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Executive Summary

Overview
RCEM would like to thank every Emergency Department (ED) that participated in this Quality Improvement Project (QIP). Mental Health (MH) is an important, ever-growing, and high-risk area that all emergency services attend to everyday. Over a period of 6-months this RCEM QIP has accumulated 18,708 individual cases from 183 emergency departments nationwide.

The purpose of the QIP was to monitor documented care against the standards published by RCEM in July 2019, and to facilitate improved care using QIP methodology like Plan Do Study Act (PDSA) cycles and weekly data feedback. QIP methodology was promoted to encourage EDs to improve towards more consistent delivery of these standards to help clinicians examine the work they do day-to-day, benchmark against their peers, and to recognise excellence. Interventions were made at local level to improve care in the local context and contribute to the overall national results.

We can see the positive change that comes with including all EM (Emergency Medicine) staff in auditing for quality improvement.

The standards chosen to QIP were:
1. Mental Health Triage by a nurse on arrival.
2. Observations recorded for patients assessed at triage as being high risk of further self-harm or absconding.

Key Findings
The performance summary charts in the next section are a summary of the weekly performance against the 3 main standards between 1 August 2019 – 31 January 2020.

- A mean of 36% patients had a mental health triage within 15 minutes of arrival, over a 6-month period with signs of positive change in timeliness starting to take place.
- 80% of patients had a mental health triage within their visit to the ED. A mean of 31% had documented evidence of observations depending on their risk assessment with some changes taking place at end of data collection period. However, it is clear that this is not yet embedded in practice and is an area for continued improvement work.
- A mean of 60% had an ED clinician review their risk of ongoing suicide which remained static over the course of the project.
- Improvements have been observed in mental health risk assessments, including assessing the risk of repetition, potential harm to others, safeguarding concerns, and suicidal intent and acts.
Conclusion
This report represents not just another large scale national clinical audit, but the delivery of a shared platform providing QI tools and real time data with which individual departments were able to use to progress towards improving patient care. This has enabled some individual departments the opportunity to make progress towards achieving the national standards, although the data does not indicate that all departments were able to do so.

Towards the end of the data collection period, run Statistical Process Control (SPC) charts were indicating increased variation and some special cause variation, suggesting something was causing a change.

Some of the sudden changes in the data could be due to COVID-19 reaching EDs or due to changes by local initiatives.

Key recommendations
1. In line with RCEM standards, every ED should have a named mental health lead.
2. Every ED should have a mental health process and policy for assessing all mental health patients.
3. Every ED should have a safe area for mental health patients to be observed, which is safe and calm.
4. Review effectiveness of PDSA cycles and engage all ED staff in this process.
Performance Summary

The below graphs show the weekly performance against the 3 main standards. See the appendices for a guide to interpreting these charts.

<table>
<thead>
<tr>
<th>Clinical standard</th>
<th>SPC chart of weekly performance</th>
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<tbody>
<tr>
<td><strong>STANDARD 1:</strong></td>
<td><img src="image1" alt="SPC chart for Mental Health triage by ED nurse on arrival" /></td>
</tr>
<tr>
<td><strong>Patients</strong></td>
<td><img src="image2" alt="SPC chart for Mental Health - Documented Continuous Observation or Intermittent Checks" /></td>
</tr>
<tr>
<td><strong>should have mental</strong></td>
<td><strong>(For the time period: 7118 records conforming to standard; from a total of 18708 eligible.)</strong></td>
</tr>
<tr>
<td><strong>health triage on arrival</strong></td>
<td><strong>(For the time period: 2066 records conforming to standard; from a total of 6432 eligible.)</strong></td>
</tr>
<tr>
<td><strong>to briefly gauge</strong></td>
<td><strong>Mean 8 (3.8%</strong></td>
</tr>
<tr>
<td><strong>their risk of self-harm</strong></td>
<td><strong>Mean 4 (11.2%</strong></td>
</tr>
<tr>
<td><strong>or suicide and risk of leaving</strong></td>
<td><strong>Lower Control Limit 15.01</strong></td>
</tr>
<tr>
<td><strong>the</strong></td>
<td><strong>Triage Rate</strong></td>
</tr>
<tr>
<td><strong>department</strong></td>
<td><strong>Continuous Observation or Intermittent Checks</strong></td>
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<tr>
<td><strong>before</strong></td>
<td><strong>netsolving.com</strong></td>
</tr>
<tr>
<td><strong>assessment</strong></td>
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</tr>
<tr>
<td><strong>or treatment is complete.</strong></td>
<td><strong>netsolving.com</strong></td>
</tr>
<tr>
<td><strong>This is</strong></td>
<td><strong>netsolving.com</strong></td>
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<td><strong>used to determine</strong></td>
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<tr>
<td><strong>what level of</strong></td>
<td><strong>netsolving.com</strong></td>
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<tr>
<td><strong>observation the patient requires</strong></td>
<td><strong>netsolving.com</strong></td>
</tr>
<tr>
<td><strong>whilst in the ED.</strong></td>
<td><strong>netsolving.com</strong></td>
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The QI system accepted patients who had evidence of triage within 15 minutes of arrival.

| **STANDARD 2:** | ![SPC chart for Mental Health triage by ED nurse on arrival](image3) |
| **Patients at medium or high risk of** | ![SPC chart for Mental Health - Documented Continuous Observation or Intermittent Checks](image4) |
| **suicide, harm or of leaving** | **(For the time period: 7118 records conforming to standard; from a total of 18708 eligible.)** |
| **before assessment and** | **(For the time period: 2066 records conforming to standard; from a total of 6432 eligible.)** |
| **treatment are complete** | **Mean 8 (3.8%** |
| **should** | **Mean 4 (11.2%** |
| **be observed closely whilst in the** | **Lower Control Limit 15.01** |
| **ED. There should be** | **Triage Rate** |
| **documented evidence of** | **Continuous Observation or Intermittent Checks** |
| **action to mitigate risk, such as** | **netsolving.com** |
| **continuous observation or** | **netsolving.com** |
| **intermittent checks (e.g. every** | **netsolving.com** |
| **15 minutes), whichever is most** | **netsolving.com** |
| **appropriate.** | **netsolving.com** |
STANDARD 3:
When an ED clinician reviews a patient presenting with self-harm or a primary mental health problem, they should record a brief risk assessment of suicide and further self-harm.
Foreword

Dr Katherine Henderson, RCEM President

The Royal College of Emergency Medicine is very pleased to organise this audit of Mental Health outcomes in UK Emergency Departments.

This audit builds on previous Mental Health work by the College and allows us to see the progress we have made in establishing appropriate standards and measures to ensure all patients with urgent mental health issues are as safe as possible in our Emergency Departments.

At the same time, it is evident that a number of challenges still remain in safeguarding these patients, and with timely review. As a College we are, and will continue to work with other agencies, to ensure we best meet the needs of this group of vulnerable patients.

The College is dedicated to improving the quality of care in our Emergency Departments through these important audits, undertaking all obligations to ensure the best measures of patient safety are obtained.

The RCEM Quality Assurance and Improvement Committee are committed to continually evaluating the QIPs and improving them to best support you and improve patient care. We are aware that there are improvements we can make to strengthen local QI support, provide clearer data visualisation, and better communications. We welcome your feedback, ideas, and experiences to help us this winter.

