RCEM
Royal College of Emergency Medicine

Adolescent Mental Health

National Quality Improvement Programme (QIP)

Pilot Information Pack

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A Quick Guide to Running a QIP

Form your QIP Team

RCEM recommends a multidisciplinary QI team. See Methodology for more information.

Standards

Click here to find the standards.

Questions

Click here to find the questions.

Inclusion criteria

All 10-17 year olds presenting to the emergency department:

- ⊕ Mental ill-health
- ⊕ Substance use
- ⊕ Social/safeguarding concerns
- ⊕ Psychological distress/crises
- ⊕ Paracetamol overdose
- ⊕ Self-harm (either self-injury or self-poisoning)
- ⊕ Referral made by the ED for emergency mental health assessment by your organisation's specific acute psychiatric services

**See inclusion criteria for further details.*

Sample size

Recommended sample size: Please collect data on a minimum of 5 eligible cases per week.
**See sample size for further details.*

Data entry portal

Log into the data entry site at XXX.

Data frequency

Recommended: enter cases each week.
Alternative: If your ED will find weekly data entry difficult enter data fortnightly instead.

Data Collection Period*

Data should be collected on patients attending **from Jan 2026 – Dec 2028**

*For the interim reports data collection period, please see the data collection section for details.

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WELCOME

This document tells you everything you need to know if your Emergency Department (ED) wishes to participate in the 2026 RCEM National Quality Improvement Programme (QIP) on Adolescent Mental Health (AMH).

INTRODUCTION

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Meet the Team

Dr Jessica Green
I am an ST4 EM trainee working in the East Midlands. I have a keen interest in children's and young people's emergency care and plan to sub-specialise in Paediatric EM. I have also previously had a post as an ED QI fellow.

Dr Katie Manning
I am a consultant in Emergency Medicine with subspecialty accreditation in paediatric emergency medicine. I work at St Richards Hospital (a district general hospital in Chichester, & part of University Hospital Sussex NHS Foundation Trust).
I am the Lead Consultant for Paediatric Emergency Medicine at my hospital site.
I'm interested in improving the care and patient experience for adolescents in our Emergency Departments.

Dr Daniel Darbyshire
I'm an EM trainee in the Northwest of England. Though I'm originally from Stockton-on-Tees in the Northeast. I'm a NIHR Clinical Lecturer and a PEM sub-specialty trainee. I've also had various leadership roles with EMTA and RCEM and some other organisations. I did some previous QI work doing a little bit on a very large project and enjoyed it much more than small scale projects. I also have a passion for improving care for groups which are not always prioritised so when I saw the advert for this QIP I was intrigued. Out of work I'm a Dad to a very energetic toddler and a loud and needy dachshund called Lady Darbyshire.

Dr Deon Louw
I am an ED consultant in Oxford, where I have been working as mental health lead for almost 9 years. I currently sit on the RCEM Mental Health Subcommittee and have the opportunity to represent RCEM on the RCPsych Faculty of Liaison Psychiatry Executive Committee, as well as the Psychiatric Liaison Accreditation Network (PLAN). Like all my ED colleagues, I am acutely aware of the challenges we face in caring for our younger patients with mental health needs. I am delighted that the College has recognised it as a priority. It's been a pleasure to work with RCEM and the rest of the QI Topic Team, and hope that like me clinicians across the country can use this QIP to bring about positive changes in their Trusts.

The context

Adolescence is a time of key physical, emotional, and social changes. The World Health Organization states that "protecting adolescents from adversity, promoting socio-emotional

learning and psychological well-being, and ensuring access to mental health care are critical for their health and well-being during adolescence". (1)

Adolescents attending the emergency department are often seen in an inappropriate physical environment by staff with insufficient time and understanding of the specific needs of this group. Opportunities to identify and intervene early in problems related to home, education and employment, drugs and alcohol, sex, mental health, and safety are not identified due to a lack of holistic assessment. Adolescents with a mental health crisis are doubly affected by challenges in both emergency care and mental health services.

N-Acetylcysteine (NAC) is the main antidote for paracetamol poisoning. NAC can be administered using two different protocols a 21-hour infusion or 12 hour infusion (also known as SNAP protocol). The indication for starting NAC is the same for both protocols, as per TOXBASE®.

While paracetamol toxicity is the most common poisoning seen in UK hospitals (and NAC is therefore the most commonly used antidote), there are many other potential poisonings. RCEM and the National Poisons Information Service (NPIS) make clear recommendations about what antidotes should be stocked by Emergency Departments, and where they should be stocked within hospitals.

The evidence

20% of adolescents experience a mental health problem in any given year. (2)

70% of children and adolescents who experience mental health problems have not had appropriate interventions at a sufficiently early age. (3)

54% of respondents to a 2022 RCEM survey reported that mental health services for children and adolescents were generally poor or awful. This has not improved since the last survey in 2018. (4)

Half of respondents said children and young people facing mental health crises arriving between 3 and 7pm experienced waits of 12-24 hours to see a specialist mental health professional. (4)

An emergency department attendance is an opportunity for a focused psychosocial assessment. NICE recommends timely and parallel assessment for those attending emergency departments with mental health presentations. (5)

The time between overdose and starting NAC impacts the efficacy of treatment. Treatment within 8 hours of ingestion results in a near-zero mortality rate across all patients, but treatment efficacy falls rapidly, and NAC may become ineffective for preventing liver injury as soon as 15 hours after ingestion. (6) There are multiple different indications for when treatment with NAC should be commenced, and it is likely that improvements can be made in triage processes and clinical assessment.

In addition to improving the timeliness of NAC treatment, RCEM, NPIS, and the British Association for the Study of the Liver (BASL) recommend that the SNAP regimen should be the default protocol used to treat both adult and paediatric patients. (7) Use of the SNAP regimen has been shown to be associated with fewer adverse reactions and reduced length of hospital stay, and there is no evidence of harm associated with its use, in both patient groups.

Regarding antidotes, there is clear evidence that only a minority of hospitals are currently compliant with stocking recommendations. (8) Given that antidotes often represent the only effective treatment in poisoning, there may be preventable harms to patients occurring.

