

## Ambulance Quality Indicators: Indicator specification for Systems Indicators (AmbSYS)

### Contents

Section 1:	Standards.....	3
Section 2:	Introduction .....	4
	Triage .....	4
	Clinical Validation .....	4
	Additional Clinical Assessment .....	5
	Category 1 (C1).....	6
	Category 2, 3, and 4 (C2, C3, and C4) .....	6
	Incidents with no face to face response .....	6
	Ongoing review .....	7
Section 3:	General concepts .....	8
	Call connect.....	8
	Call answer.....	8
	Cross-border incidents .....	8
	Events .....	8
	Time data .....	8
Section 4:	Contacts (A0) .....	9
Section 5:	Calls (A1-A6, A114, A124-A125).....	10
Section 6:	Incident counts and assessment / validation times (A7-A23, A74-A81, A111-A113, A115, A119, A126-A139) .....	11
	HCP and IFT incidents .....	11
	Running Incident .....	11
	Categorisation .....	12
	Re-categorisation .....	12
	Nature of Call (NoC) / Pre-triage questions (PTQ) and keywords .....	14
	C5 clinical assessment.....	17
	Clinical validation .....	18
Section 7:	Response times (A24-A38, A82-A105, A116-A118, A120-A122).....	19
	Clock start .....	19
	Clock stop – all categories .....	19
Section 8:	Resource allocation and arrival (A39-A48).....	24
Section 9:	Bystander Cardio-Pulmonary Resuscitation (CPR) time (A49-A52)....	25
Section 10:	Section 136 response time (A106-A110) .....	25
Section 11:	Incident Outcomes (A53-A56) .....	26
Section 12:	Hospital Handovers .....	27
	Handover clock start .....	27
	Operational (resource) handover clock stop .....	27
Section 13:	Indicators no longer collected (A57-A73) .....	29
Section 14:	Abbreviations, glossary / data dictionary .....	30
	Terminology for re-categorisation .....	31
Section 15:	Use of NHS Pathways disposition codes .....	32
Section 16:	Table of stop codes and diagram of indicators.....	33

## Document history

20170811		Agreed after 2 August Ambulance Response Programme (ARP) Development Group.
20170926	Pages 10 and 25 Page 17	All calls from HCPs included in A53 to A56. Consequently, definition of A7 changed, from A17+A56:A61, to A17+A56, to avoid double counting of calls from HCPs. Clarified that all trust-dispatched resources are to be included in A39 to A48.
20180525		New indicators A74 to A113 added, to supersede A58 to A73 later in 2018/19. C4H renamed C5. C1 can be downgraded by clinicians. New definitions for recategorisation during call and responding at a higher category. Frequent callers with Care Plans in CAD can be categorised according to Care Plan. Clock start for upgrade is time of upgrade. Last defibrillator clock stop removed.
20190912	Page 9 Page 11 Page 12 Pages 15 and 22 Page 12 Page 18 Page 19 Page 19 Page 26 Page 28 Page 29	<b>To apply starting from 1 October 2019 data:</b> A114 added (90th centile call answer time). Clock only restarts during call if re-categorisation is to C1. A57 has 'No emergency conveyance' removed. A115 to A122 indicators added. Updates in other places to say HCP / IFT indicators A74 to A122 supersede A58 to A73. A113, C5 with response on scene, simplified. Air ambulance clarified in all clock stops. HCP / IFT without conveyance now has same clock stop as C2, C3, and C4. C3 / C4 circumstances added where First Responder can stop clock. Section 12 added, listing the indicators no longer collected. Section 13 has overrule / upgrade / re-triage terminology added. Section 14 added: table of stop codes and diagram of indicators.
20220725	All pages Page 3 Page 4  Page 7 Page 8 Page 9 Page 10  Page 11 Pages 11 and 12 Page 14 Page 16 Page 18  Page 21 Page 25 Page 26 Page 28	<b>To apply starting from 1 October 2022 data:</b> "Transport" replaced by "Conveyance"; they meant the same thing in this document. Standards moved from Section 7 to new Section 1. Measures added for C1T, C3, s136. Introduction updated: subsections added on validation and additional clinical assessment; removal of duplicative text that highlighted additions in 2017. Explanation added on calculation of data items for years / regions / England. Clarified that Contact Count A0 includes CAD transfers from police. New indicators A124 and A125 added on calls diverted to / from trusts. Only nationally mandated Pre-triage questions can be used to identify C1 incidents. Removal of duplicative text from 2019 that highlighted new HCP / IFT indicators. Clock re-start only where a higher category is determined by a clinical assessment tool. C5 incidents must default to C3 if a clinician does not call and an ambulance is dispatched. To reflect this, A113 renamed from "C5s with response on scene". New disposition (Dx) codes added to A18-A22. New indicators A126-A139 added on C5 clinical assessment and clinical validation. Clarified that C1 clock start also applies to Level 1 HCP / IFT. Clarified that clock start on transfer to CAD also applies to police incidents. Removal of superseded C3 / C4 clinical assessment procedure. SDEC and UTC added in A54 (convey to non-ED). A57 will not be collected after September 2022. Change of category after clinical re-triage must use the outcome of the re-triage tool.
20230615	Page 5 Page 8  Pages 5 and 12 Page 15 Pages 17 and 18 Page 30	Trusts can continue to use the 2022 derogation to validate some C2 incidents. Clarified that incidents are counted on the day the 999 call is received. <b>To apply starting from 1 October 2023 data:</b> Removal of rule saying outgoing calls from EOC call handlers cannot downgrade (they can now, although they must use the approved triage tool). A111 includes all C1 incidents originating from NHS 111, not just ITK transfers. Clinical validation A132 now includes any C2 incidents validated; clarified that time to assessment / validation is until clinician calls, even if not answered. New NHS Pathways disposition (Dx) codes added, Dx391 moved to A18/A21. All Dx codes moved from pages 15-18 to a new Section 14.
20230825	Page 27	To apply from 1 October 2023 data: Section 12 added, handover indicators A140-A148 "Clarified" means documenting a method already in use, rather than changing a calculation method.

## Section 1: Standards

Ambulance services should achieve these Standards in the Handbook to the NHS Constitution ([www.gov.uk/government/publications/supplements-to-the-nhs-constitution-for-england/the-handbook-to-the-nhs-constitution-for-england](http://www.gov.uk/government/publications/supplements-to-the-nhs-constitution-for-england/the-handbook-to-the-nhs-constitution-for-england)):

	<u>Mean average</u>	<u>90th centile</u>	<u>AmbSYS indicators</u>
C1 response	≤ 7 minutes	≤ 15 minutes	A25, A26
C2 response	≤ 18 minutes	≤ 40 minutes	A31, A32
C3 response		≤ 120 minutes	A35
C4 response		≤ 180 minutes	A38

Services should also aim to achieve these Measures:

	<u>Mean average</u>	<u>90th centile</u>	<u>AmbSYS indicators</u>
C1T response		≤ 30 minutes	A29
C3 response	≤ 1 hour		A34
Section 136 response	≤ 30 minutes		A108

## Section 2: Introduction

- 2.1 A new series of standards, indicators and measures were introduced in 2017-18 through the Ambulance Response Programme (ARP, [www.england.nhs.uk/urgent-emergency-care/improving-ambulance-services/arp](http://www.england.nhs.uk/urgent-emergency-care/improving-ambulance-services/arp)) for publication in the NHS England Ambulance Quality Indicators (AQI, [www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators](http://www.england.nhs.uk/statistics/statistical-work-areas/ambulance-quality-indicators)).
- 2.2 This document has been developed so that all aspects of ambulance performance are measured accurately and consistently. It also sets out a framework to ensure that the operating model allows for local flexibility where that adds value for patients.
- 2.3 This introduction summarises some of the key elements of the technical guidance; they are not exhaustive and should be read in conjunction with the rest of the document. With the pace of local innovation and continuing development in clinical practice, it is not possible to describe within this document every scheme that Trusts may initiate. The guiding principle must always be that Trusts should put arrangements in place that are in the best interests of patients. Those interpreting the technical guidance for operational use should use this introduction as a cross-reference to ensure that the interpretation they have reached is in line with the intended spirit of the rules.