Dr Katherine Henderson, RCEM President
Dr Simon Smith, Chair of Quality in Emergency Care Committee
Dr Elizabeth Saunders, Chair of Quality Assurance & Improvement Subcommittee
Introduction

Background
UK Hospital Episode Statistics (HES) have shown a 133% increase in presentations over 8 years (2009/10 – 2017/18).

Service provision for patients with mental health issues remains challenging. Our EDs are not easy places for patients who are suffering distress severe enough that they have self-harmed or taken an overdose. Our nurses have limited training in mental health and our environment is often busy and noisy.

Mental Health has been a key feature of the NHS long term plan in England and Wales and is high on the agenda in Scotland too. There has been much work throughout the UK to divert patients with mental health crisis and no physical health needs to alternative services. Access to 24 hr crisis lines has been accelerated by Covid-19.

The majority of ED patients with mental health needs also have a physical health need. There has also been increasing funding for Liaison Psychiatry services and an accepted standard of patients being seen by Liaison Psychiatry within an hour of referral within England and Wales.

RCEM has been working with the Royal College of Psychiatrists (RCPsych), Royal College of Nursing (RCN) and Royal College of Physicians (RCP) to produce UK wide guidance to improve services working jointly and in particular managing patients in parallel. Specifically changing the practice of patients needing to be “fit for discharge” before mental health teams will assess them which lingers in a few hospitals. Instead, patients should be referred from triage to a mental health team if they are “fit for assessment.”

Problem description
The role of the ED for mental health patients is to keep people safe and facilitate medical and mental health assessment and treatment. Yet it is not uncommon for patients to become more distressed and to try to leave before their assessment and treatment is complete.

A 2018 investigation by the Healthcare Safety Investigation Branch (HSIB) made specific recommendations about the role of Emergency Medicine in the management of this group of patients due to failures in one patient’s care in the ED. The patient, Diane, had been through the ED 4 times in the few months before she committed suicide and only on 2 occasions had she been assessed by ED staff and referred to Liaison Psychiatry for review. On the last ED attendance before she died, Diane left the ED without being assessed and took her own life the following day.

HSIB were concerned about lack of systems for assessing and monitoring patients. They felt that the national guidance for initial assessment of people who have self-harmed lacked coherence between documents and the absence of guidance resulted in EDs using locally developed processes of varying standards.

It also made the safety observation that ‘the initial assessment of patients on arrival at an ED may benefit from inclusion of key factors from the RCEM Best Practice guideline: The Patient who absconds 2020’.

The revised RCEM toolkit included new standards to improve the safety of ED patients in the ED. These fit with NICE self-harm guidance.

The full standards can be viewed here. We chose to do quality improvement on the following 3 standards:
1. Mental Health Triage by a nurse on arrival.
2. Observations recorded for patients assessed at triage as being high risk of further self-harm or absconding.
When these tasks are done well, the patient should be kept safe, but it should also facilitate ED staff to engage more with the person in crisis to consider their individual needs. They are also in a better position to work with Liaison Psychiatry.

The previous RCEM Mental Health audit (2014-2015) looked at ED clinician risk assessment. It reported 72% of patients having a risk assessment, but this was not broken down into component parts, as in this QIP. Only a median of 30% of patients had their mental state examination recorded previously.

**Rationale**

The Quality Improvement Project (QIP) aimed to track the current performance in EDs against clinical standards in individual departments and nationally on a real time basis over a 6-month period. The aim was for departments to be able to identify where standards were not being reached so they could do improvement work and monitor change in real time.

RCEM’s Mental Health QIP incorporates the Institute for Healthcare Improvement’s six dimensions of quality healthcare (STEEEP) to ensure patient safety and quality improvement are the fundamental topics addressed in the project:

- **Safe** – ensure patient does not leave before assessment and come to further harm.
- **Timely** – A patient in MH crisis who is a risk to self and other requires prompt assessment by ED and Psychiatry Liaison to allow a plan of care to be made.
- **Equitable** – patients with MH problems should have the same priority as those with physical health problems.
- **Efficient** – Ensuring patients are seen in a timely manner which can reduce their length of stay.
- **Effective** – both ED care and assessment by mental health teams should be aimed at reducing distress and assessing risk.
- **Patient focused** – The main aim is that a patient who has acute mental distress is dealt with safely and compassionately by staff who seek to understand the individual.

**Specific objectives**

This is the first time RCEM has run a national QIP on this topic, although there has previously been a national clinical audit which covered other areas of care.

The objectives of the QIP are:

- To identify current performance in EDs against clinical standards and benchmark with performance nationally.
- To empower and encourage EDs to run quality improvement (QI) initiatives within their local context, based on the data collected and assess the impact of the QI initiatives on their weekly performance data using the platform provided.
- To provide a national overview that can capture improvements in real time and influence future priorities and initiatives for improving care for these patients.
QI Tools

There are a range of QI tools which are useful in project planning. Here is an example driver diagram which helps to define the aim and identify drivers required to achieve that aim. You will notice that the solutions column at the end is largely unpopulated as this is best done with a local team in the context of the Emergency Department the interventions will be made in. RCEM QI and mental health resources are available to aid discussion about solutions.
Case study

**Patient Story: Prior to intervention (August 2019)**
A 32-year-old female patient presented following an overdose of propranolol, along with thoughts of wanting to jump in front of a train. She had a background of depression and anxiety, currently being supported by Acute Mental Health Team. She was concerned about how her family were being affected by her mental health. She had bloods taken and an ECG performed, both unremarkable. She was observed for 6 hours in line with guidance from Toxbase and seen by the Mental Health Liaison team once the period of observation was near complete. Their assessment commented on risk of further impulsive overdoses but that an inpatient stay was unlikely to be helpful. She was discharged for the Acute Mental Health Team to follow-up and prescription for a change of antidepressants.

**Applying the model for improvement: What do we want to achieve for the Patient?**
Safe care for this patient should include early risk assessment and action, including documentation of risk of absconding and harm to self or others along with assessment of capacity and level of observation required and environment checks. This patient did not have an explicit risk assessment until she was seen by the attending ED clinician at 4 hours and 30 minutes following arrival. In addition, there was no documentation of safeguarding concerns, despite the fact she commented that her family were a protective factor (there was no exploration if this includes children who she has caring responsibilities for).

**How will we know a change is an improvement?**
Measurements related to RCEM audit standards to ensure safe, comprehensive, and timely management.

**What changes can we make that will result in improvement?**
Based on the need for delivery of safe care, plans were made with the MDT to trial interventions to improve care.

**Documentation:**
Make sure the Mental Health Triage form (ultimately renamed “Vulnerable Adults Triage form” to ensure all ETOH and Drug presentations were included) underwent multiple PDSA cycles on the shop floor with nurses and doctors. As a result, the introduction was well received as the final version helped the triage nurse to deliver patient focussed, safe care in a user-friendly format.

The above developed further into a small booklet with a shortened (but legally approved) version of capacity assessment and other prompts such as mechanisms to check and raise safeguarding concerns and defining level of observations required. It signposts to early escalation of patients who may lack capacity or who pose an ongoing risk to themselves or others.

**Education:**
Training in Mental Capacity Assessment was made a mandatory part of the nursing and medical training matrix. Even though nursing staff are not expected to complete mental capacity assessments, the knowledge has increased awareness of its content, use, and importance.