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There is currently no mechanism by which data to quantify harms can be accurately captured, and RCEM is therefore seeking to improve stocking in line with recommendations.

Rationale

It is clearly no secret that delivering high-quality care to adolescent and young adult (AYA) patients in the emergency department presents significant challenges. Alongside RCEM, RCPCH and RCP, who all have working groups addressing this issue, this quality improvement team agrees that the current situation is unacceptable. Things must change to improve our ability to care for this group of patients.

This quality improvement project (QIP) seeks to improve nation-wide assessment, care and treatment of this vulnerable and under-served group by addressing three main domains:
- to become more patient-centred and caring
- to be safe and effective in our management
- to deliver more timely and efficient care

There is no one-size-fits-all method for this and we are aware that the route to delivering high-quality care to AYA patients will look different for individual hospitals. However, we believe that this QIP enables individual hospitals to identify their own areas for improvement and ways to establish long-lasting change. Supported by the RCEM QI topic team, in joining this project you will be part of a national movement to improve the care of our valued AYA patients.

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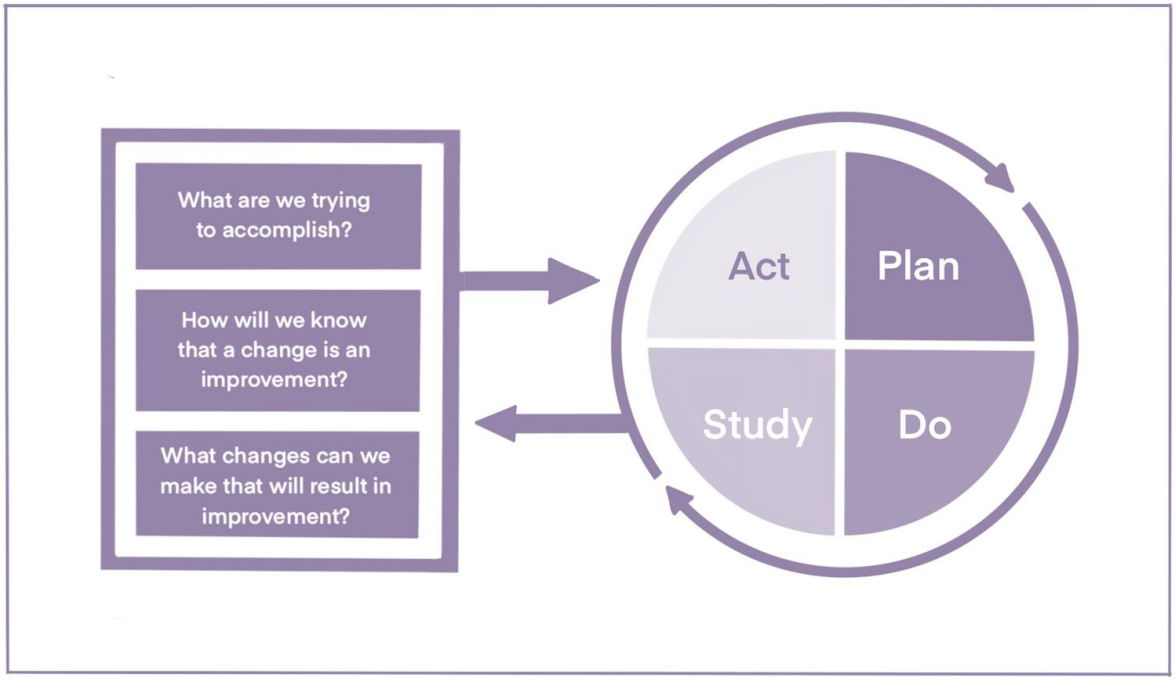
QUALITY IMPROVEMENT INFORMATION

The purpose of this QIP is to continually quality assure and improve your service whereby the patient benefits as an outcome of the project. The RCEM system allows your team to record details of QIPs and see on your dashboard how each initiative affects your data on key outcomes and process measures.

We encourage you to use this feature in your department. If you are new to QIPs, we recommend you follow the Plan Do Study Act (PDSA) methodology. The Institute for Healthcare Improvement (IHI) provides a useful worksheet which will help you to think about the changes you want to make and how to implement them.

Further information on ED quality improvement can be found on the RCEM website.

The model for improvement (Institute of Healthcare Improvement)



Objectives for all RCEM QIPs

To identify current ED performance against clinical standards and previous performance

How RCEM supports you	Expert teams of clinicians and QIP specialists have reviewed current national standards and evidence to set the top priority standards for this national QIP RCEM have built a bespoke platform to collect and analyse performance data against the standards for each ED

Show EDs their performance in comparison with other participating departments both nationally and in their respective country in order to stimulate quality improvement

How RCEM supports you	The QIP will be run over a 3-year period. The longer duration should allow better planning and effective iteration. This should lead to improved patient care. Participating ED's can see how they perform as compared to National mean. This should enable ED's to revisit changes implemented and plan further PDSA cycles.

To empower and encourage EDs to run quality improvement (QI) initiatives based on the data collected, and track the impact of the QI initiative on their weekly performance data

How RCEM supports you	The RCEM platform includes a dashboard with graphs showing your ED's performance as soon as data are entered to benchmark against yourself. The dashboard graphs are SPC charts (where applicable) with built in automatic trend recognition, so you are able to easily spot statistically significant patterns in your data. The portal has built in tools to support local QI initiatives, such as an online PDSA template. Once you have completed a PDSA template with your team, this is overlaid onto your dashboard charts so you can easily see the impact of your PDSA. RCEM have also published a QI guide to introducing a range of excellent QI methodologies to enhance QI knowledge and skills.

Adolescent Mental Health QIP Objectives and Improvement support

OBJECTIVE – Standard 1: To measure the frequency which 10–17-year-old patients presenting to the emergency department have a psychosocial assessment completed within the emergency department.

How RCEM supports you	Visuals to provide direct measure against the standard compliance are provided to easily identify periods of time where frequency and quality have deteriorated or continuously increased.

