# AQIs for ARP Code Set Trial Specification Guidance v3.0

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## Version control

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| Version | Date issued | Changes made |
| V0.1 | 2nd March 2016 | Original Guidance Drafted |
| V0.2 | 2nd March 2016 | Amendments to Red 19 transport |
| V0.3 | 4th March 2016 | Amendments to Amber  |
| V1.0 | 7th March 2016 | Amendments following discussion at ARP Expert Reference Group |
| V1.1 | 16th March 2016 | Amendments following discussion at SWAST/YAS coding meeting |
| V2.0 | 22nd March 2016 | Amendments following discussion at ARP Code Trial OG and ERG |
| V3.0 | 04th October 2016 | Revision for Stage 2.2 Code Trial |
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### Introduction

* 1. Ambulance Quality Indicators (AQI) were introduced in April 2011 to indicate the quality delivered by an Ambulance Service, and to assess on-going service improvement.
	2. This document has been developed to provide an amended AQI framework for the governance of ambulance trusts involved in the coding trial phase of the Ambulance Response Programme (ARP) during 2016. Trusts involved in this pilot will be operating pre-triage sieve and Dispatch on Disposition (DoD) arrangements, and will be using a code set and response categories that differ from those in use by other ambulance trusts in England.
	3. The ARP AQIs have retained consistency with other ambulance trusts where this is possible. For some measures the existing AQIs do not fit the ARP deployment and response arrangements, and hence it is not possible to report against those standards.
	4. The data for the Ambulance Quality Indicators will be collected on two separate forms:
* Part 1 – System Indicators (AmbSYS)
* Part 2 – Clinical Outcomes (AmbCO)
	1. Data for Systems Indicators should be available from Ambulance Services’ own information system and relate to the initial call. Therefore, data should be readily available.
	2. Data for some Clinical Outcomes will need information passed back from other organisations (for example, Acute Trusts), for the outcome to be determined. To allow for this, data for the same period as that for Part 1 will be collected on a second form to a slower timetable.
	3. However, to provide additional assurance regarding clinical safety a set of accelerated clinical outcome data will be collected from ambulance systems alone. Whilst these are proxy measures for established clinical outcomes, they provide earlier assurance, and are expected to be provided within two weeks of the incident.
	4. For all of the lines on these forms, AmbSYS and AmbCO, the basis for collection are set out below.

##### Collection Information

* 1. Level: Ambulance Trusts
	2. Basis: Provider
	3. Returns: Weekly Actual
	4. All data will be submitted centrally via Unify2.

## Part 1 – Systems Indicators

### HQU03\_01a: 8 minute Category 1 response

##### Detailed Descriptor

* 1. Improved health outcomes from ensuring a timely and appropriate response to immediately life-threatening ambulance calls.

##### Data Definition

* 1. **HQU03\_1\_1\_3:** The number of Category 1 calls resulting in an emergency response arriving at the scene of the incident within 8 minutes: A response within eight minutes means eight minutes zero seconds or less.
	2. **HQU03\_1\_1\_4:** The number of Category 1 calls resulting in an emergency response arriving at the scene of the incident: If there have been multiple calls to a single incident, only one incident should be recorded.
	3. Category 1 incidents: presenting conditions which may be immediately life-threatening and should receive an emergency response within 8 minutes irrespective of location in 75% of cases.

##### Clock start

* 1. For Category 1 calls (the most seriously ill patients, those in a cardiac arrest or a state of peri-arrest), the clock will start at T0, the point the call is connected to the Emergency Operations Centre (EOC) telephony switch. This will be the case for all calls received on control room telephone lines; from dedicated emergency lines, or otherwise. For all calls that are connected electronically, including NHS 111 calls through Interoperability Toolkit (ITK), and calls electronically transferred from another Trust’s Computer-Aided Dispatch (CAD) system, the clock will start immediately at the point that the call presents to the Trust’s EOC CAD.

##### Clock stop

* 1. The clock stops when the first ambulance service-dispatched emergency responder arrives at the scene of the incident.
	2. 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.
	1. For the purposes of the 8 minute Category 1 standard, an emergency response that will stop the clock occurs when:
* 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;
* A fully equipped Rapid Response Vehicle (RRV), motorbike or cycle, or Blue Light Response Officer, if tracked, arrives within a 200 metre geo-fence of the patient; 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;
* An approved Community First Responder (CFR) or an approved Co-Responder (for example, Fire Service Responder, Mountain Rescue) equipped with a defibrillator arrives within a 200 metre geo-fence (if tracked) of the patient; or the CFR confirms arrival at scene through an updated status message via the MDT in the vehicle, or a CFR confirming verbally to the EOC that they are on scene;
* 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 (if tracked) of the patient; or the clinician 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;
* A static site defibrillator (formerly known as static Public Access Defibrillator, PAD), located at the address of the Red incident, is confirmed as being on site, at the patient’s side, with someone there who is willing to use it, where both questions are confirmed by an EOC Call Assessor or by appropriate technical methods that offer the same degree of assurance. (If only a single rescuer is with the patient, they must stay with the patient, and not leave the patient unattended to collect the defibrillator);
* A Community Public Access Defibrillator (CPAD) is confirmed as having been brought to the patient’s side with someone there who is willing to use it, with both questions confirmed either verbally by EOC staff or by appropriate technical methods that offer the same degree of assurance. (If only a single rescuer is with the patient, they must stay with the patient, and not leave the patient unattended to collect the defibrillator);
* An approved first responder such as a Doctor or other healthcare professional (HCP) is with the patient, and is equipped with a defibrillator, where the question is confirmed by the EOC Call Assessor.
	1. Once a category (Category 1 - 4) is determined, reporting must remain against the code that was in place within the CAD record prior to the arrival of a first response on scene. It must not be changed after a resource has arrived at scene.
	2. All calls that have been passed from NHS 111 as requiring a Category 1 ambulance response, either electronically or manually, should be included in this indicator. From the point that the call is received from NHS 111 it should be treated in the same manner as a call that was received through 999.
	3. Following triage either through 999 or 111 it may be appropriate for some 999 and 111 calls to receive additional clinical assessment that may result in an alternative category, prior to the arrival of the responding resource. This additional assessment must not delay dispatch and must be undertaken by a registered HCP (paramedic, specialist paramedic, Nurse Practitioner or Doctor) within the clinical Hub or EOC.
	4. If a responding resource is asked to head towards the location of an incident, it must be allocated to the incident on the CAD, therefore registering the correct clock start point.
	5. All calls that have been passed from NHS 111 as requiring a Category 1 ambulance response, either electronically or manually, should be included in this indicator.
	6. No CPAD or static site defibrillator can automatically stop the clock (that is, no auto assign / geofenced allocation functions).
	7. Where no call connect time is recorded, the earliest available time should be used for the clock start, such as the first key stroke of the keyboard.