### Triage

- 2.4 Ambulance Trusts will use one of the approved triage tools to allocate incidents to one of the new response categories as quickly and accurately as possible. Pre-Triage questions (PTQ) and the Nature of Call (NoC) process have been proven to identify Category 1 (C1) incidents at the earliest opportunity and must be used by all Trusts to improve the speed of response to these patients. A national mandated model of PTQ and NoC types has been developed and approved by NHS England and should be adhered to by Ambulance Trusts.
- 2.5 Incidents passed to Ambulance Trusts by NHS 111 providers having been assessed as requiring an ambulance response must be managed in the same way as 999 calls. For example, they should not be directed to a separate queue for further validation purely because the incident originated in 111. Requests from other healthcare professionals (HCPs) and requests for inter-facility transfers (IFT) should be assessed using protocols that align to the national HCP and IFT frameworks [www.england.nhs.uk/publication/inter-facility-transfers-framework](http://www.england.nhs.uk/publication/inter-facility-transfers-framework) and [www.england.nhs.uk/publication/healthcare-professional-ambulance-responses-framework](http://www.england.nhs.uk/publication/healthcare-professional-ambulance-responses-framework) in order to match the incident to the appropriate response category.

### Clinical Validation

- 2.6 All C3 and C4 incidents may be considered for clinical validation (with the exception of any codes determined by the Emergency Call Prioritisation Advisory Group (ECPAG) to be excluded on the grounds of patient safety).
- 2.7 In practical terms this means that following initial telephone triage by call handlers, C3 and C4 incidents may be proactively sent to a clinician for clinical validation, following review by a clinical navigator, in order to

determine the most appropriate response for the patient's needs. In these instances, there may be a queue to speak to a clinician and there may be a delay in the dispatch of a responding resource pending clinical validation.

- 2.8 The key underpinning principle of the C3 and C4 999 validation process is to ensure the most appropriate and safe response for patients; that patients are not kept waiting unnecessarily and that they are not clinically disadvantaged.
- 2.9 C1 and C2 incidents are excluded from proactive signposting for clinical validation by clinical navigators. However, for C2\* incidents it is accepted that there may be occasions where – in extremis and linked to escalation through Clinical Safety Plan levels – it may be appropriate for some C2 patients to receive clinical assessment. In those instances, the underpinning principle is that if an ambulance becomes available it should be dispatched to the incident without delay unless a clinician has downgraded the incident or reached a definitive conclusion that it is not appropriate for the patient's needs.
- 2.10 Ambulance trusts must ensure that appropriate governance arrangements are in place that meet the principles set out in NHS England guidance for clinical validation.
- 2.11 \* Ambulance Trusts have been issued a 2022 derogation relating to additional arrangements for C2 validation based on learning from pilots in WMAS and LAS. Trusts may operate under the terms of the derogation until this section is amended to include C2 validation arrangements.

### **Additional Clinical Assessment**

- 2.12 Incidents that are not identified for clinical validation and are sent for dispatch may still be re-triaged where appropriate on the basis of new information or developments in the patient's clinical condition. The fundamental principle is that additional clinical assessment of incidents that did not receive clinical validation should not delay dispatch unnecessarily and that should there be any delay it is in the interests of the patient in order to ensure that they receive the most appropriate response for their needs.
- 2.13 Incidents may on occasion be re-triaged by trained Emergency Operations Centre (EOC) call handlers – either through new information received from a subsequent call or as a consequence of an outgoing call initiated by a call handler – using the trust's approved triage tool. This re-triage may result in a change to the original response category.
- 2.14 Re-triage may take place until the arrival of a Trust vehicle, but the category of the incident may not be changed once the vehicle has arrived on scene.
- 2.15 We recognise that in some incidents the first clinician on scene may determine that emergency conveyance is not required, and that it is appropriate to book an alternative means of conveyance in a timescale appropriate to patient's needs. The technical guidance has been constructed to allow for this practice in order to preserve emergency ambulances for those patients whose condition requires an emergency conveyance or conveyance by a fully equipped and appropriately clinically staffed ambulance.

### **Category 1 (C1)**

- 2.16 The attendance of a bystander with a defibrillator is not regarded as a response that stops the ambulance response time clock, and nor should the clock stop for HCP or IFT incidents just because the facility requesting attendance is in possession of a defibrillator. However, First Responder schemes, through which the Trust actively deploys volunteers and staff from other agencies or companies, in possession of a defibrillator, who have additional training and capabilities in airway management and oxygen therapy, are deemed to be an appropriate resource to stop the response time clock for C1 patients. It continues to be the policy that the deployment of a First Responder must not delay the deployment of a Trust response vehicle.
- 2.17 We recognise the importance of early defibrillation and cardio-pulmonary resuscitation (CPR), and the positive impact that these interventions have on patient outcomes.
- 2.18 Rapid conveyance for C1 patients is critical and is measured through indicators for the arrival of the conveying resource, C1T. We have not specified what type of vehicle counts as a conveying resource in recognition of innovations such as advanced paramedics operating in cars adapted for conveyance of suitable patients. The intent is to measure the arrival of the vehicle that was able to convey the patient. For example, a car would not stop the C1T response time clock if it is not the vehicle that conveys the patient.

### **Category 2, 3, and 4 (C2, C3, and C4)**

- 2.19 The intent is to ensure that patients in these categories who require conveyance receive a conveying resource in a timeframe appropriate to their clinical needs. The technical guidance is intended to prevent situations where a patient is attended by an ambulance solo responder simply to stop the response time clock, but who is not able to convey the patient to a place of definitive care.
- 2.20 To that end an ambulance solo responder will only stop the clock where no patient is conveyed. For incidents that require conveyance in an emergency timescale, it is the arrival of the conveying resource that will stop the clock.

### **Incidents with no face to face response**

- 2.21 This technical guidance includes clear, unequivocal direction on how Trusts should record this activity.
- 2.22 The approved national “stop codes” should be used appropriately by Trusts in order to ensure national consistency in the reporting of these indicators. We have specifically excluded incidents that do not receive an on-scene response due to a clinical safety plan. This is not “hear and treat” activity, and should not be recorded as such.
- 2.23 The guidance sets out how we will measure incidents “closed with advice” and incidents “referred to another service” separately, in order to more precisely identify activity that is being definitively resolved by Trusts through hear and treat processes.
- 2.24 In addition, we will measure separately the sub-set of codes known as Category 5 (C5; termed C4H until July 2018) that we have pre-determined

should have a high probability of being managed through hear and treat processes. Through this indicator, it is our intent to drive the appropriate and efficient use of ambulance resources.

### **Ongoing review**

- 2.25 Additions and deletions for this document can be suggested via the contact details on the [AQI](#) website. For continuity of measurement, this document is unlikely to change more than once per year.



## Section 3: General concepts

For incidents that start before midnight and finish after midnight, activity should be reported on the day that the 999 call is received, except for handover indicators A140 to A148.

### Call connect

T0 is when BT first attempt to connect the call to the EOC telephony switch.

### Call answer

T1 is call answer, the time at which a call taker picks up the call and begins communicating with the caller.

T5 is identification of dispatch code using an approved triage tool.

### Cross-border incidents

The performance reporting for an incident should sit with the ambulance service in whose area the incident occurs, unless there is a reciprocal agreement around certain border areas.

### Events

For all indicators in this document, do not include services to events commissioned separately.

### Time data

Ambulance services should provide all time data as a total number of seconds, to avoid misinterpreting numbers in hours:minutes:seconds format.