OBJECTIVE – Standard 1: To **improve the frequency and quality of psychosocial assessment for 10-17 year old patients presenting to the emergency department.**

How RCEM supports you	You will be supplied with data visualisation on completion rate of the assessment against 9 elements and, supporting visuals highlighting shortcomings of the assessment and elements that are not being included. This will allow you to see where improvement is required on the assessment and guide improvement efforts locally.

OBJECTIVE – Standard 2: To ensure adolescent patients receive a timely response following referral to mental health liaison services

How RCEM supports you	You will be provided with time measures that help highlight steps in the patient pathway that are adding delays. Your ED team will also be provided with visuals for referrals that have not been accepted to help improve accuracy and quality of referrals made.

OBJECTIVE – Standard 2: To ensure adolescent patients receive a parallel assessment from both Emergency medicine and mental health teams, minimising the length of time they need to spend in the Emergency Department (ideally to be discharged or admitted within 4 hours of arrival)

How RCEM supports you	You will be provided with means to identify different instances of poor documentation that lead to the standard not being met; these include providing detailed information on the documentation required for the standard to be met so a focused QI approach can be taken locally to address documentation issues.

OBJECTIVE – Standard 3a: Ensure all patients presenting to the ED after paracetamol overdose receive treatment with acetylcysteine within one hour of an indication being present.

How RCEM supports you	You will be provided with different visuals for each indication of paracetamol overdose and the time taken to act based on the specific presentation. The improvement plan is to provide this information so locally, issues and shortcomings per specific indication and the process around responding based on the specific indication that was flagged can be addressed.

OBJECTIVE – Standard 3b: Ensure EDs are stocked appropriately with relevant category A and B antidotes.

How RCEM supports you	You will take part in quarterly antidote stocking audits during the project and will be assessed against completion of the expected stock list. By highlighting shortcomings on the stock, your ED team can take targeted action to address specific antidote stock supply issues.

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STANDARDS

Standard	Grade	Reference
Standard 1 - All 10-17 year old patients presenting to the emergency department should have an emergency clinician led psychosocial assessment completed within the emergency department.	F	RCEM Standards for Mental Health – Section 1.9. Available at: https://rcem.ac.uk/wp-content/uploads/2021/10/Mental_Health_Toolkit_June21.pdf
STANDARD 2 - All 10-17 year olds referred for mental health care by the emergency department:		
Standard 2a - Should be responded to by mental health liaison services within one hour of referral	D	RCEM Standards for Mental Health – Section 1.8. Available at: https://rcem.ac.uk/wp-content/uploads/2021/10/Mental_Health_Toolkit_June21.pdf Psychiatric Liaison Accreditation Network (PLAN) standard 10, type 1. Available at: https://www.rcpsych.ac.uk/docs/default-source/improving-care/ccqi/quality-networks/psychiatric-liaison-services-plan/plan-7th-edition-standards.pdf?sfvrsn=718ddb5b_4
Standard 2b - Should have a parallel assessment by the emergency and mental health teams for onwards care plan or discharge within 4 hours of arrival to the ED	F	Achieving Better Access to 24/7 Urgent and Emergency Mental Health Care – Part 2: Implementing the Evidence-based Treatment Pathway for Urgent and Emergency Liaison Mental Health Services for Adults and Older Adults – Guidance Available at: https://www.england.nhs.uk/wp-content/uploads/2016/11/lmhs-guidance.pdf RCEM Management of Adolescent/Young Adults in the Emergency Department. Page 5 Management_of_Adolescent_Young_Adult_Patients_in_EDs_Final.pdf (rcem.ac.uk) Psychiatric Liaison Accreditation Network (PLAN) standard 13, type 1 plan---7th-edition-standards.pdf (rcpsych.ac.uk) Handbook to the NHS Constitution for England - GOV.UK (www.gov.uk)
STANDARD 3		
Standard 3a – All 10-17 year old presenting after paracetamol overdose should receive treatment with acetylcysteine within one hour of an indication being present as per Toxbase.	F	RCEM 2013-14 Paracetamol Overdose Clinical Audit Report available at: https://rcem.ac.uk/wp-content/uploads/2021/11/Paracetamol_Overdose_Clinical_Audit_2013_14.pdf

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		Institute for Safe Medication Practices (ISMP) Guidelines for timely administration of scheduled medications (acute). Available at: https://www.ismp.org/guidelines/timely-administration-scheduled-medications-acute
STANDARD 3b - All self-harm relevant category A and B antidotes are stocked in line with Royal College of Emergency Medicine (RCEM) / National Poisons Information Service (NPIS) standards.	**D**	RCEM NPIS antidote list. Available at: https://rcem.ac.uk/wp-content/uploads/2023/08/RCEM_NPIS_Antidote_Guideline_List_2021_FINAL_V7.pdf

Grading explained

F - Fundamental This is the top priority for your ED to get right. It needs to be met by all those who work and serve in the healthcare system. Behaviour at all levels of service provision need to be in accordance with at least these fundamental standards. No provider should offer a service that does not comply with these fundamental standards, in relation to which there should be zero tolerance of breaches.

D - Developmental This is the second priority for your ED. It is a requirement over and above the fundamental standard.

A - Aspirational This is the third priority for your ED and is about setting longer term goals.

EQUALITY STATEMENT

The College is committed to assessing health inequalities relating to patient ethnicity and gender to support departments to provide high quality and equitable care to all.

We will be collecting ethnicity and gender data, monitoring them for systemic inequalities and reporting at the national level.

Our last attempt demonstrated difficulties collecting comprehensive ethnicity data with many reported as 'not specified' – We are exploring the cause of this to improve future data sets to increase the accuracy of ongoing analysis of such data.

