



The Royal College of
Emergency Medicine

CARE OF CHILDREN

NATIONAL QUALITY IMPROVEMENT PROJECT

NATIONAL REPORT 2019/20

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Executive Summary

Background

Emergency Departments (EDs) play an important role in safeguarding infants, children and adolescents. The ED may potentially be the first time a child at risk of abuse, neglect or other safeguarding issues, comes into contact with services. Care of Children is a new National Quality Improvement Project (QIP) topic introduced in 2019/20 to help EDs measure and improve their safeguarding of young people.

Problem

Whilst there are many potential safeguarding areas, this QIP focusses on three key areas for EDs; injuries in non-mobile infants aged 12 months and under, patients under 18 who abscond or leave the ED without being seen, and appropriate assessment of psychosocial risk in 12 to 17 year-olds.

Method

A total of **30813** patients presenting to **180** EDs had their documented care reviewed against national standards in a continuous manner. EDs were encouraged to run Plan Do Study Act (PDSA) cycles to generate improvements in the care of children.

Intervention

The purpose of the QIP was to monitor documented care against the standards published in June 2019 by the Royal College of Paediatrics and Child Health (RCPCH) and to facilitate improved care using QIP methodology and weekly data feedback. The QIP methodology was promoted to encourage EDs to improve towards more consistent delivery of these standards, helping clinicians examine the work they do day-to-day, benchmark against their peers, and to recognise excellence.

Results

This report contains the findings from the 2019-20 RCEM National Quality Improvement Project (QIP) on safeguarding children. The performance summary charts in the next section are a summary of the weekly performance against the standards between 1st of August 2019 – 31st January 2020.

Patient data

80% of Infants presenting with high-risk of safeguarding are seen by a senior clinician while at the ED.

20% of Children have their notes reviewed by a senior when they leave before being seen.

19% of young people have an appropriate validated psychological risks assessment tool applied on attendance.

Conclusion

Care of Children, especially around safe discharge and safeguarding, is extraordinarily complex and there is an ongoing need to improve the consistency and level of care delivery despite the challenges.

This report represents the shift from, a standard measuring in the form of a large scale national clinical QIP, to the delivery of a shared platform providing QI tools and, real-time data which individual departments can use to deliver progressive changes and achieve the national standards. This QIP has also allowed individual departments to have the opportunity to improve care quality according to the national standards during their project.

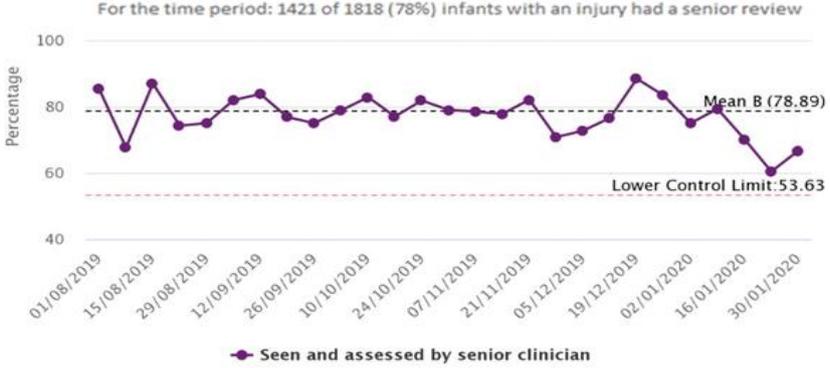
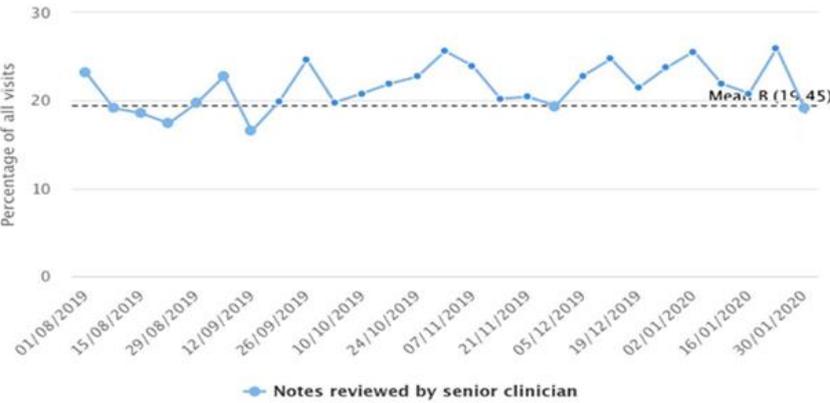
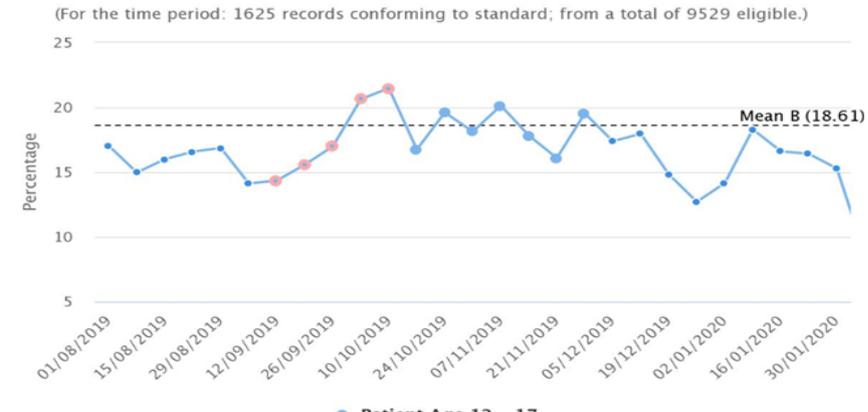
There remains a significant need for improving the QI culture in UK emergency medicine to make more substantive gains for the betterment of our patients.

Key recommendations

1. Redesign of services or, radical intervention, to improve the response to children who have left the ED without a review.
2. Reduce variations in care of infants by further improving the consistency of senior review and consider a deeper dive into the quality of this input.
3. All departments need to create and update policies for both absconding children and failure to follow up.
4. Enforce implemented policies and monitor compliance.
5. Educate staff on the need for ALL adolescents to be opportunistically risk assessed using appropriate psychometric tools and the required actions to be taken.

Performance Summary

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

Clinical standard	SPC chart of weekly performance
<p> STANDARD 1: Infants at high risk of potential safeguarding presentations* are reviewed by a senior (ST4+) clinician whilst in the ED.</p> <p>*For the purpose of this project we are focussing on children aged 12 months and under presenting with an injury only.</p>	<p>Standard 1: Infants presenting with injury reviewed by a senior clinician whilst in the ED</p> <p>For the time period: 1421 of 1818 (78%) infants with an injury had a senior review</p>  <p>Percentage</p> <p>Mean B (78.89)</p> <p>Lower Control Limit: 53.63</p> <p>Seen and assessed by senior clinician</p> <p>netsolving.com</p>
<p> STANDARD 2: A review of the notes is undertaken by a senior clinician when an infant, child or adolescent leaves or is removed from the department without being seen.</p>	<p>Standard 2: Senior clinician review of the notes when patient leaves or is removed from the department without being seen</p> <p>(For the time period: 1933 records conforming to standard; from a total of 8974 eligible.)</p>  <p>Percentage of all visits</p> <p>Mean B (19.45)</p> <p>Notes reviewed by senior clinician</p> <p>netsolving.com</p>
<p> STANDARD 3: Older child and adolescent psychosocial risk is assessed using a national or locally developed risk assessment tool suitable for use with children or adolescents (e.g. HEADSSS or similar)</p>	<p>Standard 3: Psychosocial risk is assessed using a national or locally developed risk assessment tool</p> <p>(For the time period: 1625 records conforming to standard; from a total of 9529 eligible.)</p>  <p>Percentage</p> <p>Mean B (18.61)</p> <p>Patient Age 12 - 17</p> <p>netsolving.com</p>

Organisational standard	
<p>✓ STANDARD 4: Policies are in place to review cases where an infant, child or adolescent either leaves or absconds from a department unexpectedly prior to discharge, or when they do not attend for planned follow up.</p>	<p> No Policy (5.71%) Policy in Place (94.29%) </p> <p> 31.43% (a) 55.24% (a and b) 7.62% (b) </p> <ul style="list-style-type: none"> a. Policy for patients who leave or abscond b. Policy for patients not attending planned follow-up both (a. and b.)
<p>✓ STANDARD 5: Systems are in place to identify children and young people who attend frequently</p>	<p> No system in place (2.86%) System in place (97.14%) </p> <p>0.00% 25.00% 50.00% 75.00% 100.00%</p>
<p>✓ STANDARD 6: Policies are in place to identify and review children at high risk of potential safeguarding</p>	<p> No policy in place (0.95%) Policy in place (99.05%) </p> <p>0.00% 25.00% 50.00% 75.00% 100.00%</p>

Foreword



Dr Katherine Henderson, RCEM President

The Royal College of Emergency Medicine would like to extend thanks to all the individuals and EDs who participated in this clinical QIP. RCEM is very pleased to have introduced the Care of Children in Emergency Departments Quality Improvement Project. By participating, you have made the first step towards making sustainable changes in care and, collectively contributed to building a national picture to help EDs measure and improve their safeguarding of young people.