### Mean average times

For all mean average indicators, services should provide the total time, and the count of incidents. The data collection spreadsheets divide the former by the latter, and round it to the nearest second, so the data item calculated mean is visible to services before publication. For mean averages covering more than one trust and/or more than one month, we add total times, and then divide by incident counts, before rounding. For example, for England, comprising all eleven services from North East to South Western,

$$A25 = \text{Trust NE} \sum^{\text{SW}} A24 / \text{Trust NE} \sum^{\text{SW}} A8$$

### Medians and centiles

A median call answer time of 7 seconds means that half the calls were answered in 7 seconds or less. The median is identical to the 50th centile.

A 90th centile incident response time of 13 minutes means that 9 out of 10 incidents were responded to in 13 minutes or less.

Trusts can calculate medians and centiles using SQL or the Excel PERCENTILE formula, and should round to a whole number of seconds.

To estimate centiles for more than one trust and/or more than one month, we multiply each area's monthly centile by the count of incidents it applies to, sum those products across all trusts / months, and divide that sum by the number of incidents across all trusts / months. For example, for one year,

$$A26 = (\text{Month } 1 \sum^{12} A26 * A8) / (\text{Month } 1 \sum^{12} A8)$$



## Section 4: Contacts (A0)

### **A0** *Contact count*

The count of all ambulance control room contacts.

This measures overall demand on call handling within ambulance services.

Include all telephone calls to 999 / 112.

Include cases transferred from NHS 111. For calls that are manually transferred (not via Interoperability Toolkit, ITK) from NHS 111, do not double count as incoming calls and as NHS 111 activity.

Include calls through all other numbers, such as by Healthcare Professionals (HCPs) and fire / police / coastguard, even where an incident is not created, along with incidents transferred directly from such authorities to the Computer-Aided Dispatch (CAD) system without a telephone call.

Do not include calls abandoned by the caller before they are answered by the ambulance service.

Do not include internal calls, such as enquiry calls from crews.

## Section 5: Calls (A1-A6, A114, A124-A125)

For indicators A1 to A6:

Include calls answered after being presented to switchboard on 999 emergency lines (includes where the caller dialled 112).

Do not include Police, Fire, or HCP calling direct dial numbers (not 999).

Do not include calls from NHS 111, unless the call from NHS 111 is transferred directly through to the 999 emergency line.

Do not include calls abandoned.

The time to answer each call is the time between [call connect](#) and [call answer](#).

Where no call connect time is recorded, count zero seconds for A2 to A6.

### **A1 Calls answered**

The count of all calls answered.

### **A2 Total call answer time**

The time to answer each call aggregated across all calls in A1.

### **A3 Mean call answer time**

Across all calls in A1, the mean average time to answer each call.

Definition:  $A3 = A2 / A1$

### **A4 Median call answer time**

Across all calls in A1, the median time to answer each call.

### **A114 90th centile call answer time**

Across all calls in A1, the 90th centile time to answer each call.

### **A5 95th centile call answer time**

Across all calls in A1, the 95th centile time to answer each call.

### **A6 99th centile call answer time**

Across all calls in A1, the 99th centile time to answer each call.

From October 2022, NHS England collects indicators A124 and A125, directly from the Intelligent Routing Platform (and not from trusts).

### **A124 Calls diverted in**

The count of calls answered by a trust that were diverted automatically from a trust elsewhere in England or the UK.

### **A125 Calls diverted out**

The count of calls diverted automatically from the trust that were answered by a trust elsewhere in England or the UK.

## Section 6: Incident counts and assessment / validation times (A7-A23, A74-A81, A111-A113, A115, A119, A126-A139)

6.1 Incidents comprise not only calls that receive a face-to-face response from the ambulance service at the scene of the incident, but also calls that are successfully resolved with telephone advice with any appropriate action agreed with the patient.

Definition:  $A7 = A17 + A56$

See also [Section 3: General concepts](#).

6.2 For all indicators from A7 onwards:

6.3 If there have been multiple calls about a single incident, only one incident should be counted.

6.4 Include incidents resulting from calls to NHS 111. From the point that an incident is received from NHS 111, it should be treated in the same manner as a call that was received through 999.

6.5 Include incidents initiated by a call from the fire service or police.

6.6 If a Trust resource arrives on scene after the start of a call, but before the incident is coded, then the incident is recorded as C2; unless the NoC, pre-triage questions (PTQ) or keywords have identified the incident as a potential C1, whereby the call will be recorded as C1. In the case of the NoC, only NoC codes reflected in the NHS England nationally mandated list should be applied to this rule. Any additional non mandatory NoC codes adopted by a trust should be recorded as a C2 for the purposes of this rule. In addition, only keywords that relate specifically to a mandated NoC type should be applied to this rule.

### HCP and IFT incidents

6.7 Before NHS England started to collect new indicators for HCP and Inter-Facility Transfer (IFT) incidents in October 2019:

- HCP incidents where a response of 1, 2, 3 or 4 hours was agreed were included in the relevant counts from A58 to A61 and response times from A62 to A73;
- Inter-Facility Transfer (IFT) incidents were triaged / clinically assessed using MPDS (Medical Priority Dispatch System), NHS Pathways, or locally agreed protocols, that accurately matched the patient's condition to one of the four categories. Once allocated to a category, the relevant standard applied.

### Running Incident

6.8 A Running Incident is where a Trust resource or clinician encounters an incident before a call is made, and is immediately on scene with the patient. All Running Incidents are C2. If any patients are conveyed, clock start and stop are as for C2. If no patients are conveyed, the response time is zero, because the resource arrival on scene triggers the call being coded as C2.

## Categorisation

- 6.9 Reporting must be against the code in the Computer-Aided Dispatch (CAD) record immediately prior to the arrival on scene of a Trust-dispatched resource. It must not be changed after a resource has arrived at scene.
- 6.10 Calls from frequent callers with a pre-agreed care plan in the CAD can be categorised according to that care plan. Services should be able to identify such calls for audit purposes.
- 6.11 Where it has been decided to respond to an incident at a higher category than stipulated in the national clinical code set (for example, following a serious incident or Coroner's ruling), ambulance services can treat that incident as a higher (not lower) category than its clinical coding suggests, but still need to report performance against its national clinical category.

## Re-categorisation

- 6.12 If a patient has reached a disposition or [T5](#), and their condition deteriorates subsequently during the same call, the code in the CAD may be changed to a code in a higher category before a response arrives on scene. In this case the clock start changes to the point at which the CAD recode occurs. From 1 October 2019, the clock start only changed if the new category was C1.
- 6.13 Following triage, either through 999 or 111, prior to the arrival of the responding resource as defined in paragraphs i) to iii) in [Clock stop](#), it may be appropriate for some incidents to receive clinical validation and / or additional clinical assessment, which may result in an alternative category for responding and reporting. If the incident is re-triaged to a higher category due to the outcome reached with the clinical assessment tool during clinical validation or additional clinical assessment, the clock start will be the point at which the clinician in the EOC changes the category and CAD recode occurs. Otherwise, the clock start from the original call remains. If a clinician calls, is unable to speak to the caller or does not reach an outcome with the clinical assessment tool indicating a higher priority, and operationally decides to handle the incident as a higher priority (for example for patient safety concerns), the original clock start remains.
- 6.14 Additional clinical assessment must be undertaken by a registered HCP, within the Clinical Assessment Service (CAS) or EOC. However, as outlined in [Additional Clinical Assessment](#) paragraph 2.13, there may be circumstances where it is appropriate for an EOC Call Handler to re-triage an incident using the trust's approved triage tool and this may result in a change of category.
- 6.15 If a further incoming call is received from any source (HCP or public 999) or if it is necessary for a EOC call handler to initiate a call to the original caller, before a resource has arrived on scene, and is triaged to a higher category than the original call, then the clock start and reporting category should be from the subsequent call. If such a call is from a different caller and concerns an incident in a public place, services should keep the incident in the appropriate category.
- 6.16 If an incident is initially triaged to C5, and a clinician does not call back, the clock start from the original call remains; and if an ambulance is dispatched,

the incident should default to C3 for all reporting purposes, and therefore be included in A11 and C3 response times.

- 6.17 For all re-triaging calls, either the original or the subsequent call is closed as a duplicate, to avoid double counting incidents. Services should still be able to link the separate calls for audit purposes.

