

# INTRODUCTION OF A ESCALATION TRIGGER TOOL INTO THE EMERGENCY DEPARTMENT FOR PATIENTS WITH ACUTE ABDOMINAL PAIN

## EMERGENCY LAPAROTOMY CYMRU

### CONTEXT & PROBLEM

The Royal Gwent Hospital in Newport annually has around 8300 patients present at the Emergency Department with acute abdominal pain, who are referred directly to Surgery. A proportion of these patients will need to undergo an Emergency Laparotomy. Patients who are at the highest risk of mortality should be escalated for senior review efficiently and consistently. Escalation for urgent review has been reliant on individual practice, rather than a systematic approach. This in turn has led to patients needing an urgent surgical senior review having a delayed escalation.

A criteria published by Royal College of Surgeons (RCS) highlights when a patient is at significant risk of deterioration, and requires urgent escalation.

### STRATEGY FOR CHANGE

A test of change was initiated in the Emergency Department to reduce the time between a patient being referred to the surgeon, and their assessment for those identified as high risk in the RCS criteria. It was agreed with input from Emergency Medicine and Radiology Consultant colleagues that an escalation criteria, with clear guidance on who to escalate directly to the registrar would need to be developed.

#### Improvement Overview

1. Process Map produced to identify issue
2. Action Plan & escalation criteria concept created
3. Draft criteria created
4. Draft Criteria circulated to Surgical, Emergency Medicine & Radiology teams
5. Criteria Feedback received & amended
6. Criteria distributed again for final approval
7. Test of change conducted

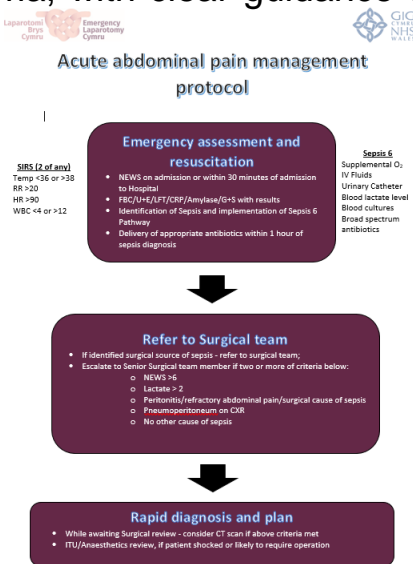
The criteria was displayed in clear visible areas across the Emergency Department. In addition to this the lead surgeon delivered informal education to the teams about when to use the pathway, as well as raising its profile.

### MEASUREMENT FOR IMPROVEMENT

In order to establish if the test of change had resulted in an improvement in reducing the time to review for the sickest patients, two times were collected for each patient; time of referral to surgeons and time of review by a surgical registrar.

To ensure all patients who should have been escalated using the criteria were appropriately escalated, all patients presenting with abdominal pain referred to Surgeons were included in the data capture.

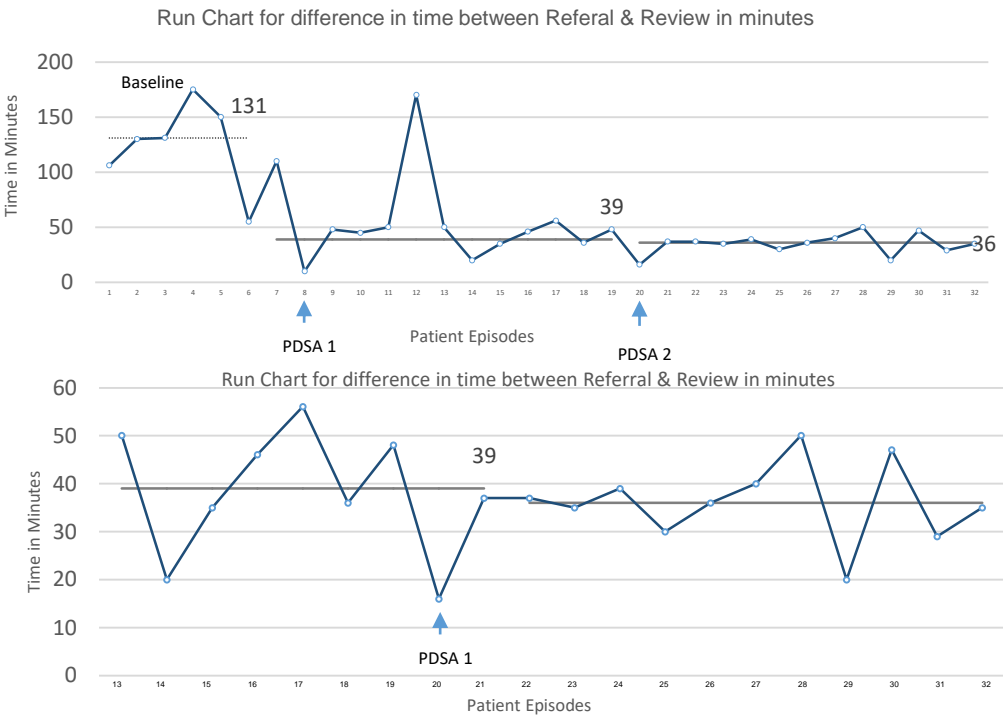
Outcome Measures	<ul style="list-style-type: none"><li>Time between referral and review by senior surgeon</li></ul>
Process Measures	<ul style="list-style-type: none"><li>Number of patients referred via the escalation criteria.</li><li>Number of patients who could have been referred i.e. number of patients admitted with acute abdominal pain who met the escalation criteria.</li></ul>
Balancing Measures	<ul style="list-style-type: none"><li>Time between admission and referral to surgeon</li></ul>



### RESULTS

The test of change has been successful in ensuring that patients who are identified as high risk by the RCS criteria in the Emergency Department are seen directly by the Surgical Registrar. The introduction of the escalation criteria has allowed teams working in the Emergency Department to have clear guidance on how and when to contact the registrar directly.

PDSA 1	Introduction of the Poster to the Emergency Department
PDSA 2	Reengagement of the key stakeholders to raise profile.



The test of change has resulted in a reduction in the time between referral to the surgical team for high risk patients, and the time they are initially assessed from a median of 131 minutes to a median of 36 minutes.

The above run chart is a magnified view from patient episode 13-32; from patient 21 the variation in the time between referral and review has reduced. The range of the data for patients 7 to 19 is 62 minutes, whereas for patients 20-32 the range of the data is 30 minutes. This reduction in variation indicates more consistency in the process.

This indicates that the use of the escalation criteria has demonstrated early signs of a system wide improvement, for the review of patients fitting the RCS high risk criteria.

It was important to determine if all patients who met the criteria for escalation were being appropriately escalated to the surgical team during the test of change. Every patient who met the criteria was included in the data analysis for the test of change. This data was cross referenced with the health board Symphony system used for patients admitted to the emergency department.

The next test of change will focus on an initial assessment pathway for acute abdominal pain. The escalation criteria test in this case study will form a key element of this.

### LESSONS LEARNED

- Early engagement of stakeholders is important in securing a successful test of change.
- Often initial buy in can be minimal, and several engagement drivers may be necessary.
- Tests of change are additional to the teams current workload, and therefore often require additional time to complete.

### CONTACT INFORMATION

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