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MEASURES

Standard	Clinical metric	Organisational metric
Standard 1 All 10-17 year old patients presenting to the emergency department should have an emergency clinician led psychosocial assessment completed within the emergency department.	⇒ Parallel assessment ⇒ First assessment ⇒ Quality of standards while in ED / Triage ⇒ Physical health needs met ⇒ Risk assessment ⇒ Documented PMH/ FH/ Social	⇒ Recognition tool ⇒ Local Policies ⇒ Safeguarding policy ⇒ Restrain policy
Standard 2a Should be responded to by mental health liaison services within one hour of referral	⇒ Time to triage ⇒ Early identification ⇒ Early referral ⇒ Time in department (LOS)	⇒ Policies: - Search - Absconding - Rapid tranquilisation - Violence and aggression - Restraint
Standard 2b Should have a parallel assessment by the emergency and mental health teams for onwards care or discharge within 4 hours of arrival to the ED.	⇒ Disposition ⇒ Attend with guardian	⇒ Appropriate space in which to be cared for ⇒ Viewing the notes of the assessing mental health team ⇒ Models of MH support
Standard 3a All 10-17 year old patients presenting after paracetamol overdose should receive treatment with acetylcysteine within one hour of an indication being present as per Toxbase.	⇒ Treated with SNAP ⇒ Weight and Ingestion calculation ⇒ Time NAC started ⇒ When was bloods taken	⇒ SNAP policy
Standard 3b All self-harm relevant category A and B antidotes are stocked in line with Royal College of Emergency Medicine (RCEM) / National Poisons Information Service (NPIS) standards.	⇒ N/A (organisational metric)	⇒ Antidotes stocking in line with RCEM/ NPIS guidelines. ⇒ Stock accessibility both in-hours and out-of-hours

METHODOLOGY

Forming your QIP team

RCEM recommends forming a multidisciplinary QI team; to include consultants, trainees, advanced care practitioners (ACPs), specialty and associate specialist (SAS) doctors, nursing and, patient representatives and others to suit your local set up.

Data entry portal

You can find the link to log into the data entry site at www.rcem.ac.uk/audits (registered users only).

Inclusion criteria

All 10-17 year olds presenting to the emergency department:

- ⊕ Mental ill-health
- ⊕ Substance use
- ⊕ Social/safeguarding concerns
- ⊕ Psychological distress/crises
- ⊕ Paracetamol Overdose*
- ⊕ Self-harm (either self-injury or self-poisoning)
- ⊕ Referral made by the ED for emergency mental health assessment by your organisation's specific acute psychiatric services

Exclusion criteria

- ⊗ Age (years): Less than 10, more than 17
- ⊗ Accidental Self-Harm
- ⊗ Therapeutic overdose
- ⊗ Any patient who was unable to undergo a mental health examination or risk assessment in the ED due to their physical condition:
  - Unable to provide a clinical history
  - No source of collateral history
  - No clinical history on electronic patient records
  - Requiring resuscitation care
  - Brought in dead
- ⊗ Toxicity related to:
  - Environmental exposure (eg: carbon monoxide)
  - Industrial exposure (eg: hydrocarbon)
  - Envenomation
  - Major incident / mass casualty events

Sample size

Please collect a minimum of 5 randomised cases per week that meet the full eligibility criteria, including presenting with paracetamol overdose.
(*) If the sample for the week is insufficient to reach 5 cases, you may add records of eligible patients who have not presented with a paracetamol overdose to reach 5 records for the given week.

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Data entry frequency

Recommended: To maximise the benefit of the run charts and features RCEM recommends entering a minimum of 5 cases each week. This will allow you to see your ED's performance on key measures changing week by week. PDSA cycles should be regularly conducted to assess the impact of changes on the week-to-week performance.
Alternative: If your ED will find weekly data entry too difficult to manage, you may enter data fortnightly instead. The system will ask you for each patient's arrival date and automatically split your data into weekly arrivals, so you can get the benefit of seeing weekly variation if you spread the cases across the fortnightly. If you decide to enter data fortnightly, we recommend that you enter at least 10 cases fortnightly (5 cases from week 1 and 5 from week 2). You can then consider fortnightly cycles of PDSA with specific interventions and evaluate their impact by reviewing the trend over that time period.

Data collection period

Data should be collected on patients between **Jan 2026 – Dec 2028**

Specific QIP Year reporting period-

Year 1 Interim report period: Jan 2026 – Dec 2026

Year 1 report available: Jun 2027

Year 2 Interim report period: Jan 2027 – Dec 2027

Year 2 report available: Jun 2028

Year 3 Final report period: Jan 2028 – Dec 2028

Final report available: Jun 2029

The project length has been increased to allow time to understand your local service offering and establish areas of need. These can then be targeted with PDSA interventions and change monitored over enough time to embedded real change. Nationally we are aiming to improve sharing of best practice to facilitate idea development.

Data submission period

Data can be submitted online between **Jan 2026 – Dec 2028**

Data submission period per QIP year:

Year 1 Interim report period: Jan 2026 – Dec 2026

Year 2 Interim report period: Jan 2027 – Dec 2027

Year 3 Final report period: Jan 2028 – Dec 2028

It is recommended to enter data as close to the date of patient attendance as possible, and to review progress regularly. This will help you QI team spot the impact of intervention more promptly for refinement or disposal depending on the changes observed.

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DATA TO BE COLLECTED

Standard 3b - All self-harm relevant category A and B antidotes are stocked in line with Royal College of Emergency Medicine (RCEM) / National Poisons Information Service (NPIS) standards

Organisational data

Please complete this section per ED-

No.	Question	Answer Option(s)
1	Does your ED have a dedicated adolescent room?	• Yes / No
2	Does your ED have a designed form/template for use of emergency department clinicians?	• Yes / No
3	Does you ED have procedures for reporting concerns to safeguarding teams, social services and the police	• Yes / No
4	Does your ED have a named lead for the design and development of services for adolescent health	• Yes / No
5	Does your department have a relevant policy around absconding 10 – 17 year olds?	• Yes / No
6	Does your department have a relevant search policy for 10 – 17 year olds?	• Yes / No
7	Does your department have a relevant restraining policy for 10 – 17 year olds?	• Yes / No
8	Does your ED use security staff to perform enhanced (e.g. 1:1) observation	• Yes / No
9	Does your ED have a relevant policy for the use of sedation/rapid tranquilisation for 10-17 year olds?	• Yes / No
10	Do you use SNAP for treating paracetamol toxicity in 10 – 17 year olds?	• Yes / No