In addition to the clinical team, RCEM recommends sharing the report with the clinical audit and/or quality improvement department, departmental governance meeting, ED Clinical Lead, Head of Nursing and Medical Director as a minimum.

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

Now that EDs have a picture of the national weekly performance over six-months on key measures, RCEM encourages that both clinical team and audit department work together to review the effectiveness of PDSA cycles already completed and design further cycles to improve performance. 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 online so that departments can continue to track their performance and evaluate the effects of further PDSA cycles.

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.

Handwritten signature of Dr Katherine Henderson in cursive.

*Dr Katherine Henderson,
RCEM President*

Handwritten signature of Dr Simon Smith in cursive.

*Dr Simon Smith, Chair of Quality
in Emergency Care Committee*

Handwritten signature of Dr Elizabeth Saunders in cursive.

*Dr Elizabeth Saunders, Chair of
Quality Assurance &
Improvement Subcommittee*

Introduction

Problem description

EDs play an important role in safeguarding infants, children and adolescents. The ED may potentially be the first time a child at risk of abuse, neglect or, other safeguarding issues, comes into contact with services. With this in mind, Care of Children is a new National Quality Improvement Project (QIP) topic introduced in 2019/20 to help EDs measure and improve their safeguarding of young people.

Available knowledge

The standards in this QIP are part of a larger set of standards developed by the Royal College of Paediatrics and Child Health (RCPCH): [Facing the Future - standards for children and young people in emergency care settings](#). The RCPCH has established comprehensive standards on all aspects of paediatric care but for this QIP, we have concentrated on those relating to the safe discharge of children [1].

Young people represent an important group that faces complex issues, for example; In the UK, suicide is the leading cause of death in young people [2]. This is a particularly complex issue, especially considering that it is a multi-factor problem resulting from past vulnerability and recent events [3].

Rationale

Whilst there are many potential safeguarding areas, this QIP focusses on three key areas for EDs;

1. injuries in non-mobile infants aged 12 months and under
2. patients under 18 who abscond or leave the ED without being seen,
3. appropriate assessment of psychosocial risk in 12 to 17 year-olds.

The project focused on the following elements:

- Infants at high risk of potential safeguarding presentations being reviewed by a senior clinician whilst in the ED
- Notes review when an infant, child or adolescent leaves or is removed from the department
- Psychosocial risk assessment for older children and adolescents
- Organisational policies and systems.

The QIP tracked the current performance in EDs against clinical standards in individual departments and, nationally on a real-time basis over a period of 6 months. The aim was for departments to accurately monitor their care services against the set standards, implement changes and evaluate their impact in real-time, and sustain cycles of change to continuously improve their services.

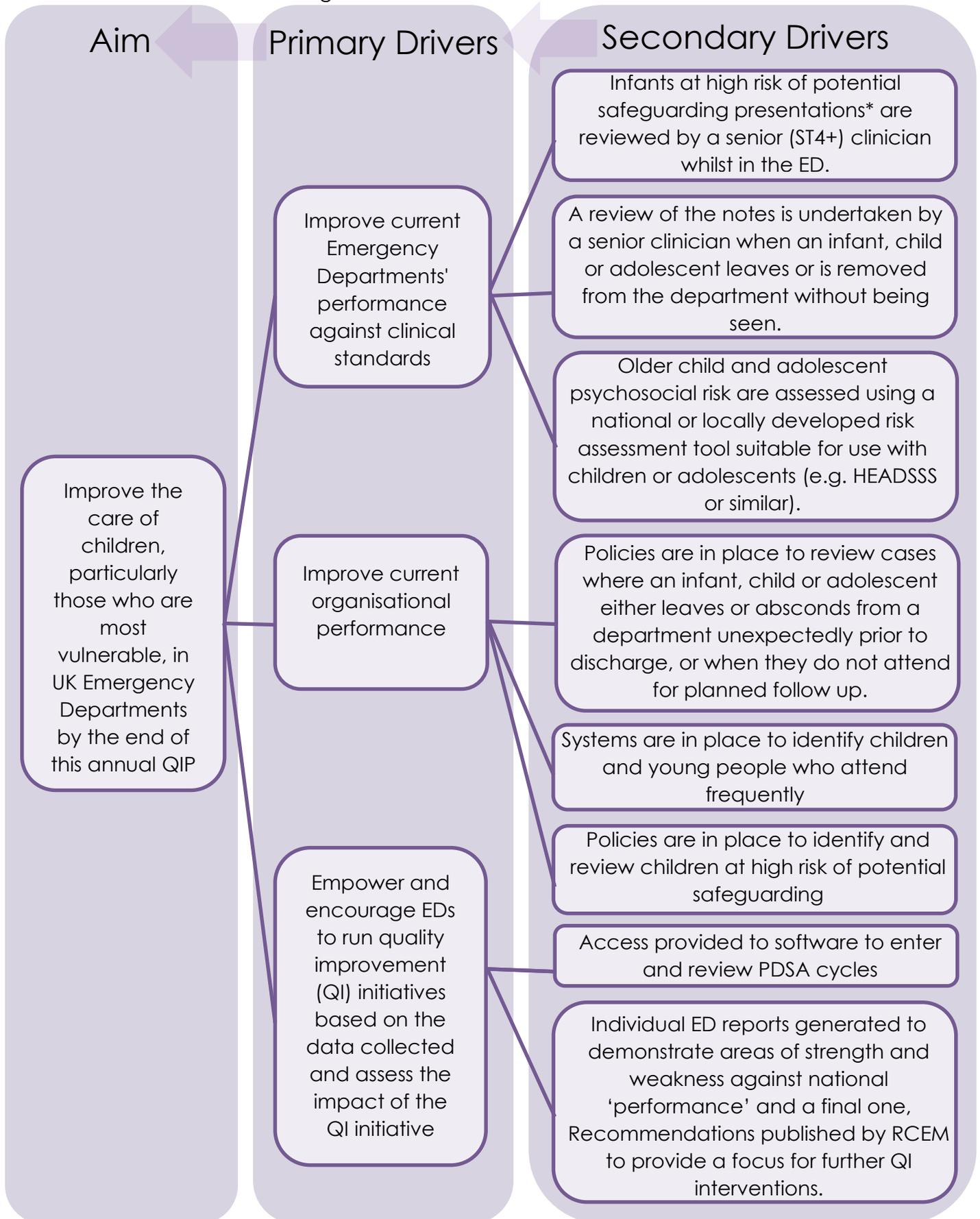
Specific aims

The objectives set were the following:

- To identify current performance in EDs against clinical standards and show the results in comparison with performance nationally to facilitate QI to improve the care and safety of children presenting to our services.
- To promote sustained and continuous improvement in clinical care by empowering and encouraging EDs to run QI initiatives based on the data collected and assess the impact of the QI initiatives on their weekly performance data.

Driver diagram

This diagram outlines the aim of the National QIP and the primary and secondary drivers (factors) that will contribute to achieving the aim.



Case study - Introducing a process for left without being seen (LWBS).

After completing this QIP we decided to focus on 'left without being seen' as the QIP highlighted a gap in this process. There was little evidence of senior review notes for patients leaving the department without being seen.

The 'audit and quality assurance' group met and looked at what processes we could implement to solve this problem.

Initially looked at Band 7 nurses however no guarantee time would be available to complete this task.

Who was going to do it?

Needed to be a senior clinician. ED Registrars identified as best group due to 2 registrars having shift overlap meaning no loss of senior in department for clinical concerns.

Recognised that registrars would benefit from development in this area from a managerial perspective and improved Children's Safeguarding awareness for ED registrars (serendipities)

How would we identify the patients concerned?

We currently have a system for x-ray alerts where ED registrars are notified of potential missed x-rays, we plan to utilise a similar system to this so list would be generated each day and sent to registrar group. This is more time effective for registrars (they don't have to trawl through each days attendances).

When was it going to be done?

We looked at patient demand in the department and the times of overlap for registrars – we decided that it would be done at 2pm (new registrar starts – first job of the day before they get into anything clinical)

How is it going to be documented?

We will create an electronic note specific to patients who have LWBS. This would ask specifically about safeguarding concerns, actions taken (i.e. social care referral/health visitor referral/recalled/GP letter) and who has completed the review.

Who was going to implement it?

Initially senior nursing team however this was not the best method. A paediatric registrar who is currently working in the department and intends on training in Paediatric Emergency Medicine.

Evaluation

Continue to collect data on a weekly run chart – using college website

Methodology

Context

Nationally, **30813** cases from **180** EDs were included in the National QIP. Click the map below to open an interactive map of participating EDs.



Country	Number of relevant EDs	Number of cases*
National total	180/242 (74%)	30813
England	162/185 (88%)	28602
Scotland	5/30 (17%)	989
Wales	7/14 (50%)	758
Northern Ireland	5/10 (50%)	454
Isle of Man /Channel Islands	1/3 (33%)	10

*analysis includes complete cases only

Intervention(s)

All Type 1 EDs in the UK were invited to participate in June 2019. Data was submitted using an online data collection portal. This QIP 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 QIP questions and the standards section for more granular details.

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.

Expected patient numbers	Recommended sample size	Recommended data entry frequency
<5 a week	All patients	Weekly
>5 a week	5 patients	Weekly

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 to interpret the impact of PDSA cycle interventions which are critical to causing improvement.