### HQU03\_01b: Category 1 response time (all calls)

##### Detailed Descriptor

* 1. The time to respond to all Category 1 calls. Mean, 50th, 75th, 95th and 99th centiles.

##### Data Definition

* 1. **HQU03\_1\_1\_5:** Mean time from Call Connect to an emergency response arriving at the scene of the incident for all Category 1 calls.
	2. **HQU03\_1\_1\_5a:** Median time from Call Connect to an emergency response arriving at the scene of the incident for all Category 1 calls answer (that is, the time below which 50% of calls were clock stopped)
	3. **HQU03\_1\_1\_5b:** 75th centile time from Call Connect to an emergency response arriving at the scene of the incident for all Category 1 calls answer (that is, the time below which 75% of calls were clock stopped)
	4. **HQU03\_1\_1\_5c:** 95th centile time from Call Connect to an emergency response arriving at the scene of the incident for all Category 1 calls answer (that is, the time below which 95% of calls were clock stopped)
	5. **HQU03\_1\_1\_5d:** 99th centile time from Call Connect to an emergency response arriving at the scene of the incident for all Category 1 calls answer (that is, the time below which 99% of calls were clock stopped)
	6. The Category 1 definition, and clock start and stop times, are the same as for HQU03\_01a above.

### HQU03\_01c: 19 minute Category 1 transportation response.

##### Detailed Descriptor

* 1. Patient outcomes can be improved by ensuring patients with immediately life-threatening conditions receive a response at the scene, which is able to transport the patient, in a clinically safe manner, if they require such a response.

##### Data Definition

* 1. **HQU03\_1\_2\_1**: The number of Category 1 calls resulting in an ambulance arriving at the scene of the incident within 19 minutes: The total number of Category 1 incidents that resulted in a fully equipped ambulance vehicle that transported the patient, in a clinically safe manner, arriving at the scene of the incident, within 19 minutes of the request being made. A response within 19 minutes means 19 minutes 0 seconds or less.
	2. **HQU03\_1\_2\_2:** The number of Category 1 calls resulting in an ambulance arriving at the scene of the incident: The total number of Category 1 incidents that resulted in a fully equipped ambulance vehicle that transported the patient, in a clinically safe manner, arriving at the scene of the incident.
	3. During the trial 19 minute Category 1 transportation standard will be measured against the median, 50th, 75th, 95th and 99th centiles.

##### Clock start

* 1. If a non-conveying vehicle arrives on the scene and requests backup from a fully equipped ambulance vehicle that transports the patient, in a clinically safe manner, when none has yet been assigned, the clock starts at the point of this request.
	2. Otherwise, the clock start is according to the appropriate Category1 (HQU03\_01a) or (HQU03\_01b) rules above.
	3. Incidents will be excluded from this measure where a resource arrives on scene and establishes that the patient does not require a transportation response; i.e. patient referred to primary care or not transported to A&E.

##### Clock stop

* 1. For Category1 incidents where conveyance is required the 19 minute Category1 transportation response clock is stopped only by the vehicle that conveys the patient.
	2. A legitimate clock stop position can include the conveying vehicle 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.
	1. Once the category Priority 1 is determined, reporting must remain against the code that was in place within the CAD record prior to the arrival of a first response on scene. It must not be changed after a resource has arrived at scene.
	2. All calls that have been passed from NHS 111 as requiring a Category1 ambulance response either electronically or manually should be included in this indicator.
	3. Where no call connect time is recorded, the earliest available time should be used for the clock start, such as the first key stroke of the keyboard.

##### Monitoring Data Source

* 1. Ambulance CAD system.

### HQU03\_01d: 19 minute Category2 response

##### Detailed Descriptor

* 1. Category2 calls break down into two sub-categories:
		1. Category2 T – a patient with potentially serious condition requiring rapid assessment, urgent on-scene intervention and/or urgent transport. Their condition/problem requires assessment/management on scene and it is likely that they will require conveyance to hospital. Condition/problem may be time dependant on reaching definitive care and therefore a conveying resource is the most important Examples – patients having a heart attack (MI) require on scene management by a clinician AND conveyance to an appropriate facility (PPCI). Stroke (CVA) patients require rapid transport to a hyper-acute stroke unit or other appropriate facility.
		2. Category2 R – a patient with potentially serious condition requiring rapid assessment, urgent on-scene intervention and/or urgent transport. The condition requires an emergency response by suitably qualified clinician who can assess and treat. Example – fits; unconscious with normal breathing.

##### Data Definition

* 1. **HQU03\_1\_1\_6:** The number of Category 2 calls resulting in an emergency response arriving at the scene of the incident within 19 minutes: A response within nineteen minutes means nineteen minutes zero seconds or less.
	2. **HQU03\_1\_1\_7:** The number of Category 2 calls resulting in an emergency response arriving at the scene of the incident: If there have been multiple calls to a single incident, only one incident should be recorded.
	3. Incidents involving patients with conditions that are less time-critical than those categorised as a Category1, are categorised as Category2 incidents. They require an emergency response arriving at the scene of the incident within 19 minutes and zero seconds of clock start.