Do you have the following:

11.1	Dedicated Emergency Department Pharmacist?	• Yes 7 days a week • Yes 5+ days a week • Yes less than 5 days a week • No
11.2	Dedicated Emergency Department Pharmacy Technician	• Yes / No

Are your category A antidotes:		
12.1	Held in a designated storage area which is clearly marked for antidote storage only?	• Yes / No
12.2	Are antidotes which require refrigeration segregated from other medicines in the medication fridge, and clearly identified as antidotes?	• Yes / No
For the purposes of this project, how are you obtaining stock levels?		
13.1	For Category A antidotes?	• Manual count • Electronic stock levels • Pharmacy-provided report
13.2	For Category B antidotes?	• Manual count • Electronic stock levels • Pharmacy-provided report
14	Are the following Category A antidotes immediately available in your Emergency Department? ▪ Acetylcysteine ▪ Activated charcoal ▪ Atropine ▪ Calcium chloride ▪ Calcium gluconate ▪ Hydroxycobalamin ▪ Sodium thiosulphate ▪ Digoxin specific antibody fragments ▪ Flumazenil ▪ Glucagon ▪ Intralipid 20% ▪ Methylthioninium chloride (methylene blue) ▪ Naloxone ▪ Procyclidine injection ▪ Sodium bicarbonate 8.4% ▪ Sodium bicarbonate 1.26% or 1.4% ▪ ViperaTAb(R) or Viperfav(R) - excluding Northern Ireland	Select one of the following (for each item) • Yes - at all times of day • Yes - in hours only • No – stocked elsewhere in hospital • No - not stocked in organisation
15	Do the stocks of the following Category A antidotes meet (or exceed) RCEM/NPIS recommended stock levels? ▪ Acetylcysteine (20 x 200mg/mL 10ml ampoule) ▪ Activated charcoal (6 x 50g pack) ▪ Atropine (10 x 600microg/mL 1mL ampoule) ▪ Calcium chloride (6 x 10mmol in 10mL ampoule) ▪ Calcium gluconate for injection (10 x 10% 10mL ampoule) ▪ Calcium gluconate gel (12 x 25g tube) ▪ Hydroxycobalamin (Cyanokit®) (2 x 5g pack)	Select one of the following (for each item) • Yes – at all times of day • Yes – at some times of day only • No – stocked in hospital but not accessible within 1 hour at any time • No – not stocked in hospital

	▪ Sodium thiosulphate (5 x 50% 10mL ampoule OR 2 x 25% 50mL ampoule) ▪ Digoxin specific antibody fragments (5 x 40mg vial) ▪ Flumazenil (5 x 100microgram/mL 5mL ampoule) ▪ Glucagon (50 x 1mg vial) ▪ Intralipid 20% (total 1.5L of 20% solution) ▪ Methylthioninium chloride (methylene blue) (5 x 0.5% 10ml ampoule OR 25 x 0.5% 2ml ampoule OR 5 x 1% 5ml ampoule) ▪ Naloxone (30 x 400microgram/1mL 1mL ampoule) ▪ Procyclidine injection (5 x 5mg/mL 2mL ampoule) ▪ Sodium bicarbonate 8.4% (500mL total) ▪ Sodium bicarbonate 1.26% (or 1.4%) (6L total) ▪ ViperaTAb(R) 1 package (2 vials), or Viperfav(R) 1 package (1 vial) = excluding Northern Ireland	• Other – stocked in a different local hospital
16	Are you able to access the following Category B antidotes within 1 hour? ▪ Andexanet alfa ▪ Cyptoheptadine ▪ Dantrolene ▪ Desferrioxamine ▪ Folinic acid (as either calcium folinate or disodium folinate) ▪ Fomepizole ▪ Ethanol (only if fomepizole is not stocked) ▪ Idarucizumab ▪ L-Carnitine (Levocarnitine) ▪ Macrogol '3350' based bowel cleansing preparation (polyethylene glycol-3350, e.g. Klean-Prep®, Moviprep®, Plenvu®, or other equivalent) ▪ Mesna ▪ Octreotide ▪ Phytomeniadone (Vitamin K1) ▪ Protamine sulfate ▪ Pyridoxine (high dose injection)	Select one of the following <u>(for each item)</u> • Yes – at all times of day • Yes – at some times of day only • No – stocked in hospital but not accessible within 1 hour at any time • No – not stocked in hospital • Other – stocked in a different local hospital
16.1	If any Category B antidotes are not stocked on the local hospital site, but are stocked in a different local hospital, would they would arrive within 1 hour when requested?	• Yes / No
17	Do the stocks of the following Category B antidotes meet (or exceed) RCEM/NPIS recommended stock levels? ▪ Andexanet alfa (12 x 200mg vial) ▪ Cyptoheptadine (30 x 4mg tablet) ▪ Dantrolene (48 x 20mg vial) ▪ Desferrioxamine (40 x 500mg vial) ▪ Folinic acid (as either calcium folinate or disodium folinate) (4500mg total) ▪ Fomepizole (25 x 5mg/mL 20mL ampoule OR 4 x 1g/mL 1.5mL vial)	Select one of the following <u>(for each item)</u> • Yes • No – partially meets • No – not stocked • Other - unable to determine stock levels

	▪ Ethanol (60 x 100% 5mL ampoule) (only if fomepizole is not stocked – should be greyed out if Fomepizole is 'yes' or 'partially meets') ▪ Idarucizumab (2 x 2.5g/50mL vials) ▪ L-Carnitine (Levocarnitine) (14 x 1g/5mL ampoule) ▪ Macrogol '3350' based bowel cleansing preparation (polyethylene glycol-3350, e.g. Klean-Prep®, Moviprep®, Plenvu®, or other equivalent) (sufficient stock for 12hrs of adult treatment, amount required varies with product) ▪ Mesna (variable, liaise with oncology) ▪ Octreotide (5 x 50microgram/mL 1mL ampoule) ▪ Phytomeniadone (Vitamin K1) (2 x 10mg tablet AND 10 x 10mg/mL 1mL ampoule) ▪ Protamine sulfate (10 x 10mg/mL 5mL ampoule) ▪ Pyridoxine (high dose injection) (100 x 50mg/mL 1mL ampoule)	