Expected patient numbers	Alternative sample size	Alternative data entry frequency
<5 a week	All patients	Monthly
>5 a week	20 patients	Monthly

Study of the intervention

Statistical Process Control (SPC) Charts were used to assess impact as they are able to provide a clear visual clue to the impact of interventions and are widely used in the NHS to understand whether change results in improvement or deterioration. For more information on SPC Charts, please see Appendix 6 or visit the [NHS Improvement website](#).

Local sites may elect to use additional tools to develop and evaluate their own PDSA cycles and this was encouraged. The [RCEM Quality Improvement Guide](#) provides guidance and information above and beyond the national project to facilitate local solutions.

Measures

The National QIP asked questions against standards published by RCPCH in July 2019. 70 standards have been outlined in total and for the purpose of this QIP, 3 clinical and 3 organisational standards were selected by the Quality Assurance and Improvement Subcommittee Steering group. These standards all share strong safeguarding themes to help focus participating EDs when planning PDSA cycles.

For the purpose of collecting accurate data without overlap these standards are well defined and discrete. They are known to be documented and coded in sufficient detail in departments throughout the country to generate a consistent data set.

Questions can be found in Appendix 1 and are based on the following standards:

Clinical Standards	GRADE
<p>1. Infants at high risk of potential safeguarding presentations* are reviewed by a senior (ST4+) clinician whilst in the ED.</p> <p>*For the purpose of this project we are focussing on children aged 12 months and under presenting with an injury only.</p>	D
<p>2. A review of the notes is undertaken by a senior clinician when an infant, child or adolescent leaves or is removed from the department without being seen.</p>	F
<p>3. Older child and adolescent psychosocial risk is assessed using a national or locally developed risk assessment tool suitable for use with children or adolescents (e.g. HEADSSS or similar)</p>	A

Organisational Standard	GRADE
<p>4. Policies are in place to review cases where an infant, child or adolescent either leaves or absconds from a department unexpectedly prior to discharge, or when they do not attend for planned follow up.</p>	D
<p>5. Systems are in place to identify children and young people who attend frequently</p>	F
<p>6. Policies are in place to identify and review children at high risk of potential safeguarding</p>	F

Definitions

Standard	Definition
Standard 1: high risk of potential safeguarding presentations	For the purpose of this project we are focussing on children aged 12 months and under presenting with an injury only. Injury examples can include fractures, bruising, burns or other presentations that are triaged as an injury.
Standard 1: infants	Patients aged 12 months and under

Standard 1 and 2: senior clinician	Tier 4: ST4+, senior clinical fellows, SaS, Consultant Senior Advanced Clinical Practitioner or Emergency Nurse Practitioner
Standard 2: infant, child or adolescent	Patients aged 17 years or under
Standard 3: older child or adolescent	Patients aged 12 years and over (1)
Standard 4 and 5: policies	This is about your organisation's local policy. Children who leave before being seen, abscond or 'Do not attend' ED follow-up all represent medical & Safeguarding risk. There should be agreed local policies to reduce the level of risk – and guide staff who may not be familiar how to manage these situations.
Standard 5: attend frequently	<p>There is no formal definition of "frequently". The thresholds will vary from setting to setting depending on a range of issues.</p> <p>The area of concern is that (a) Some children present more frequently because there are underlying social or safeguarding concerns and (b) they may be attending more frequently because underlying issues in chronic illness are not being addressed adequately.</p> <p>It is up to local depts to have set up systems to have attendance counts – and systems in place to review outliers. There is an overlap here with identifying re-attenders. Systems may include flagging on an electronic patient record or other systems.</p>

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.

Grade definition

RCEM no longer sets a target percentage for different grades of standards, but rather encourages EDs to review and improve performance with the aim of achieving standards for all patients.

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

 **Aspirational:** setting longer term goals.

For definitions on the standards, refer to appendix.

Analysis

This Quality Improvement Project focuses on three key areas of care in EDs and used a questionnaire to generate quantitative data on 3 clinical standards;

1. injuries in non-mobile infants aged 12 months and under,
2. patients under 18 who abscond or leave the ED without being seen,
3. and appropriate assessment of psychosocial risk in 12 to 17 year olds.

Organisational policies were also evaluated to establish if specific local guidance was in place to safeguard children and adolescents; including when to review patients who abscond or leave the ED without being seen, identification of frequent attenders, and identification of children at high risk of potential safeguarding.

This data is taken over 6 months during the winter period which is known to cause a seasonal variation in pressures within departments in all four nations which can adversely affect performance.

More details can be found under Appendix 4 (Calculations)

Ethical considerations

Great care has been taken when developing this QIP. As a result, data collection had no requirement to enter patient identifiable data - this did not compromise the quality of the analysis and insights. Participants were specially instructed not to submit patient identifiable data.

Participating sites have also been provided with the tools to conduct their own PDSA cycles and, this was strictly confidential. No data was collected in this aspect and it was not accessible to any other party other than the participating staff from each site.

RESULTS

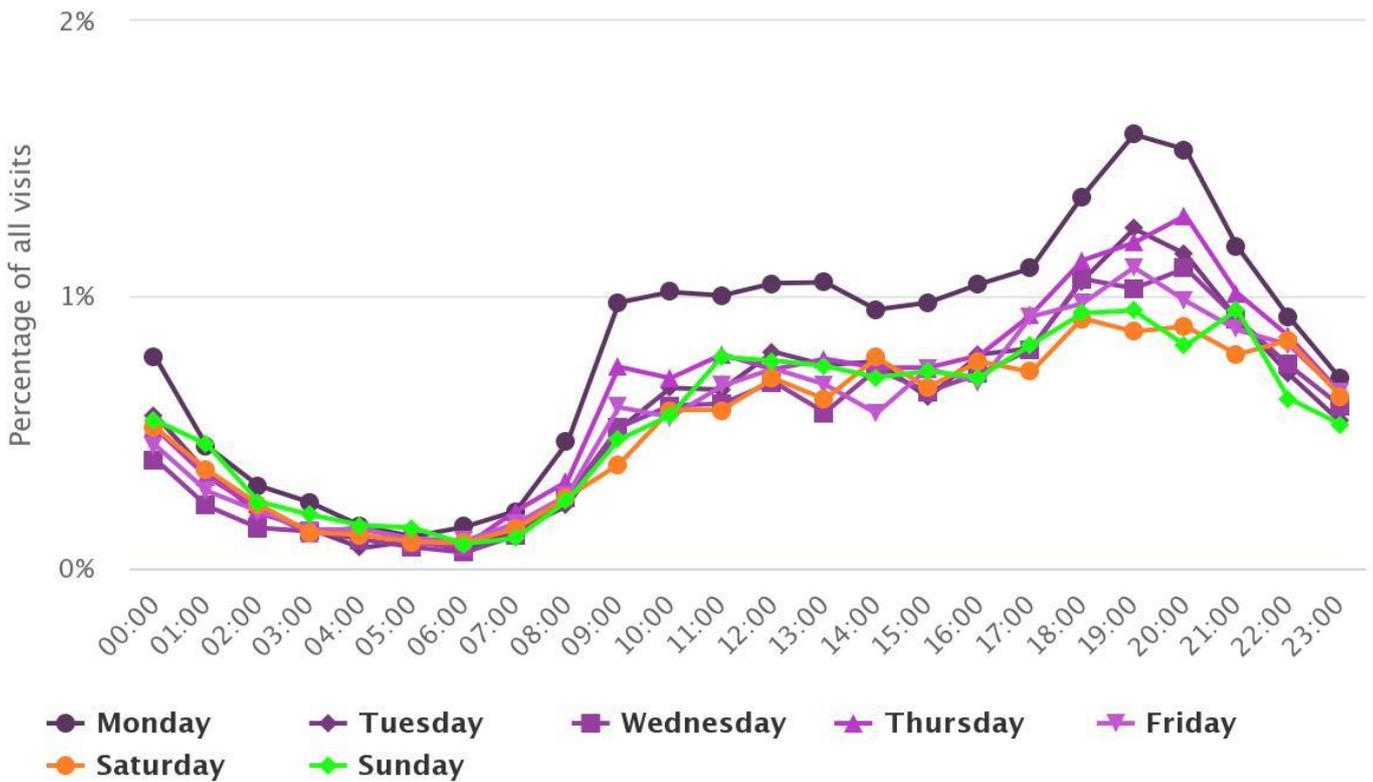
Section 1: National Case mix

National case mix of children eligible for inclusion in this QIP

Q: 1.1 Date and time of arrival

Day and time of arrival

Care of Children Arrivals



netsolving.com

Sample: all patients (n=30,813)

Understanding this data

This chart shows when patients were documented arriving at the ED at each specific hour of the day from Monday to Sunday and, what percentage the amount of arrivals represents in relation to the total amount of arrivals recorded.

