

To Dip or Not To Dip – a patient centred approach to improve the management of UTIs in the Care Home environment

Sharing success AMS Workshop Leeds & London 2016

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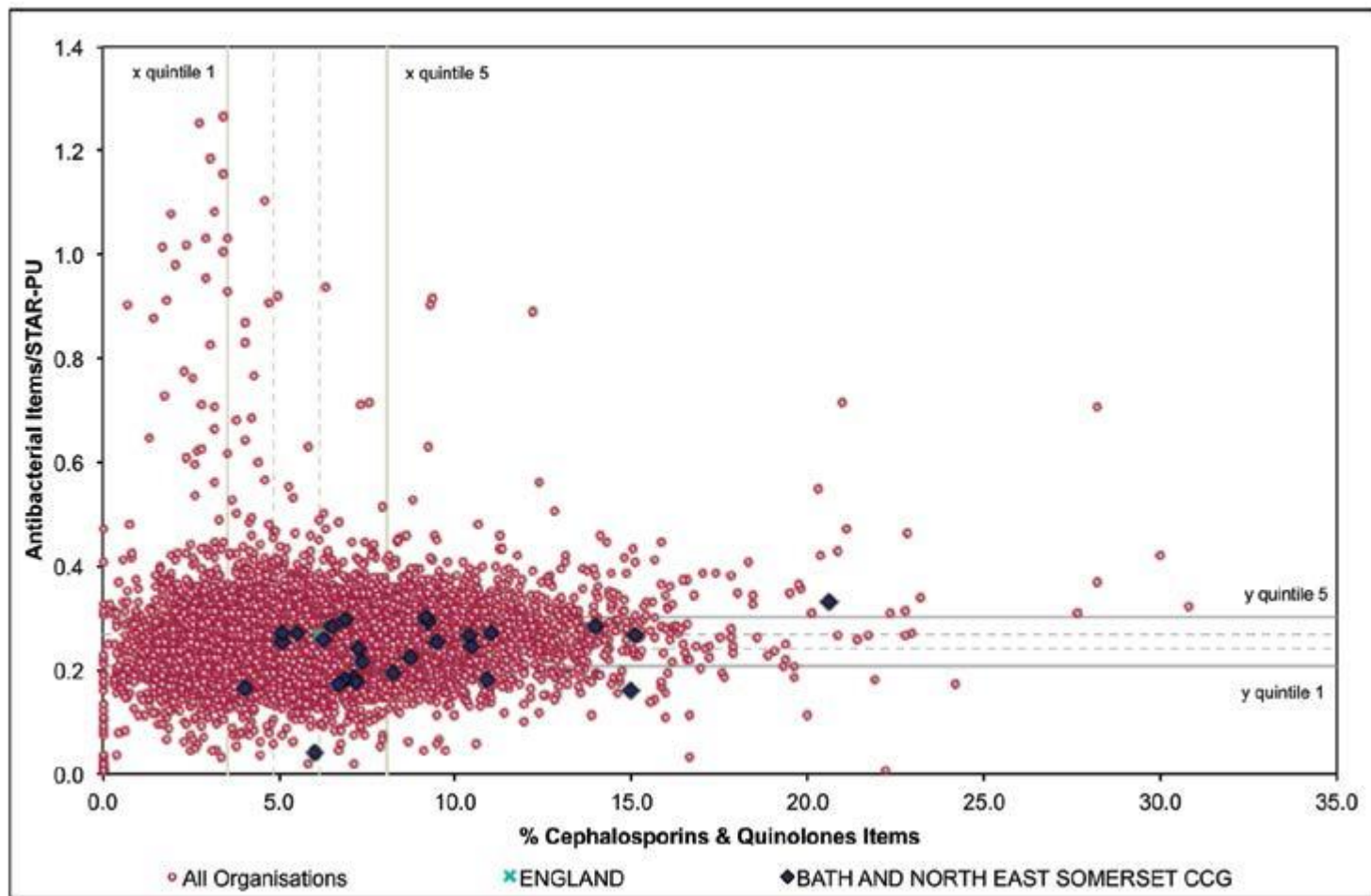
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To Dip or Not To Dip – a patient centred approach to improve the management of UTIs in the Care Home environment

- This is an evidence based systematic approach to improve the diagnosis and management of UTIs in residents in all 23 Nursing Homes in Bath and North East Somerset - Residential homes were not included
 - It was delivered by the CCG care home pharmacist service working during 2015-16, aligned to the existing GP enhanced nursing home service, and funded by the CCG as a quality improvement project in 2014 - <£10K
 - Why did we do this? Local clinical audit in 2013 identified residents were frequently prescribed antibiotics (19 - 48% of residents per care home) based on use of urine dip sticking
- 


Scatter plot of both National Antibiotic QIPP indicators, Q2 Jul-Sep 2013-14, for all GP practices in England, with practices in NHS Bath and North East Somerset identified.