See also [Terminology for re-categorisation](#).

**A7 All incidents**

The count of all incidents.

**A8 C1 on scene incidents**

The count of incidents coded as C1 that received a response on scene. Includes A74.

**A9 C1T on scene incidents**

The count of C1 incidents where any patients were conveyed by an ambulance service emergency vehicle. Do not include incidents where an ambulance clinician on scene determines that no conveyance is necessary, or [incidents with non-emergency conveyance](#) as defined below.

**A10 C2 on scene incidents**

The count of incidents coded as C2 that received a response on scene. Includes A75.

**A11 C3 on scene incidents**

The count of incidents coded as C3 that received a response on scene. From 1 October 2022, includes A113.

**A12 C4 on scene incidents**

The count of incidents coded as C4 that received a response on scene.

**A112 Incidents with non-emergency conveyance**

An incident with non-emergency conveyance is where an ambulance clinician or HCP on scene at an incident determines that non-emergency conveyance in a vehicle other than an emergency ambulance (such as Patient Transport Service (PTS), Urgent Care / Tier Vehicle, or similar), is appropriate, providing the conveyance is completed in a non-emergency vehicle.

These must only be counted as a single incident in the category recorded immediately prior to arrival on scene, and not as an extra incident in a lower category. Count in A53 or A54, as a conveyed incident, but for response times, the clock stops at the arrival of the first resource (see [Clock stop](#)).

**A113 C5 incidents defaulting to C3 for response on scene**

Count of incidents initially triaged as C5 defaulting to C3 because a clinician did not call back and an ambulance arrived on scene. Include in A11 from 1 October 2022.

Before 1 October 2022, such incidents were left as C5, so A113 counted “C5 incidents with a response on scene”.

**A74 HCP Level 1 incidents**

Of A8, how many incidents were calls from an HCP.

**A75 HCP Level 2 incidents**

Of A10, how many incidents were calls from an HCP.

**A76 HCP Level 3 incidents**

The count of incidents where a Level 3 response was agreed in response to a call from an HCP. Include 1- or 2-hour responses where still commissioned.

**A77 HCP Level 4 incidents**

The count of incidents where a Level 4 response was agreed in response to a call from an HCP. Include 3- or 4-hour responses where still commissioned.

**A78 IFT Level 1 incidents**

Of A8, how many incidents were requests for IFT.

**A79 IFT Level 2 incidents**

Of A10, how many incidents were requests for IFT.

**A80 IFT Level 3 incidents**

The count of incidents agreed as a Level 3 IFT response.

**A81 IFT Level 4 incidents**

The count of incidents agreed as a Level 4 IFT response.

**A115 C1 incidents excluding HCP and IFT**

Definition:  $A8 = A115 + A74 + A78$ .

**A119 C2 incidents excluding HCP and IFT**

Definition:  $A10 = A119 + A75 + A79$ .

**Nature of Call (NoC) / Pre-triage questions (PTQ) and keywords**

For A14 to A16, if the call connect time is not recorded, start from the next earliest time, such as [T1](#).

**A13 C1 NoC / PTQ / keywords incidents**

Of A8, how many incidents were identified as C1 by NoC / PTQ / keywords.

**A14 Total time to NoC / PTQ / keywords C1**

Aggregated across each call in A13, the time, in seconds, from call connect, until the call was identified as a potential C1 using NoC / PTQ or keywords.

**A15 Mean time to NoC / PTQ / keywords C1**

Across all calls in A13, the mean average time, in seconds, from call connect, until a call was identified as a potential C1 using NoC / PTQ or keywords.

Definition:  $A15 = A14 / A13$ .

**A16 90th centile time to NoC / PTQ / keywords C1**

Across all calls in A13, the 90th centile time, in seconds, from call connect, until a call was identified as a potential C1 using NoC / PTQ or keywords.

### **A111 C1 incidents from NHS 111**

The count of incidents coded as C1 from an NHS 111 call. These have no NoC / PTQ process, and will be excluded from the denominator A8 when calculating how effective NoC / PTQ are.

#### **Incidents with face-to-face response**

Incidents with face-to-face response are counted in A56 in Section 11.

### **A17 Incidents with no face-to-face response**

Count of all incidents not receiving a face-to-face response.

Definition:  $A17 = A18 + A19 + A21 + A22$ .

The recommended Hear and Treat rate will be  $A17 / A7$ .

Indicators A18 to A23 should be reported against the category immediately prior to any additional clinician triage.

Incidents counted in A20 or A23 will be also counted in A8, A10, A11, or A12.

Count incidents with no face-to-face resource, where full triage was undertaken, and resolved by:

- a designated HCP accountable to the ambulance service providing telephone advice, or;
- decisions supported by clinical decision support software or approved triage tool, or;
- referring to another organisation working with the ambulance service through an agreed contract or Service Level Agreement, or through the Directory of Services.

Do not include in A17:

- duplicate or multiple calls to an incident where a response had already been activated;
- information only calls, for example from police;
- response cancelled by caller, either during the initial call, or during a subsequent call to the ambulance service (including, but not limited to, when patient recovers without intervention);
- deceased patient with no response on scene;
- calls abandoned by the caller before coding is complete;
- caller not with patient and unable to give details;
- caller refused to give details;
- hoax calls where response not activated;
- calls that are not resolved with telephone advice and do not receive a response on scene due to Clinical Safety Plan actions associated with surge pressures;
- calls passed to another ambulance service or other emergency service.
- See also [Section 14](#) for NHS Pathways final disposition codes to exclude.

6.18 Incidents categorised as C3 or C4 through initial triage (and C2 where covered by the 2022 C2 validation AQI derogation) may benefit from additional clinical validation with a clinician prior to a response being sent. The outcome of this validation may be that a more suitable onward pathway is identified, such as a referral to a GP, and no ambulance response is required.



## Non-C5

### **A18 Incidents closed with advice: Non-C5**

For C1 to C4 incidents coded as requiring a face-to-face response; the count of incidents where, through clinical validation or clinical assessment, the patient was given specific home management advice about their condition, and did not require any onward referral.

If using MPDS, count incidents with a stop code of self-care.

See [Section 14](#) for NHS Pathways final disposition (Dx) codes to include.

### **A19 Incidents referred to other service: Non-C5**

For C1 to C4 incidents coded as requiring a face-to-face response; the count of incidents where an onward treatment path was agreed with the patient through clinical validation or clinical assessment; whether the ambulance service advised the patient to make their own way, or arranged this (including by sending a taxi), or referred the patient to another service (such as those listed in Section 14 as “Refer”).

If using MPDS, count incidents with a stop code of Refer to GP, Refer to ED, Refer to Urgent Treatment Centre including Urgent Care Centre / Minor Injuries Unit (MIU) / Walk-in Centre (WIC), Refer to HCP, Refer to Specific Service, or Refer to 111 / out of hours care.

See [Section 14](#) for NHS Pathways final disposition (Dx) codes to include.

### **A20 Incidents with call back before response on scene: Non-C5**

For C1 to C4 incidents coded as requiring a face-to-face response; the count of incidents where, before any resource arrived on scene, the patient received clinical validation or additional clinical assessment over the telephone, but the patient still received a response on scene.

Incidents counted in A20 will be also counted in A8, A10, A11 or A12.

## C5

6.19 Incidents categorised as C5 through initial full triage are identified as having a higher likelihood of there being a more suitable onward pathway than an ambulance response, such as a referral to a GP or UTC, or self-care advice. These may be directly referred at the end of the initial triage, or after additional clinical assessment by an HCP.

### **A21 Incidents closed with advice: C5**

Count of C5 incidents where the patient was given specific home management advice regarding their condition, and did not require any onward referral, as determined by the stop codes or Dx codes in A18 and [Section 14](#).

### **A22 Incidents referred to other service: C5**

Count of C5 incidents where an onward treatment path was agreed with the patient; whether the ambulance service advised the patient to make their own way, or arranged this (including by sending a taxi), as determined by the stop codes or Dx codes in A19 and [Section 14](#).