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Clinical data

Introduction

1	What is the age of the patient?	Select one: • 10 • 11 • 12 • 13 • 14 • 15 • 16 • 17
2	At triage, were any of the chief complaints identified?	Select all that apply: • None • Anxiety disorder • Behaviour: Agitated/Violent • Behaviour: Unusual • Depressive disorder • Hallucinations/Delusions • Self-Harm (Includes overdose) • Suicidal thoughts
2.1	Displayed IF Q2 and Q3 = None Was there any documented self-inflicted injuries or intent to injure themselves?	• Yes • No • Not recorded
3	Did the patient also present with a paracetamol overdose?	• Yes • No
4	Reference	Free text
5	Date and time of arrival	dd/mm/yyyy hh:mm
6	Sex	Select one: • Female • Male • Not known (person stated gender code not recorded)

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		• Indeterminate (unable to be classified as either male or female)
6.1	Is current sex the same as that assigned at birth?	• Yes • No
7	Ethnicity	Select one: • Not known • Not stated • Any other ethnic group • White British • Chinese • African • Caribbean • Any other Asian background • Bangladeshi • Pakistani • Indian • Any other mixed background • White and Asian • White and Black African • White and Black Caribbean • Any other white background
8	Source of patient referral to ED	• Self-referral • 111 Service • General Practitioner (GP) • Healthcare Professional • Emergency Services • Police • Community Services • Outpatient Clinic • Inpatient Ward • Other

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Standard 1

All 10-17 year old patients presenting to the Emergency Department should have an emergency clinician led psychosocial assessment (e.g., HEADSSS) completed within the ED.

1	Were the following elements of a psychosocial assessment documented in the emergency department notes? ***These are example questions of what constitutes a good psychosocial assessment .*** ***Example questions:*** ***(all questions from* HEADSSS Assessment - TeachMePaediatrics - Home - Education)** **Home circumstances -** • **Who lives at home?** • **Do you have your own room?** • **Do you fight with anyone at home?** • **Is there anyone you particularly get on with?** • **Who do they turn to when upset?** **Education or Employment circumstance-** ○ **Do you go to school/college?** ○ **What subjects do you enjoy? What subjects don't you like?** ○ **Do you have a job? What sorts of hours do you work?** ○ **What's the best thing about working? What don't you like so much?** ○ **What would you like to do in the future?** ○ **Who are your friends at school/work?** ○ **Does anyone bully you?** **Eating and exercise (from Mental Health Screening - Don't Forget the Bubbles (dontforgetthebubbles.com)** • Do you worry about the shape of your body or your weight? • What do you like or not like about your body? • Do you try things to manage your weight? • Have you ever made yourself throw up to lose weight? • Are any of your family or friends worried about your weight or your attitude towards your body? **Activities outside of education or employment** • **What do you do in your spare time?** • **How do you relax?** • **What do you like doing with your friends?** • **Do you participate in any sports/physical activity/exercise?** **Relationship with Drugs, smoking & alcohol**	**Select all that apply:** • The patient's home circumstance • The patient's education or employment circumstance • The patient's eating and exercise routine • The patient's activities outside of education or employment • The patient's relationship with drugs, alcohol, and smoking • The patient's experience of sex and relationships • The patient's experience of self-harm, depression and self- image • If the patient feels safe • The patient's use of social media

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	• Some people your age try smoking, alcohol and drugs, is that something you've experienced? • How much? How often? • What does taking drugs/drinking alcohol do for you? • Where do you get the money? • Where/who do you get your drugs from? • Does your alcohol use cause you any problems? • Are you interested in cutting down or stopping? • Is there anything I could do to help you with that? Would you like to see someone about that specifically? **Sex and relationships** • Are you seeing anyone at the moment? • Is that relationship with a boy or a girl? • Some people your age start having sex, have you ever had sex? • What contraception are you using? • How do you handle intimate relationships? Do you feel pressure to go along with things that you'd rather not do? • Does your partner give you things in exchange for sex or other physical acts? **Self-harm, depression and self-image** • How is your mood at the moment? • Do you ever feel sad or stressed? What do you do about that? • What sorts of things make you feel low/sad/stressed? • Have you ever thought about hurting yourself? • Have you acted on those thoughts? • Have you thought about ending your life? **Safety and abuse** • Do you ever feel unsafe? • Is there anyone in your life that you don't feel safe around? • Is anyone doing things to you that you don't want them to? What sort of things? • Does anyone put pressure on you to do things you don't want to do? • Is there anyone you can talk to about these things? **Social media use** • Are you worried about your use of social media? • Does viewing social media increase or decrease your self-confidence? • Have you personally experienced cyberbullying, sexting or an online user asking to have sexual relations with you?	

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Standard 2

All 10-17 year olds referred for mental health care by the emergency department:

***Standard 2a** - Should be responded to by mental health liaison services within one hour of referral*

***Standard 2b** - Should have a parallel assessment by the emergency and mental health teams for onwards care or discharge within 4 hours of arrival to the ED*

1	Date and time of Triage	• dd/mm/yyyy hh:mm Not recorded
2	Date and time of referral to mental health services team	dd/mm/yyyy hh:mm • No referral • Not recorded
3	Date and time of first engagement with mental health team	dd/mm/yyyy hh:mm • No mental health input • Referral not accepted • Not recorded
3.1	Date and time of documented mental health team management plan	dd/mm/yyyy hh:mm • Not recorded • Unknown • No documented plan provided
4	Date and time of ED clinician review	dd/mm/yyyy hh:mm • Not reviewed • Not recorded • Patient did not wait/self-discharge • Not seen by ED clinician, referral directly to mental health services
5	Disposition of the patient	• Admitted to hospital (same provider) • Discharged (no follow-up) • Discharged (GP follow-up) • Discharged (outpatient follow-up)