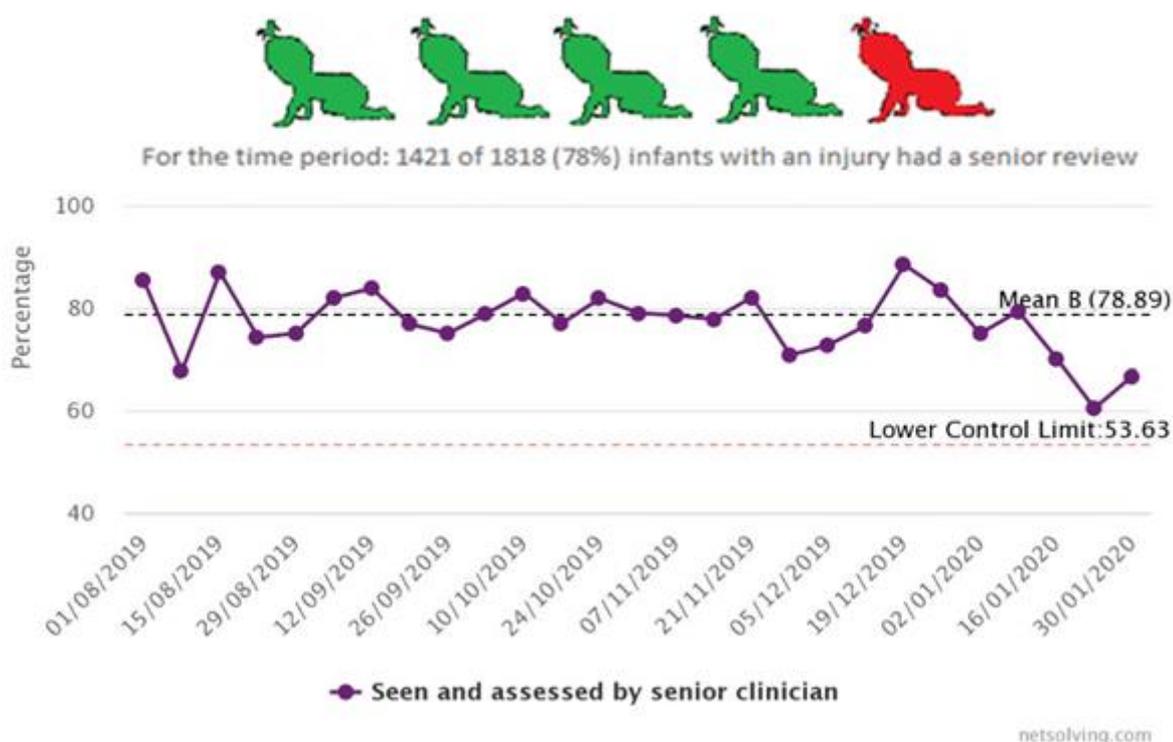
This chart demonstrates an increase in paediatric attendances in the evening. This mirrors children's return from school or parents return from work as reinforced by the rise mostly being lost on the weekend.

STANDARD 1: Infants at high risk of potential safeguarding presentations reviewed by a senior (ST4+) clinician whilst in the ED.

Q: 2.3 Grade of most senior ED clinician to actually see and assess the patient in person?

-See Appendix 4 for conforming to standard criteria.

Standard 1: Infants presenting with injury reviewed by a senior clinician whilst in the ED



Sample: Patients aged 0 -12 months presenting with an injury and identified as being in high risk of potential safeguarding. (n=1818)

Understanding this data

During the course of this National QIP, no sustained increase in performance was demonstrated and, the variation around the mean could be ascribed to random variation. 100% compliance is within the control limits, this means that achieving this standard is possible in the current system but the distance from the mean, also shows that the current system has a significant amount of improvement to be undertaken to approach 100%

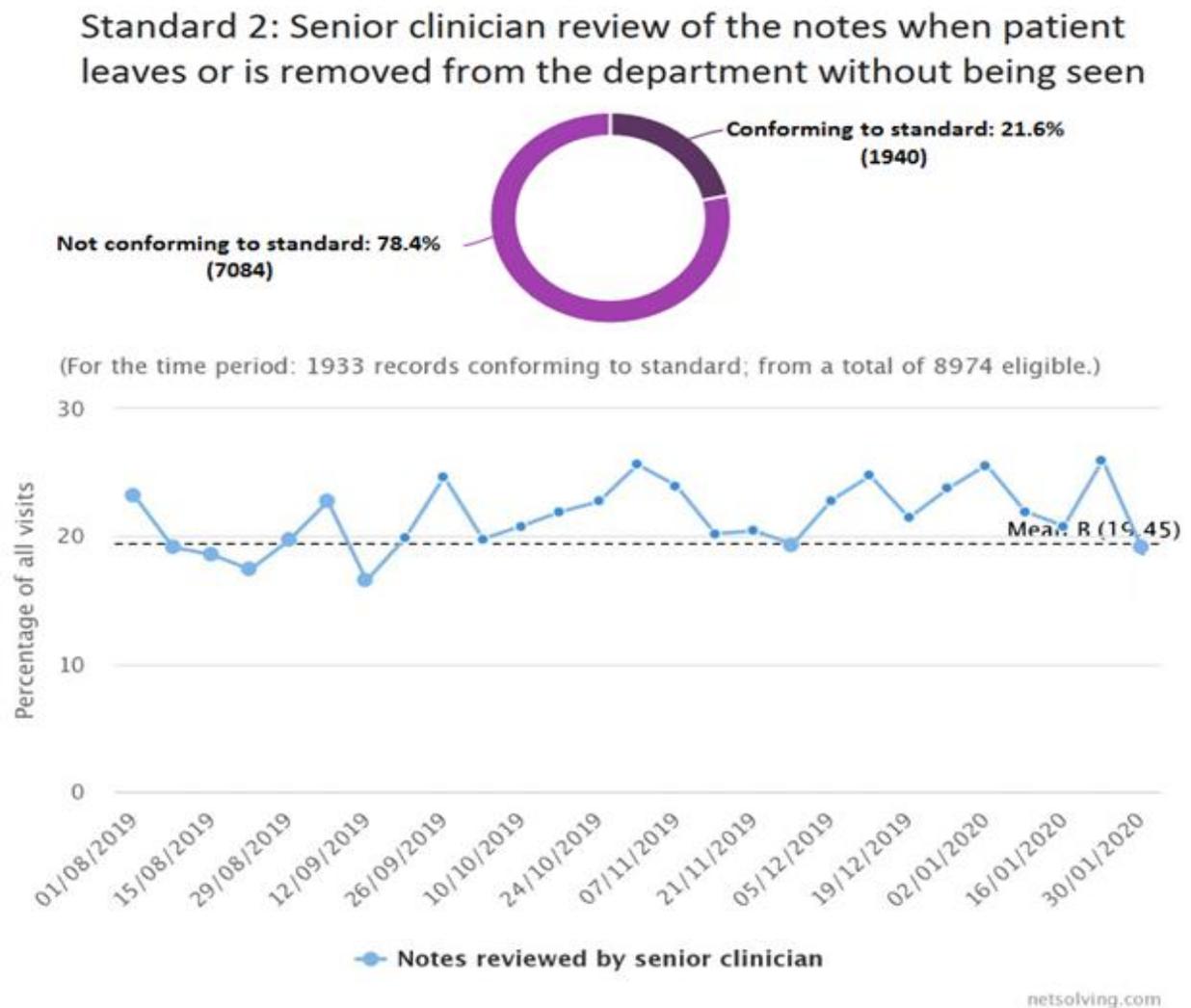
It is laudable that the baseline established shows 4 out of 5 children were reviewed by a senior doctor and, that improvements could be made to approach 100% within the current system of practice. The quality of review cannot be commented on and, this could range from various levels of intervention such as a full clinical examination, an 'eyeball' or a discussion with the more junior

clinician, all while still be coded as such. Future QIPs locally and nationally may focus on the quality of such a review whilst simultaneously trying to improve the number of reviews.

Safeguarding is a complex issue which requires high levels of expertise and knowledge to be handled correctly. Ultimately, the aim is to increase the level of detection of children at risk so that appropriate support can be provided. Considering this, it may be best to view senior reviews as fundamental in the future. This could help drive the quality of reviews of these complex cases and ensure appropriate feedback is given to more junior colleagues on these cases to develop their expertise.

STANDARD 2: Senior clinician review of the notes when patient leaves or is removed from the department without being seen

Q: 2.4 Grade of most senior ED doctor to retrospectively review the patient's case following their visit to the ED?



Appendix 4 for confirming to standard criteria.

Sample: Patients that left, or were removed from the ED, before being seen. (n=8988)

Understanding this data

The SPC chart shows that on average, less than 1 in 4 patients have their notes reviewed. The distance between the mean and the control limits shows that the quality of care is more consistent than for standard 1 but, the position of the Upper Control Limit shows that the current system is not likely to reach even 50% compliance with Standard 2 unless redesigned. The consecutive run of points above the mean (seen as the white coloured points) further confirms that the system has attained a consistently reliable level of performance. However, there is no ongoing trend for improvement.

