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Royal Cornwall Hospitals



NHS Trust

Federation of Infection Societies 2017 SIGN 88 UTI Guidelines

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How it started

- Outlier for UTI mortality Dr Foster Unit Imperial College
- CQC requested an investigation
- A review of the medical notes revealed a few shortcomings in patient care with some learning points;
 - The final diagnosis differed from urinary tract infection on half of the cases
 - Recognition that elderly confused patients often do not have a urinary tract infection
- Spivak UTI audit of 22 UTI patients discharged in Feb 2017 38% met UTI diagnostic criteria.
- Widely reported in the literature.

The plan

- We need to appropriately diagnose UTI in the organisation.
- Medical Microbiologist, Lead BMS, Acute Medical Consultant, Care of the Elderly ST7, Foundation Year 1 doctor, Nurse DIPC.
- Driver diagram

I

Appropriate management of UTI in secondary care

Stop using urine dipstick in all patients over 65 years of age

Stop using urine dipstick in all patients with long-term indwelling catheters

The diagnosis of UTI should be symptom based in all patients (excluding pregnant women)

All patients with a 'symptom based' diagnosis of UTI should have a urine sample sent for culture and sensitivities

Any diagnostic uncertainty in a patient labelled as having a UTI should prompt ongoing investigation and diagnostic confirmation (particularly in the older patient cohort)

Education to ED and MAU at governance meetings.

Rob to contact governance leads for MAU and ED

Education to nurses and HCAs in ED and MAU using a Safety Brief format

Louise D to discuss methods and education material with Jane Michell

Wider teaching to doctors at the Grand Round, MAU FY1 teaching, FY1 and FY2 teaching,

Rob and Andree

Develop audit tool to determine baseline compliance and regular audit of 5 sets of notes per week to monitor progress. Weekly email to all ED and MAU staff.

Andree

As measure of success measure monthly in ED and MAU; trimethoprim and nitrofurantoin use and urine dipstick consumption.

Neil

Explore with MAU and ED sisters safe custody options to control urine dipstick use without compromising patient care.

Louise D

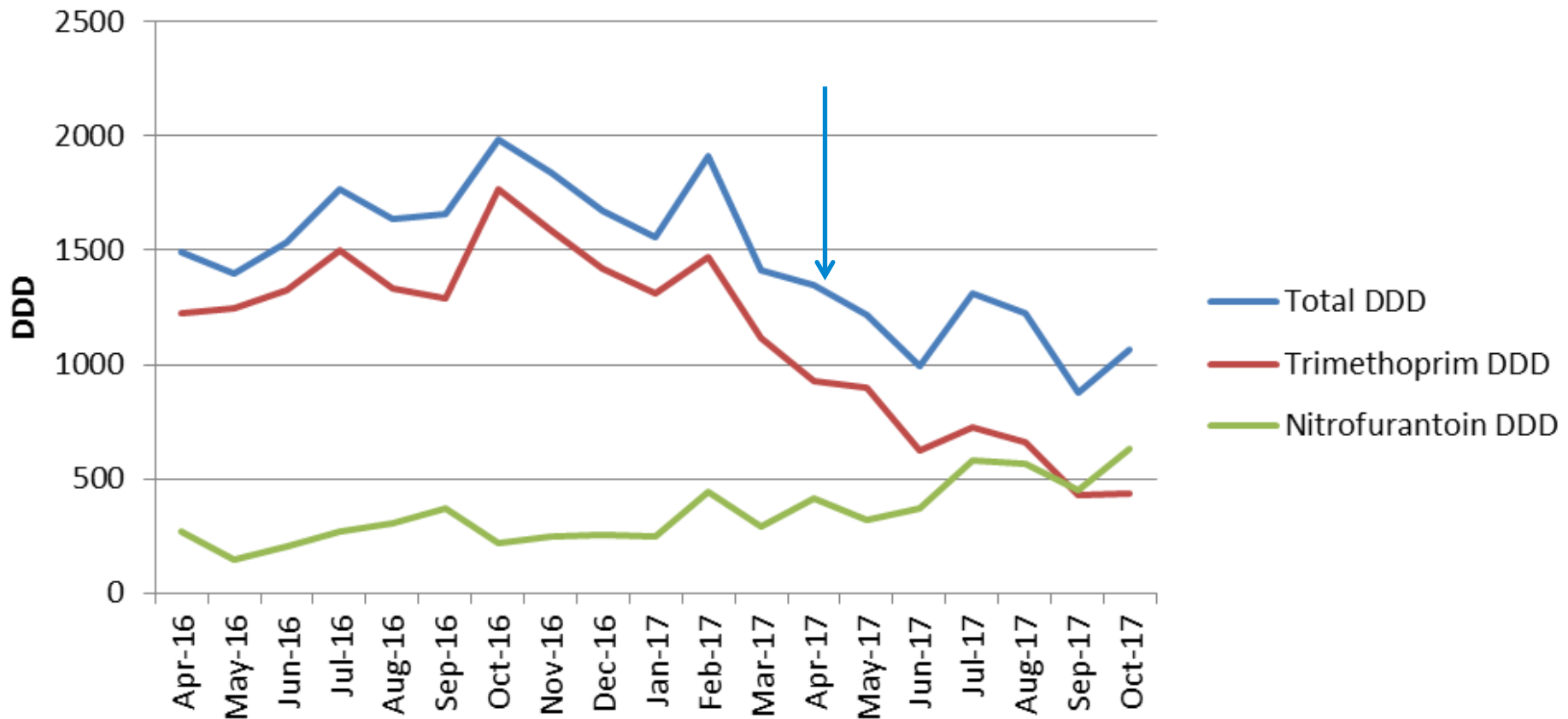
Measure unintended consequences; MAU readmission rates, post 48 hour BCs positive for urinary pathogens

