

# Wales Quality Improvement: Antimicrobial Stewardship

## Supporting the multidisciplinary diagnosis & management of UTI (2019/20)

### Aim

To incentivise and support primary care clusters to review the multidisciplinary diagnosis and management of adults with suspected urinary tract infection (UTI).

### Practice

Practices participate in at least one antimicrobial stewardship quality improvement (QI) activity with at least 2 data collections, relating to the diagnosis & management of UTI.

4 audits are provided (see GP sheets 1-4)



- Healthcare professionals do not use dipstick testing to diagnose UTI in adults with urinary catheters [NICE QS 90, PHW]
- People prescribed an antimicrobial for UTI, have the clinical indication documented in their clinical record. [NICE QS 120, WHC 18/20, UK plan<sup>1</sup>]
- Review of urinary prophylaxis [PHW UTI standards, NICE]
- Adults with a UTI not responding to initial antibiotic treatment have a urine culture [NICE QS 90] *This audit should be undertaken with one of the remaining 3 UTI audits.*

Identify an 'antibiotic lead' who is a prescriber



Practices and/or cluster meet with allied professionals to discuss the findings where appropriate, such as district nurses, pharmacists, care homes or OOH.

Participate in Healthcare Associated Infection reviews as requested by the Health Board, such as *Clostridium difficile* investigations

### Cluster

The cluster will prioritise audit(s) to be undertaken, most practices undertaking the same audit(s). Initial practice measures and action plan discussed at cluster level (Quarter 1).

Some data collection may be supported by health boards (HB) or pharmacists with an interest in antimicrobial stewardship, particularly the audit on urinary prophylaxis.

Final practice measures and report will be discussed in the final quarter and the aggregated cluster report shared with the HB by an agreed date. This should include examples of good practice, evidence of peer discussions and reflective practice involving the multidisciplinary team. There is opportunity for benchmarking results between clusters on a voluntary basis.



Support discussion with people involved in UTI management including district nurses, people with catheters (& their carers), GPs, out of hours, care homes, pharmacy, urology, care of the elderly, continence and infection prevention teams.

Encourage links/engagement with 1000 Lives (healthcare associated infection & antimicrobial resistance and care home collaboratives)

<sup>1</sup> Tackling antimicrobial resistance 2019–2024 The UK's five-year national action plan



[RCGP TARGET toolkit](#) UTI resource suite

[NICE prescribing guidelines](#) Visual summaries for lower, upper, recurrent and catheter associated UTIs

[Wales Primary Care Empirical Urinary Tract Infection Treatment Guidelines](#)

[PHW Infection prevention and control toolkits and resources](#)

Practices/clusters can access prescribing data at [www.awttc.org/spira](http://www.awttc.org/spira) (from NHS Wales network). UTI antibiotic prescribing rates will be shared quarterly.



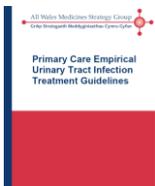
**Resistance Rates<sup>2</sup>:** Coliforms” (commonest cause of UTI in Wales)

- Resistance to co-amoxiclav increased [20% outpatient samples]
- Resistance to trimethoprim 37.7% community samples. [ will be lower in uncomplicated UTI in community]
- Trimethoprim resistance increases with the patient’s age, community [lab samples], resistance is 47.4% in the 80+ age group.
- Nitrofurantoin resistance 11% across Wales.

Cluster resistance rates for coliforms, outpatient urinary samples, under development HARP, for access via web portal



Click on icons



**Resistance & antibiotic choice** Non-pregnant women [uncomplicated]  
First choice antibiotics :

Nitrofurantoin(if eGFR over 45ml/min)100mg MR bd or 50mg qds,3 days  
Or

Trimethoprim (if low risk of resistance) 200mg bd 3 days

**Low risk of resistance<sup>3</sup>** *may be more likely if not used in the past 3 months, previous urine culture suggests susceptibility (but this was not used), & younger people in areas where local epidemiology data suggest resistance is low.*

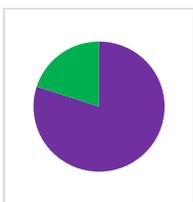
**Higher risk of resistance** *may be more likely with recent use and in older people in residential facilities.*

### Current practice

Pilot data and consultation responses suggest that coding of clinical indication is likely to be very low initially.

Welsh practice pilot data<sup>4</sup> of people prescribed urinary prophylactic antibiotics (>6months) suggests that

- Approx. a quarter had a documented prophylaxis review in the last 6 months.
- An antibiotic was issued for a suspected acute infection which the person was already taking as prophylaxis, in a fifth of people.
- When MSU showed resistance to the prophylactic agent, the prophylaxis was not stopped or changed in over 80% episodes



<sup>2</sup> <http://www.wales.nhs.uk/sitesplus/documents/888/Antimicrobial%20Resistance%20in%20Wales%202008-2017%20v1.pdf>

<sup>3</sup> [NICE UTI\(lower\)NG109](#)

<sup>4</sup> A review of the management of recurrent urinary tract infection (rUTI) in Primary Care, A Tucker

## Health Boards

Health board can support clusters with the QI project and audit selection, via appropriate data provision, data collection where possible and educational activities<sup>5</sup> relating to the multidisciplinary management of UTI. [PHW/1000lives/RCGP workshops may be available].