**A23 Incidents with call back before response on scene: C5**

Count of incidents originally coded as C5 where a clinician called back and determined that an ambulance response was necessary. The incident must be upgraded to C1, C2, C3, or C4.

Exclude incidents with an NHS Pathways initial disposition code in the list in [Section 14](#) and passed to a clinician to call to complete triage.

Incidents counted in A23 will be also counted in A8, A10, A11, or A12.

**A126 Non-ambulance conveyance including taxi**

Of A19 and A22, the count of incidents where the ambulance service sent a taxi or similar vehicle (not PTS) to convey the patient (to ED or elsewhere) after telephone triage.

**A127 Refer to ED**

Of A19 and A22, the count of incidents where, without face-to-face contact, the ambulance service advised the patient to go to ED (defined in Section 11).

An incident can count in one, both, or neither of A126 and A127.

**C5 clinical assessment****A128 Incidents receiving clinical assessment: C5**

Count of incidents originally coded as C5 where a clinician was able to undertake clinical assessment with the patient.

This may include incidents with an NHS Pathways initial disposition code in the list in [Section 14](#).

6.20 For A129 to A131, times should be until a clinician first attempts to establish contact with the patient for the purposes of clinical assessment (or, if that is unavailable, time of acceptance by CAS for assessment). If the incident is transferred to an outside organisation and the call back time is unavailable, the time is until the incident is transferred.

**A129 Total time to clinical assessment: C5**

Across all incidents in A128, the total time, in seconds, from call connect to clinical assessment.

**A130 Mean time to assessment: C5**

Across all incidents in A128, the mean average time, in seconds, from call connect to clinical assessment.

Definition:  $A130 = A129 / A128$

**A131 90th centile time to assessment: C5**

Across all incidents in A128, the 90th centile time, in seconds, from call connect to clinical assessment.

## Clinical validation

- 6.21 Incidents categorised as C3 or C4 through initial triage (and C2 where covered by the 2022 C2 validation AQI derogation) may benefit from additional clinical validation with a clinician prior to a response being sent. The outcome of this validation may be that a more suitable onward pathway is identified, such as a referral to a GP, and no ambulance response is required.
- 6.22 Indicators A136 to A139 should be reported against the category immediately post-clinical validation. Definition:  $A132 = A136 + A137 + A138 + A139$ .

### **A132 Incidents receiving clinical validation**

Count of C2 (where covered by the 2022 C2 validation AQI derogation), C3 or C4 incidents where a clinician undertook clinical validation with the patient.

- 6.23 For A133 to A135, times should be until a clinician first attempts to establish contact with the patient for the purposes of clinical validation (or, if that is unavailable, time of acceptance by CAS for validation). If the incident is transferred to an outside organisation and the call back time is unavailable, the time is until the incident is transferred.

### **A133 Total time to validation**

Across all incidents in A132, the total time, in seconds, from call connect to clinical validation.

### **A134 Mean time to validation**

Across all incidents in A132, the mean average time, in seconds, from call connect to clinical validation.

Definition:  $A134 = A133 / A132$

### **A135 90th centile time to validation**

Across all incidents in A132, the 90th centile time, in seconds, from call connect to clinical validation.

### **A136 Incidents closed with advice post-validation**

Of A132, the count of incidents where, through clinical validation, the patient was given specific home management advice about their condition, and did not require any onward referral or response on scene.

If using MPDS, count incidents with a stop code of self-care.

See [Section 14](#) for the NHS Pathways final disposition codes to include.

### **A137 Incidents referred to other service post-validation**

Of A132, the count of incidents where, through clinical validation, an onward treatment path was agreed with the patient, whether the ambulance service advised the patient to make their own way, or referred them to another service, as determined by the stop codes or Dx codes in [A19](#) and [Section 14](#).

### **A138 Incidents with same / lower category post-validation**

Of A132, the count of incidents where, through clinical validation, an ambulance response was confirmed, of the same or lower category.

### **A139 Incidents upgraded post-validation**

Of A132, the count of incidents where, through clinical validation, the ambulance response category was upgraded.

## Section 7: Response times (A24-A38, A82-A105, A116-A118, A120-A122)

### Clock start

For C1 and C1T (including Level 1 HCP / IFT incidents), the earliest of:

- the call is coded (for MPDS, at [T5](#); for NHS Pathways, at disposition); or
- the first resource is assigned; or
- 30 seconds from call connect.

For C2, C3, C4, Level 2-4 HCP, and Level 2-4 IFT, the earliest of:

- the call is coded (for MPDS, at T5; for NHS Pathways, at disposition); or
- the first resource is assigned; or
- 240 seconds from call connect.

For C2 to C4, assigning a First Responder does not on its own start the clock.

If a responding resource is asked to head towards / proceed towards the location of an incident, it must be allocated to the incident on the CAD, therefore registering the correct clock start point.

If a subsequent resource is allocated, whether following auto-dispatch or otherwise, the original clock start should not be altered.

For NHS 111 incidents transferred (such as through ITK), and incidents electronically transferred from the police or another ambulance service's CAD, clock starts on transfer of the incident to the EOC CAD.

See also "[Re-categorisation](#)" on when category changes affect clock start.

### Clock stop – all categories

A legitimate clock stop position can include the response arriving at a pre-arrival rendezvous point when one has been determined as appropriate for the safety of ambulance staff in agreement with the control room. For example, a rendezvous point could be agreed for the following situations:

- Information has been received relating to the given location that a patient or bystander is violent, and police or other further assistance is required;
- Information has been received that the operational incident, because of its nature, is unsafe for ambulance staff to enter.

For all clock stops, air ambulances are considered to be an emergency ambulance with the potential to convey the patient, and are counted as such. Therefore, if an air ambulance arrives after a land ambulance, and the air ambulance conveys the patient, the clock stops at the arrival of the land ambulance, and vice versa.

### Clock stop – C1 (including Level 1 HCP / IFT incidents)

- i A fully equipped Trust Ambulance (land or air), with ambulance staff trained to deliver clinical care to patient(s) at the scene of an incident, arrives within a 200 metre geo-fence of the patient (if tracked); or such an ambulance confirms arrival at scene through an updated status message via the Mobile Data Terminal (MDT) in the vehicle, or a clinician confirming verbally to the EOC that they are on scene;

- ii A fully equipped Rapid Response Vehicle (RRV), motorbike or cycle, Blue Light Response Officer, or Critical Care BASIC Responder, arrives within a 200 metre geo-fence of the patient (if tracked); or the RRV confirms arrival at scene through an updated status message via the MDT in the vehicle, or a clinician confirming verbally to the EOC that they are on scene;
- iii An ambulance resource commissioned to work on behalf of the Trust, who is deployed by the Trust, working to the Trust Policies and Procedures, on a fully equipped ambulance with qualified staff on board (for example, Private Ambulance Service (PAS) or Voluntary Ambulance Service (VAS)), arrives within a 200 metre geo-fence of the patient (if tracked); or the clinician confirms arrival at scene through an updated status message via the MDT in the vehicle, or a clinician confirms verbally to the EOC that they are on scene;
- iv C1 only: An approved First Responder deployed by the Trust, trained in basic airway management, and trained in the use of and the provision of emergency oxygen, arrives within a 200 metre geo-fence of the patient (if tracked); or the First Responder confirms arrival at scene through an updated status message via the MDT in the vehicle, or a First Responder confirming verbally to the EOC that they are on scene, or through technical methods that offer the same level of assurance. Examples of approved First Responder include, but are not limited to: Community First Responder (CFR); Co-Responder from other public services such as Police, Fire Service, Mountain Rescue, Coastguard; and schemes established with private companies.

#### **Clock stop – C1T (including Level 1 HCP / IFT incidents with patient conveyed)**

The clock stops at the arrival of first vehicle of the type that conveys the patient. Examples:

- If two emergency ambulances arrive, and for logistical reasons the patient is conveyed in the second, the first will stop the clock.
- If the patient is conveyed in an emergency ambulance, which arrives after an RRV, the clock stops at the arrival of the emergency ambulance, not the RRV.