All to consider

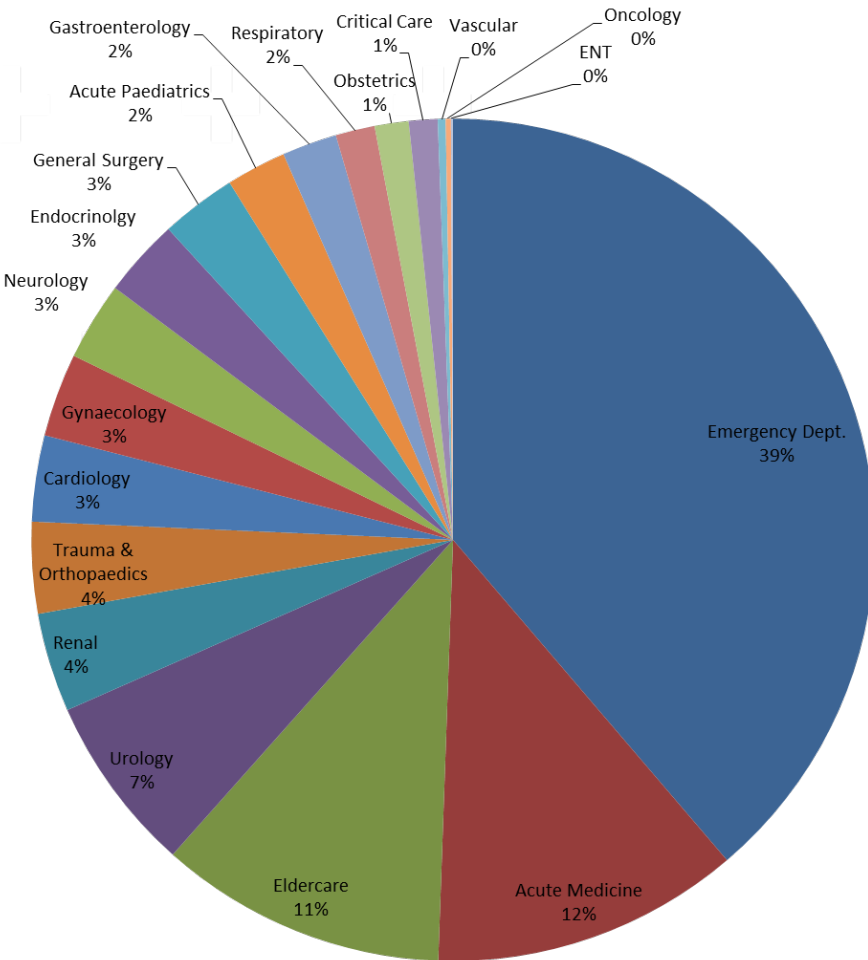
What happened?