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		• Discharged (community care follow-up) • Discharged (other follow-up) • Left department before being treated • Left department having refused treatment • Transferred to another provider • Died in department • Other
6	If there was a delay in discharging the patient, after being clinically ready to proceed, what was the main contributing factor for the delay?	Select any that applies • N/A • Awaiting In-patient admission • Awaiting Mental Health Act assessment • Awaiting transfer to mental health hospital • Social services plan being made • Free text
7	Were there any safeguarding concerns?	• Identified and addressed • Identified but not addressed • No safeguarding concerns identified • Not recorded

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Standard 3

(This section is only visible IF Introduction Q4 = Yes)

Standard 3a - All 10-17 year old patients presenting after paracetamol overdose should receive treatment with acetylcysteine within 1 hour of an indication being identified as per Toxbase

1	**What type of overdose was taken**	• **Single acute (tables ingested under 1 hour)** • **Staggered**
2	For single acute, please provide the date and time of the paracetamol overdose For staggered, please provide the date and time of last ingestion	dd/mm/yyyy hh:mm • Not recorded
3	What was the documented weight of the patient?	[Text box] • Not recorded
3.1	What was the total amount of paracetamol ingested (mg)	[Text box] • Not recorded • Unknown
4	Jaundice or hepatic tenderness documented on exam?	Select one: • Yes • No • Not recorded
5	Date and time bloods taken	dd/mm/yyyy hh:mm • Not recorded
6	Date and time initial ALT results available	dd/mm/yyyy hh:mm • Not recorded
6.1	Was the initial ALT more than the reported upper limit of normal?	• Yes • No • Not recorded • Unknown
6.2	(IF Q7 = Yes) What was the initial ALT value?	Numerical text • Not recorded • Unknown

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6.3	What was the peak ALT during the hospital admission (U/L)?	Numerical value (max 5 characters length)
7	Date and time paracetamol concentration available	dd/mm/yyyy hh:mm • Not recorded
7.1	Was the initial paracetamol concentration detectable? (mg/L)	• Yes • No • Not recorded
7.2	(IF Q7.1 = Yes) What was the initial paracetamol concentration?	Numerical text
8	Date and time initial INR results available	dd/mm/yyyy hh:mm • Not recorded
8.1	What was the INR?	Numerical text • Not recorded • Unknown
8.2	What was the peak INR during the hospital admission?	Numerical value Must include one decimal point.
9	What time was NAC infusion started?	dd/mm/yyyy hh:mm • NAC not required • Not recorded
10	What protocol was used to treat the patient?	• SNAP • 21Hr
11	Did the patient receive any of the following treatments while receiving acetylcysteine?	• Salbutamol • Antihistamine • Antiemetic
12	Based on review of medical notes, did the patient have any of the following outcomes within 7 days?	• Transfer to liver transplant unit • Transfer to critical care • Readmission • Death • Unable to answer

DATA SOURCES

ED patient records including nursing notes (paper, electronic or both).

Flow of data searches to identify QIP cases

For information about using the Emergency Care Data Set (ECDS) or your ED's electronic patient record to identify relevant cases, and to extract data from your system, please see **Appendix 1**.

Using the codes list in **Appendix 1**, first identify all patients attending your ED between the relevant dates, then by age at time of attendance, then through the other relevant criteria.

If your ED is reliably using the Emergency Care Data Set (ECDS), then your IT department or information team should be able to a) pull off a list of eligible cases for you, and b) extract some or all of the data you need to enter. Please see **Appendix 1** for the list of codes they will need to identify eligible cases or extract the data.

Collaborating with local teams:

You may also consider approaching your CAMHS service to request assistance with sourcing eligible patients and explore potential options on how to collaborate to find eligible patients.

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REFERENCES

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(8) Harnett JT, Vithlani S, Sobhdam S, Kent J, McClure L, Thomas SH, Dargan PI. National audit of antidote stocking in UK emergency departments. Eur J Hosp Pharm. 2021 Jul;28(4):217-222. doi: 10.1136/ejhpharm-2019-001988. Epub 2019 Jul 13. PMID: 34162673; PMCID: PMC8239273.

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APPENDICES

Appendix 1: ECDS Codes to support case identification.

The codes below can be used to help initially identify potential cases. This is not an exhaustive list; other search terms can be used but all potential patients should then be reviewed to check they meet the definitions & selection criteria before inclusion in the QIP.

The ECDS codes below relate to CDS V6-2-2 Type 011 - Emergency Care Data Set (ECDS) Enhanced Technical Output Specification v4.0.

QIP question	ECDS data item name	ECDS national code	National code definition
Date and time of arrival or triage – whichever is earlier	EMERGENCY CARE ARRIVAL DATE EMERGENCY CARE ARRIVAL TIME	an10 CCYY-MM-DD an8 HH:MM:SS	Date Time
Ethnic group	ETHNIC CATEGORY	A	White British
		B	White Irish
		C	Any other White background
		D	White and Black Caribbean
		E	White and Black African
		F	White and Asian
		G	Any other mixed background
		H	Indian
		J	Pakistani
		K	Bangladeshi
		L	Any other Asian background
		M	Caribbean
		N	African
		P	Any other Black background
		R	Chinese
		S	Any other ethnic group
		Z	Not stated e.g. unwilling to state
		99	Not known e.g. unconscious
Gender	PERSON STATED GENDER CODE	1	Male
		2	Female
		9	Indeterminate (unable to be classified as either male or female)
		X	Not Known (PERSON STATED GENDER CODE not recorded)

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SNOMED Codes

When using SNOMED codes, request all the encounters using the codes in the list below for the appropriate age bracket. Select cases with paracetamol overdoses first; If less than 5 for the given week, select a random sample of remaining cases identified in the data set.

