Reducing the antibiotic prescribing in nursing home patients with asymptomatic bacteriuria.

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Background
- The updated ‘Northern Ireland Management of Infection Guidelines for Primary Care 2016’ reinforced specific guidelines on the management of UTIs in nursing home patients.
- They specify that asymptomatic bacteriuria increases with age and is common in nursing home patients. Treating asymptomatic bacteriuria does not reduce mortality or prevent symptomatic episodes, but increases the chance of side effects and antibiotic resistance.
- Therefore dipstix urinalysis should not be used to diagnose a UTI in NH patients >65 years of age as diagnosis in this group should be made on the basis of urinary symptoms and signs of sepsis identified as part of a full clinical assessment, then an MSU sent and GP informed.

What are we trying to accomplish?
To reduce the antibiotic prescribing in nursing home patients who are asymptomatic.

How will we know if a change is an improvement
Audit how urine samples/MSUs /antibiotic requests are dealt with from nursing homes to find out the extent of the problem.

What changes can we make that will result in an improvement
To decide on a change that might result in an improvement and implement it. Then re-audit

Aim
To reduce the antibiotic prescribing in nursing home patients who are asymptomatic.

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Improvement Methodology
AUDIT: All MSU requests/results, consultations, OOH letters between January 2016-December 2016 in our NH population were audited get a better idea of the extent of the problem.

DISCUSSION WITH STAKEHOLDERS:
Results were discussed at out staff training day in January, composed of district nurses, admin staff, practice nursing staff, my supervisors and the other GPs from a neighbouring practice. Guidelines and results also discussed with Nursing home managers/nurses who were equally concerned about overprescribing in this group.

PLAN A STRATEGY:
Print out guidelines for NH treatment rooms, inform staff. Provide a symptom sheet to fill in before sending off MSU.

Results of initial audit
19 phone call requests for antibiotic for ?UTI
- 13 treated with antibiotics over the phone.
- 7 based on dipstix urinalysis and very vague symptoms ie ‘sleepy, ‘not themselves’, ‘confused’, ‘not eating’.
- 2 treated based on positive MSU sent beforehand AND phoned regarding continued symptoms.
- 4 treated based on vague symptoms – No dipstix or MSU result available.
- Of the 13 patients given antibiotics, only 6 had positive MSUs. MSU results alone generated and extra 10 phone calls on top of the antibiotic requests:
  - 1 prescribed an antibiotic based on MSU alone with no symptoms recorded.

**IMPLEMENTATION OF THE AGREED CHANGE**

Outcome Measures
Balancing measures:
Will there be an increased number of NH visit requests now if staff have previously placed too much emphasis on using dipstix to help diagnose UTIs?

Quantitative:
Re-audit the process. Are the guidelines adhered to i.e symptom recording, MSU sent and antibiotic prescribed appropriately?

Process Measures:
Are the symptom charts being used as planned? Is it reducing unnecessary antibiotic prescribing.

Re-Audit/Outcome
February 2017-May 2017:
X1 phone call request for antibiotics based on urine dipstix + vague ‘sleepy symptoms’. Patient assessed as home visit - general decline and frailty. Nil prescribed. Guidelines reinforced here.
X1 patient treated for UTI based on accurate symptom recording, MSU sent and positive MSU result.
X2 extra MSUs sent to lab based on patient being unwell. Both patients were treated for pneumonia – not UTIs as they had other symptoms.
No extra phone calls have been generated so far for random MSU results.

Compared to: February 2016-May 2016
X4 phone call requests for antibiotic, poor symptom recording and antibiotic prescribed.
X4 extra phone calls alone for MSU results sent in.

Next Steps
Do NH staff actually use the symptoms sheets ?
Re-audit after 1 full year of the implemented change.
Positive reinforcement of guidelines