- Mortality Group news letter February 2017
- SIGN UTI guidance well debated and challenged at specialty and governance meetings.
- But, widely accepted by doctors and nurses.
- Email correspondence to all Doctors promoting key messages.
- March 2017 FY1 and FY2 teaching by CoE ST7
- QI audits set up in several specialties.
- July 2017 all UTI patients reviewed on daily Antibiotic Pharmacist Ward round.

Total DDD for Trimethoprim & Nitrofurantoin



Percentage of Trimethoprim and Nitrofurantoin DDD's by specialty for Aug 2017



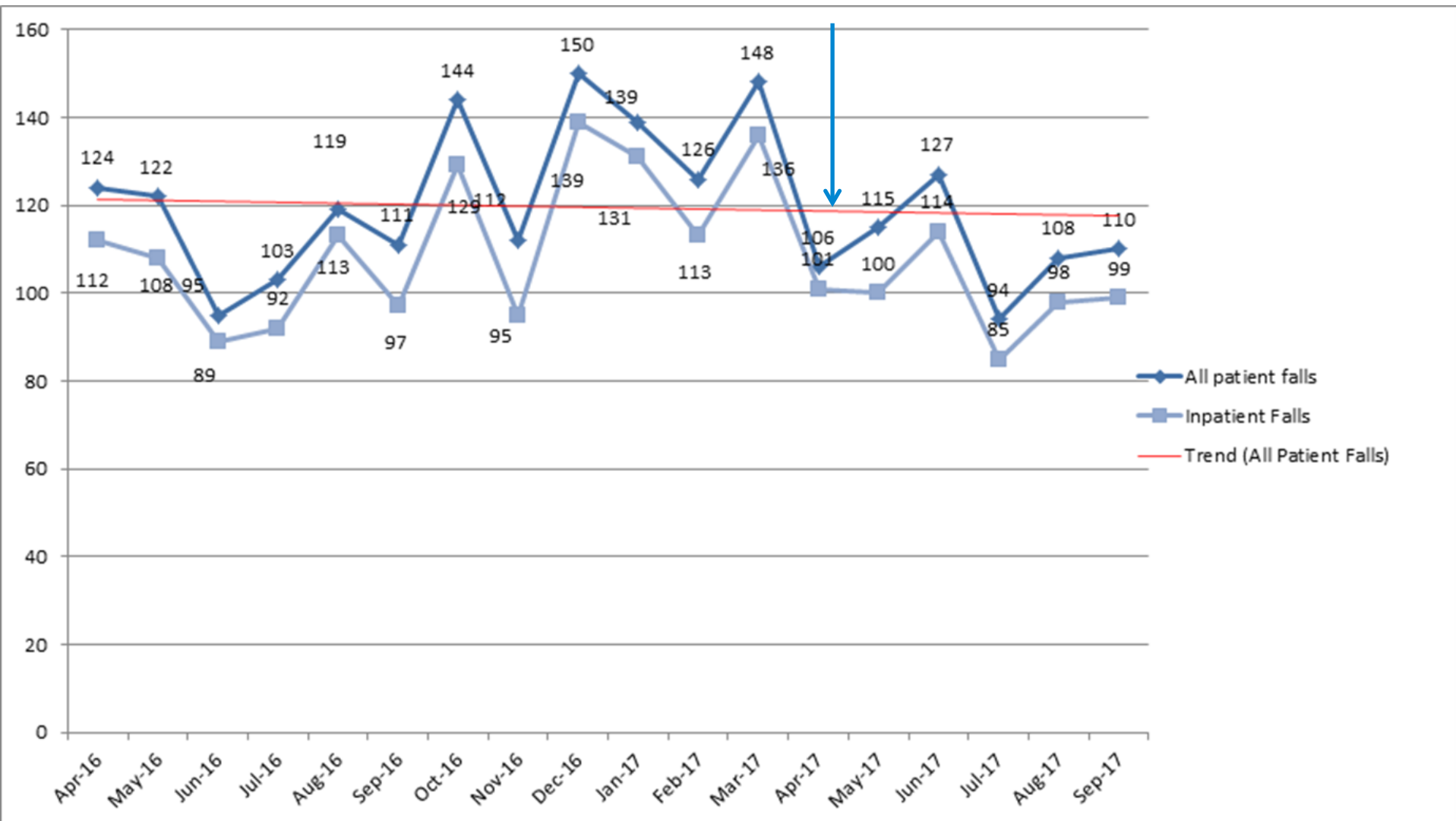
- Rogue MAU consultant
- ED have acknowledged they are screening urine with dipsticks.
- Plan to improve UTI management with improved falls and delirium management.
- Put urine dipsticks in a box.