#### **Clock stop – C2, C3, C4, Level 2-4 HCP, Level 2-4 IFT**

If no patients are conveyed by an emergency vehicle (including [incidents with non-emergency conveyance](#)), the clock stops at the arrival of the first vehicle as defined in paragraphs i) to iii) in [Clock stop – C1](#).

If the only resource to arrive on scene is a First Responder, where no other ambulance resource arrives on scene, and an EOC clinician confirms to the responder that conveyance is not necessary, the clock stop is the arrival of the First Responder.

Otherwise, the clock stops at the arrival of first vehicle of the type that conveys the patient. Examples:

- If two emergency ambulances arrive, and for logistical reasons the patient is conveyed in the second, the first will stop the clock;
- If the patient is conveyed in an emergency ambulance, arriving after an RRV, the clock stops at the emergency ambulance arrival, not the RRV;
- For Level 3 and Level 4 HCP incidents, if the only resource attending is an Urgent Tier vehicle, then that will stop the clock in the same way as an emergency vehicle.

**A24 Total response time: C1**

The total response time aggregated across all incidents in A8.

**A25 Mean response time: C1**

Across all incidents in A8, the mean average response time.

Definition:  $A25 = A24 / A8$

**A26 90th centile response time: C1**

Across all incidents in A8, the 90th centile response time.

**A27 Total response time: C1T**

The total response time aggregated across all incidents in A9.

**A28 Mean response time: C1T**

Across all incidents in A9, the mean average response time.

Definition:  $A28 = A27 / A9$

**A29 90th centile response time: C1T**

Across all C1T incidents in A9, the 90th centile response time.

**A30 Total response time: C2**

The total response time aggregated across all incidents in A10.

**A31 Mean response time: C2**

Across all incidents in A10, the mean average response time.

Definition:  $A31 = A30 / A10$

**A32 90th centile response time: C2**

Across all incidents in A10, the 90th centile response time.

**A33 Total response time: C3**

The total response time aggregated across all incidents in A11.

**A34 Mean response time: C3**

Across all incidents in A11, the mean average response time.

Definition:  $A34 = A33 / A11$

**A35 90th centile response time: C3**

Across all incidents in A11, the 90th centile response time.

**A36 Total response time: C4**

The total response time aggregated across all incidents in A12.

**A37 Mean response time: C4**

Across all incidents in A12, the mean average response time.

Definition:  $A37 = A36 / A12$

**A38 90th centile response time: C4**

Across all incidents in A12, the 90th centile response time.



- A82 Total response time: HCP Level 1**  
The total response time aggregated across all incidents in A74.
- A83 Mean response time: HCP Level 1**  
Across all incidents in A74, the mean average response time.  
Definition:  $A83 = A82 / A74$
- A84 90th centile response time: HCP Level 1**  
Across all incidents in A74, the 90th centile response time.
- A85 Total response time: HCP Level 2**  
The total response time aggregated across all incidents in A75.
- A86 Mean response time: HCP Level 2**  
Across all incidents in A75, the mean average response time.  
Definition:  $A86 = A85 / A75$
- A87 90th centile response time: HCP Level 2**  
Across all incidents in A75, the 90th centile response time.
- A88 Total response time: HCP Level 3**  
The total response time aggregated across all incidents in A76.
- A89 Mean response time: HCP Level 3**  
Across all incidents in A76, the mean average response time.  
Definition:  $A89 = A88 / A76$
- A90 90th centile response time: HCP Level 3**  
Across all incidents in A76, the 90th centile response time.
- A91 Total response time: HCP Level 4**  
The total response time aggregated across all incidents in A77.
- A92 Mean response time: HCP Level 4**  
Across all incidents in A77, the mean average response time.  
Definition:  $A92 = A91 / A77$
- A93 90th centile response time: HCP Level 4**  
Across all incidents in A77, the 90th centile response time.
- A94 Total response time: IFT Level 1**  
The total response time aggregated across all incidents in A78.
- A95 Mean response time: IFT Level 1**  
Across all incidents in A78, the mean average response time.  
Definition:  $A95 = A94 / A78$
- A96 90th centile response time: IFT Level 1**  
Across all incidents in A78, the 90th centile response time.



- A97 Total response time: IFT Level 2**  
The total response time aggregated across all incidents in A79.
- A98 Mean response time: IFT Level 2**  
Across all incidents in A79, the mean average response time.  
Definition:  $A98 = A97 / A79$
- A99 90th centile response time: IFT Level 2**  
Across all incidents in A79, the 90th centile response time.
- A100 Total response time: IFT Level 3**  
The total response time aggregated across all incidents in A80.
- A101 Mean response time: IFT Level 3**  
Across all incidents in A80, the mean average response time.  
Definition:  $A101 = A100 / A80$
- A102 90th centile response time: IFT Level 3**  
Across all incidents in A80, the 90th centile response time.
- A103 Total response time: IFT Level 4**  
The total response time aggregated across all incidents in A81.
- A104 Mean response time: IFT Level 4**  
Across all incidents in A81, the mean average response time.  
Definition:  $A104 = A103 / A81$
- A105 90th centile response time: IFT Level 4**  
Across all incidents in A81, the 90th centile response time.
- A116 Total response time: C1 excluding HCP and IFT**  
Definition:  $A24 = A116 + A82 + A94$ .
- A117 Mean response time: C1 excluding HCP and IFT**  
Definition:  $A117 = A116 / A115$
- A118 90th centile response time: C1 excluding HCP and IFT**  
Across all incidents in A115, the 90th centile response time.
- A120 Total response time: C2 excluding HCP and IFT**  
Definition:  $A30 = A120 + A85 + A97$ .
- A121 Mean response time: C2 excluding HCP and IFT**  
Definition:  $A121 = A120 / A119$
- A122 90th centile response time: C2 excluding HCP and IFT**  
Across all incidents in A119, the 90th centile response time.

## Section 8: Resource allocation and arrival (A39-A48)

Counts of resources assigned to incidents, regardless of whether they arrived on scene.

Include all trust-dispatched resources (including urgent tier vehicles), and PAS or VAS.

Do not include CFR or co-responders such as police, military, fire service.

### **A39 Resources allocated to C1**

For all incidents in A8, total count of resources allocated.

### **A40 Resources arriving to C1**

For all incidents in A8, total count of resources that arrived on scene.

A39 and A40 will be divided by A8 to give, respectively, mean allocations and mean arrivals on scene per C1 incident.

### **A41 Resources allocated to C1T**

For all incidents in A9, total count of resources allocated.

### **A42 Resources arriving to C1T**

For all incidents in A9, total count of resources that arrived on scene.

A41 and A42 will be divided by A9 to give, respectively, mean allocations and mean arrivals on scene per C1T incident.

### **A43 Resources allocated to C2**

For all incidents in A10, total count of resources allocated.

### **A44 Resources arriving to C2**

For all incidents in A10, total count of resources that arrived on scene.

A43 and A44 will be divided by A10 to give, respectively, mean allocations and mean arrivals on scene per C2 incident.

### **A45 Resources allocated to C3**

For all incidents in A11, total count of resources allocated.

### **A46 Resources arriving to C3**

For all incidents in A11, total count of resources that arrived on scene.

A45 and A46 will be divided by A11 to give, respectively, mean allocations and mean arrivals on scene per C3 incident.

### **A47 Resources allocated to C4**

For all incidents in A12, total count of resources allocated.

### **A48 Resources arriving to C4**

For all incidents in A12, total count of resources that arrived on scene.

A47 and A48 will be divided by A12 to give, respectively, mean allocations and mean arrivals on scene per C4 incident.

## Section 9: Bystander Cardio-Pulmonary Resuscitation (CPR) time (A49-A52)

For incidents where a bystander has started CPR before call connect, include the incident in A49, and count zero time for A50, A51 and A52.

