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

To Dip or Not to Dip describes an innovative approach to improve the management of urinary tract infections in older people in nursing home care in Bath and North East Somerset, leading to the more appropriate use of antibiotics and a reduction in the potential for health acquired infections and antimicrobial resistance.

This is being achieved by the implementation of an evidence based clinical algorithm for use by care home staff, who identify, record and share the patients clinical symptoms with the aligned GP practice. This poster highlights some aspects of this 18 month quality improvement project.

Evidence based educational training programme on the diagnosis and management of UTIs in older adults was developed and delivered by the care home pharmacy team to nursing home staff.

The programme included educational content on the importance of good hydration to prevent UTIs. This programme could be adapted to support future delivery of quality improvement measures such as the national Acute Kidney Injury patient safety programme.

What is the problem?
Urinary tract infection (UTI) is the second most common reason for using antibiotics in primary care, particularly in older people who are resident in nursing home care. Many older people will have asymptomatic bacteriuria and national guidelines state that UTIs in elderly institutionalised patients should be diagnosed on the basis of clinical symptoms of infection, not on the results of urinalysis.

SIGN GUIDELINE 88: MANAGEMENT OF SUSPECTED BACTERIAL URINARY TRACT INFECTION IN ADULTS

Local clinical audit of the diagnosis and management of UTIs in residents in 23 nursing homes over a six month period in 2013 found:

- 115 of the 347 residents had received 208 antibiotic prescriptions for a diagnosis of UTI (range of 19 - 48% of residents per care home)
- More than half of these UTIs had been diagnosed using urine dip sticks with wide variation between care homes – range from 39% to 90% of residents. Care homes specialising in dementia care tended to have greater use of urine dip sticks.

The audit also found that only half of residents with a suspected UTI were prescribed antibiotics aligned to the local antimicrobial guidelines.

The results of this audit led to the decision to provide educational training to care home staff to ensure staff knew how to use evidence based guidelines for patients with possible UTIs.

Guidance for care home staff has been designed to be:

- Accessed electronically with options to hyperlink to national guidance for the diagnosis and treatment of UTIs in older people.
- Printed and completed for each patient with a suspected UTI for sharing in a fax friendly format with the GP practice for information, action and scanning into the patients clinical record when action completed.
- This guidance will be reviewed and amended at the end of the project with the intention to implement into routine practice if the project demonstrates evidence of benefit to patients, care home and GP practice staff.

What happened next?
Clever commissioning - Nursing home care is commissioned by the local authority, not the NHS; however the CCG chose to incentivise nursing homes in Bath and North East Somerset to engage with a package of quality improvement measures using an NHS CQUIN style Incentive. Project implementation was facilitated by building on the existing enhanced service model of GP and clinical pharmacist care aligned to individual homes.

The care home pharmacist team (4 sessional pharmacists) developed an evidence based educational training session for all nursing home staff managing the diagnosis of UTI, and delivered this to 23 nursing homes, aligned to 23 GP practices, providing care for a total of 800 residents.

Documentation, based on the SIGN88 guidelines, was designed and implemented to standardise the diagnosis of UTI using clinical symptoms, rather than urine ‘dip-sticking’, and this was used to communicate information to the GP in a consistent and evidence based way.

Monitoring of patients for urosepsis and emergency hospital admission has occurred throughout the project to identify any unintended harm – none has been identified so far.

What are the benefits?

- Will be prescribed antibiotics more appropriately
- Have a reduced risk of antibiotic associated harm, such as Clostridium difficile infection and multi drug resistant UTIs.
- GP practices
  - Have an evidence based algorithm to inform the diagnosis of suspected UTI
  - Work with standardized documentation that can be scanned into the clinical record.
- Care homes
  - Staff have benefited from professional development
  - Can assure patients and their families, and CQC that they provide evidence based care.

Challenges

- Funding is a challenge, and was obtained from CCG Quality Premium monies. Delivering the educational programme within a CCG led care home ‘CQUIN’ model ensured homes were engaged.
- Identification and communication with care homes can be complex; the CCG model of aligning GP practice enhanced services with nursing homes, facilitated the delivery of this project.
- The capacity of care home pharmacists to deliver training within the project time frame resulted in a project overrun – this possibility was anticipated and accommodated, however the unexpected departure of 2 care home pharmacists part way through the project was not.
- Challenging well established behaviours about the use of urine dip sticks in care homes was anticipated, but was less anticipated in GP practices.
- The local pathology service required evidence of urinalysis with all urine samples sent for culture – evolve pathology at the project planning stage next time!

What next?

- Review of the documentation and processes used, including user feedback
- Re audit of the diagnosis and management of UTIs in nursing home resident
- This evidence will be used to inform future activity for both nursing and residential homes.