Impact on antibiotic prescribing

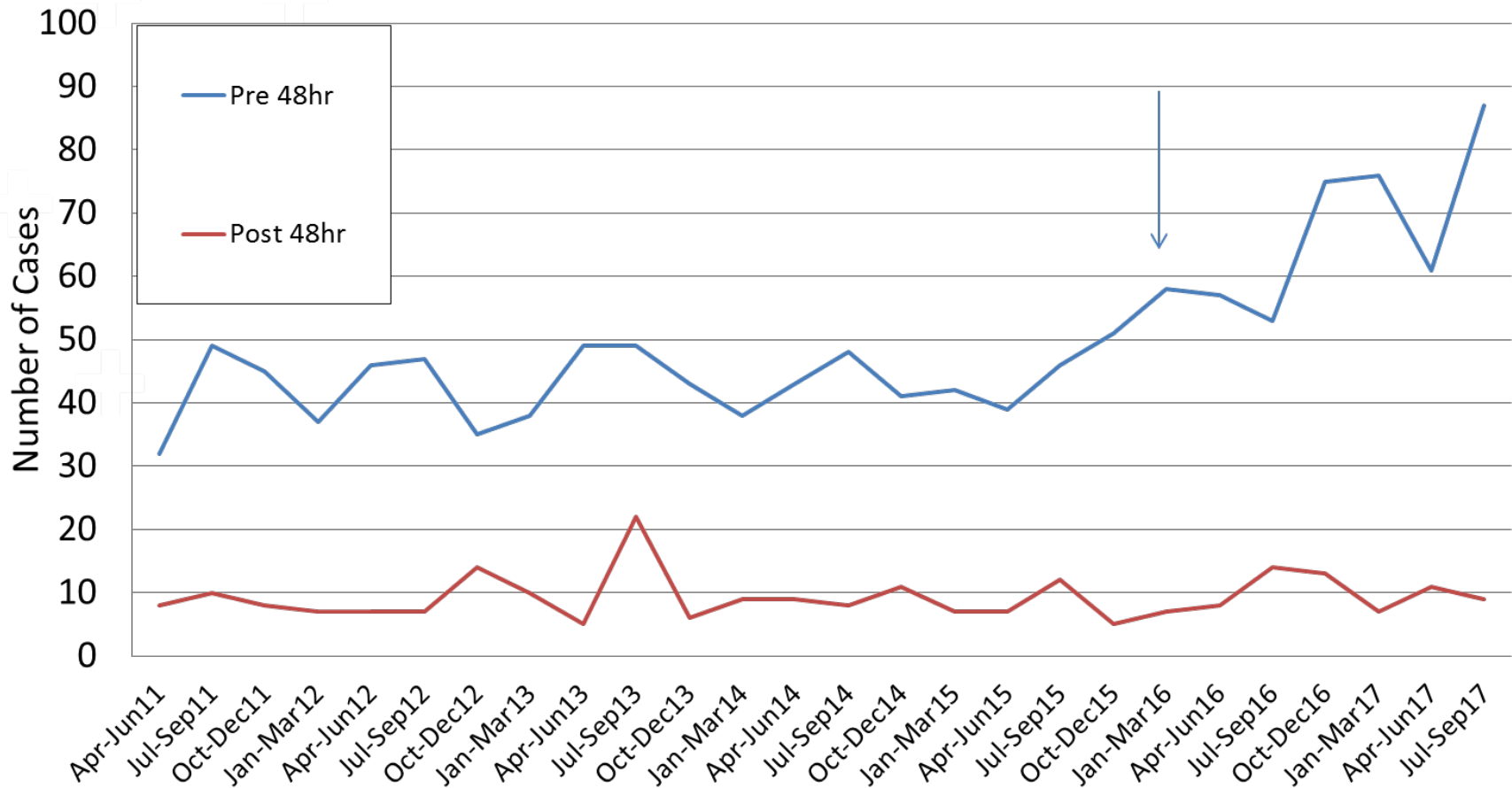
- April 2016 to March 2017 – average 1655 DDD
- June 2017 to October 2017 average 1094 DDD
- 561 DDD saved per month
- 6732 DDD per year or 1.9% of Trust antibiotic prescribing (350,000 DDD).
- If we can halve ED's 450 DDD per month that would save 2700 DDD per year which would total 9432 DDD or 2.7% of total Trust antibiotic prescribing.