##### Clock start

* 1. For Category 2 calls, the clock starts the earliest of:
* The call is coded as a Category 2 incident (following establishment of chief complaint or disposition) or;
* The first resource is assigned or;
* 240 seconds from the point that the call is connected to the Emergency Operations Centre (EOC) telephony switch (T0).
	1. For Category 2 calls connected electronically, including NHS 111 calls through Interoperability Toolkit (ITK), and calls electronically transferred from another Trust’s Computer-Aided Dispatch (CAD) system, the clock will start immediately at the point that the call presents to the Trust’s EOC CAD.

##### Clock stop

* 1. The clock stops when the first appropriate (as listed in para 4.9) Ambulance Service-dispatched emergency responder arrives at the scene of the incident.
	2. 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.
	1. For the purposes of the 19 minute Category 2 standard, an emergency response that will achieve clock stop occurs when:
		1. For Category 2 T incidents -
* A fully equipped ambulance vehicle with ambulance staff trained to delivered 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 a vehicle 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.
* 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, PAS or VAS), arrives within a 200 metre geo-fence (if tracked) of the patient; or the clinician 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.
* For Category 2 T incidents where conveyance is required the clock is stopped only by the vehicle that conveys the patient.
* For Category 2 T incidents where the initial response is from a resource that does not convey the patient and the responder subsequently determines that conveyance is not required, the clock shall be stopped by the initial resource on scene.
	+ 1. For Category 2 R –
* A fully equipped ambulance vehicle with ambulance staff trained to delivered 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 a vehicle 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.
* A fully equipped RRV, motorbike or cycle, or Blue Light Response Officer, if tracked, arrives within a 200 metre geo-fence of the patient; 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 or;
* 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, PAS or VAS), arrives within a 200 metre geo-fence (if tracked) of the patient; or the clinician 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.
	1. Once a category (Category 1 -4) is determined, reporting must remain against the code that was in place within the CAD record prior to the arrival of a first response on scene. It must not be changed after a resource has arrived at scene.
	2. All calls that have been passed from NHS 111 as requiring a Category 2 ambulance response, either electronically or manually, should be included in this indicator. From the point that the call is received from NHS 111 it should be treated in the same manner as a call that was received through 999.
	3. Following triage either through 999 or 111 it may be appropriate for some 999 and 111 calls to receive additional clinical assessment that may result in an alternative category, prior to the arrival of the responding resource. This additional assessment must not delay despatch and must be undertaken by a registered HCP (paramedic, specialist paramedic, Nurse Practitioner or Doctor) within the clinical Hub or EOC.
	4. If a responding resource is asked to head towards the location of an incident, it must be allocated to the incident on the CAD, therefore registering the correct clock start point.
	5. Where no call connect time is recorded, the earliest available time should be used in the calculation of the clock start, such as the first key stroke of the keyboard.
	6. “Running calls” occur when Trust resources or clinicians come across an incident and are immediately on scene with that patient.
	7. All running calls are categorised as Category 2 T and have the same parameters that start and stop the clock as for Category 2 T incidents detailed above.
	8. Where a Trust resource arrives on scene before triage is complete and the call is not coded the incident will be dealt with in the following way:
* If the patient was identified as a life threatening emergency during the “Nature of Call” or equivalent process and a resource arrives before coding the incident will be recorded as Category 1.
* If a resource arrives before coding but it has not been identified as a life threatening emergency at the “Nature of Call” or equivalent pre-triage phase it will be reported as a Category 2 T.

###  HQU03\_01e: Category 2 response time (all calls)

##### Detailed Descriptor

* 1. The time to respond to all Category 2 calls. Mean, 50th, 75th, 95th and 99th centiles.

##### Data Definition

* 1. **HQU03\_1\_1\_8:** Mean time from Call Connect to an emergency response arriving at the scene of the incident for all Category 2 calls.
	2. **HQU03\_1\_1\_8a:** Median time from Call Connect to an emergency response arriving at the scene of the incident for all Category 2 calls answer (that is, the time below which 50% of calls were clock stopped)
	3. **HQU03\_1\_1\_8b:** 75th centile time from Call Connect to an emergency response arriving at the scene of the incident for all Category 2 calls answer (that is, the time below which 75% of calls were clock stopped)
	4. **HQU03\_1\_1\_8c:** 95th centile time from Call Connect to an emergency response arriving at the scene of the incident for all Category 2 calls answer (that is, the time below which 95% of calls were clock stopped)
	5. **HQU03\_1\_1\_8d:** 99th centile time from Call Connect to an emergency response arriving at the scene of the incident for all Category 2 calls answer (that is, the time below which 99% of calls were clock stopped)
	6. The Category 2 definition, and clock start and stop times, are the same as for HQU03\_01d above.

### HQU03\_01f: 40 minute Category 3 response

##### Detailed Descriptor

* 1. Category 3 calls break down into two sub-categories:
		1. Category 3 T – a patient who does not have an immediately life threatening condition but requires an emergency response. Their condition/problem requires assessment/management on scene and it is likely that they will require conveyance to hospital. Condition/problem may be time dependant on reaching definitive care and therefore a conveying resource is the most important. Examples – serious injury modalities without systemic compromise, burns (not major).
		2. Category 3 R – a patient who does not have an immediate life threatening condition but does require an emergency response by suitably qualified clinician who can assess and treat. Example – uncomplicated diabetic hyper/hypoglycaemia.

##### Data Definition

* 1. **HQU03\_1\_1\_9:** The number of Category 3 calls resulting in an emergency response arriving at the scene of the incident within 40 minutes: A response within nineteen minutes means nineteen minutes zero seconds or less.
	2. **HQU03\_1\_1\_10:** The number of Category 3 calls resulting in an emergency response arriving at the scene of the incident: If there have been multiple calls to a single incident, only one incident should be recorded.
	3. Incidents involving patients with conditions that are less time-critical than those categorised as a Category 2, are categorised as Category 3 incidents. They require an emergency response arriving at the scene of the incident within 40 minutes and zero seconds of clock start.

##### Clock start

* 1. For Category 3 calls, the clock starts the earliest of:
* The call is coded as a category 3 incident (following establishment of chief complaint or disposition) or;
* The first resource is assigned or;
* 240 seconds from the point that the call is connected to the Emergency Operations Centre (EOC) telephony switch (T0).
	1. For Category 3 calls connected electronically, including NHS 111 calls through Interoperability Toolkit (ITK), and calls electronically transferred from another Trust’s Computer-Aided Dispatch (CAD) system, the clock will start immediately at the point that the call presents to the Trust’s EOC CAD.