Nursing staff have been offered the opportunity to attend mental health courses run by a local university. Employment of ED nurses with a background in mental health has helped to embed processes and inform solutions to deliver best care.
**Systems:**
Co-locating the acute mental health team in the emergency department has fostered collaborative working and improved understanding between the teams of the challenges each of us face. It has contributed to an agreement that where possible, patients are not required to be fit for discharge but just fit for an assessment.

**Environment:**
A dedicated mental health room was created to conform to standards required which makes it easier to quickly provide a safe and appropriate environment for patients to be cared for in.
Methodology

Nationally, **18,708** cases from **183** EDs were included in this audit. Click the map below to open an interactive map of participating EDs.

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of relevant EDs</th>
<th>Number of cases*</th>
</tr>
</thead>
<tbody>
<tr>
<td>National total</td>
<td>183/196 (93%)</td>
<td>18708</td>
</tr>
<tr>
<td>England</td>
<td>162/170 (95%)</td>
<td>16947</td>
</tr>
<tr>
<td>Scotland</td>
<td>5/6 (83%)</td>
<td>621</td>
</tr>
<tr>
<td>Wales</td>
<td>10/12 (83%)</td>
<td>598</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>6/6 (100%)</td>
<td>542</td>
</tr>
<tr>
<td>Isle of Man/Channel Islands</td>
<td>0/3 (0%)</td>
<td>0</td>
</tr>
</tbody>
</table>

*analysis includes complete cases only

Intervention

All Type 1 EDs in the UK were invited to participate in June 2019. Data samples were submitted using an online data collection portal. The audit was included in the NHS England Quality Accounts list for 2019/2020.

Participants were asked to collect data from ED patient records on cases who presented to the ED between 1 August 2019 – 31 January 2020.

See Appendix 1 for the audit questions and the standards section of this report for the standards.

Recommended sampling

To maximise the benefit of the new run charts and features, RCEM recommended entering 5 consecutive cases per week. This enabled contributors to see their EDs performance on key measures, any changes week by week and visualise any shifts in the data following a quality intervention (PDSA cycle).

The sample of 5 cases per week was recommended based on the average 6-monthly attendance for a Type 1 ED (quarter 3 and quarter 4 A&E Attendances and Emergency Admissions 2019-20 data, NHS England and Improvement).
The sample size calculation was based on a 95% confidence level and 8% margin of error, as a higher margin of error is acceptable for a QIP than a research study.

<table>
<thead>
<tr>
<th>Expected patient numbers</th>
<th>Recommended sample size</th>
<th>Recommended data entry frequency</th>
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</thead>
<tbody>
<tr>
<td>&lt;5 a week</td>
<td>All patients</td>
<td>Weekly</td>
</tr>
<tr>
<td>&gt;5 a week</td>
<td>5 patients</td>
<td>Weekly</td>
</tr>
</tbody>
</table>

**Alternative sampling**
In some cases, EDs found weekly data entry too onerous, departments were provided guidance on an alternative methodology of entering monthly data instead. The system recorded each patient’s arrival date and automatically split the data into weekly arrivals, thereby preserving the benefit of seeing weekly variation.

<table>
<thead>
<tr>
<th>Expected patient numbers</th>
<th>Alternative sample size</th>
<th>Alternative data entry frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;5 a week</td>
<td>All patients</td>
<td>Monthly</td>
</tr>
<tr>
<td>&gt;5 a week</td>
<td>20 patients</td>
<td>Monthly</td>
</tr>
</tbody>
</table>

**Study of the intervention**
This audit has been encouraged towards QIP methodology by providing real-time feedback and introducing an integrated PDSA tool. Measurement of the data against the standards enabled change in practice, with resultant improvement tracked using weekly SPC charts. These are recommended by NHS England, along with other tools that can be found on your personalised dashboard on the RCEM’s QIP portal.

**Measures**
As this was the first time this topic has been run as a continuous QIP for the main standards RCEM did not specify particular QI measures, but embedded the ability for individual departments to identify their own local outcome, process and balancing measures. The national level data provides a benchmark for the national picture so individual units who are below the mean figure can takes steps to improve.
The standards used were published by RCEM in July 2019:

<table>
<thead>
<tr>
<th>STANDARD</th>
<th>GRADE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Patients should have mental health triage on arrival to briefly gauge their risk of self-harm or suicide and risk of leaving the department before assessment or treatment is complete. This is used to determine what level of observation the patient requires whilst in the ED.</td>
<td>F</td>
</tr>
<tr>
<td>2. Patients at medium or high risk of suicide, harm or of leaving before assessment and treatment are complete should be observed closely whilst in the ED. There should be documented evidence of action to mitigate risk, such as continuous observation or intermittent checks (for example every 15 minutes), whichever is most appropriate.</td>
<td>D</td>
</tr>
<tr>
<td>3. When an ED clinician reviews a patient presenting with self-harm or a primary mental health problem, they should record a brief risk assessment of suicide and further self-harm.</td>
<td>D</td>
</tr>
</tbody>
</table>
Understanding the different types of standards

☑️ **Fundamental**: need to be applied by all those who work and serve in the healthcare system. Behaviour at all levels and service provision need to be in accordance with at least these fundamental standards. No provider should provide any service that does not comply with these fundamental standards, in relation to which there should be zero tolerance of breaches.

☑️ **Developmental**: set requirements over and above the fundamental standards.

**Analysis**

RCEM’s plan for analysis are based on each standard for this QIP topic. A minimum data set must be met based on each standard to provide results and to show improvement or decline on your SPC charts. Further details can be found in the appendix.

**Grade definition**

RCEM no longer sets a target percentage for standards, but rather encourages EDs to review real time performance with the aim of constantly improving care in line with the standards for all patients.
RESULTS
Section 1: Casemix
National case-mix of the patients

Day and time of arrival

Sample: All patients 18,708 patients

Understanding this data
This chart shows when patients were documented as arriving at the Emergency Department.

What questions were used for this analysis?

- Q1.2: Date and time of arrival

Commentary
The pattern of time and day of attendance was consistent throughout the week. The main point of note is the spike of attendances around midnight for all days. For departments without 24-hour Liaison Psychiatry on site this would provide a challenge to meeting the PLAN standard of Liaison Psychiatry assessment within 1 hour. Achieving this standard is not only best for good patient care, but can also reduce length of stay a key factor in overcrowding in the ED.

Recommendation:
All departments to work with their commissioners and Psychiatry Liaison teams to ensure 24-hour cover can be achieved.
Type of presentation

Mental Health Self-Harm Recorded

[Circle chart showing 65.3% self-poisoning, 31.2% self-injured, and 3.4% not recorded]

Sample: 18,708 patients (all patients)

Understanding this data
This chart shows what percentage of patients self-injured (31%), self-poisoned (65%), or were not documented (3%).

Self-poisoning is more prevalent than self-injured in this large sample of patients.

What questions were used for this analysis?

- Q1.4: What was the type of self-harm recorded?
STANDARD 1:
Patients should have mental health triage on arrival to briefly gauge their risk of self-harm or suicide and risk of leaving the department before assessment or treatment is complete. This is used to determine what level of observation the patient requires whilst in the ED.

Fundamental standard

Mental Health triage by ED nurse on arrival
(For the time period: 7118 records conforming to standard; from a total of 18708 eligible.)

Sample: 18,708 (all patients with known arrival and mental health triage time)

Understanding this data
This chart shows the percentage of patients who had a mental health triage by an emergency department nurse within 15 minutes of their arrival. This data shows consistent results until the pandemic started to reach EDs in late January.