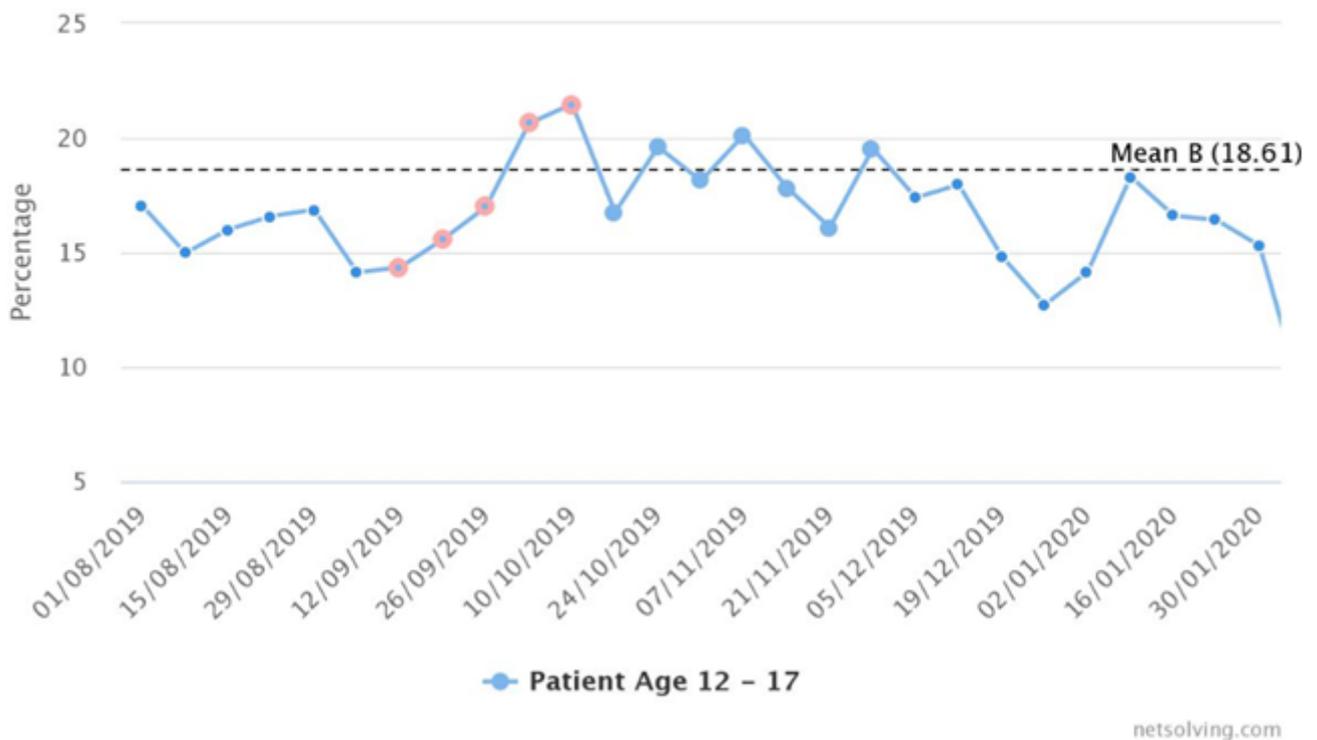
STANDARD 3: Psychosocial risk is assessed using a national or locally developed risk assessment tool

Q: 2.2 Was the patient's psychosocial risk is assessed using a national or locally developed risk assessment tool suitable for use with children or adolescents (e.g. HEADSSS or similar)?

-See Appendix 4 for conforming to standard criteria.

Standard 3: Psychosocial risk is assessed using a national or locally developed risk assessment tool

(For the time period: 1625 records conforming to standard; from a total of 9529 eligible.)



Sample: Patients aged 12-15 or 16-17 (n=9529)

Understanding this data

The above SPC Chart shows that on average, less than 1 in 5 patients aged 12 to 17 will have their psychosocial risk assessed in EDs. The Upper control limit also shows that the current service will not be able to meet the standard. One interesting finding from the chart above is the trend of improvement that took place from the 12th of September until the 10th of October. This may be an example of winter pressures causing a deleterious effect on the national data. No significant improvement change has been sustained over this data set for this standard.

Organisational QIP

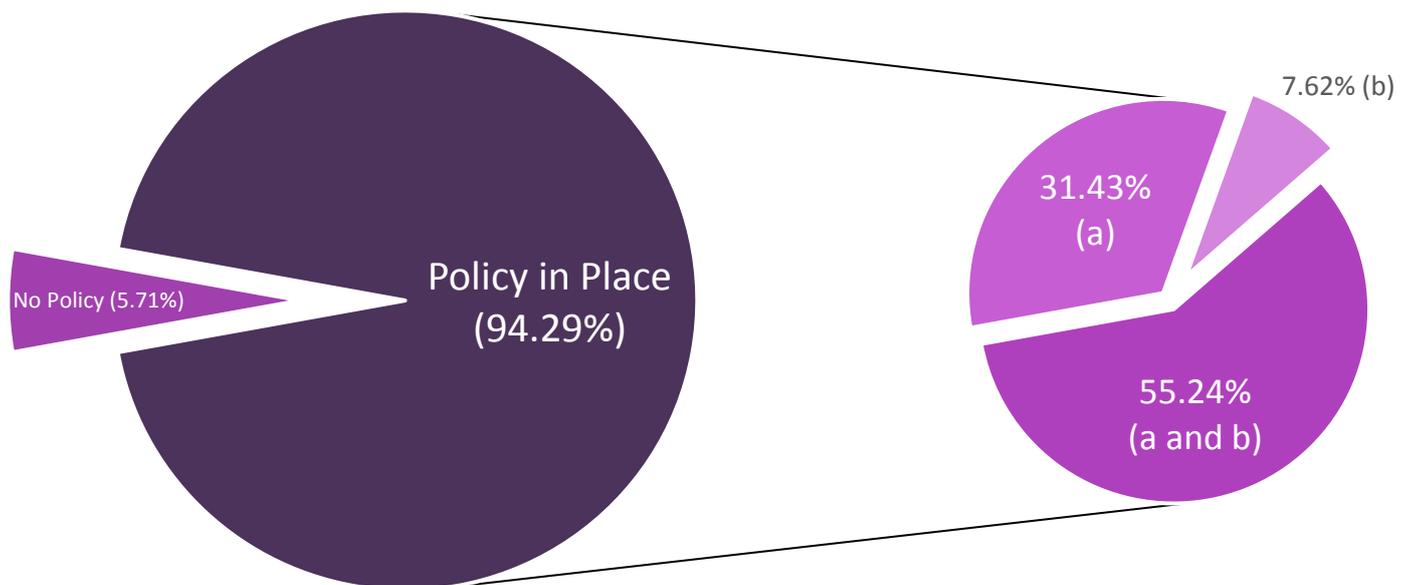
This section provides the data for the organisational QIP. Only 106/180 provided data on this question set and therefore there is a high risk of responder bias.

 **94.3%**
(99/106 EDs)

STANDARD 4:

Policies are in place to review cases where an infant, child or adolescent either leaves or absconds from a department unexpectedly prior to discharge, or when they do not attend for planned follow up.

Policy Arrangements per site



- a. Policy for patients who leave or abscond
- b. Policy for patients not attending planned follow-up
- both (a. and b.)

Understanding this data

The chart above shows the percentage of sites that have and do have any policy in place aimed at meeting Standard 4. The same chart also shows a breakdown of the specific policy arrangements of those sites that have policies in place.

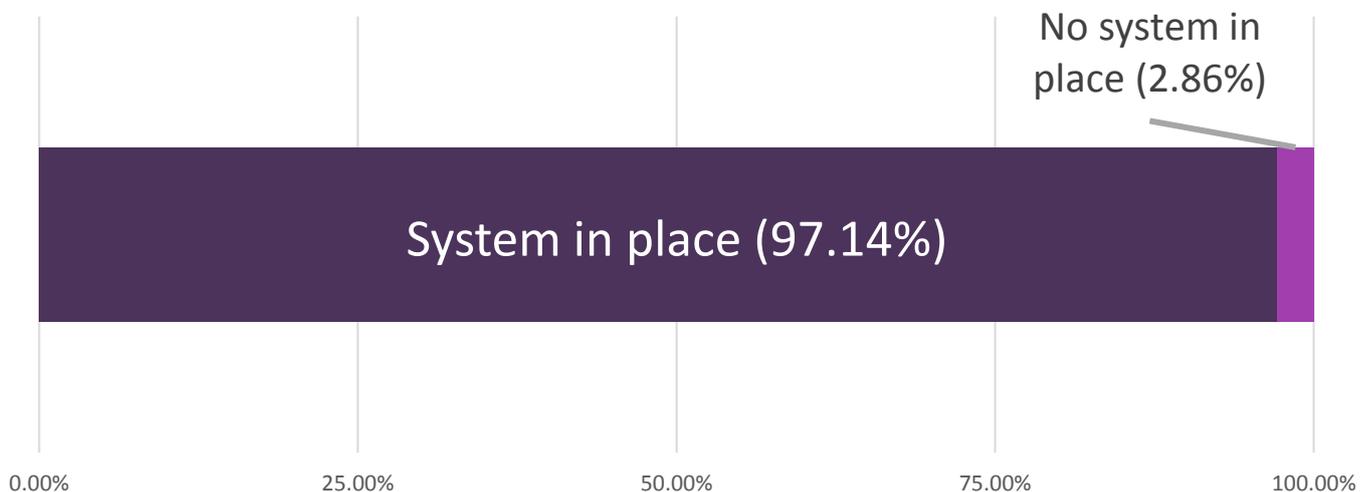


97.1%
(102/106 EDs)

STANDARD 5:

Systems are in place to identify children and young people who attend frequently.

Percentage of sites that have a system in place to identify children and young people that attend frequently



Understanding this data

The above chart shows the percentage of sites that have a system in place to identify children and young people that attend frequently, compared to the sites that do not have systems in place to identify these same patients.

