Developing a protocol for the diagnosis and management of UTIs at Ballygomartin Group Practice

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Background
The urine testing protocol in Ballygomartin was updated to reduce the number of cultures that were being sent unnecessarily. Changes to the protocol were made in line with NICE guidance on the management of UTIs in men (Oct 2014) and women (July 2015), NI Management of Infection Guidelines (2016), and Public Health England guidance on diagnosis of UTI (2014). We introduced a new Patient Information Form for urine samples for patients to complete when providing samples for culture. Later we asked patients to provide samples in lab syringes instead of traditional sample collection containers.

Aim
80% of urine cultures sent by the practice should be in keeping with NICE guidance on management of lower UTIs. The confirmed urine infections should also be appropriately treated in line with the NI Management of Infection Guidelines (2016).

Outcome
• General trend in reduction of urine cultures sent by the practice following introduction of the Patient Information form for urine testing
• Reduction in the numbers of inappropriate urine cultures sent- 94% were appropriate by April ‘17
• Additional unexpected improvement in the reduction of length of time taken for nursing staff to process the urine cultures following the introduction of lab syringes for sample collection
• Reduction in inappropriate antibiotic treatment
• Ballygomartin Practice now has a urine protocol which is in keeping with national guidance.
• Further outcome measurements required

Next Steps
• Patient telephone survey for feedback on further improvements that could be made to the process.
• Discuss new protocol with practice staff at next meeting- team engagement for project sustainability
• Count the cost saving for the practice

Improvement Methodology

Outcomes
Primary Drivers | Secondary Drivers | Actions
---|---|---
High workload | Discussion of factors contributing to high workload | Identified that nursing staff spending huge amounts of clinical time processing urine cultures
Availability of up to date guidance | Review of regional/national guidance | Staff education on regional/national guidance
Patients leaving in high numbers of inappropriate urine cultures | Audit of the numbers of cultures sent per month | Measurements taken monthly to identify improvements
Staff lacking control of the number of cultures being sent | Patient education and barriers put in place | Patients educated on when it is appropriate to send cultures & who can be treated empirically
Improving staff & patient education | Discussion at practice meeting | Educational component to Patient Information Form
Delayed treatment for patients who were waiting for results | | Patients educated on when it is appropriate to send cultures & who can be treated empirically

Results

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<th>Outcome</th>
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<th>Actions</th>
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| Gathered staff feedback and designed new protocol | Introduction of lab syringes | Introduction of Patient Information Form | % of inappropriate cultures
| | | Number of cultures sent | Number of inappropriate antibiotic cultures |
| **Outcome measures** | | | |
| • Monthly quantitative measurement of the number of urine cultures sent per month, number of inappropriate cultures, number of +ve cultures, appropriateness of antibiotic prescriptions | Verbal staff feedback regarding the impact of changes on staff | • Introduced new Patient Info form for urine testing |
| • Verbal staff feedback about how protocol could be improved | • Discussed new protocol & NICE guidance on UTI management at practice meeting | • Information signage placed in waiting room and at urine collection box with instructions |
| • Audited Patient Info form for further improvements | | | |

Balancing measures

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