics was the predominant referring specialty (31.8%), followed by Infectious Diseases (17.3%), Plastic Surgery (8.1%), and Endocrinology (7.5%).
- Ceftriaxone, flucloxacillin, and daptomycin were the antibiotics most frequently used.

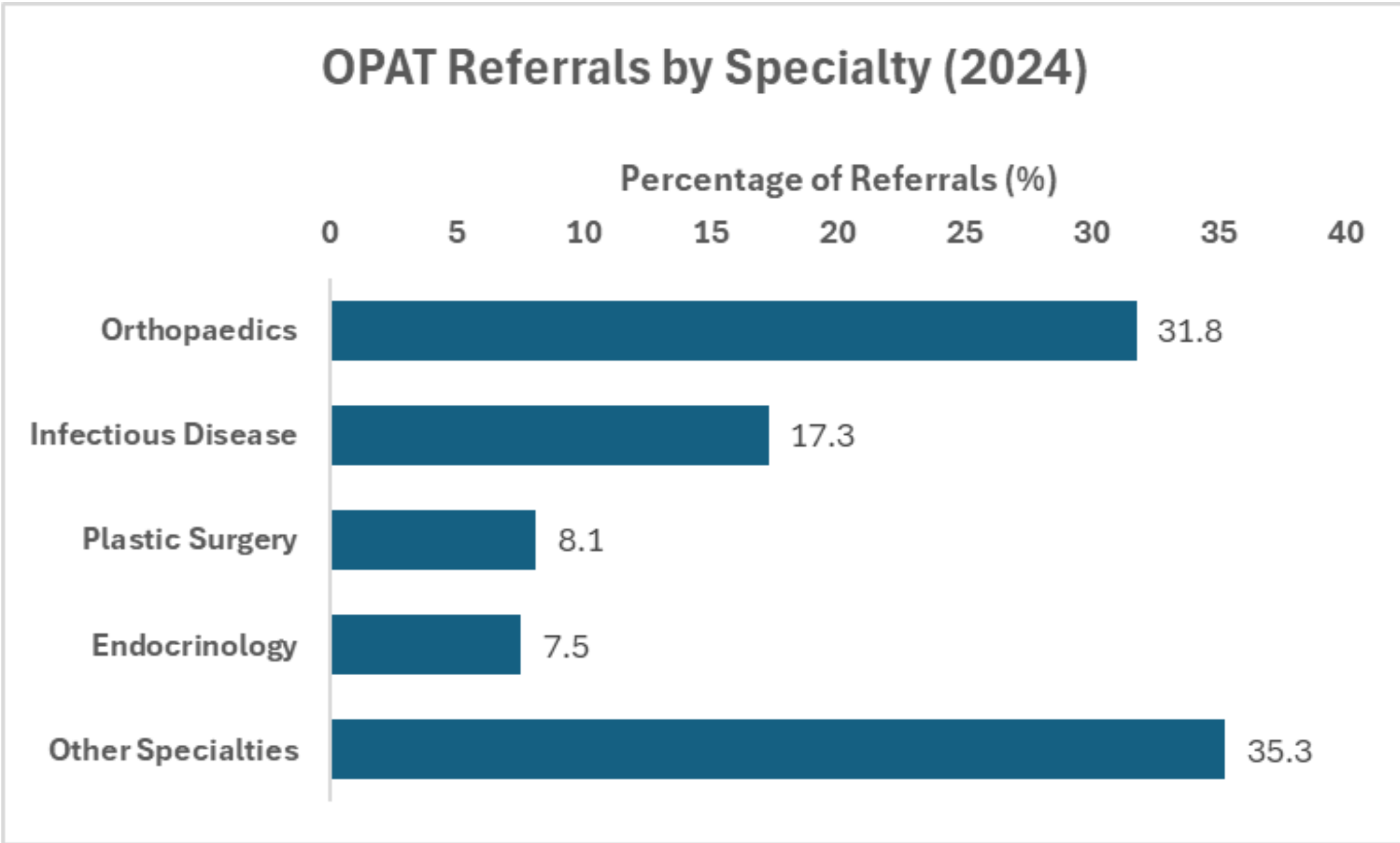


Fig 2. OPAT Referrals by Specialty (2024)

Results (continued)

Contingency plan results:

- Interim bridging antibiotics were provided by CUH pharmacy to ensure continuity of care. Implementation of this contingency saved an additional 10 bed-days (A cost saving of €8,970); however, despite this strategy, 67 bed-days were lost due to these delays, with an additional 9 bed-days lost due to OPAT staffing constraints.