 **99%**
(104/106 EDs)

STANDARD 6:

Policies are in place to identify and review children at high risk of potential safeguarding

Percentage of sites that have Policies are in place to identify and review children at high risk of potential safeguarding



Understanding this data

The above chart shows the percentage of sites that have policies in place to identify and review children at high risk of potential safeguarding, compared to the sites that do not have policies in place to identify these same patients.

Discussion

Summary

The QIP has revealed that a great majority of EDs are well equipped with adequate policies but that is not translated into the clinical element. Data collected during the QIP shows that a revision of service design is required to yield greater improvement in the quality of the care of children. Application of QI methodology to drive continuous improvement remains an ongoing challenge for the clinical standards measured in this study. We presently have not succeeded in shifting the quality of care at a national level but have seen some developments at a local level where the data is broken down. Increasing the number of departments that cause change over the study period will be vital to producing a shift in the national picture.

Interpretation

Standard 1

4 in 5 infants with injury have input in their care from a senior clinician. The goal set by the standard is well within the process limits and, modifications to the current system of practice could achieve a higher yield approaching 100%. Focus should be on decreasing the variation in achieving this high level of care as the standard with the highest level of weekly variation.

Standard 2 and 3

Current service design provides a consistent level of care. Whilst this is an excellent aspect, the current service design will not be able to attain the target set by the standards regardless of staff performance. A more radical revision of service design is required to meet the standard consistently for all children. The best performance within the current service design will not be able to approach 100% and, multiple changes would be required to both cause a large shift in clinical practice and sustain it.

It is hard to identify periods that could yield useful learning points upon a deeper investigation at a national level. Locally, departments have demonstrated improvements following interventions using a PDSA approach but, these are not visible in the aggregate data of 180 participant EDs.

One occurrence that will potentially yield useful learning points is the month of September in 2019, where a consistent increase in quality improvement relating to Standard 3 took place. This may have been spurred by the onset of the project itself or by new starters rotating in August becoming more familiar with the clinical environment and, the expectation to apply psychological risk assessments to adolescents within the norms of the current system rather than any specific interventions in response to the National QIP as it has not been sustained. A more vigorous longitudinal change will require more robust changes and follow-up to sustain them in the future.

The high level of compliance with organisational standards (4,5 and 6) demonstrate that EDs are well positioned in terms of understanding key issues. Crucially- action is now required around the ongoing development of these policies based on data and, implementing strategies, that will address the correctly identified issues evaluated using PDSA cycles.

Limitations

For this National QIP, the following patient populations were excluded:

- Patients aged 18 years or older.

Where the baseline-criteria for inclusion was:

- Presenting to a type 1 ED
- Children aged 17 years old and under

For more information on the exclusion and inclusion criteria, please see appendix 5.

Standards in this QIP have also assessed different key specific aspects of care per sub-sample groups. These groups being:

For Standard 1: Children aged 12 months and under **AND** presenting with an injury of any severity (e.g. fracture, bruising, burns or triaged as an injury)

For Standard 2: Children aged 17 years old or under **AND** who left without being seen (this does not include triage)

For Standard 3: Children aged 12-17 years (any presentation)

Roughly, 40% of the participating EDs did not provide information regarding their organisational policies leaving this metric at risk of responder bias. This could be because organisations lacking policies did not want to declare, resulting in an over-representation of the proportion of those who have policies in place. It may also be that they have not realised that this section of data requires completion only at the start of the project and, they focused solely on the ongoing data collection.

Conclusions

Care of Children, especially around safe discharge and safeguarding, is an extraordinarily complex and multifactorial area of clinical practice. There are significant barriers to service redesign and change which are highlighted by the lack of significant progress during this project. This will also be compounded by the current shift in organisational culture from one of audit, which was the national focus for more than a decade, to one of QIP. This shift introduces new practices such as, the active participation in regular PDSA cycles to sustain continuous improvement and, the change of services in a way which continues to maintain a higher level of performance after the life of the project. Furthermore, the increasing pressures on EDs year on year, as evidenced by longer wait times and overcrowding, makes a change that requires additional attention to detail and sensitivity even harder to be sustained. The poor performance on standard 2 and 3 would

support a case for the need for additional investment in this area of children's emergency care.

EDs at the national level have demonstrated that Standard 1 is well within the range of current performance and a focus on the quality of the reviews being undertaken should be considered in the next steps, in conjunction with reducing the variability in meeting this standard. Standards 2 and 3 are not achievable at present, SPC Charts have shown that even at the highest levels of performance, the Upper control limit sits at 39.9% for standard 2 and 41.9%. The small variation for Standards 2 and 3 also demonstrates that quality of care is stable at the current level as seen by the consecutive runs of points above and, below the mean, there has been no unusual variation falling outside the process limits.

Recommendations – patient level

- Evaluate in greater depth the quality of the Senior review being undertaken for Standard 1 when planning any further interventions to improve on this standard.
- Redesign or implement a significant change in the provision of services provided to children at risk to achieve Standards 2 and 3. Implementing a system to flag any unreviewed children who have left the department for a rapid case review by a senior clinician would provide an immediate mechanism for the required Senior to review and expedite any actions that may need to be taken in the best interest of the child if deemed at risk. This would likely involve teaching and training senior nursing staff helping manage the flow and, medical staff being made aware of the need to properly escalate for a senior review and document a decision as to what actions are required when a child leaves without being seen.
- Education of medical staff of the need to accurately assess all adolescent children for psychological risk, regardless of presenting complaint, needs to be undertaken at local,

regional and national levels. Incorporation of the importance of assessment into the curriculum and appropriate training on how to refer to services and signpost when those at risk are identified is required. Where electronic systems are deployed, appropriate templates for such assessment could be made mandatory.

- The stability of the service regarding Standards 2 and 3 make recommendations difficult as to the next steps but, the consecutive run of upwards points during September 2019 for Standard 3 is of interest for planning future improvement projects. In-depth research and analysis of this period in contrast to previous months can potentially yield valuable learning points as to what could have caused this trend.

Recommendations – organisational level

- All organisations should have clear policies on the safeguarding of children with regards to injury, absconding, failure to follow up and appropriately risk assessing adolescents. More work is needed at local levels to identify problems and implementing updated policies. The focus now should be in the development of processes to address these issues. Engaging with staff working with patients, children and parents or primary care givers themselves is highly recommended as it will lead to a better understanding of the issue and, consequently, better service design.

Further Information

Thank you for taking part in this clinical QIP 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 QIP and national QIP Programme can be found under the [Current Audits section of the RCEM website](#).

For further QI advice and resources, please visit the [RCEM Quality Improvement webpage](#)

No RCEM control over quality interventions, this is locally owned.

Feedback

We would like to know your views about this report and participating in this QIP. Please let us know what you think by completing our feedback survey:

https://www.surveymonkey.co.uk/r/RCEM_QIP19

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 Quality Improvement Guide](#) - guidance on PDSA cycles and other quality improvement methods
- [RCEM Learning modules](#) on child safeguarding

Report authors

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](#).

- Liz Saunders – Chair, Quality Assurance and Improvement Committee
- Dale Kirkwood –Member, Quality Assurance and Improvement Committee
- Damian Roland – Member, Quality Assurance and Improvement Committee
- Lucas Dalla Vecchia – Quality Officer, RCEM

Contributors

- Simon Smith – Chair, Quality in Emergency Care Committee
- Net Solving – technical partner providing the data entry portal and dashboard.

Appendices

Appendix 1: QIP questions

Case mix

1.1	Reference (do not enter patient identifiable data)	
1.2	Date and time of arrival	dd/mm/yyyy HH:MM
1.3	Patient age	<ul style="list-style-type: none"> • 0-12 months • 13 months - 5 years • 6-11 years • 12-15 years • 16-17 years
1.4	Patient presentation	<ul style="list-style-type: none"> • Injury • Illness • Not documented

Safeguarding

2.1	Was the patient identified in the notes as being high risk of potential safeguarding?	<ul style="list-style-type: none"> • Yes • No • Not documented
2.2	→ If 1.3 = 12-15 years or 16-17 years Was the patient's psychosocial risk assessed using a national or locally developed risk assessment tool suitable for use with children or adolescents (e.g. HEADSSS or similar)?	<ul style="list-style-type: none"> • Yes • No (or not documented)
2.3	Grade of most senior ED clinician to actually see and assess the patient in person?	<ul style="list-style-type: none"> • Consultant or Associate specialist • Staff grade or specialty doctor • Senior clinical fellow (registrars or equivalent) • ST4+ • Junior clinical fellow (SHO or equivalent) • ST1-3 • FY1-2 • Senior Advance Clinical Practitioner or Emergency Nurse Practitioner • Other non-medical practitioner (e.g. nurse) • Left before being seen (this does not include triage)

2.4	<p>→ If 2.3 = Left before being seen</p> <p>Grade of most senior ED clinician to retrospectively review the patient's case following their visit to the ED?</p>	<ul style="list-style-type: none"> • Consultant or Associate specialist • Staff grade or specialty doctor • Senior clinical fellow (registrar or equivalent) • Junior clinical fellow (SHO or equivalent) • ST4+ • ST1-3 • FY1-2 Senior Advance Clinical Practitioner or Emergency Nurse Practitioner • Other non-medical practitioner (e.g. nurse) • Notes were not reviewed <p>dd/mm/yyyy HH:MM</p>
2.5	<p>Was the patient referred for safeguarding (e.g. social care, health visitor, other local mechanism)?</p>	<ul style="list-style-type: none"> • Yes • No • Not documented