##### Clock stop

* 1. The clock stops when the first appropriate (as listed in para 4.9) Ambulance Service-dispatched emergency responder arrives at the scene of the incident.
	2. 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.
	1. For the purposes of the category 3 incident an emergency response that will achieve clock stop occurs when:
		1. For Category 3 T incidents -
* A fully equipped ambulance vehicle with ambulance staff trained to delivered 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 a vehicle 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.
* 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, PAS or VAS), arrives within a 200 metre geo-fence (if tracked) of the patient; or the clinician 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.
* For Category 3 T incidents where conveyance is required the clock is stopped only by the vehicle that conveys the patient.
* For Category 3 T incidents where the initial response is from a resource that does not convey the patient and the responder subsequently determines that conveyance is not required, the clock shall be stopped by the initial resource on scene.
	+ 1. For Category 3 R –
* A fully equipped ambulance vehicle with ambulance staff trained to delivered 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 a vehicle 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.
* A fully equipped RRV, motorbike or cycle, or Blue Light Response Officer, if tracked, arrives within a 200 metre geo-fence of the patient; 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 or;
* 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, PAS or VAS), arrives within a 200 metre geo-fence (if tracked) of the patient; or the clinician 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.
	1. Once a category (Category 1 -4) is determined, reporting must remain against the code that was in place within the CAD record prior to the arrival of a first response on scene. It must not be changed after a resource has arrived at scene.
	2. All calls that have been passed from NHS 111 as requiring a Category 3 ambulance response, either electronically or manually, should be included in this indicator. From the point that the call is received from NHS 111 it should be treated in the same manner as a call that was received through 999.
	3. Following triage either through 999 or 111 it may be appropriate for some 999 and 111 calls to receive additional clinical assessment that may result in an alternative category, prior to the arrival of the responding resource. This additional assessment must not delay despatch and must be undertaken by a registered HCP (paramedic, specialist paramedic, Nurse Practitioner or Doctor) within the clinical Hub or EOC.
	4. If a responding resource is asked to head towards the location of an incident, it must be allocated to the incident on the CAD, therefore registering the correct clock start point.
	5. Where no call connect time is recorded, the earliest available time should be used in the calculation of the clock start, such as the first key stroke of the keyboard.
	6. “Running calls” occur when Trust resources or clinicians come across an incident and are immediately on scene with that patient.
	7. All running calls are categorised as Category 3 T and have the same parameters that start and stop the clock as for Category 3 T incidents detailed above.

4.18 Where a Trust resource arrives on scene before triage is complete and the call is not coded the incident will be dealt with in the following way:

* If the patient was identified as a life threatening emergency during the “Nature of Call” or equivalent process and a resource arrives before coding the incident will be recorded as Priority 1.
* If a resource arrives before coding but it has not been identified as a life threatening emergency at the “Nature of Call” or equivalent pre-triage phase it will be reported as an Category 2 T.

###  HQU03\_01g: Category 3 response time (all calls)

##### Detailed Descriptor

* 1. The time to respond to all Category 3 calls. Mean, 50th, 75th, 95th and 99th centiles.

##### Data Definition

* 1. **HQU03\_1\_1\_11:** Mean time from Call Connect to an emergency response arriving at the scene of the incident for all Category 3 calls.
	2. **HQU03\_1\_1\_11a:** Median time from Call Connect to an emergency response arriving at the scene of the incident for all Category 3 calls answer (that is, the time below which 50% of calls were clock stopped)
	3. **HQU03\_1\_1\_11b:** 75th centile time from Call Connect to an emergency response arriving at the scene of the incident for all Category 3 calls answer (that is, the time below which 75% of calls were clock stopped)
	4. **HQU03\_1\_1\_11c:** 95th centile time from Call Connect to an emergency response arriving at the scene of the incident for all Category 3 calls answer (that is, the time below which 95% of calls were clock stopped)
	5. **HQU03\_1\_1\_11d:** 99th centile time from Call Connect to an emergency response arriving at the scene of the incident for all Category 3 calls answer (that is, the time below which 99% of calls were clock stopped)
	6. The Category 3 definition, and clock start and stop times, are the same as for HQU03\_01f above.

### HQU03\_01h: 90 minute Category 4 Response

##### Data Definition

* 1. **HQU03\_1\_1\_12:** The number of Category 4 calls resulting in the commencement of a clinically appropriate assessment, either at scene or conducted by telephone (or comparable communication) within 90 minutes: A response within ninety minutes means ninety minutes zero seconds or less.
	2. **HQU03\_1\_1\_13:** The number of Category 4 calls resulting in the commencement of a clinically appropriate assessment, either at scene or conducted by telephone (or comparable communication).: If there have been multiple calls to a single incident, only one incident should be recorded.
	3. Incidents involving patients with conditions that are urgent, but less time-critical than those categorised as Category 1-3, are categorised as Category 4 incidents. Category 4 incidents require a clinically appropriate assessment, either at scene or conducted by telephone (or comparable communication)from the ambulance service, commencing within 90 minutes and zero seconds of clock start.
	4. Only incidents classified as emergency should be included. Incidents being referred to the ambulance service by Health Care Professionals should be excluded.

##### Clock start

* 1. For Category 4 calls, the clock starts the earliest of:
* The call is coded as an Category 4 incident (following establishment of chief complaint or disposition) or;
* The first resource is assigned or;
* 240 seconds from the point that the call is connected to the Emergency Operations Centre (EOC) telephony switch (T0).
	1. For Priority calls connected electronically, including NHS 111 calls through Interoperability Toolkit (ITK), and calls electronically transferred from another Trust’s Computer-Aided Dispatch (CAD) system, the clock will start immediately at the point that the call presents to the Trust’s EOC CAD.

##### Clock stop

* 1. The clock stops at the commencement of the first clinically appropriate assessment of the patient. This assessment may be in person or by telephone (or comparable communication method).
	2. 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.