What questions were used for this analysis?
- Q1.2: Date and time of arrival
- Q1.3: Date and time of mental health triage
Commentary

The national mean of patients who were documented to have had a mental health triage by an ED nurse on arrival was 36%. Between August 2019 to the beginning of January 2020 there was very little variation around the mean with more than 15 points within the inner thirds of the control limits.

The national picture will only improve if systems of triage come with training and reinforcement, so they become embedded practice. NICE currently recommends that the Australian Mental Health Triage Scale is used to rate clinical urgency so that patients are seen in a timely manner. This scale allows the assessment of mental distress and the risk of leaving or of harming self or others. It recommends levels of observation for the patient. It is not recommended as a way of assessing suicide risk. There are other simpler mental health triage systems referenced in the RCEM MH toolkit.

At present, the data indicates that the process we currently use is stable and predictable, but change is required to ensure that better outcomes can be achieved with this level of predictability. Individual department’s results will show varying performances depending on their process and any improvements they have instituted.

Recommendation:

- All departments to analyse their individual data with a view to improving processes to reliably deliver better care.
- All departments, but particularly those below the national mean must urgently review their triage process, consider using the Australian Mental Health Triage scale or other simpler examples given in the RCEM Mental Health toolkit. Use quality improvement methodology or other means to implement changes. The RCEM QI platform can continue to be used to track progress and add in PDSA cycles and narrative.
- Those departments achieving better results are encouraged to share the processes used on RCEM website, submitting to BMJ quality or other sharing forums.
- RCEM to continue to actively promote mental health triage via the network of MH leads and to explore standardisation of MH triage. Revised NICE guidance on self-harm is expected to include recommendations on mental health triage (currently under revision).
STANDARD 2:
Patients at medium or high risk of suicide, harm or of leaving before assessment and treatment are complete should be observed closely whilst in the ED. There should be documented evidence of action to mitigate risk, such as continuous observation or intermittent checks (for example every 15 minutes), whichever is most appropriate.

Developmental standard

Mental Health – Documented Continuous Observation or Intermittent Checks

(For the time period: 2065 records conforming to standard; from a total of 6428 eligible.)

Sample: 6,428 patients (patients at medium or high risk of suicide, risk of leaving the ED)

Understanding this data
This chart shows the frequency mental health patient were checked on a continuous or intermittent basis. There is a consistency up until the pandemic began to present at EDs.

What questions were used for this analysis?

• Q2.4: Is there documented evidence of the following observations whilst the patient is in the ED?

Commentary
The national mean of 31% for documentation of observations shows normal cause variation between August and the beginning of January.

It is clear that nationally documentation of observations for patient at medium to high risk of leaving without being seen or self-harming again is not widespread. Systems of observation and documentation are needed that fit with assessment. A shared language can help – such as “red special” for a patient requiring 1:1 observation and “amber special” for those requiring observation every 15 minutes.

**Recommendation:**

- ED’s to consider using the AMHT scale at triage or similar process to risk assess patients and identify those who need to be seen urgently and those who need close monitoring.
- ED’s to implement mental health observations for patients identified as medium to high risk of absconding or harming self or others whilst waiting.
STANDARD 3:
When an ED clinician reviews a patient presenting with self-harm or a primary mental health problem, they should record a brief risk assessment of suicide and further self-harm.

Developmental standard

Mental Health Risk Assessment of Suicide
(For the time period: 10896 records conforming to standard; from a total of 18708 eligible.)

Sample: 18,708 patients (all patients)

Understanding this data
This chart shows the percentage of patients who had a risk of suicide assessed.

What questions were used for this analysis?
- Q2.1: Was a brief risk assessment taken and recorded in the patient’s clinical record?
- Q2.2: Is there documented evidence that the patient was specifically asked about suicide intent and acts.

Commentary
The national mean for ED clinicians documenting a brief risk assessment of suicide is 60%. There was only slight week to week normal variation during the QIP period.
There was no evidence of improvement in the national picture over this period. It is concerning that on average only 60% patients who presented with self-harm have documented evaluation of their risk of suicide. It is possible that this risk has been assessed but not documented, but this needs to be analysed by individual departments to identify areas for improvement.

It is also possible that the Liaison Psychiatry team are seeing patients within such a quick timeframe that risk assessment is being left for them to do. However, if an ED clinician sees a patient first, they should make a risk assessment. This may allow a few patients to be discharged with community follow up (usually after discussion with Liaison Psychiatry) and helps if a patient tries to leave before seeing a Mental Health professional.

If a patient does leave the ED, the level of response needed is crucial. Some patients may have capacity to take their own discharge and are low risk, patients at higher risk of harm may require intervention from police to ensure a complete episode of care.

**Recommendation:**

- All departments to analyse their individual data and processes.
- All departments, particularly those below the national mean, to urgently review their risk assessment process and use quality improvement or other methodology to implement changes. The RCEM QI platform can continue to be used to track progress and add in PDSA cycles and narrative.
- If departments have results well above the mean it would be great to share the processes used by sharing on RCEM website, submitting to BMJ quality or other sharing forum.
Other results

Average time to triage

Understanding this data
This chart shows the average time a patient waited to be triaged.

What questions were used for this analysis?

- Q1.2: What was the date and time of arrival?
- Q1.3: What was the date and time of mental health triage?

Commentary:
The average time from arrival to triage by an ED nurse was 53 minutes, with 80% of patients being triaged at some point during their ED attendance. Over the course of the QIP, the average time from arrival to triage by a nurse has shown a trend downwards which although not demonstrating special cause variation indicating significant change, is still an encouraging sign of improvement. Individual departments will have seen different results. For those with results above the national average this could be a driver for further improvement work. For those with shorter triage times it would be useful to share good practice. Please note data submissions over 24hrs were not included.

Understanding this data
This chart shows the average time a patient waited to be triaged.
Average time from arrival to risk assessment

What questions were used for this analysis?

- Q1.2: Date and time of arrival
- Q2.1: Was a brief risk assessment taken and recorded in the patient’s clinical record?

Commentary:

- The average time from arrival to a risk assessment was 2 hours. This data shows no significant improvement or variables. Patients included in the sample has a risk assessment carried out, entered time & date of arrival, and did not exceed 24hrs of wait time. This data and graph do not involve a specific standard and is primarily for information.

Understanding this data

This data shows the time between a mental health arrival and a risk assessment being carried out.
**Documentation of mental state examination**

**Mental Health Mental State Examination**

(For the time period: 3948 records conforming to standard; from a total of 18708 eligible.)

Sample: 18,708 patients (all patients)

**Understanding this data**

This chart shows the percentage of patients who had their mental state documented.

**What questions were used for this analysis?**

- Q2.1: Was a brief risk assessment taken and recorded in the patient’s clinical record?
- Q2.3: What was the patient’s risk level of suicide, harm or of leaving the ED?

**Commentary**

Mental State Exam is not a risk assessment tool but is how ED clinicians should be examining a patient with a mental health problem which will contribute to our risk assessment process.

Nationally the mean for documenting a mental state examination was 24%. There was some normal variation over the audit period but no special cause variation indicating no obvious improvement. In 2014-5 the documentation of MSE was 30%.