Notes	
<p>Optional space to record any additional notes for local use. Entries here will not be analysed by RCEM.</p>	

Organisational questions

3.1	<p>Does your ED or hospital have policies in place to review cases where an infant, child or adolescent either leaves or absconds from a department unexpectedly prior to discharge, or when they do not attend for planned follow up. (tick all that apply)</p>	<ul style="list-style-type: none"> • Policy for patients who leave or abscond • Policy for patients not attending planned follow up • No policy
3.2	<p>Does your ED have systems in place to identify children and young people who attend frequently (e.g. an electronic system that records attendance frequency)?</p>	<ul style="list-style-type: none"> • Yes – an electronic system • Yes – another system • In development • No
3.3	<p>Does your ED or hospital have policies in place to identify and review children at high risk of potential safeguarding?</p>	<ul style="list-style-type: none"> • Yes • In development • No

Appendix 2: Definitions

Term	Definition
Q 2.1 high risk of safeguarding	This may include a system in the ED to alert safeguarding or check for safeguarding, such as using CIPS.
Q 2.3 left before being seen	Please note that patients being triaged but having no further assessment or treatment should be counted as left without being seen.
Q 2.5 referred for safeguarding	If the patient was referred for safeguarding or some level of potential safeguarding follow up please tick yes.

Appendix 3: Participating Emergency Departments

Crown dependencies

Noble's Hospital

England

Addenbrooke's Hospital
Airedale General Hospital
Alder Hey Hospital
Alexandra Hospital
Arrowe Park Hospital
Barnet Hospital
Barnsley Hospital
Basildon University Hospital
Basingstoke and North
Hampshire Hospital
Bedford Hospital
Birmingham Children's Hospital
Blackpool Victoria Hospital
Bradford Royal Infirmary
Bristol Royal Hospital for
Children
Bristol Royal Infirmary
Broomfield Hospital
Calderdale Royal Hospital
Chelsea & Westminster Hospital
Cheltenham General Hospital
Chesterfield Royal Hospital
City Hospital
Colchester General Hospital
Conquest Hospital
Countess of Chester Hospital
Croydon University Hospital

Cumberland Infirmary
Darent Valley Hospital
Darlington Memorial Hospital
Derriford Hospital
Dewsbury & District Hospital
Diana, Princess of Wales
Hospital
Doncaster Royal Infirmary
Dorset County Hospital
East Surrey Hospital
Eastbourne District General
Hospital
Epsom Hospital
Fairfield General Hospital
Frimley Park Hospital
Furness General Hospital
George Eliot A&E
Gloucestershire Royal Hospital
Good Hope Hospital
Harrogate District Hospital
Heartlands Hospital
Hereford County Hospital
Hillingdon Hospital
Hinchingsbrooke Hospital
Homerton University Hospital
Huddersfield Royal Infirmary
Hull Royal Infirmary
Kettering General Hospital
King George Hospital
King's College Hospital
(Denmark Hill)
King's Mill Hospital

Kingston Hospital
Chorley and South Ribble
Hospital
Leeds General Infirmary
Leicester Royal Infirmary
Leighton Hospital
Lincoln County Hospital
Lister Hospital
Luton & Dunstable Hospital
Macclesfield District General
Hospital
Manor Hospital
Medway Maritime Hospital
Milton Keynes Hospital
Musgrove Park Hospital
New Cross Hospital
Newham General Hospital
Norfolk & Norwich University
Hospital
North Manchester General
Hospital
North Middlesex Hospital
Northampton General Hospital
(acute)
Northumbria Specialist
Emergency Care Hospital
Northwick Park Hospital
Nottingham University Hospitals
NHS Trust
Ormskirk & District General
Hospital
Peterborough City Hospital

Pilgrim Hospital
Pinderfields General Hospital
Poole Hospital
Princess Alexandra Hospital
Princess Royal University
Hospital
Queen Alexandra Hospital
Queen Elizabeth Hospital
Queen Elizabeth Hospital
Queen Elizabeth Hospital
Queen Elizabeth the Queen
Mother Hospital
Queen's Hospital
Rotherham District General
Hospital
Royal Berkshire Hospital
Royal Blackburn Hospital
Royal Bolton Hospital
Royal Bournemouth General
Hospital
Royal Cornwall Hospital
(Treliske)
Royal Derby Hospital
Royal Devon & Exeter Hospital
(Wonford)
Royal Free Hospital
Royal Hampshire County
Hospital
Royal Lancaster Infirmary
Royal Manchester Children's
Hospital
Royal Oldham Hospital
Royal Preston Hospital
Royal Shrewsbury Hospital
Royal Stoke University Hospital
Royal Surrey County Hospital
Royal United Hospital
Russells Hall Hospital
Salford Royal
Salisbury District Hospital
Sandwell General Hospital
Scunthorpe General Hospital
South Tyneside District Hospital
Southampton General Hospital
Southend Hospital
Southmead Hospital Awp
St George's Hospital (Tooting)

St Helier 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 Queen Elizabeth hospital,
(King's Lynn)
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 Hospitals Coventry
and Warwickshire NHS Trust
Warrington Hospital
Warwick Hospital
Watford General Hospital
West Cumberland Hospital
West Middlesex University
Hospital
West Suffolk Hospital
Weston General Hospital
Wexham Park Hospital
Whips Cross University Hospital
Whiston Hospital
William Harvey Hospital
(Ashford)
Worcestershire Royal Hospital
Worthing Hospital
Wythenshawe Hospital
Yeovil District Hospital
York Hospital

Northern Ireland

Antrim Area Hospital
Causeway Hospital
Craigavon Area Hospital
Daisy Hill Hospital
Ulster Hospital

Scotland

Aberdeen royal infirmary
Dr Gray's Hospital
Dumfries and Galloway Royal
Infirmary
Hairmyres Hospital
Monklands Hospital
Royal Alexandra Children's
Hospital
Wishaw General Hospital

Wales

Bronglais General Hospital
Glangwili General Hospital
Morrison Hospital
Royal Gwent Hospital
University Hospital of Wales
Withybush General Hospital
Ysbyty Gwynedd

Appendix 4: Calculations

This section explains how the RCEM team will be analysing your data. You are welcome to use this analysis plan to conduct local analysis if you wish. Analysis sample tells you which records will be included or excluded from the analysis. The analysis plan tells you how the RCEM team plan to graph the data and which records will meet or fail the standards.

Standard:	Samples analysed:	Conditions to meet the standard:
1	<p>Patients aged 0-12 months presenting with an injury and at high risk of potential safeguarding.</p> <p><i>Defined by:</i> Q 1.3 = 0 - 12 months Q 1.4 = Injury Q 2.1 = Yes (High risk of potential safeguarding)</p>	<p>The patient must have been assessed by a senior clinician of one of the following grades-</p> <p>Consultant/Associate specialist; Staff grade or specialty doctor; Senior clinical fellow (registrar or equivalent); Junior clinical fellow (SHO or equivalent); ST4+; Senior advance Clinical Practitioner or Emergency Nurse Practitioner;</p> <p><i>Defined by:</i> Q 2.3 = one of the grades above</p>
2	<p>Patients that left, or were removed from the ED, before being seen.</p> <p><i>Defined by:</i> Q 2.3 = 'Left before being seen'</p>	<p>The notes of the patient must have been reviewed by a senior clinician of one of the following grades-</p> <p>Consultant/Associate specialist; Staff grade or specialty doctor; Senior clinical fellow (registrar or equivalent); Junior clinical fellow (SHO or equivalent); ST4+; Senior advance Clinical Practitioner or Emergency Nurse Practitioner;</p> <p><i>Defined by:</i> Q 2.4 = one of the grades above</p>
3	<p>Patients aged 12-15 or 16-17</p> <p><i>Defined by:</i> Q 1.3 = 12-15 OR 16-17</p>	<p>The patient psychosocial risk was assessed using a national or locally developed risk assessment tool.</p> <p><i>Defined by:</i> Q 2.2 = Yes</p>

Organisation

Standard:	Samples analysed:	Conditions to meet the standard:
4	Organisation	ED or Hospital must have policies in place to review cases where an infant, child or adolescent either leaves or absconds from a department unexpectedly prior to discharge, or when they do not attend for planned follow up.
5	Organisation	ED must have a system in place to identify children and young people that attend frequently.
6	Organisation	ED or Hospital must have policies in place to identify and review children at high risk of potential safeguarding.

Appendix 5: 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 QIP 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 QIP – if no assessments were done before patient left do not include)

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

Appendix 6: 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.