* 1. Calls may be closed by call handlers or clinically trained staff using the telephone or comparable communication method, if supported by appropriate disposition software or by a clinical decision-maker.

* 1. For patients where further assessment or treatment is required following initial assessment, the commencement of the initial assessment by ambulance staff counts as clock stop.

### HQU03\_01i Category 4 response time (all calls)

##### Detailed Descriptor

* 1. The time to respond to all Category 4 calls.

##### Data Definition

* 1. The time from clock start of a Category 4 call to the commencement of a clinically appropriate assessment for all Category 4 calls. This will allow the 50th, 90th, 95th and 99th centiles to be calculated and response times to be displayed graphically for all Category 4 Calls.
	2. The Category 4 definition, clock start and clock stop times are the same as for HQU03\_01d above.
	3. **HQU03\_1\_1\_14:** Mean time from Call Connect to the commencement of a clinically appropriate assessment for all Category 4 calls.
	4. **HQU03\_1\_1\_14a:** Median time from Call Connect to the commencement of a clinically appropriate assessment for all Priority 4 calls answer (that is, the time below which 50% of calls were clock stopped)
	5. **HQU03\_1\_1\_14b:** 75th centile time from Call Connect to the commencement of a clinically appropriate assessment for all Priority 4 calls answer (that is, the time below which 75% of calls were clock stopped)
	6. **HQU03\_1\_1\_14c:** 95th centile time from Call Connect to the commencement of a clinically appropriate assessment for all Priority 4 calls answer (that is, the time below which 95% of calls were clock stopped)
	7. **HQU03\_1\_1\_14d:** 99th centile time from Call Connect the commencement of a clinically appropriate assessment for all Priority 4 calls answer (that is, the time below which 99% of calls were clock stopped)
	8. The Category 4 definition, and clock start and stop times, are the same as for HQU03\_01h above.
	9. Only incidents classified as emergency should be included. Incidents being referred to the ambulance service by Health Care Professionals should be excluded.

### SQU03\_01: Call Abandonment Rate

##### Detailed Descriptor

* + 1. The percentage of emergency and urgent calls abandoned before the call was answered and rings for more than 5 seconds. This will ensure that abandonment before automatic call distribution does not distort the reporting of patient experience.

##### Data Definition

* 1. **SQU03\_1\_1\_1:** Number of emergency calls abandoned before the call was answered and rings for more than 5 seconds.
	2. **SQU03\_1\_1\_2:** Total number of emergency and urgent calls presented to switchboard.
	3. If there have been multiple calls to an incident, all calls should be recorded in this line.
	4. From 01 April 2007, all “urgent” calls have been prioritised and categorised in the same way as emergency calls. These “urgent” calls should be included in both the numerator and denominator for this indicator.
	5. Calls that have been passed electronically from NHS 111 as requiring an ambulance response should not be included in this indicator.
	6. Calls that have been passed manually via telephone from NHS 111 as requiring an ambulance response should be included in this indicator.

##### Monitoring Data Source

* 1. Ambulance telephony system.

### SQU03\_02: Re-Contact Rate Following Discharge of Care

##### Detailed Descriptor

* 1. Unplanned re-contact with the ambulance service within 24 hours of discharge of care (discharge by clinical telephone advice, or following treatment at the scene).

##### Data Definition

#### SQU03\_2a: Re-contact rate following discharge of care by telephone

* 1. **SQU03\_2\_1\_1**: Emergency calls closed with telephone advice where re-contact occurs within 24 hours: Emergency calls closed with telephone advice where re-contact with the ambulance service via 999 occurs from the same location and patient gender within 24 hours of time of discharge of the initial call.
	2. **SQU03\_2\_1\_2:** Emergency calls closed with telephone advice: Number of successfully completed emergency calls that have been resolved (that is, where advice has been given with any appropriate action agreed with the patient), with no resource arrived at the scene of the incident, by:

### a designated HCP accountable to the Trust providing telephone advice only, or;

### calls dealt with by an HCP accountable to the Trust, or;

### call dealt with through decisions supported by clinical decision support software, or;

### calls passed to another organisation working with the Trust through an agreed contract or Service Level Agreement, or Directory of Services.

* 1. Only count one re-contact per 24 hours. This indicator should capture the number of individual patients (identified by same location and patient gender) who re-contact 999 within 24 hours of their initial call.
	2. All locations should be captured within this indicator. There should be no exclusions for non-residential addresses or events.
	3. If the patient’s gender is unknown on the re-contact, it should be included, to ensure no patients are missed.
	4. The second call from the patient (the re-contact) cannot count as the primary contact for a further call.
	5. All calls that have been passed from NHS 111 as requiring an ambulance response either electronically or manually should not be included in this indicator.
	6. From 01 April 2007, all “urgent” calls have been prioritised and categorised in the same way as emergency calls. However, these “urgent” calls should not be included with data for emergency calls for this indicator.

##### Exclusions for SQU03\_2a

* 1. This indicator measures patients re-contacting 999 within 24 hours of original emergency call; the following calls should be excluded from the numerator:

### Re-contact for different patient

### Patients transported after first attendance on scene

* 1. Re-contact rates are based on address and gender information, rather than patient level information. Therefore it should be noted that data may not be available for:

### patients calling from public places;

### patients calling from locations not in their own home for first contact.

#### SQU03\_2b: Re-contact, following discharge of care from treatment at the scene

* 1. **SQU03\_2\_2\_1:** Patients treated and discharged on scene where re-contact occurs within 24 hours: Patients treated and discharged on scene where re-contact with the ambulance service via 999 occurs from the same location and patient gender within 24 hours of time of their initial call.
	2. **SQU03\_2\_2\_2:** Patients treated and discharged on scene: Number of patients treated at the scene only.
	3. Only count one re-contact per 24 hours. This indicator should capture the number of individual patients (identified by same location and patient gender) who re-contact 999 within 24 hours of their initial call.
	4. All addresses should be captured within this indicator. There should be no exclusions for non-residential addresses or events.
	5. If the patient’s gender is unknown on the re-contact, it should be included, to ensure no patients are missed.
	6. The second call from the patient (the re-contact) cannot count as the primary contact for a further call.
	7. All calls that have been passed from NHS 111 as requiring an ambulance response either electronically or manually should not be included in this indicator.
	8. From 01 April 2007, all “urgent” calls have been prioritised and categorised in the same way as emergency calls. However, these “urgent” calls should not be included with data for emergency calls for this indicator.