But at what cost?

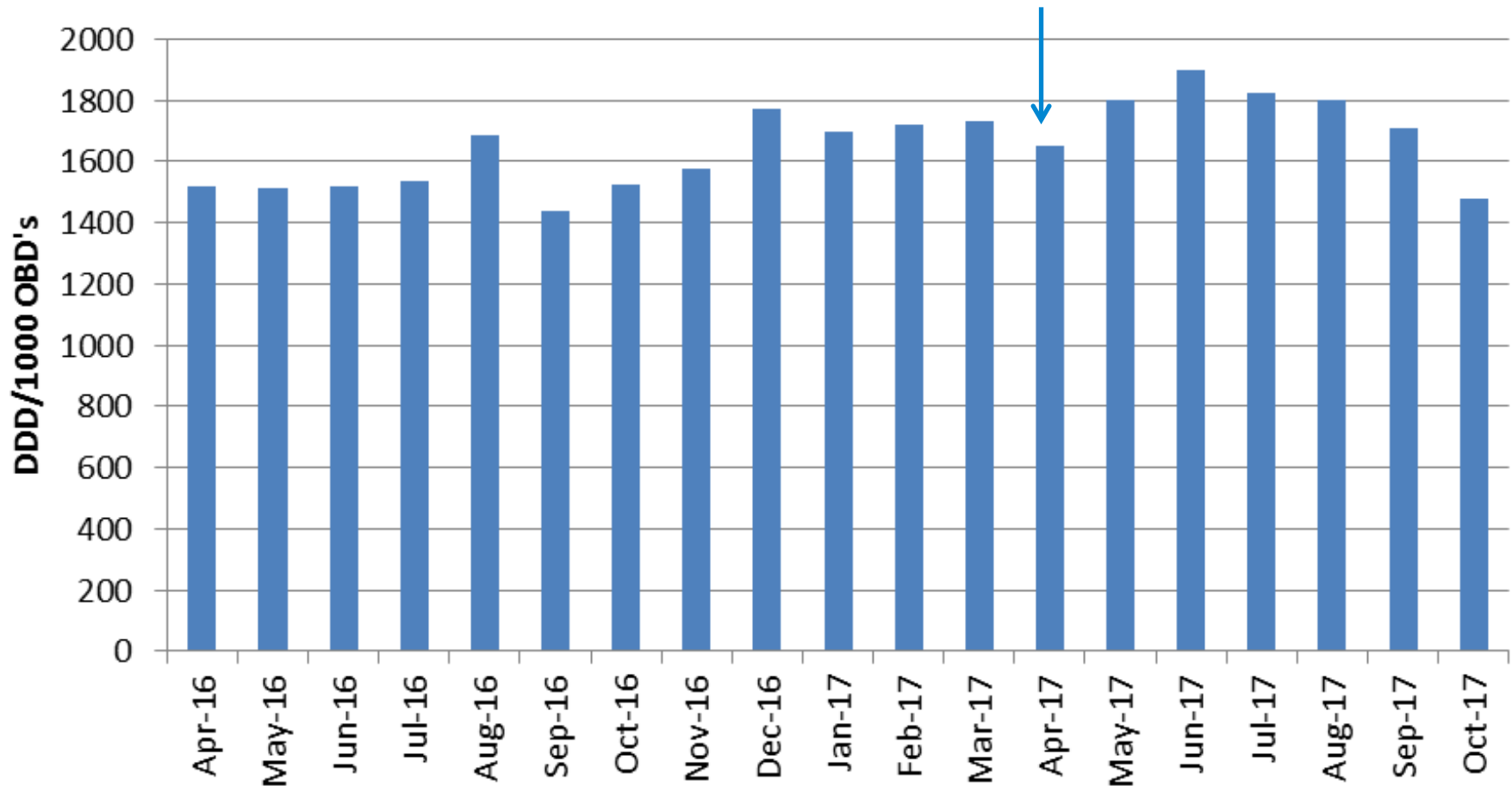
- More inpatient falls?
- More E.coli bacteraemia?
- Call the “UTI” something else and prescribe antibiotics for that.