HBs/cluster leads consider providing clusters/practices with:

- Cluster UTI prescribing rates E.g. Quarterly UTI antibacterial\* DDDs per 1000 PUs (trimethoprim, nitrofurantoin, fosfomycin, pivmecillinam, quarterly data, WAPSU)
- National prescribing indicator prescribing rates (total & 4C antimicrobial items, see *Outcomes* below)
- Cluster resistance rates for coliforms, outpatient urinary samples, once available (HARP)
- Quarterly practice registers for people using catheters
- Review of urinary prophylaxis: Either baseline data or contact details to support initial data collection such as pharmacists associated with SWAP
- Support interested practices, to download a UTI consultation template, once available

Health Board to identify the organisation's key members and committees who have responsibility for supporting and ensuring the safe and effective care for people within this Quality Improvement topic and share this information with the clusters. The final cluster reports will be shared with these stakeholders and with Medical Directors.

Health Boards will provide aggregated cluster and health board reports to the practice to support benchmarking.

## Outcome Measures

Reduction in usage of antibacterials that may be prescribed for urinary tract infections (trimethoprim, nitrofurantoin, fosfomycin, pivmecillinam)

Contribute to overarching NHS Wales Delivery Framework, "I am safe and protected from harm through high quality care, treatment and support"

Achievement of the Improvement goals for antimicrobial prescribing set out in the WG – Welsh Health Circular<sup>6</sup>

- Attainment of the national prescribing indicators [AWMSG National Prescribing Indicators](#) for antibacterial items:
  - Total antibacterial items per 1,000 STAR-PUs*
  - Number of 4C antimicrobial (co-amoxiclav, cephalosporins, fluoroquinolones and clindamycin) items per 1,000 patients*
- Achievement of the national reduction expectations for *E. coli*, *Klebsiella sp.*, *Pseudomonas aeruginosa* and *S.aureus* bacteraemia cases and for cases of *C.difficile* disease as set out in the Welsh Health Circular

---

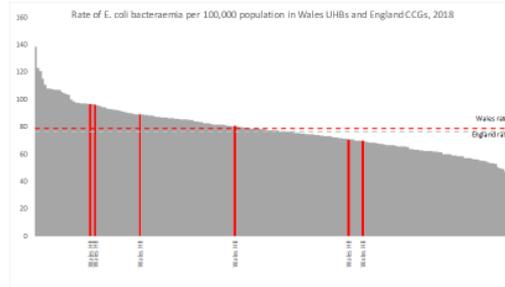
<sup>5</sup> Consider including process mapping from initial contact, e.g. patient handing in sample or telephone call; Differential diagnosis/sexual health, gynae and urological cancer; feedback on clostridium d. root cause analysis, local perspective

<sup>6</sup> WHC/2018/020 <https://gov.wales/docs/dhss/publications/whc2018-020en.pdf> and subsequent updates

**E. coli bacteraemia 2018/19**

Improvement goal proposal for 2019/20

Reduction expectation: 67 per 100,000 population

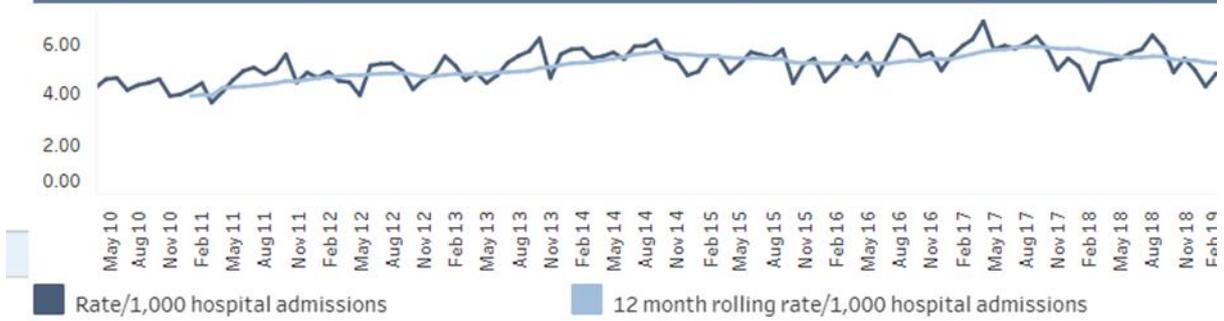


ICF & ASF 2019

Public/WalesHCAIMonthlyUpdate

This provides monthly updates, including *E.coli* bacteraemia and *Clostridium difficile* rates by Health Board and hospital

**Chart 2. Wales monthly rates of E. coli bacteraemia per 1,000 hospital admissions, Apr 10 to Feb 19**



**Chart 3. Wales cumulative monthly numbers of E. coli bacteraemia for Apr to Feb 19 compared to the equivalent period in 2017/18**