Chief Complaint	SNOMED Codes
Self-Harm	248062005
Suicidal thoughts	267073005
Depressive disorder	35489007
Anxiety disorder	48694002
Behaviour: unusual	248020004
Behaviour: agitated / violent	248004009
Hallucinations / Delusions	7011001
Mental Health Diagnosis	**SNOMED Codes**
Personality disorder	33449004
Eating disorder	72366004
Anxiety disorder	197480006
Depressive disorder	35489007
Bipolar affective disorder	13746004
Schizophrenia	58214004
Psychotic disorder	69322001
Somatisation disorder	397923000
Somatoform pain disorder	30077003
Dissociative disorder	44376007
Factitious disorder	50705009
Adjustment disorder	17226007
Illicit drug use	308742005
Alcohol dependence	66590003
Dementia	52448006
Injury Intent	**SNOMED Code**
Self-inflicted injury	276853009
Overdose	**SNOMED Code**
Paracetamol Overdose	295124009

Appendix 2: Definitions

Section	Term	Definition

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Appendix 3: Clinical standards – Analysis plan (Dashboard charts)

This section explains how the RCEM team will analyse your data. You may wish to conduct analysis locally. 'Analysis sample' shows which records will be included or excluded. 'Analysis plan' defines how the RCEM team will present the data graphically, and which records will meet or fail the standards.

Standard	Relevant questions	Analysis sample	Analysis plan – Conditions for the standard to be met where applicable
1	Section 1: Q1	**All patients**	**Standard MET** 7 (or more) elements out of 9 in Q1 = Yes **Standard FAIL** 6 (or less) elements out of 9 in Q1 = Yes
Standard	**Relevant questions**	**Analysis sample**	**Analysis plan – Conditions for the standard to be met where applicable**

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2a	Section 2: Q2 Q3 Q4	Q3 **IS NOT** 'Referral not accepted' **Condition 1 sample:** Q2 **IS NOT** 'No referral' **Condition 2 sample:** Q4 **IS NOT** 'Patient did not wait/self-discharge'	**Standard MET** (condition 1 or 2 <= 1hour) **Condition 1 (all of the below):** Q2 = Date and time provided Q3 = Date and time provided **Q3 – Q2 <= 1 hour** **Condition 2 (all of the below):** Q2 = Date and time provided Q4 = Date and time provided **Q3 – Q4 <= 1 hour** **Standard FAIL** Q2 = Not recorded (Condition 1) Q2 = Not recorded (Condition 2, where Q4 = Not seen by ED clinician, referral directly to mental health services) Q4 = Not reviewed (Condition 2) Q3 = Not recorded (Condition 1 and 2) Q3 = No referral (Condition 1 and 2) CONDITION 1 FAIL: Q3 – Q2 > 1 hour CONDITION 2 FAIL: Q3 – Q4 > 1 hour

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Standard	Relevant questions	Analysis sample	Analysis plan – Conditions for the standard to be met where applicable
2b	Section 1: Q5 Section 2: Q2 Q3 Q3.1	Q3 **IS NOT** 'Referral not accepted' **OR** Q2 **IS NOT** 'No referral'	**Standard MET** Q2 = Date and time provided AND Q3 = Date and time provided AND Q3.1 = Date and time provided AND Section 2 Q3.1 – Section 1 Q5 <= 4 hours **Standard FAIL** Q2 = 'No mental health input' OR Q2 = 'Not recorded' OR Q3 = 'No mental health input' OR Q3.1 = 'Not recorded' OR Q3.1 = 'Unknown' OR Q3.1 = 'No documented plan provided' OR Section 2 Q3.1 – Section 1 Q5 > 4 hours
Standard	**Relevant questions**	**Analysis sample**	**Analysis plan – Conditions for the standard to be met where applicable**

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3		Include: Only records where Q3 = Yes Exclude: Records where Q3 (Introduction) = No Records where Q1 (Standard 2) = Not recorded Records where Q9 (Standard 3) = NAC not required OR Not recorded Records where Q4 (Standard 2) = Not reviewed OR Patient did not wait/self-discharge OR Not seen by ED clinician, referral directly to mental health services.	**Standard MET** Q9 (Standard 3) Time – Earliest time of indication* ≤ 1h Earliest time of indication* *Time of indication can be determined the following way: Time of indication (A) IF Q6.1 (Standard 3) = Y Time of indication(A) = Q6 (Standard 3) Time Time of indication (B) IF Q1 (Standard 2) Time – Q2 (Standard 3) Time < 08:00 H Time of indication (B) = Q1 (Standard 2) Time Time of indication (C) IF Q4 (Standard 2) (time provided) AND Q4 (Standard 3) = Y Time of indication (C) = Q4 (Standard 2) Time Time of indication (D) IF Q7.1 (Standard 3) = Y Time of indication (D) = Q7 (Standard 3) Time Time of indication (E) IF Q7.2 (Standard 3) >100·e^(-0.1733·(Q7.2 (Standard 3) -4)) Time of indication (F) = Q7 (Standard 3) Time Time of indication (F) IF Q3.1 (Standard 3) /Q3 (Standard 3) ≥ 150mg/Kg Time of indication (G) = Q7 (Standard 3) Time Time of indication (G) IF Q8.1 (Standard 3) > 1.3 Time of indication (G) = Q8 (Standard 3) Time

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			Time of indication (H) IF Q1 (Standard 3) = Staggered Time of indication = Q1 (Standard 2) Time Time of indication (I) IF Q1 (Standard 3) = Single Acute (tables ingested under 1 hour) AND Q2 (Standard 3) Time – Q1 (Standard 2) Time < 8h Time of indication = MIN(Time of indication A, B, E) Time of indication (J) IF Q1 (Standard 3) = Single Acute (tables ingested under 1 hour) FOR Q2 (Standard 3) Time – Q1 (Standard 2) Time ≥ 8h to < 24h Time of indication = MIN(Time of indication A, C, E, F) Time of indication (K) IF Q1 (Standard 3) = Single Acute (tables ingested under 1 hour) AND Q2 (Standard 3) Time – Q1 (Standard 2) Time > 24h Time of indication = MIN(Time of indication A, D, C, F, G)

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- End -