

Antibiotics Stewardship

Project aim

Our project aim is to ensure optimal antibiotic use for our patients (right drug, right patient, right time, right route) and a reduction in overall antibiotic use (and associated costs and resistance pressures) from top to middle quartile (national) by March 2020.

Timeline for delivery

From: February 2019 **To: March 2020**

Measures

- Antibiotic usage (per 1000 admissions) – reduced to mid-quartile national performance
- ↑ Percentage (%) of antibiotic prescriptions having an indication documented
- ↑ Percentage (%) of antibiotics prescribed with a review / stop date documented
- ↑ Number of the antibiotic prescriptions submitted that had evidence of being reviewed by an appropriate clinician between 24 and 72 hours and a documented Intravenous (IV) rationale
- ↓ Length of stay (LoS) for patients who have antibiotics during their admission (non-elective and elective care)

Tests for change

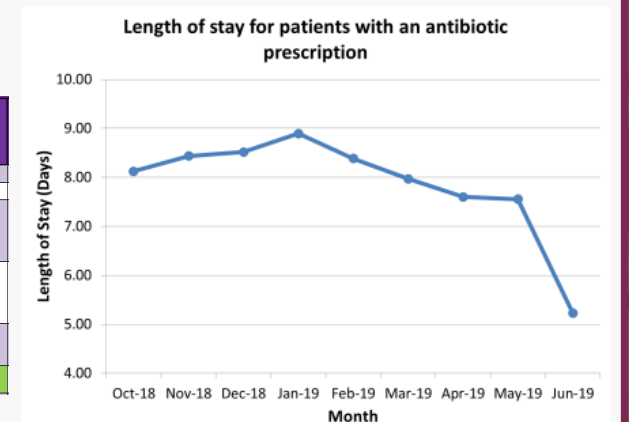
- We have introduced an Antibiotics Stewardship app in addition to our intranet guidelines to better inform best practice and improve adherence to guidelines.
- We have agreed best practice for use of metronidazole amongst clinical teams at PAH to prevent duplication of anaerobic cover if using co-amoxiclav, piperacillin-tazobactam or meropenem.
- An Antibiotic Stewardship dashboard has been developed to help target ways of establishing / improving agreed best practice amongst clinical teams.
- We are emphasizing the importance of source control in the management of collections especially large ones >4cm when even long courses of antibiotics alone are frequently ineffective and also promote antimicrobial resistance.



Project team: Prof. Armine Sefton (Project Lead), Shayi Shali (Antimicrobial Pharmacist), Dr. Shico Visuvanathan (Chair of Antimicrobial Stewardship Group), Dr Bernadette Wolff, Dr Jane Snook, John Anderson and June Barnard (Programme Triumvirate) and Steph Lawton (Executive Sponsor)

Results

Measure	Type of Measure	Trajectory Vs Actual	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19
Antibiotic usage (per 1000 admissions)	Trajectory			5838			5660				5482
	Actual			5838			5802				
Number of the antibiotic prescriptions submitted that had evidence of review between 24 and 72 hours PLUS reviewed by an appropriate clinician PLUS a documented IV rationale	Trajectory			71.0%			74.0%				77.0%
	Actual			71.0%			96.0%				
LoS for patients who have antibiotics during their admission (non elective and elective)	Trajectory		8.13	8.44	8.52	8.90	8.38	7.97	8.39	8.31	8.21
	Actual		8.13	8.44	8.52	8.90	8.38	7.97	7.60	7.56	5.23



Learning and next steps

- There has been challenges to make best use of existing software/technology (e.g. JAC) to better enforce 'review dates' and 'indication' compliance.
- We will monitor compliance & performance following embedding of the existing /current 'test of change' before agreeing further areas of focus for the project.
- We aim to improve both awareness and clinician ownership of antibiotic stewardship