##### Exclusions for SQU03\_2b

* 1. This indicator measures patients re-contacting 999 within 24 hours of original emergency call; the following calls should be excluded from the numerator:

### Re-contact for different patient

### Patients transported after first contact

* 1. Re-contact rates are based on address and gender information, rather than patient level information. Therefore it should be noted that data may not be available for:

### patients calling from public places;

### patients calling from locations not in their own home for first contact.

#### SQU03\_2c: Proportion of emergency calls from patients for whom a locally agreed frequent caller procedure is in place

* 1. **SQU03\_2\_3\_1:** Emergency calls from patients for whom a locally agreed frequent caller procedure is in place.
	2. Emergency calls from patients for whom a frequent caller procedure is in place should be reported, and the narrative explanation of performance for this component of the indicator should refer to what actions the trust is taking to manage and provide an appropriate clinical service to these frequent callers.
	3. Frequent caller procedures should be locally determined; these procedures should relate to individual patients, and be agreed with that individual and the main care provider (for example, GP, Mental Health Service).
	4. A frequent caller is defined as someone aged 18 or over who makes five or more emergency calls related to individual episodes of care in one month, or 12 or more emergency calls related to individual episodes of care in three months.
	5. Individuals aged 17 or under are not included because they should be managed by the relevant safeguarding team. Where services identify a frequent caller who is 17 or under, they should be referred to safeguarding and excluded from this indicator because they are likely to require a different risk assessment and management plan.
	6. **SQU03\_2\_3\_2:** Total number of emergency calls: Number of emergency calls presented to switchboard.
	7. The following calls should be excluded from the numerator and denominator of this indicator:

### Duplicate or multiple calls to an incident where a response has already been activated;

### Hang-ups before coding is complete;

### Caller not with patient and unable to give details;

### Caller refuses to give details;

### Hoax calls where response not activated;

### Response cancelled before coding is complete (for example, patient recovers).

##### Monitoring Data Source

* 1. Ambulance CAD system.

### SQU03\_08: Time to Answer Call

##### Detailed Descriptor

* 1. The time to answer calls (emergency and urgent) in seconds.

##### Data Definition

* 1. **SQU03\_8\_1\_1:** Time to call answer, measured by median, 95th centile and 99th centile:

### median time spent between Call Connect and call answer (that is, the time below which 50% of calls were answered);

### 95th centile of times from Call Connect and call answer (that is, the time below which 95% of calls were answered);

### 99th centile of times from Call Connect and call answer (that is, the time below which 99% of calls were answered).

* 1. Call Connect refers to the time at which the call is presented to the control room telephone switch.
	2. From 01 April 2007, all “urgent” calls have been prioritised and categorised in the same way as emergency calls. These “urgent” calls should be included with data for emergency calls for this indicator.
	3. Exclude calls that are abandoned before being answered.
	4. The call answer time is T1, that is, when an operator begins communicating with a caller. Answerphones should not be used on 999 calls.
	5. Where no call connect time is recorded, the call should be treated as having a time-to-call-answer of zero seconds.
	6. Calls that have been passed electronically from NHS 111 as requiring an ambulance response should not be included in this indicator.
	7. Calls that have been passed manually via telephone from NHS 111 as requiring an ambulance response should be included in this indicator.

##### Monitoring Data Source

* 1. Ambulance telephony system.

### SQU03\_10: Ambulance calls closed with telephone advice or managed without transport to A&E (where clinically appropriate)

##### Detailed Descriptor

* 1. Measure the proportion of patients managed appropriately without the need for an ambulance response at the scene, or onward transport to Type 1 and Type 2 A&E departments ([www.datadictionary.nhs.uk/data\_dictionary/attributes/a/acc/accident\_and\_emergency\_department\_type\_de.asp](http://www.datadictionary.nhs.uk/data_dictionary/attributes/a/acc/accident_and_emergency_department_type_de.asp)).

##### Data Definition

#### SQU03\_10a: Hear and Treat

* 1. **SQU03\_10\_1\_1:** Number of emergency calls that have been resolved by providing telephone advice: Number of successfully completed emergency calls that have been resolved (that is, where advice has been given with any appropriate action agreed with the patient), with no face-to-face resource, by

### a designated HCP accountable to the Trust providing telephone advice only, or;

### calls dealt with by an HCP accountable to the Trust, or;

### call dealt with through decisions supported by clinical decision support software, or;

### calls passed to another organisation working with the Trust through an agreed contract or Service Level Agreement, or Directory of Services.

* 1. Include emergency incidents resolved by one of the above options where a vehicle is dispatched but stood down before arrival, **and not** with a stop code of:

### Duplicate;

### Cancelled;

### Abandoned; or

### Information only (no clinical information).

* 1. **SQU03\_10\_1\_2:** All emergency calls that receive a telephone or face-to-face response from the ambulance service at the scene of the incident

##### Exclusions

* 1. The following calls should be excluded from the numerator and denominator of this indicator:

### Calls where a face-to-face contact and likely transport has been pre-determined, from HCP calls, whether urgent or immediate (because no such calls can currently be re-triaged for an alternative outcome such as hear and treat);

### Duplicate or multiple calls to an incident where a response has already been activated;

### Hang-ups before coding is complete;

### Caller not with patient and unable to give details;

### Caller refuses to give details;

### Hoax calls where response not activated;

### Response cancelled before coding is complete (for example, patient recovers).

* 1. All calls that have been passed from NHS 111 as requiring an ambulance response either electronically or manually should not be included in this indicator.
	2. From 01 April 2007, all “urgent” calls have been prioritised and categorised in the same way as emergency calls. However, these “urgent” calls should not be included with data for emergency calls for this indicator.