It is very concerning that there has been a decrease in documentation and that it remains at a very low level. There may be a number of reasons for this:

1. A misunderstanding about what constituted a MSE for the purposes of data input
2. MSE may not be recorded by ED staff, but by Psychiatry Liaison staff. The question specifically asked about what ED staff documented.
3. Use of different computer systems by different services

Recommendation:

- ED’s to review their individual results and review processes to ensure that patients have a full mental statement examination documented and accessible to all members of staff who need to see it regardless of who does it.
Documentation of risk of repetition

Mental Health Risk Assessments – Assessing risk of repetition

(For the time period: 9596 records conforming to standard; from a total of 18708 eligible.)

Sample: 18,708 patients (all patients)

Understanding this data
This chart shows the assessment of risk of repetition for a mental health patient.

What questions were used for this analysis?

- Q2.1: Was a brief risk assessment taken and recorded in the patient’s clinical record?
- Q2.2: Is there documented evidence that the patient was specifically asked about assessing risk of self-harm repetition.

Commentary
The national mean for assessing risk of repetition of self-harm was 52%. This may reflect lack of clear documentation, use of different tools or data collection. As this is a fundamental part of assessing a person with a mental health crisis this needs urgently addressing. There was no special cause variation indicating significant change, but it is encouraging to see that over the last 6 weeks of the data collection there was a consistent upward trend. With further data this may have indicated an improvement in performance.
**Recommendation:**

- All departments to analyse their individual data.
- All departments, particularly those below the national mean to urgently review their risk assessment process and use quality improvement or other methodology to implement changes. The RCEM QI platform can continue to be used to track progress and add in PDSA cycles and narrative.
- If departments have results well above the mean it would be great to share the processes used by sharing on RCEM website, submitting to BMJ quality or other sharing forum.
**Documentation of risk of harm to others**

**Mental Health Risk Assessments – Potential harm to others**

(For the time period: 7764 records conforming to standard; from a total of 18708 eligible.)

Sample: 18,708 patients (all patients)

**Understanding this data**

This chart shows the percentage of patients who were assessed for the likelihood of harming others.

**What questions were used for this analysis?**

- Q2.1: Was a brief risk assessment taken and recorded in the patient’s clinical record?
- Q2.2: Is there documented evidence that the patient was specifically asked about risk of potential harm to others.

**Commentary**

The mean number of patients with a documented risk assessment for potential to harm others is 41%. The run chart is starting to show some positive changes but due to lack of further data points it is not possible to see if this is normal or special cause variation. However, it is encouraging to see an increase in performance over the time of the project suggesting that the changes taking place at a local level may be having an impact. This will be better seen in some departments in local level data.
Recommendation:

- All departments to analyse their individual data.
- All departments, particularly those below the national mean to urgently review their risk assessment process and use quality improvement or other methodology to implement changes. The RCEM QI platform can continue to be used to track progress and add in PDSA cycles and narrative.
- If departments have results well above the mean it would be great to share the processes used by sharing on RCEM website, submitting to BMJ quality or other sharing forum.
Documentation of safeguarding concerns

Mental Health Risk Assessments – Safeguarding concerns

(For the time period: 7984 records conforming to standard; from a total of 18708 eligible.)

Understanding this data
This chart shows the percentage of patients who had a documented risk assessment with respect to safeguarding concerns of others.

What questions were used for this analysis?

- Q2.1: Was a brief risk assessment taken and recorded in the patient’s clinical record?
- Q2.2: Is there documented evidence that the patient was specifically asked about safeguarding concerns.

Commentary
The mean number of patients with a documented risk assessment for safeguarding concerns for others is roughly 45%. The run chart is starting to show some positive changes but due to lack of further data points it is not possible to see if this is normal or special cause variation. However, it is encouraging to see an increase in performance over the time of the project suggesting that the changes taking place at a local level are having an impact. This will be better seen in some departments in local level data.
Recommendation:

- All departments to analyse their individual data.
- All departments, particularly below the national mean to urgently review their risk assessment process and use quality improvement or other methodology to implement changes. The RCEM QI platform can continue to be used to track progress and add in PDSA cycles and narrative.
- If departments have results well above the mean it would be great to share the processes used by sharing on RCEM website, submitting to BMJ quality or other sharing forum.
Documentation of suicidal intent and acts

Mental Health Risk Assessments – Suicidal intent and acts
(For the time period: 10708 records conforming to standard; from a total of 18708 eligible.)

Sample: 18,708 patients (all patients)

Understanding this data
This chart shows the percentage of patients who had a documented risk assessment for further suicidal intent.

What questions were used for this analysis?

- Q2.1: Was a brief risk assessment taken and recorded in the patient’s clinical record?
- Q2.2: Is there documented evidence that the patient was specifically asked about suicide intent and acts.

Commentary
The mean number of patients with a documented risk assessment for suicidal intent and acts is 59%. Of all the risk assessments it would appear that this is the most consistently documented one which is reassuring. The run chart is starting to show some positive changes but due to lack of further data points it is not possible to see if this is normal or special cause variation. However, it is encouraging to see an increase in performance over the time of the project suggesting that the changes taking place at a local level are having an impact. This will be better seen in some departments in local level data.
Recommendation:

- All departments to analyse their individual data.
- All departments, particularly those below the national mean to urgently review their risk assessment process and use quality improvement or other methodology to implement changes. The RCEM QI platform can continue to be used to track progress and add in PDSA cycles and narrative.
- If departments have results well above the mean it would be great to share the processes used by sharing on RCEM website, submitting to BMJ quality or other sharing forum.
Discussion

Summary
This QIP has accumulated 18,708 individual cases from 183 EDs nationwide. Of the main standards addressed less than half of the cohort of patients had a mental health triage within 15 minutes, but there were signs of positive change occurring. 80% of patients had a mental health triage at some point during their visit to the ED. At present the concept of close monitoring of medium and high-risk patients has not been fully embedded as only a third of patients had some form of monitoring documented.

A brief risk assessment of suicide is being completed in 60% of patients but there was no improvement over the life of the project. It was concerning to see that only 24% patients had a mental state examination documented, as this should be a routine part of a clinician assessment. However, the results in the individual components of risk assessment show an encouraging overall improvement over the 6-month period demonstrating the effect of continuous improvement over time due to dedication from all ED staff in caring for mental health patients.

The need to include nurses, trainees, medical directors, clinical leads, and Psychiatry Liaison colleagues is more important than ever to ensure the ED is always the safest place for mental health patients.

RCEM would like to extend thanks to all the individuals and EDs who participated in this clinical audit and QIP. By participating, you have made the first step to making sustainable changes in care – and a lot of you have made many more steps depending how extensively you made use of QI tools available.

The results of this QI project should be shared widely with staff who have a responsibility for looking after patients with mental health problems, especially the doctors and nurses directly involved in care provision. In addition to the clinical team, RCEM recommend sharing the report with the clinical audit and/or quality improvement department, departmental governance meeting, ED Clinical Lead, Head of Nursing and Medical Director and Psychiatry Liaison colleagues as a minimum.

Without having visibility of the data and recommendations we cannot expect to see improvements in practice.

Now that EDs have a 6-month picture of their weekly performance on key measures RCEM encourages the clinical team and audit department to work together to review the effectiveness of PDSA cycles already completed, and design further cycles to improve performance which the data shows are required. Engaging staff in the process of action planning and PDSA cycles will lead to more effective implementation and sustainable improvements. The RCEM portal will remain live so that departments can continue to track their performance and evaluate the effects of further PDSA cycles.