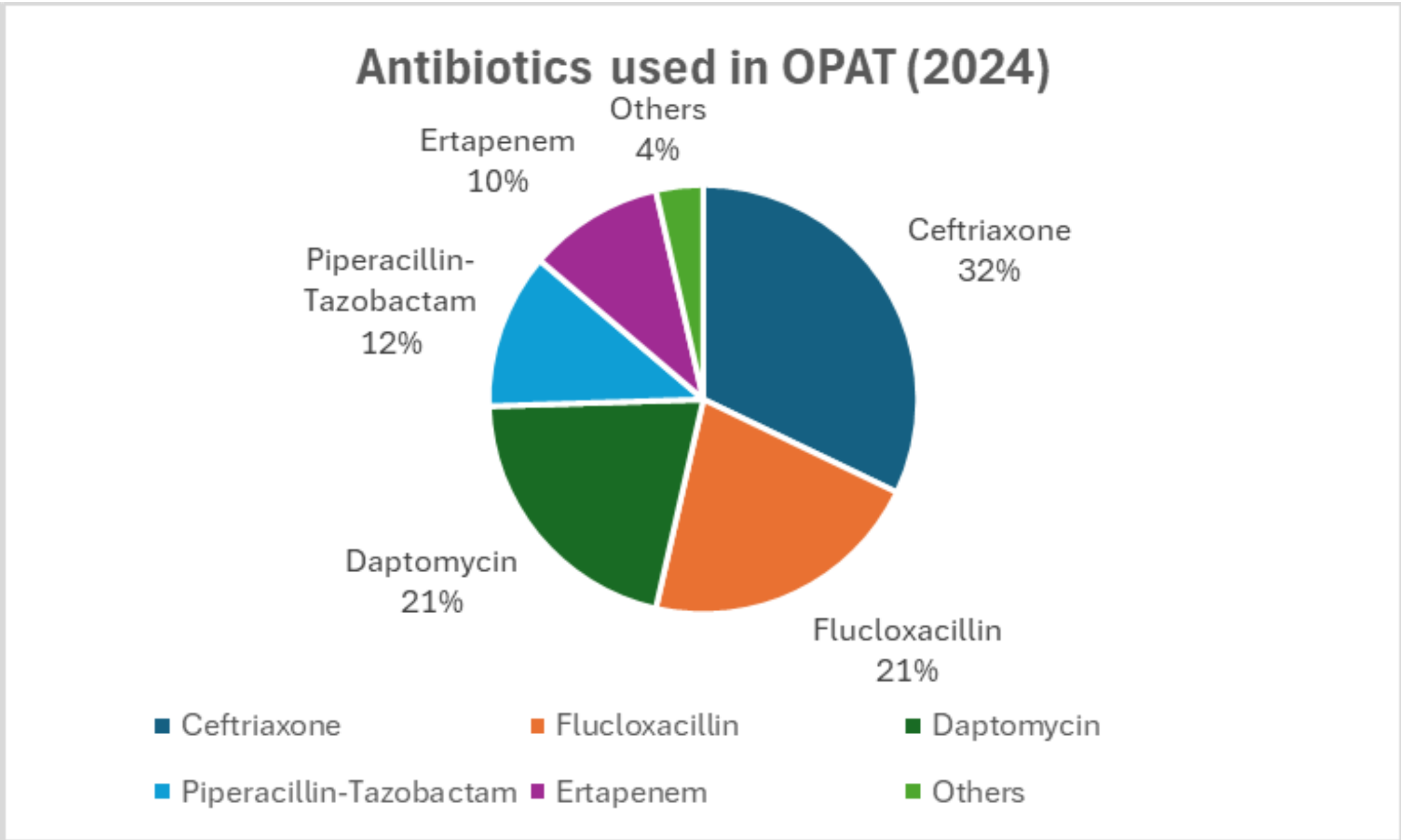


Fig 3. Antibiotics used in OPAT (2024)

Complications and Savings

- One catheter-related bloodstream infection was recorded during the year, and vascular access issues remained minimal (~2%).
- Overall, OPAT contributed significantly to hospital capacity, saving approximately 3,389 inpatient bed-days.

Disruption and bridging:

- However, significant external supply delays were encountered. Throughout 2024, intermittent shortages of compounded antibiotics from the supplying company delayed some discharges, necessitating a contingency plan approved by the CUH Drugs and Therapeutics Committee.

Conclusions/Future Directions

- The 2024 CUH OPAT outcomes underline continued success in effectively managing suitable patients in the community, saving substantial hospital bed-days and aligning with National Irish OPAT guidelines. The emergence of supply chain delays highlights a critical vulnerability in the OPAT service.
- CUH's proactive implementation of a bridging antibiotic contingency plan provided an effective short-term solution, demonstrating a replicable model for national adoption.
- Future recommendations include fortifying supplier agreements, enhanced forecasting of antibiotic requirements, and robust contingency frameworks to ensure sustained OPAT service efficiency.