### SQU03\_10b

* 1. **SQU03\_10\_2\_1:** Patient journeys to a destination other than Type 1 and Type 2 A&E, plus number of patients discharged after treatment at the scene or onward referral to an alternative care pathway: Emergency only.
	2. **SQU03\_10\_2\_2:** All emergency calls that receive a face-to-face response from the ambulance service.
	3. Each incident conveyed is counted as an individual transport. Number of incidents without requiring onward conveyance is counted as an individual treated at the scene. Trusts should include only those patients conveyed as a result of an emergency call made by a member of the public or organisation.
	4. It should be noted that the activity currency is a single incident even though it may result in more than one patient journey.
	5. Emergency patient journeys to a destination other than Type 1 and Type 2 A&E: Include those incidents which result in an emergency patient journey to all other destinations other than Type 1 or Type 2 A&E departments. An example of this could be conveying a patient to a minor injuries unit or a Walk-in Centre, a specialist stroke or cardiac centre, GP service or any other health or social care service.
	6. Treatment at the scene:
	7. Include those incidents where patients were treated at the scene by the ambulance service and as a result of that treatment no patients required onward transportation for further treatment. If, as part of that treatment, the Ambulance Service staff arranged, for example, an appointment for the patient at a GP surgery or a follow-up home visit from a health professional, that should also be counted as treatment at the scene. Responses where ambulance trust staff attended an incident and advice was given, but no clinical intervention was necessary with no onward transportation required, should also be included as treatment at the scene.
	8. From 01 April 2007, all “urgent” calls have been prioritised and categorised in the same way as emergency calls. However, these “urgent” calls should not be included with data for emergency calls for this indicator.
	9. Calls from an HCP should be excluded from this indicator because a likely transport and destination has been pre-determined, whether urgent or immediate, as none of these calls can be transported to an alternative destination or treated at scene.
	10. All calls that have been passed from NHS 111 as requiring an ambulance response either electronically or manually should be included in this indicator

##### Monitoring Data Source

* 1. Ambulance CAD system.

### SQU03\_11: Number of Category 1 calls identified by Nature of Call questions

##### Detailed Descriptor

* 1. The number of calls received and identified with a final disposition of Category 1 or Category 2 where the Nature of Call questions identified the call as a Category 1 classification.

##### Data Definition

* 1. **SQU03\_11\_1\_1:** Number of calls which were assigned a disposition of Category 1 which were also classified as Category 1 by the Nature of Call questions.
	2. **SQU03\_11\_1\_2:** Number of calls which were assigned a disposition of Category 2 which were also classified as Category 2 by the Nature of Call questions.
	3. With the introduction of Dispatch on Disposition all calls should be asked the standard Nature of Call questions. The specification for these questions is attached as Annex B

##### Monitoring Data Source

* 1. Ambulance CAD system

### SRS17\_1\_1\_1: Number of Transported Incidents

##### Detailed Descriptor

* 1. The number of emergency and urgent incidents resulting in a patient being transported to Type 1 & Type 2 A&Es.

##### Data Definition

* 1. Include only those incidents which resulted in a patient being conveyed as a result of an emergency call made by a member of the public or organisation, or as a result of being categorised as requiring an emergency response following a referral by an HCP or electronically transferred to the CAD system from another CAD system.
	2. Journeys without patients should be excluded.
	3. All calls that have been passed from NHS 111 as requiring an ambulance response either electronically or manually should be included in this indicator.
	4. From 01 April 2007, all “urgent” calls have been prioritised and categorised in the same way as emergency calls. These “urgent” calls should be included with data for emergency journeys for this indicator.

##### Monitoring Data Source

* 1. Ambulance CAD system.

### Additional Guidance on Systems Indicators

* 1. The AQI’s apply equally to calls originating via 999 and originating from 112.
	2. Ambulance attendance at an event, whereby the activity can be included in the AQI, requires:

### A partner organisation, in attendance at a planned event at which an incident occurs, with whom the Service has an overarching agreement (such as a Service Level Agreement (SLA), Memorandum of Understanding (MOU) or Event Plan);

### Or a partner organisation, in attendance at an incident where the plan for the planned event (for example, a sporting event), has been signed off by the Ambulance Service, and the Ambulance Service have the normal command input in place;

### Or an emergency vehicle, belonging to the Trust, or the organisation a SLA / MOU is held with, attends a patient.

* 1. Reporting on subsequent calls with a different priority from the original call:

### If a further call is received from any source (HCP or public 999) and is triaged to a higher category than the original call, then the clock start should be from the upgrading call. If a Green call is subsequently upgraded to Red, the clock start from the upgrading call will apply, as stated in HQU03\_01a.

### If a further call is received from any source (HCP or public 999) and is triaged to a lower category than the original call, then the clock start should be from the downgrading call. Only a registered HCP is able to agree a downgrade of call, through a telephone call to the EOC, and before a resource has arrived on scene.

### In both scenarios above, the original call is then closed as a duplicate call to avoid double counting.

* 1. Cross Border Calls:

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

#### Glossary of Terms

##### Static Site

* 1. A location which contains an Automated External Defibrillator (AED) and other first responder equipment, and where the staff have been trained by the Ambulance Service. The location is logged in Ambulance Control and these sites are activated by the Ambulance Service for incidents at their location. Some sites can respond outside their main location, depending on the agreement with the Ambulance Service. The Ambulance Service undertakes update training for the staff and manages the governance.

##### Community Public Access Defibrillator (CPAD)

* 1. An AED at a location which is accessible by the general public, such as a train station platform, in an unlocked or locked cabinet. These are designed for untrained members of the public to access in the event of an arrest at or near the location.

## Part 2 – Clinical Indicators

### SQU03\_03: Outcome from Cardiac Arrest – Time to Treatment and Return of Spontaneous Circulation

##### Detailed Descriptor

* 1. Outcome from cardiac arrest, measured by time to commence resuscitation, time to first defibrillation and return of spontaneous circulation (ROSC) at point of arrival of the patient at hospital.