To Dip or Not To Dip – early results

please do not publish as submitted to RPS2016

Early evaluation shows

- 56% reduction in the proportion of residents who had an antibiotic for a UTI
143 / 690 residents had at least one antibiotic for a UTI in 6 month period
Jul-Dec 2015 after implementation
 - 67% reduction in the number of antibiotic prescriptions – 153 fewer in 8 NH
with pre and post data
 - 82% reduction in the number of residents prescribed antibiotic prophylaxis
13 / 690 residents had antibiotic prophylaxis in 6 month period Jul-Dec 2015
after implementation
 - Unplanned hospital admissions for UTI, urosepsis and AKI reduced in NH
population following implementation
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To Dip or Not To Dip - the what we did

- **Clever commissioning** – CCG incentivised nursing homes using a shadow CQUIN
 - **The care home pharmacist team** – already existed, so extra funding was obtained to allow them to develop & deliver the intervention
 - **Documentation and education** – used SIGN 88 guidance to structure documentation for UTI diagnosis, and implemented within an educational bundle in every nursing home delivered by the pharmacist
 - **Communicated** with everybody – but could have done this better
 - **Monitoring** – for unintended harm resulting in urosepsis
 - **Evaluation** – pre and post audit occurred and a census
- 

Patient:.....
.....

DOB:.....
.....

Nursing Home:.....

1) Signs of any other infection source?

Date:.....
Cough Shortness of breath Sputum production

Older patients (>65) with suspected UTI (urinary tract infection)

Guidance for Care Home staff

- Complete 1) to 4) and patient details and fax to GP. Original to patient notes.
- **DO NOT PERFORM URINE DIPSTICK** – No longer recommended in pts >65 years
- CLEAR URINE – UTI highly unlikely
- Consider MSU if possible if ≥ 2 signs of infection (especially dysuria, Temp>38°C or new incontinence)

Y / N If Y circle any NEW symptoms which apply:

Nausea/vomiting Diarrhoea Abdominal pain Red/warm/swollen area of skin

2) Patients who can communicate symptoms: Y / N

3) All Patients:

4) Catheter

NEW ONSET Sign/Symptom	What does this mean?	Tick if present
Dysuria	Pain on urinating	
Urgency	Need to pass urine urgently/new incontinence	
Frequency	Need to urinate more often than usual	
Suprapubic tenderness	Pain in lower tummy/above pubic area	
Haematuria	Blood in urine	
Polyuria	Passing bigger volumes of urine than usual	
Lois pain	Lower back pain	

Sign/Symptom	Tick if present
Temperature above 38.3°C or below 36°C or shaking chills (rigors) in last 24 hours	
Heart Rate >90 beats/min	
Respiratory rate >20 breaths/min	
Blood glucose >7.7 mmol/L in absence of diabetes	Diabetic? Y / N
Bloods taken? WCC >12/μL or < 4/μL	WCC: CRP:
New onset or worsening confusion or agitation	

Yes / No
If YES: Reason for catheter:
Temp / Perm
Date changed:

5) GP Management Decision - circle all which apply:

Prescribing guidance at <http://www.bcapformulary.nhs.uk/5-infections>

- Review in 24 hours
- Mid Stream Urine specimen (MSU) – if possible if ≥ 2 signs of infection (especially dysuria, Temp>38°C or new incontinence) or failed treatment
- Uncomplicated lower UTI
- Pyelonephritis