### **A49 Bystander CPR count**

Count of incidents where CPR is started by a bystander, including off-duty clinicians, before arrival of an ambulance response.

### **A50 Total time to bystander CPR**

For all incidents in A49, total of time from call connect until CPR is started by a bystander.

### **A51 Mean time to bystander CPR**

For all incidents in A49, the mean average time from call connect until CPR is started by a bystander.

Definition:  $A51 = A50 / A49$

### **A52 90th centile time to bystander CPR**

For all incidents in A49, the 90th centile time from call connect until CPR started by a bystander.

## Section 10: Section 136 response time (A106-A110)

Items A106 to A110 are collected starting from April 2019.

Section 136 response times should use the [clock start](#) and [clock stop](#) definitions from Section 7 above.

### **A106 Section 136 count**

Count of incidents where a patient is attended by an ambulance service as a result of a request under section 136 in a mental health crisis situation.

### **A107 Total response time: Section 136**

The total response time aggregated across all incidents in A106.

### **A108 Mean response time: Section 136**

Across all incidents in A106, the mean average response time.

Definition:  $A108 = A107 / A106$

### **A109 90th centile response time: Section 136**

Across all incidents in A106, the 90th centile response time.

### **A110 Section 136 conveyance**

For all incidents in A106, the count where the ambulance service conveyed a patient.

## Section 11: Incident Outcomes (A53-A56)

For A53 to A56, count one for a single incident, even if there is more than one call to 999, and / or more than one patient conveyed.

The recommended See & Convey rate is  $(A53+A54) / A7$ .

The recommended See & Treat rate is  $A55 / A7$ .

### **A53 Convey to ED**

Count of incidents with any patients conveyed to an Emergency Department (ED), including incidents where the department conveyed to is not specified. Include [incidents with non-emergency conveyance](#) to ED.

ED includes stroke and Primary Percutaneous Coronary Intervention units.

If a single incident had one or more patients conveyed to an ED, but also one or more patients conveyed to another facility, count the incident only in A53, and not in A54.

### **A54 Convey to non-ED**

Count of incidents with any patients conveyed to any facility other than an Emergency Department, including, but not limited to:

- Urgent Treatment Centres (UTC) (including existing Urgent Care Centres, Minor Injuries Unit (MIU), and Walk-in centres);
- Emergency, Medical, or Surgical Assessment Unit (EAU, MAU, SAU);
- Same Day Emergency Care (SDEC) units;
- Conveyance from hospital to hospice.

Include [incidents with non-emergency conveyance](#) to any of these destinations.

### **A55 Incidents with no conveyance (See & Treat)**

Count of incidents with face-to-face response, but no patients conveyed, including:

- patient(s) refused treatment, deceased, or could not be found, or
- ambulance service staff arranged an appointment for the patient, or a follow-up home visit; or
- ambulance service staff attended an incident and gave advice, without clinical intervention.

### **A56 Incidents with face-to-face response**

Definition:  $A56 = A53 + A54 + A55$

## Section 12: Hospital Handovers

Handovers should be counted on the day of the handover clock start.

### **A140 Count of arrivals at ED and non-ED**

Include handovers at ED and non-ED where a clock stop handover time is recorded jointly by the hospital and ambulance service, or the ambulance service alone. If no handover time is recorded, the crew clear time should not be used as a proxy, and the incident should not be included.

Include handovers made by your ambulance service at ED and non-ED, whether inside or outside the area covered by the ambulance service.

Count two handovers if two patients are handed over after one emergency incident.

### **Handover clock start**

For A141 to A147, the handover clock starts when the ambulance wheels stop in the patient offloading bay, or in a queue for it (handbrake applied and 'Red at Hospital' button is pressed on the Mobile Data Terminal (MDT)).

Geofence times can also be used for clock start. Where both button press and geofence are valid and present, the earlier time should be used.

Ambulance services must ensure their geofence trigger matches the ambulance waiting area at the hospital, to avoid incorrect early time triggers.

### **Operational (resource) handover clock stop**

Where a patient is handed over directly from the conveying crew to hospital staff, the operational (resource) handover clock stop is when clinical handover has been fully completed and the patient has been physically transferred onto hospital apparatus. Ambulance apparatus must have been returned, enabling the ambulance crew to leave the department.

Handover times should be agreed and recorded jointly between the ambulance service and hospital at the time of handover. Where no handover time is recorded jointly, the handover time recorded by the ambulance crew on vehicle systems should be used instead.

Where the patient is transferred to a second vehicle (for example, due to shift change) the operational (resource) clock stop is the time the second crew handover the patient's care to either the hospital or a cohorting function.

Where the patient is transferred to a cohorting function from the conveying vehicle, the operational (resource) clock stop is the time the conveying crew handover to the cohorting function who take over clinical responsibility of the patient, enabling the conveying ambulance staff to leave the hospital.

### **A141 Total handover time**

For all handovers in A140, the total handover time.

### **A142 Mean handover time**

$A142 = A141 / A140$

For all handovers in A140, the mean average handover time.

**A143 90th centile handover time**

For all handovers in A140, the 90th centile handover time.

**A144 Count of Handovers at ED and non-ED over 15 minutes**

For all handovers in A140, handovers with a handover time more than 15 minutes. Exclude times of exactly 15 minutes. Includes A145.

**A145 Count of Handovers at ED and non-ED over 30 minutes**

For all handovers in A140, handovers with a handover time more than 30 minutes. Exclude times of exactly 30 minutes. Includes A146.

**A146 Count of Handovers at ED and non-ED over 60 minutes**

For all handovers in A140, handovers with a handover time more than 60 minutes. Exclude times of exactly 60 minutes.

**A147 Total handover time beyond 30 minutes**

For all handovers in A145, the total handover time excluding the first 30 minutes after clock start.

**A148 Count of handovers with no handover time recorded**

Include handovers at ED and non-ED where no clock stop handover time is recorded by either the hospital or the ambulance service.

Include handovers made by your ambulance service at ED and non-ED, whether inside or outside the area covered by the ambulance service.

Count two handovers if two patients are handed over after one emergency incident.

## Section 13: Indicators no longer collected (A57-A73)

A123 has never been collected.

Not collected after September 2019:

**A58 HCP 1-hour response**

Incidents where a 1-hour response was agreed in response to an HCP call.

**A59 HCP 2-hour response**

Incidents where a 2-hour response was agreed in response to an HCP call.

**A60 HCP 3-hour response**

Incidents where a 3-hour response was agreed in response to an HCP call.

**A61 HCP 4-hour response**

Incidents where a 4-hour response was agreed in response to an HCP call.

**A62 Total response time: HCP 1-hour response**

The total response time aggregated across all incidents in A58.

**A63 Mean response time: HCP 1-hour response**

Across all incidents in A58, the mean average response time.

**A64 90th centile response time: HCP 1-hour response**

Across all incidents in A58, the 90th centile response time.

**A65 Total response time: HCP 2-hour response**

The total response time aggregated across all incidents in A59.

**A66 Mean response time: HCP 2-hour response**

Across all incidents in A59, the mean average response time.

**A67 90th centile response time: HCP 2-hour response**

Across all incidents in A59, the 90th centile response time.

**A68 Total response time: HCP 3-hour response**

The total response time aggregated across all incidents in A60.

**A69 Mean response time: HCP 3-hour response**

Across all incidents in A60, the mean average response time.

**A70 90th centile response time: HCP 3-hour response**

Across all incidents in A60, the 90th centile response time.

**A71 Total response time: HCP 4-hour response**

The total response time aggregated across all incidents in A61.

**A72 Mean response time: HCP 4-hour response**

Across all incidents in A61, the mean average response time.

**A73 90th centile response time: HCP 4-hour response**

Across all incidents in A61, the 90th centile response time.

Not collected after September 2022:

**A57 HCP incidents with non-emergency conveyance**

The count of incidents with non-emergency conveyance in response to a call from an HCP.