For further QI advice and resources, please visit the RCEM Quality Improvement webpage

Limitations
Patient notes excluded
For the purposes of this audit, the following patient populations were excluded:
- Any patient 17 years of age or under
- Any patient who was unable to undergo a mental health examination or risk assessment in the ED due to their physical condition (e.g. unconscious)
- Any patient who was admitted to an in-hospital ward or ITU for medical treatment
- Any patient who had previously attended due to self-harm within the audit period (first attendance only to be included)
- Any patient who left the ED before any of the assessments outlined in the RCEM standards could be done (i.e. if some assessments were completed before
patient left please include in the audit – if no assessments were done before patient left do not include)

There is no RCEM control over the quality of the interventions as they are locally owned.
Conclusions
RCEM now has a picture of national and local level performance which is showing early signs of improvement as a result of the use of QIP methodology and encouraging staff of all levels to take part in improving care. There is still improvement to be made, but that is the nature of ever-changing healthcare processes.

Recommendations – patient level
- Every ED should have a robust triage process which identifies those at risk of leaving, imminent self-harm or harm to others and identifies their priority to be seen e.g. use of Australian Mental Health scale or other examples from RCEM toolkit at triage
- Every ED to implement some form of monitoring for patients at medium to high risk of leaving without being seen, or being a risk to self and others, to safeguard vulnerable patients
- Every ED to review their risk assessment process including-ongoing suicidal intent, potential to harm others and safeguarding concerns
- RCEM to conduct organisational QIP of the standards below.

Recommendations – organisational level
- EDs to ensure they meet the organisational level standards: RCEM mental health audit standards for the Emergency Department.
  1. Each department should have a named Mental Health Lead.
  2. A policy and process for assessing and observing patients should be in place for those considered to be high risk of self-harm, suicide, or leaving before assessment and treatment are complete.
  3. EDs should have a policy and process which clearly states when patients can or cannot be searched. This should be compliant with relevant legislation and have clear processes to safeguard or chaperone patients who are searched and to record the procedure. Searches which are for the clinical safety of the patient should be conducted by clinical staff rather than security guards.
  4. An appropriate area of the ED should be available in which patients with mental health problems may be observed. This should be both safe and as calm and quiet as possible.
  5. ED and mental health teams should have joint pathways which promote parallel assessment of patients with both physical and mental health needs. Mental health assistance should be delivered at the time that it is requested in line with the recommendations in the NCEPOD Treat as One report; terms such as “medically fit” or “medical clearance” should not be used to delay this.
  6. Departments should follow their trust’s policy for restrictive intervention and should follow guidance for Rapid Tranquilisation (NICE or their own guideline).
  7. EDs should have a policy and process for patients under the relevant policing and mental health legislation - including section 297 (Scotland), section 130 (Northern Ireland) or section 136 (England and Wales) to ensure safety, dignity, and timely management.
  8. An appropriate room should be available for the assessment and assistance of people with mental health needs within the ED. These should meet the standards of the Psychiatric Liaison Accreditation Network (PLAN).
  9. An appropriate programme should be in place for to train ED nurses, health care assistants, and doctors in mental health and mental capacity issues.
Further Information

Thank you for taking part in this clinical audit and QIP. We hope that you find the process of participating and results helpful.

If you have any queries about the report, please e-mail audit@rcem.ac.uk.

Details of the RCEM clinical audit and national QIP Programme can be found under the Current Audits section of the RCEM website.

Feedback

We would like to know your views about this report and participating in this audit and QIP. Please let us know what you think by completing our feedback survey:
https://www.surveymonkey.co.uk/r/QIP_201920

We will use your comments to help us improve our future topics and reports.

Useful Resources

- Site-specific report – available to download from the QIP portal (registered users only).
- Online dashboard charts – available from the QIP portal (registered users only). The dashboard remains open after the end of the national QIP project so you can keep monitoring local performance and doing PDSA cycles.
- Local data file – available from the QIP portal (registered users only).
- Guidance on understanding SPC charts
- RCEM Mental Health Toolkit (Oct 2019)
- RCEM Quality Improvement Guide - guidance on PDSA cycles and other quality improvement methods
- RCEM Learning modules on self-harm, suicide and mental health
- Report authors and contributors

This report is produced by the Quality Assurance and Improvement Committee subgroup of the Quality in Emergency Care Committee, for the Royal College of Emergency Medicine.

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- Alison Ives - Quality Officer, RCEM
- Net Solving – technical partner providing the data entry portal and dashboard
- Emily Lesnik – Quality Manager, RCEM
- George Ball – Data contribution and advice, Service Improvement Manager, University Hospital Hairmyres
### Appendices

#### Appendix 1: QIP questions

#### Case mix

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#### Assessment and observation

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<td>Is there documented evidence that the patient was specifically asked about:</td>
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<td>Yes – other locally developed tool</td>
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<td>No - patient left before risk assessment</td>
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<td>No – other reason documented</td>
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<td></td>
<td>Suicidal intent and acts</td>
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<td>Safeguarding concerns</td>
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<td>Assessing risk of self-harm repetition</td>
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<td>Assessing risk of potential harm to others</td>
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<td>2.3</td>
<td>What was the patient’s risk level of suicide, harm or of leaving the ED?</td>
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<td>Medium or high risk</td>
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<td>Is there documented evidence of the following observations whilst the patient is in the ED?</td>
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<td>Continuous observation or intermittent checks (e.g. 15 minutes)</td>
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<td>Less frequent or ad hoc observation</td>
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<tr>
<td>Not recorded</td>
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**Notes**
Optional space to record any additional notes for local use. Entries here will not be analysed by RCEM.
Appendix 2: Participating Emergency Departments