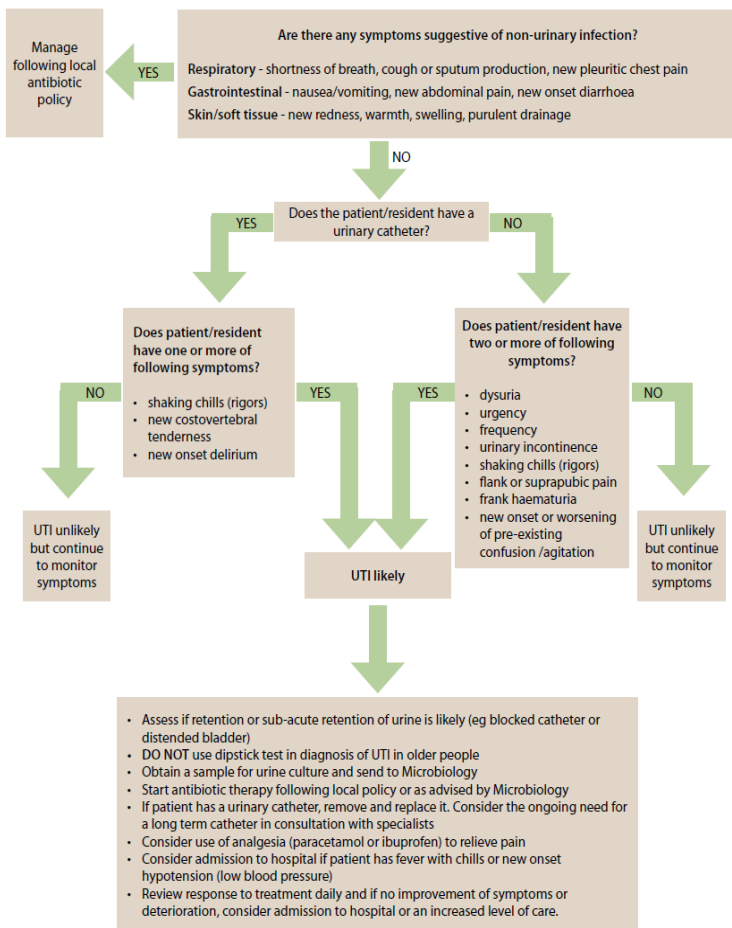
Antibiotic prescribed:

26/1/2015

• Other 1/2. **Healthier, Stronger, Together** Signed: Date:

DIAGNOSIS AND MANAGEMENT OF SUSPECTED UTI IN OLDER PEOPLE

Decision aid to guide management of patients/residents with fever defined as temperature >37.9°C or 1.5°C increase above baseline occurring on at least two occasions in last 12 hours.
Hypothermia (low temperature of <36°C) may also indicate infection, especially those with comorbidities.
Be alert to non-specific symptoms of infection such as abdominal pain, alteration of behaviour or loss of diabetes control.



Developed by the Scottish Antimicrobial Prescribing Group • www.scottishmedicines.org.uk/SAGP/

<http://www.sign.ac.uk/guidelines/fulltext/88/index.html>

References: Nina, S et al (2014). Investigation of suspected urinary tract infection in older people. BMJ 349.

TARGET toolkit for training on UTI's from RCGP Autumn 2014 <http://www.rcgp.org.uk/courses-and-events/online-learning/ole/urinary-tract-infections.aspx>

26/1/2015 Mandy Slatter/Elizabeth Beech, BANES CCG. Contact Elizabeth.beech@nhs.net

Public Health England – guidance for diagnosis April 2011

<https://www.gov.uk/government/publications/urinary-tract-infection-diagnosis>

URINE CULTURE IN WOMEN AND MEN > 65 YEARS

- **Do not send urine for culture in asymptomatic elderly with positive dipsticks**
- Only send urine for **culture if two or more signs of infection**, especially dysuria, fever > 38 ° or new incontinence.^{4,5C}
- **Do not treat asymptomatic bacteriuria** in the elderly as it is very common.^{1B+}
- Treating does not reduce mortality or prevent symptomatic episodes, but increases side effects & antibiotic resistance.^{2,3,B+}


