Academic Health Science case study: Improving management of suspected appendicitis

Started summer 2014 – ongoing Oxford AHSN

Key points at a glance

- Treatment of suspected appendicitis identified by clinicians as key area for improvement
- Clinical champions identified at all partner acute trusts
- Engagement with acute Trusts through workshops organised by Patient
 Safety Academy for Board members and wide range of health professionals

Background Summary

We aim to improve both the management process and clinical outcomes for patients with suspected appendicitis in acute trusts across the Oxford AHSN region. We intend to rationalise pathways for managing these patients to greatly reduce the frequency of delayed diagnosis or treatment, decrease inpatient bed use and improve efficiency within the emergency surgical workload.

Challenge identified and actions taken

Patients admitted with acute right iliac fossa pain (RIF pain) represent a large proportion of emergency surgical work. Most do not need surgery, but investigating them promptly to identify those who do is challenging. The logistical difficulties of investigation and scheduling mean that emergency surgery units often find it difficult to get patients to theatre in a timely fashion once a diagnosis of appendicitis has been made. Delays in diagnosis can result in progression of disease and increased morbidity. Recent audit data from the Oxford AHSN region showed 20% of patients and 80% of the sickest patients (those with possible perforation) wait longer than the recommended maximum time for surgery. Conversely, those patients presenting with right iliac fossa pain without appendicitis who are operated on can have significant complications, including infection and death, as a result of surgery for an incorrect diagnosis, as well as taking important emergency surgical resources away from those that need it. System issues and poorly designed processes contribute greatly to the current delays in diagnosis and treatment of appendicitis. Rationalising systems of care could radically improve outcomes and reduce costs.

The Patient Safety Academy has engaged with management at Board level within partner acute trusts to aid delivery of the clinical changes that will be implemented by clinical champions (consultant surgeons and anaesthetists, middle grade doctors, nurse practitioners and theatre practitioners). This has included individual meetings as well as a workshop for the entire board of one trust. The same event will happen with the Boards of the other four Trust in the region. Clinical champions have been identified and recruited in each partner acute trust and a two day clinical champions workshop has taken place involving three of the Trusts. This initially focused on the

principles of 'human factors' teaching, systems analysis and improvements and then looked at how these principles could be applied to their own emergency surgical patients. It also taught the candidates how to improve systems including data collection.

The Informatics team at the Oxford AHSN is supporting this project through information governance and data collection. The collection of robust data will help to establish baseline information and demonstrate effectiveness.

Outcomes

This project is at a relatively early stage. There is growing commitment to change led by enthusiastic clinical champion.

Feedback from the Clinical champions:

- "I think I can really improve the quality of service."
- "Friendly course with lots of support. It is worth attending definitely."
- "Very well structured course."
- "Excellent course, compelling, engaging, well delivered"

Plans for the future

Further initial and follow-up workshops for clinical champions are planned in autumn 2014. Data analysis will be carried out to measure impact.

Contact for further information

Roger Sykes, Project Coordinator tel. 01865 740870 roger.sykes@nds.ox.ac.uk

AHSN core objectives

A, C

Clinical priority or enabling theme/s

Patient safety, Best practice in surgery