**England**
- Addenbrooke's Hospital
- Aintree University Hospital
- Airedale General Hospital
- Alexandra Hospital
- Arrowe Park Hospital
- Barnet Hospital
- Barnsley Hospital
- Basildon University Hospital
- Basingstoke & North Hampshire Hospital
- Bedford Hospital
- Blackpool Victoria Hospital
- Bradford Royal Infirmary
- Bristol Royal Infirmary
- Broomfield Hospital
- Calderdale Royal Hospital
- Charing Cross Hospital
- Chelsea & Westminster Hospital
- Cheltenham General Hospital
- Chesterfield Royal Hospital
- City Hospital
- Colchester General Hospital
- Conquest Hospital
- Countess of Chester Hospital
- County Hospital
- Croydon University Hospital
- Cumberland Infirmary
- Darlington Memorial Hospital
- Derriford Hospital
- Dewsbury & District Hospital
- Diana, Princess of Wales Hospital
- Doncaster Royal Infirmary
- Eating Hospital
- East Surrey Hospital
- Eastbourne District General Hospital
- Epsom Hospital
- Fairfield General Hospital
- Frimley Park Hospital
- Furness General Hospital
- George Eliot Hospital
- Gloucestershire Royal Hospital
- Good Hope Hospital
- Harrogate District Hospital
- Heartlands Hospital
- Hereford County Hospital
- Hillingdon Hospital
- Hinchingbrooke Hospital
- Homerton University Hospital
- Huddersfield Royal Infirmary
- Hull Royal Infirmary
- John Radcliffe Hospital
- Kettering General Hospital
- King George Hospital
- King's College Hospital
- (Denmark Hill)
- King's Mill Hospital
- Kingston Hospital
- Leeds General Infirmary
- Leighton Hospital
- Lincoln County Hospital
- Lister Hospital
- Luton & Dunstable Hospital
- Macclesfield District General Hospital
- Manchester Royal Infirmary
- Manor Hospital
- Medway Maritime Hospital
- Milton Keynes Hospital
- New Cross Hospital
- Newham General Hospital
- Norfolk & Norwich University Hospital
- North Devon District Hospital
- North Manchester General Hospital
- North Middlesex Hospital
- Northampton General Hospital
- Northern General Hospital
- Northumbria Specialist Emergency Care Hospital
- Northwick Park Hospital
- Nottingham University Hospitals NHS Trust
- Pilgrim Hospital
- Pinderfields General Hospital
- Poole General Hospital
- Princess Alexandra Hospital
- Princess Royal University Hospital
- Queen Alexandra Hospital
- Queen Elizabeth Hospital
- (Birmingham)
- Queen Elizabeth Hospital (Gateshead)
- Queen Elizabeth Hospital (Woolwich)
- Queen Elizabeth The Queen Mother Hospital
- Queen's Hospital
- Queen's Hospital (Burton)
- Queens Medical Centre (QMC)
- Rotherham District General Hospital
- Royal Berkshire Hospital
- Royal Blackburn Hospital
- Royal Bolton Hospital
- Royal Bournemouth General Hospital
- Royal Cornwall Hospital
- Royal Devon & Exeter Hospital
- Royal Free Hospital
- Royal Hampshire County Hospital
- Royal Lancaster Infirmary
- Royal Oldham Hospital
- Royal Preston Hospital
- Royal Shrewsbury Hospital
- Royal Stoke University Hospital
- Royal Surrey County Hospital
- Royal United Hospital
- Russell’s Hall Hospital
- Salford Royal
- Salisbury District Hospital
- Sandwell General Hospital
- Scarborough General Hospital
- Scunthorpe General Hospital
- South Tyneside District Hospital
- Southampton General Hospital
- Southend Hospital
- Southmead Hospital
- Southport General Infirmary
- St George's Hospital
- St Helier Hospital
- St James's University Hospital
- St Mary's Hospital
St Peter's Hospital
St Richard's Hospital
St Thomas' Hospital
Stepping Hill Hospital
Stoke Mandeville Hospital
Sunderland Royal Hospital
Tameside General Hospital
The Great Western Hospital
The Ipswich Hospital
The James Cook University Hospital
The Maidstone Hospital
The Princess Elizabeth Hospital
The Royal Liverpool University Hospital
The Royal London Hospital
The Royal Victoria Infirmary
The Tunbridge Wells Hospital
The Whittington Hospital
Torbay Hospital
University College Hospital
University Hospital Lewisham
University Hospital of North Durham
University Hospital of North Tees
University Hospital Coventry And Warwickshire NHS Trust
York Hospital

Warrington Hospital
Warwick Hospital
Watford General Hospital
West Cumberland Hospital
West Middlesex University Hospital
West Suffolk Hospital
Weston General Hospital
Wexham Park Hospital
Whipps Cross University Hospital
Whiston Hospital
William Harvey Hospital (Ashford)
Worcestershire Royal Hospital
Worthing Hospital
Wythenshawe Hospital
Yeovil District Hospital

Northern Ireland
Antrim Area Hospital
Causeway Hospital
Craigavon Area Hospital
Daisy Hill Hospital
South West Acute Hospital
Ulster Hospital

Scotland
Aberdeen Royal Infirmary
Dr Gray's Hospital
Dumfries And Galloway Royal Infirmary
Hairmyres Hospital
Wishaw General Hospital

Wales
Bronglais General Hospital
Glan Clwyd Hospital
Glangwili General Hospital
Morriston Hospital
Nevill Hall Hospital
Royal Gwent Hospital
The Royal Glamorgan Hospital
University Hospital of Wales
Withybush General Hospital
Ysbyty Gwynedd
## Appendix 3: Definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1.3: Mental health triage</td>
<td>Mental health triage should briefly gauge the risk of self-harm or suicide and risk of leaving the department before assessment or treatment is complete. This is used to determine what level of observation the patient requires whilst in the ED.</td>
</tr>
</tbody>
</table>
Appendix 4: Inclusion and exclusion criteria

Inclusion criteria
Patients must meet the following criteria for inclusion:

- **Patients aged 18 years and older**
- Who presented at a type 1 ED having intentionally **self-harmed** (either self-injury or self-poisoning)?
- **AND** required an emergency mental health assessment by your organisation specified acute psychiatric service (this may be provided by the organisation or an agreed partnership with separate service).

Exclusion criteria
Do not include:

- Any patient 17 years of age or under
- Any patient who was unable to undergo a mental health examination or risk assessment in the ED due to their physical condition (e.g. unconscious)
- Any patient who was admitted to an in-hospital ward or ITU for medical treatment
- Any patient who had previously attended due to self-harm within the audit period (first attendance only to be included)
- Any patient who left the ED before any of the assessments outlined in the RCEM standards could be done (i.e. if some assessments were completed before patient left please include in the audit – if no assessments were done before patient left do not include)

**Explanation of criteria:** The audit does not include patients admitted to a medical ward as they are usually seen by the mental health team on the ward, and the audit is focused on patients who require psychiatric assessment whilst in the ED.
Appendix 5: Understanding your results

Statistical process control (SPC) charts

The charts in this report and your new online dashboard can tell you a lot about how your ED is performing over time and compared to other EDs. If you’re not used to seeing data in this way it can take a little time to get used to. This section of the report will help you understand the charts and interpret your own data.

The main type of chart is known as a Statistical Process Control (SPC) chart and plots your data every week so you can see whether you are improving, if the situation is deteriorating, whether your system is likely to be capable to meet the standard, and also whether the process is reliable or variable.

As well as seeing your actual data plotted each week you will see a black dotted average line, this is the mean percentage of patients. The SPC chart will point out if your data has a run of points above (or below) the mean by changing the dots to white. If your data is consistently improving (or deteriorating) the dots will turn red so the trend is easy to spot. If a positive run or trend of data happens when you are trying a PDSA/change intervention this is a good sign that the intervention is working.

As well as the dotted mean line, you will see two other lines which are known as the upper and lower control limits. The control limits are automatically determined by how variable the data is. Around 99% of all the data will fall between the upper and lower control limits, so if a data point is outside these lines you should investigate why this has happened.

Interpreting your data

1. Performance is improving (or deteriorating)

A consistent run of data points going up or down with be highlighted with red dots, so they are easy to spot. A run of data going up is a good sign that your service is making improvements that are really working. If the data is going down this may indicate that service is deteriorating for some reason – watch out for a lack of resources or deterioration as a result of a change somewhere else in the system.
2. **Performance is consistently above (or below) the mean**

A consistent run of data that is above or below the mean will be highlighted with **white or blue dots** so they are easy to spot. If your data has been quite variable this is a good sign that the process is becoming more reliable.

![Diagram showing performance above the mean](image)

3. **Is your system likely to be capable of meeting the standard?**

The **control limits** show where you can assume 99% of your data will be. If you find that the standard is outside your control limits, it is very unlikely that your system is set up to allow you to meet the standard. If you do achieve the standard, this will be an unusual occurrence and very unlikely to be sustained. If this is the case, it is recommended that you look at how the process can be redesigned to allow you to meet the standard.