## Section 14: Abbreviations, glossary / data dictionary

NEAS, NWS, YAS, EMAS, WMAS, EEAST, LAS, SECamb, SCAS, SWAS, IOW	North East, North West, Yorkshire, East Midlands, West Midlands, East of England, London, South East Coast, South Central, South Western, Isle of Wight Ambulance Services
AQI	Ambulance Quality Indicators
ARP	Ambulance Response Programme
BASIC	British Association for Immediate Care
CAD	Computer-Aided Dispatch
CAS	Clinical Assessment Service
CFR	Community First Responder
CPR	Cardio-pulmonary resuscitation
Dx	Disposition
ECP	Emergency Care Practitioner
ECPAG	Emergency Call Prioritisation Advisory Group
ED	Emergency Department
EOC	Emergency Operations Centre
HCP	Healthcare Professional
IFT	Inter-Facility Transfer
ITK	Interoperability Toolkit
MDT	Mobile Data Terminal
MIU	Minor Injuries Unit
MPDS	Medical Priority Dispatch System
NAIG	National Ambulance Information Group
NoC	Nature of Call (questions before NHS Pathways questions)
PAS	Private Ambulance Service
PTQ	Pre-triage questions
PTS	Patient Transport Services
RRV	Rapid Response Vehicle
UCC	Urgent Care Centre
UTC	Urgent Treatment Centre
VAS	Voluntary Ambulance Service
WIC	Walk-in centre

Defined in [Section 3: General concepts](#):

- Call connect
- Call answer
- Cross-border calls
- Events
- Time data
- Mean average times
- Medians and centiles

Defined in later places in this document:

- [Re-categorisation](#)
- [Clock start](#)
- [Clock stop](#)
- [Incidents with non-emergency conveyance](#)
- [Running Incidents](#)

## Terminology for re-categorisation

### Local code set amendment

When a national clinical code set is issued by ECPAG, the intent is that this should be adopted consistently by ambulance services. In some cases, services review the code set against internal clinical evidence, and take account of other factors such as Coroners' rulings. This process can lead to services deciding to manage a code or codes at a higher level of response than set out in the national code set. In these instances, the performance against the amended code is still reported against the standards that would relate to the national categorisation of the code.

It is anticipated that the need for this sort of local variation will reduce, through improved processes to pool evidence when agreeing the national clinical code set. There should be very few instances where there is a genuine need for local variation. Where local variation is still felt to be warranted, it is termed "Local code set amendment".

### Clinical re-triage

All ambulance services, to varying degrees, have invested in placing ambulance clinicians within EOCs, in order to improve the care given to patients, and to assist with improving triage decisions. Incidents are passed to clinicians by call handlers, or are actively identified by clinicians as being suitable for clinical triage. Ambulance services may trial processes where pre-identified codes are automatically flagged for clinical assessment.

Where clinicians speak with the patient or caller and use a clinical assessment tool to improve the triage of the incident, this can (where allowed by this document) where indicated by the outcome of the clinical assessment tool result in assigning the incident to a higher or lower category than that reached during the initial call handler led triage. These occurrences are described respectively as "Clinical re-triage (higher)" and "Clinical re-triage (lower)".

### Override

Ambulance services may allow incidents to be upgraded to a higher level of response, following the judgement of a clinician or EOC manager that a particular patient has been waiting too long for a response, or there are other complicating factors. This process may be automated after a given timescale. These could include incidents that had further clinical assessment, but where the patient's underlying clinical condition did not change.

Typically, these events occur when an ambulance service is in escalation and/or is "stacking" calls. Services might flag these events as an override (or similar term) and, while escalating the response higher up "the stack", continue to report the incident in its original category.

If a service has an unusual proportion of incidents in a certain category, identifying these events will help investigate why. It is not necessary to distinguish between overrides authorised by clinicians and those authorised by managers. These events are collectively referred to as "Overrides".

## Section 15: Use of NHS Pathways disposition codes

Initial dispositions to exclude from A23 (can be included in A128):

Dx32	Dx325	Dx326	Dx327	Dx328	Dx329
Dx330	Dx332	Dx34	Dx35	Dx38	

Exclude from Hear & Treat (A17)	Include in Closed Incidents (A18, A21, and A136)	Include in Referred Incidents (A19, A22, and A137)
Final dispositions of	Final dispositions of	Final dispositions of
Dx106	Dx000	Dx001
Dx108	Dx09	Dx02
Dx32	Dx16	Dx021
Dx321	Dx25	Dx022
Dx322	Dx39	Dx03
Dx323	Dx391	Dx05
Dx324	Dx46	Dx06
Dx325	Dx82	Dx07
Dx326	Dx83	Dx08
Dx327	Dx96	Dx10
Dx328		Dx11
Dx329		Dx110
Dx330		Dx111
Dx3312		Dx1111
Dx3313		Dx1112
Dx3314		Dx1113
Dx3315		Dx1114
Dx3316		Dx1115
Dx3317		Dx1116
Dx3318		Dx1117
Dx3319		Dx112
Dx3320		Dx113
Dx332		Dx114
		Dx115
		Dx116
		Dx117
		Dx118
		Dx119
		Dx12
		Dx120
		Dx122
		Dx123
		Dx124
		Dx13
		Dx14
		Dx15
		Dx17
		Dx18
		Dx19
		Dx20
		Dx21
		Dx22
		Dx23
		Dx28
		Dx29
		Dx30
		Dx31
		Dx42
		Dx43
		Dx451
		Dx47
		Dx48
		Dx50
		Dx51
		Dx60
		Dx63
		Dx64
		Dx73
		Dx74
		Dx75
		Dx84
		Dx88
		Dx89
		Dx91
		Dx92
		Dx93
		Dx94
		Dx97
		Dx98
		Dx95

## Section 16: Table of stop codes and diagram of indicators

This table shows which stop codes (used by ambulance services to close calls and incidents) are counted as incidents, and in the AmbSYS indicators used to measure Hear & Treat / See & Treat.

Do not count Test / Error in any AmbSYS indicators.	A0 & A1 Contacts, Calls	A7 Incidents	A17 Hear & Treat	A18 / A21 Closed	A19 / A22 Referred	A56 See & Treat / Convey
Duplicate (of existing incident)	Y	-	-	-	-	-
Information	Y	-	-	-	-	-
Passed to another (ambulance) service	Y	-	-	-	-	-
Hoax (identified at time of call)	Y	-	-	-	-	-
Cancelled by caller – Delay in response	Y	-	-	-	-	-
Cancelled by caller – Patient recovered	Y	-	-	-	-	-
Cancelled by caller – Other reason	Y	-	-	-	-	-
Cancelled by Police / Fire	Y	-	-	-	-	-
Clinical safety plan (cancelled by ambulance service)	Y	-	-	-	-	-
Abandoned (by caller during triage)	Y	-	-	-	-	-
Police conveyed, Section 136 (Not attended by ambulance service)	Y	-	-	-	-	-
Police conveyed, other (Not attended by ambulance service)	Y	-	-	-	-	-
<b>On telephone call:</b>						
Self-care (Patient given specific advice for care of ongoing symptoms at home)	Y	Y	Y	Y	-	-
Refer to GP (patient attends GP, or GP attends)	Y	Y	Y	-	Y	-
Refer to ED (patient attends of own accord)	Y	Y	Y	-	Y	-
Refer to UTC, including UCC, MIU, WIC (patient attends of own accord)	Y	Y	Y	-	Y	-
Refer to 111 / OOH (ITK message to 111 / out of hours, or patient redials)	Y	Y	Y	-	Y	-
Refer to specific service (locally commissioned)	Y	Y	Y	-	Y	-
Refer to HCP (not locally commissioned; Pharmacy, Midwife, Dentist, District Nurse, ECP)	Y	Y	Y	-	Y	-
<b>At scene:</b>						
No patient contact (cancelled on arrival; not required / desired)	Y	Y	-	-	-	Y
No patient found (incorrect location or patient left scene)	Y	Y	-	-	-	Y
Deceased (attended)	Y	Y	-	-	-	Y