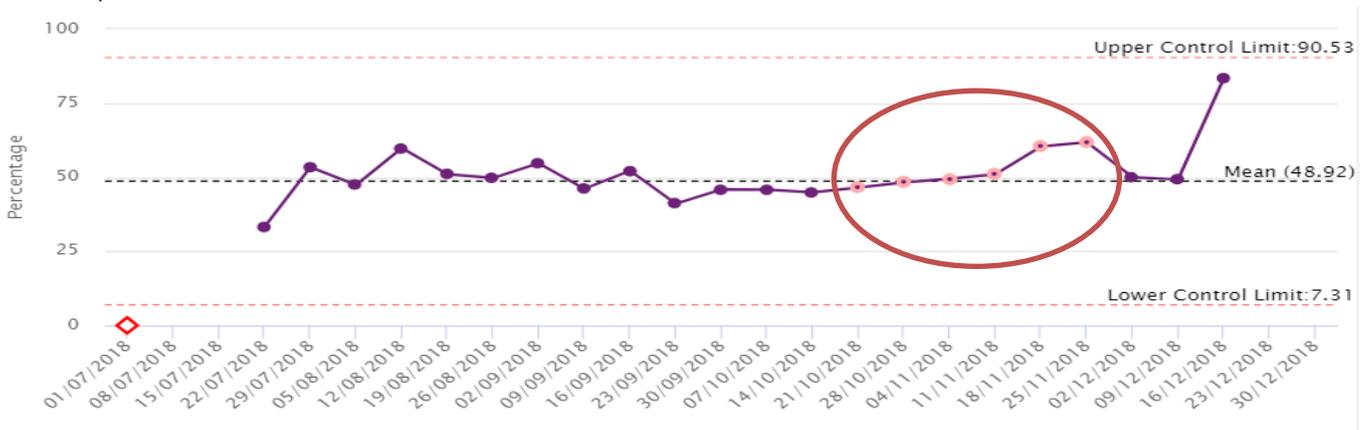
As well as seeing your actual data plotted each week you will see a black dotted average line, this is the **mean** percentage of patients. The SPC chart will point out if your data has a run of points above (or below) the mean by changing the dots to white. If your data is consistently improving (or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

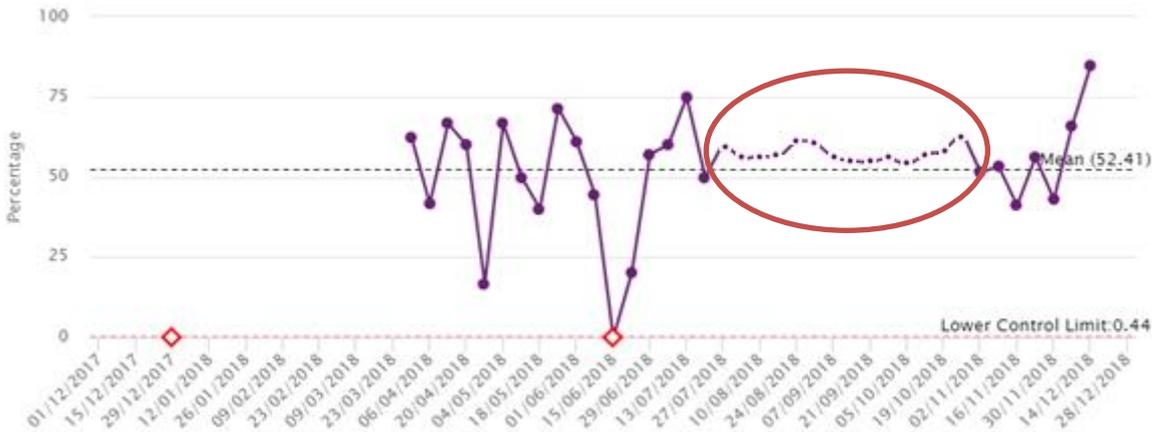
1. Performance is improving (or deteriorating)

A consistent run of data points going up or down will 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.



1. Performance is consistently above (or below) the mean

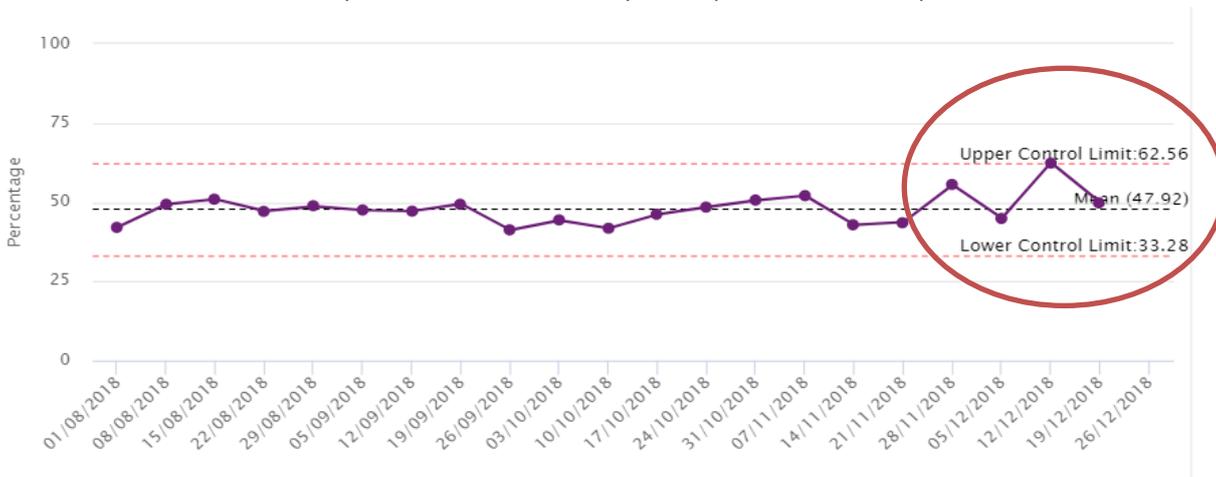
A consistent run of data that is above or below the mean will be highlighted with **small dots** so they are easy to differentiate. If your data has been quite variable this is a good sign that the process is becoming more reliable.



2. 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.

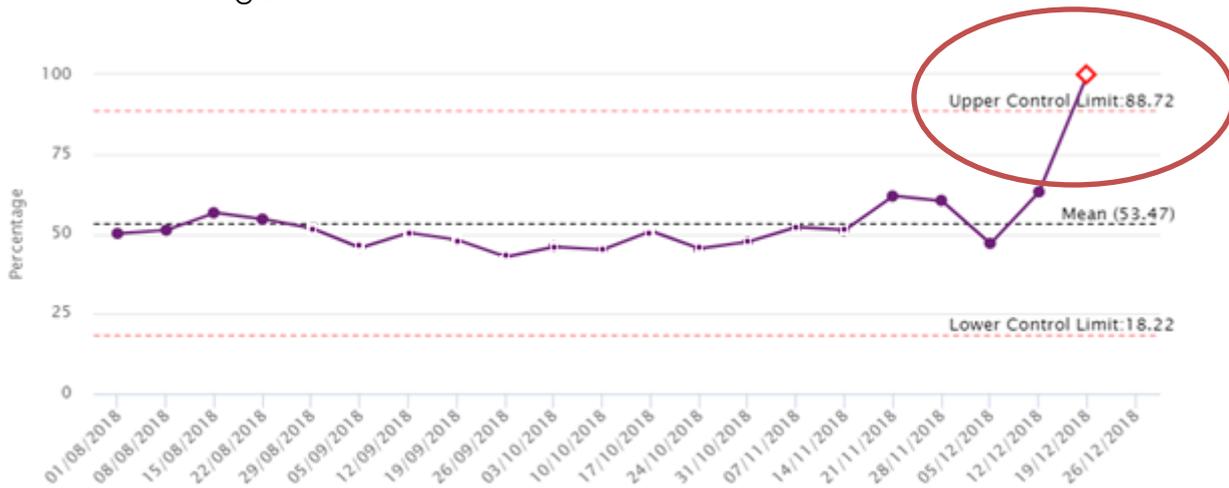
In the below example, the process is performing consistently at around 50%. The control limits show us that most of the time we would expect the process to be between 33% - 62%. If the standard for this process was 50%, then the process is well designed. If, however, the standard was 75% then the chart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



4. 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 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

1. Royal College of Paediatrics and Child Health. Facing the Future: Standards for children in emergency care settings. 2018.
Available from: <https://www.rcpch.ac.uk/sites/default/files/2018-06/FTFEC%20Digital%20updated%20final.pdf>
2. Office for National Statistics (ONS) Suicide in the United Kingdom, 2014 Registrations. Statistical Bulletin 2016:1-33.
3. HQIP – Suicide in Children and young people, 2017 - <https://www.hqip.org.uk/wp-content/uploads/2018/02/8iQSVI.pdf>

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 QIP. 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 QIP.

Chief complaint of

1141111000
1141121000
1141131000
1161111000
1161131000
1161181000
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: _____

<p>Plan</p> <p>State the question you wanted to answer – what was your prediction about what would happen?</p> <p>What was your plan to test the change (who, what, when, where)?</p> <p>What data did you collect, how did you plan to collect it?</p>	
<p>Do</p> <p>How did you carry out the change?</p> <p>Did you come across any problems or unexpected observations?</p> <p>How did you collect and analyse the data?</p>	
<p>Study</p> <p>What did the analysis of your results show?</p> <p>How did it compare to your predictions?</p> <p>Summarise and reflect on what you learnt.</p>	
<p>Act</p> <p>Based on what you learnt, what did you adapt (modify and run in another test), adopt (test the change on a larger scale) or abandon?</p>	

<p>Did you prepare for another PDSA based on you learning?</p>	
<p>Reflection and learning</p> <p>What did you and the team learn from this QI initiative? What advice would you give to someone else in your position?</p>	

Appendix 11: pilot methodology

A pilot of the QIP was carried out prospectively from 20th of May to 7th of June. 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.