In the below example, the process is performing consistently at around 50%. The control limits show us that most of the time we would expect the process to be between 33% - 62%. If the standard for this process was 50%, then the process is well designed. If, however, the standard was 75% then the chart warns us that the system is not currently set up to allow the process to achieve the standard.

![Diagram showing performance within control limits](image)
5. **Something very unusual has happened!**

The majority of your data should be inside the upper and lower control limits, these are automatically calculated by the system. If a single data point falls outside these limits, then something very unusual has happened. This will be flagged up with a **red diamond** so you can spot it.

In some cases, it may mean that the data has been entered incorrectly and should be checked for errors. It may also mean that something unexpected has had a huge impact on the service and should be investigated.
## Appendix 6: Analysis plan for standards

This section explains how RCEM interprets and analysis the data you've inputted to the QIP. A minimum time and sample size must be met in order to obtain the data points on the SPC chart.

<table>
<thead>
<tr>
<th>STANDARD</th>
<th>GRADE</th>
<th>Analysis sample</th>
<th>Analysis plan – conditions for the standard to be met</th>
</tr>
</thead>
</table>
| 1. Patients should have mental health triage on arrival to briefly gauge their risk of self-harm or suicide and risk of leaving the department before assessment or treatment is complete. This is used to determine what level of observation the patient requires whilst in the ED. | F     | All patients    | Chart: SPC  
Title: Standard 1: Mental health triage on arrival  
Analysis: time Q1.3 – Q1.2  
Met: \( \leq 15 \) minutes  
Not met: \( >15 \) minutes OR ‘not done’  
Additional charts:  
Chart showing average time between 1.2 and 1.3  
Pie chart of 1.4 answers |
| 2. Patients at medium or high risk of suicide, harm or of leaving before assessment and treatment are complete should be observed closely whilst in the ED. There should be documented evidence of action to mitigate risk, such as continuous observation or intermittent checks (for example every 15 minutes), whichever is most appropriate. | D     | Q2.3 = medium or high risk | Chart: SPC  
Title: Standard 2: Close observation of medium or high-risk patients  
Analysis:  
Met: 2.4 = Continuous observation or intermittent checks  
Not met: all other answers  
Additional chart:  
Pie chart of 2.3 answers |
| 3. When an ED clinician reviews a patient presenting with self-harm or a primary mental health problem, they should record a brief risk assessment of suicide and further self-harm. | D     | All patients    | Chart: SPC  
Title: Standard 3: Patients assessed for suicide and further self-harm  
Analysis:  
Met: 2.1 = yes  
AND  
2.2 = suicidal intent and acts  
AND  
2.2 = assessing risk of self-harm repetition  
Not met: all other answers  
Additional charts:  
Chart showing average time between 1.2 and 2.1 |
|  | Mini-SPC charts of the answers to 2.2 (for all patients answering 2.1 = yes) |  |
Appendix 7: Privacy policy, terms of website use and website acceptable use policy

Privacy policy
The Royal College of Emergency Medicine (RCEM) recognises the importance of protecting personal information and we are committed to safeguarding members, non-members and staff (known as “The User” in this document) privacy both on-line and off-line. We have instituted policies and security measures intended to ensure that personal information is handled in a safe and responsible manner. This Privacy statement is also published on the RCEM web site so that you can agree to the kind of information that is collected, handled and with whom this data is shared with.

RCEM strive to collect, use and disclose personal information in a manner consistent with UK and European law and under the General Data Protection Regulation (GDPR). This Privacy Policy states the principles that RCEM follows and by accessing or using the RCEM site you agree to the terms of this policy.

For further information, click here.

Terms of website use
For further information, click here.

Website acceptable use policy
For further information, click here.
Appendix 8: References


5. NICE CG133 Self-harm in over 8s: long-term management https://www.nice.org.uk/guidance/cg133

6. HSIB Investigation into the provision of mental health care to patients presenting at the emergency department

7. RCEM Mental Health Toolkit

8. Postvention Support for Staff and Organisational Response session
Appendix 9: ECDS Search terms to support case identification

These codes will help you and your IT team to identify cases that may be eligible for the audit. This is not an exhaustive list and other search terms can be used. All potential patients should then be reviewed to check they meet the definitions & selection criteria before inclusion in the audit.

Chief complaint of

- 1141111000
- 1141121000
- 1141131000
- 1161111000
- 1161131000
- 1161810000
- 1161211000
- 1161311000
- 1161411000
- 1161451000
- 1161461000
- 1161471000
- 1161481000
- 1181111000

With injury intent of

- 1121000000

Or chief complaint of

- 1191311000

All of these would then need treatment to include

- 1181150000

Or a referred to service of

- 1611100000
- 1611300000
- 1611500000
- 1612000000
- 1612500000
- 1614000000
Appendix 10: Template to submit your QI initiatives for publication on the RCEM website

If you would like to share details of your QI initiative or PDSA cycle with others, please complete this document and email it to audit@rcem.ac.uk.

Name: _________________________________________________

Email address:__________________________________________

Hospital: _______________________________________________

Trust: _________________________________

<table>
<thead>
<tr>
<th>Plan</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>State the question you wanted to answer – what was your prediction</td>
<td>what was your prediction about what would happen?</td>
</tr>
<tr>
<td>What was your plan to test the change (who, what, when, where)?</td>
<td></td>
</tr>
<tr>
<td>What data did you collect, how did you plan to collect it?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Do</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>How did you carry out the change?</td>
<td></td>
</tr>
<tr>
<td>Did you come across any problems or unexpected observations?</td>
<td></td>
</tr>
<tr>
<td>How did you collect and analyse the data?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Study</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>What did the analysis of your results show?</td>
<td></td>
</tr>
<tr>
<td>How did it compare to your predictions?</td>
<td></td>
</tr>
<tr>
<td>Summarise and reflect on what you learnt.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Act</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on what you learnt, what did you adapt (modify and run in</td>
<td>modify and run in another test), adopt (test the change on a</td>
</tr>
<tr>
<td>another test), adopt (test the change on a larger scale) or abandon?</td>
<td>larger scale) or abandon?</td>
</tr>
<tr>
<td>Did you prepare for another PDSA based on your learning?</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Reflection and learning</strong></td>
<td></td>
</tr>
<tr>
<td>What did you and the team learn from this QI initiative?</td>
<td></td>
</tr>
<tr>
<td>What advice would you give to someone else in your position?</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 11: pilot methodology

A pilot of the audit was carried out prospectively from 20 May 2019 – 7 July 2019. This tested the standards, questions, quality of data collectable, as well as the functioning of the online portal and reporting templates.

Several improvements were made to the final project based on feedback from the pilot sites.

RCEM were grateful to contacts from the following Trusts for helping with the development of the audit and integrated QIP:

- Airedale NHS Foundation Trust
- Aneurin Bevan University Health Board
- Gloucestershire Hospitals NHS Foundation Trust
- Kingston Hospital NHS Foundation Trust
- Leeds Teaching Hospitals NHS Trust
- Nottingham University Hospitals NHS Trust
- Oxford University Hospitals NHS Foundation Trust
- The Newcastle upon Tyne Hospitals NHS Foundation Trust
- The Queen Elizabeth Hospital King’s Lynn NHS Foundation Trust
- University Hospitals of Derby and Burton NHS Foundation Trust
- Western Sussex Hospitals NHS Foundation Trust
- Worcestershire Acute Hospitals NHS Trust