URINE CULTURE IN WOMEN AND MEN WITH CATHETERS

- **Do not treat asymptomatic bacteriuria** in those with indwelling catheters, as bacteriuria is very common and antibiotics increase side effects and antibiotic resistance.^{1B+}
- Treatment does not reduce mortality or prevent symptomatic episodes, but increase side effects & antibiotic resistance.^{2,3,B+}
- Only send urine for **culture in catheterised^{7B-} if features of systemic infection.**^{1,5,6C} However, always:
 - Exclude other sources of infection.^{1C}
 - Check that the catheter drains correctly and is not blocked.
 - Consider need for continued catheterisation.
 - If the **catheter** has been in place for **more than 7 days**, **consider changing** it before/when starting antibiotic [treatment](#).^{1,6C, 8B+}
- **Do not give antibiotic prophylaxis for catheter changes** unless history of symptomatic UTIs due to catheter change.^{9,10B+}

Public Health England – treatment guidance October 2014

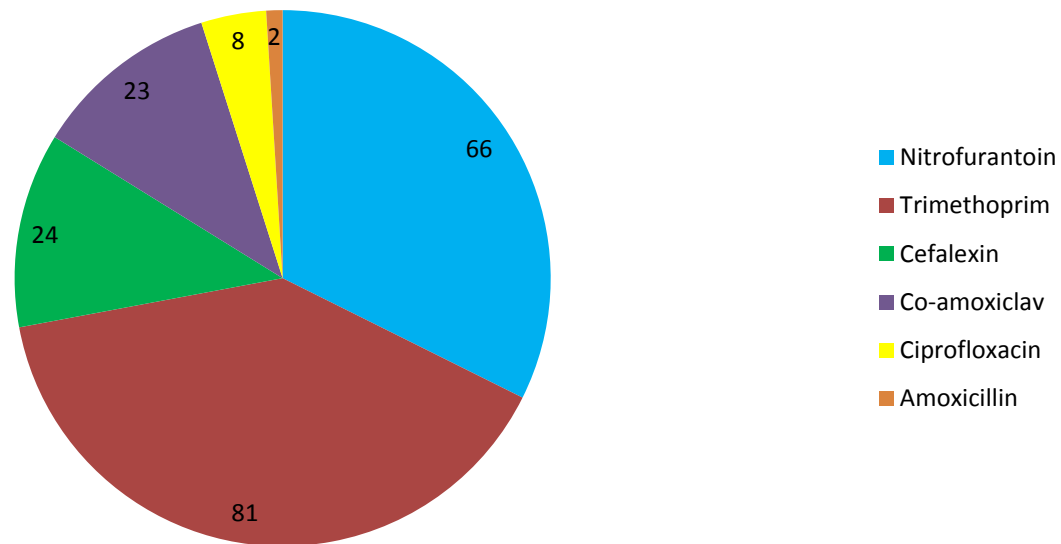
<https://www.gov.uk/government/publications/managing-common-infections-guidance-for-primary-care>

To Dip or Not To Dip - what we do next


- **Commissioning** – the CCG will fund continuation of the model, and will adopt a similar approach for the AKI programme
 - **The care home pharmacist team** – has extended to cover residential homes so we will now audit UTI management here now
 - **Documentation and education** – need to review and improve use of the documentation and continue a rolling education bundle
 - **Communicated with everybody** – but could have done this better and now need to share the results locally and nationally
 - **Monitoring** – retrospective audit in all nursing homes every 6 months to produce a run chart for CCG care home quality dashboard
 - **Evaluation** – need to continue to improve antimicrobial stewardship and documentation **lots still to do**
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Antibiotic prescribing for UTI in all Nursing Homes over 6 month period post implementation

Antibiotic choice as a proportion of 204 antibiotic prescriptions for UTI in 143/690 residents in 22 nursing homes - after implementing use of Sign 88 diagnostic criteria 6 months Jul-Dec 2015



To Dip or Not To Dip – a patient centred approach to improve the management of UTIs in the Care Home environment - Key messages for CCG reporting to NHSE

- Use of an evidence based algorithm to diagnosis UTI in nursing home residents does improves care
 - 56% reduction in the number of residents prescribed antibiotics for a UTI based on a urine dip stick test
 - 82% reduction in the number of residents prescribed antibiotics prophylactically
 - 67% reduction in the number of antibiotic prescriptions
 - Improved appropriate management of UTI
 - Reduction in unplanned admissions for UTI, urosepsis and AKI
 - Reduced calls to GP practices for inappropriately diagnosed UTI
 - Include hydration messages within the educational content
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Published as an Innovation poster at RPS2015
Shared the concept with many CCGs, some are adopting/adapting
Submitted to RPS2016

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