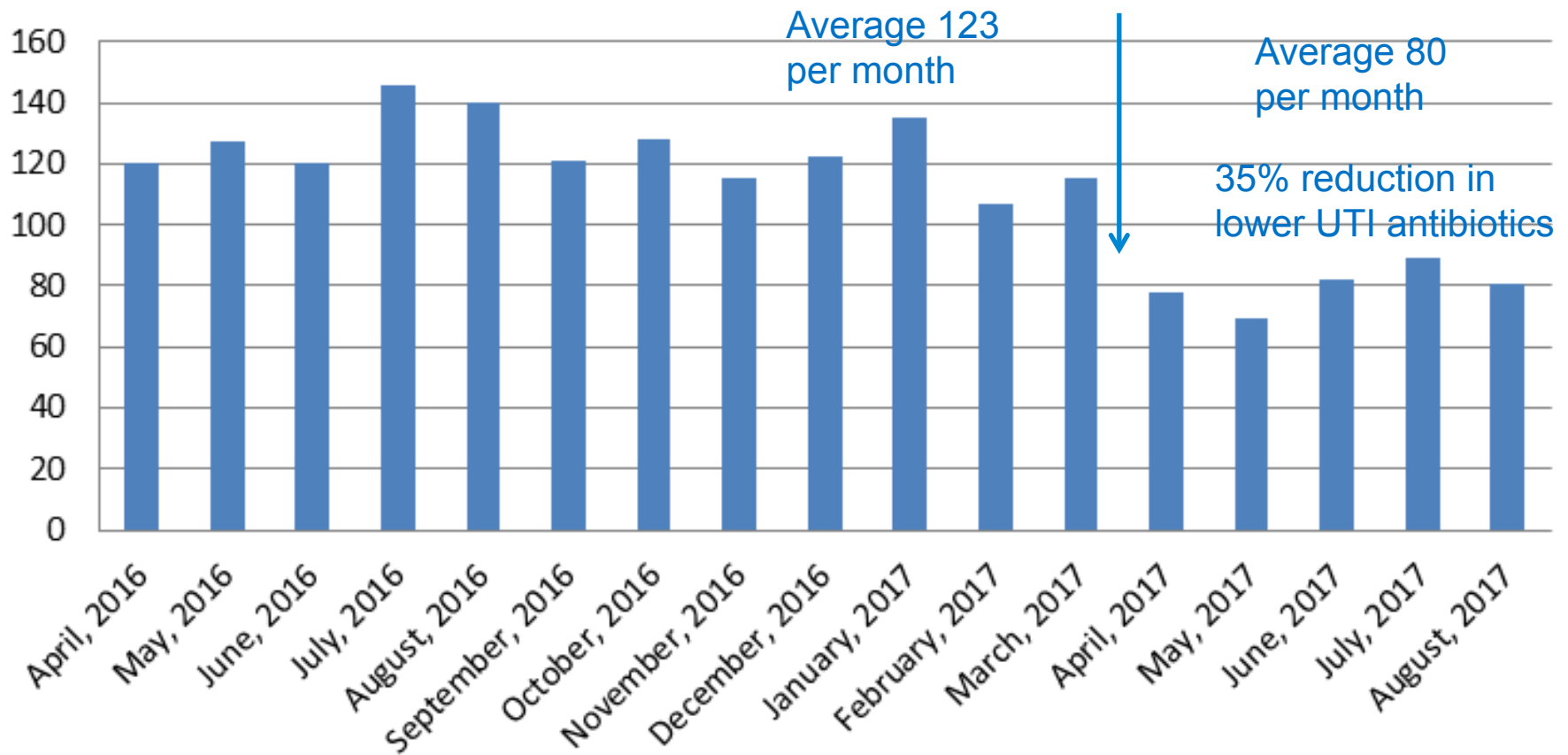
Ecoli Bacteraemia Cases apportioned to the Trust by quarter



Total antibiotic consumption DDD/1000 OBD's



Urinary tract identified by ICD 10 codes N10, N12, N39.0, N30.0, N30.9



Final Slide

- SIGN UTI guidelines are evidence based and well referenced. As such, implementation of SIGN UTI guidelines was well received and well adopted by clinicians.
- Significant reduction in total antibiotic use.
- Haven't looked at urine sample resistance patterns or potential cost savings (antibiotic use and urine dipsticks).
- Plan to implement in six SW hospitals then all SW hospitals.