##### Data Definition

#### SQU03\_03a: Time to commence resuscitation (Overall)

* 1. **SQU03\_3\_1\_3**: Of the patients included in the denominator, the median time between T0, the point the call is connected to the Emergency Operations Centre (EOC) telephony switch, and the time when chest compressions are first commenced by any person (member of the public or ambulance personnel). If CPR has already been commenced at T0 this should be recorded as zero.
	2. Patients who suffer a cardiac arrest following the arrival of ambulance personnel should be excluded.

#### SQU03\_03b: Time to first defibrillation (Those receiving defibrillation)

* 1. **SQU03\_3\_1\_4:** Of the patients included in the denominator, the median time between T0, the point the call is connected to the Emergency Operations Centre (EOC) telephony switch, and the time when the first defibrillating shock is delivered. If a defibrillating shock has already been given before T0 this should be recorded as zero.
	2. Patients who suffer a cardiac arrest following the arrival of ambulance personnel, and those who do not receive defibrillation at any time during the resuscitation, should be excluded.

#### SQU03\_03a: ROSC at time of arrival at hospital (Overall)

* 1. **SQU03\_3\_1\_1:** Of the patients included in the denominator, the number of patients who had return of spontaneous circulation on arrival at hospital.
	2. Time of arrival refers to point of arrival of the patient at the receiving hospital.
	3. **SQU03\_3\_1\_2:** All patients who had resuscitation (Advanced or Basic Life Support) commenced / continued by ambulance service following an out-of-hospital cardiac arrest.

#### SQU03\_03b: ROSC at time of arrival at hospital (Utstein Comparator Group)

* 1. **SQU03\_3\_2\_1:** Of the patients included in the denominator, the number of patients who had return of spontaneous circulation on arrival at hospital.
	2. Time of arrival refers to point of arrival of the patient at the receiving hospital.
	3. **SQU03\_3\_2\_2:** All patients who had resuscitation (Advanced or Basic Life Support) commenced / continued by ambulance service following an out-of-hospital cardiac arrest of presumed cardiac origin, where the arrest was bystander witnessed and the initial rhythm was Ventricular Fibrillation (VF) or Ventricular Tachycardia (VT).

##### Monitoring Data Source

* 1. Ambulance Trust data (including clinical and CAD data) collected as per National Ambulance Service Clinical Quality Group guidance and definitions.

### SQU03\_05: Outcome from acute ST-elevation myocardial infarction (STEMI)

##### Data Definition

#### SQU03\_05b: For patients suffering a STEMI, the time taken to reach a centre capable of delivering primary percutaneous coronary intervention (PPCI), and the percentage who receive primary angioplasty within 150 minutes of the emergency call

* 1. **SQU03\_5\_2\_1:** Patients with initial diagnosis of ‘definite myocardial infarction’ for whom primary angioplasty balloon inflation occurs within 150 minutes of emergency call connected to ambulance service, where first diagnostic Electrocardiogram (ECG) performed is by ambulance personnel and patient was directly transferred to a designated PPCI centre as locally agreed.
	2. **SQU03\_5\_2\_2:** Patients with initial diagnosis of ‘definite myocardial infarction’ who received primary angioplasty, where first diagnostic ECG performed is by ambulance personnel and patient was directly transferred to a designated PPCI centre as locally agreed.
	3. **SQU03\_5\_2\_3:** Of the patients included in the denominator, the mean time between T0, the point the call is connected to the Emergency Operations Centre (EOC) telephony switch, and the time when the patient arrives at a designated PPCI centre as locally agreed. Time of arrival refers to point of arrival of the patient at the receiving hospital.
	4. **SQU03\_5\_2\_3a:** Of the patients included in the denominator, the 50th centile time between T0, the point the call is connected to the Emergency Operations Centre (EOC) telephony switch, and the time when the patient arrives at a designated PPCI centre as locally agreed. Time of arrival refers to point of arrival of the patient at the receiving hospital.
	5. **SQU03\_5\_2\_3b:** Of the patients included in the denominator, the 75th centile time between T0, the point the call is connected to the Emergency Operations Centre (EOC) telephony switch, and the time when the patient arrives at a designated PPCI centre as locally agreed. Time of arrival refers to point of arrival of the patient at the receiving hospital.
	6. **SQU03\_5\_2\_3c:** Of the patients included in the denominator, the 95th centile time between T0, the point the call is connected to the Emergency Operations Centre (EOC) telephony switch, and the time when the patient arrives at a designated PPCI centre as locally agreed. Time of arrival refers to point of arrival of the patient at the receiving hospital.
	7. **SQU03\_5\_2\_3d:** Of the patients included in the denominator, the 99th centile time between T0, the point the call is connected to the Emergency Operations Centre (EOC) telephony switch, and the time when the patient arrives at a designated PPCI centre as locally agreed. Time of arrival refers to point of arrival of the patient at the receiving hospital.

##### Exceptions to SQU03\_05b

* 1. Secondary transfers to PPCI from non-PPCI capable hospitals;
	2. Delay obtaining consent;
	3. Cardiac arrest;
	4. Ambulance procedural delay (This includes any pre-hospital delay outside the control of the ambulance service, such as incorrect address, difficulty finding address, unable to gain entry to patient’s house, patient reasons (for example initial refusal to go to hospital, or extended domestic arrangements), adverse weather conditions, stabilising the patient, crew had to wait for boat, helicopter delay, wait for police to gain entry, failure to cannulate);
	5. Sustained hypertension;
	6. Clinical concern about recent cerebro-vascular event or recent surgery;
	7. Other exclusions on clinical grounds which have been formally approved in discussions with MINAP.

#### SQU03\_05c: The percentage of patients suffering a STEMI who receive an appropriate care bundle

* 1. **SQU03\_5\_3\_1:** Patients with a pre-hospital diagnosis of suspected STEMI confirmed on ECG who received the STEMI care bundle.
	2. **SQU03\_5\_3\_2:** Patients with a pre-hospital diagnosis of suspected STEMI confirmed on ECG.

##### Notes

* 1. Components of the care bundle for STEMI patients, in line with National Ambulance Service Clinical Quality Group guidance, are presented below, with their exceptions in parentheses:
1. Aspirin given (Patient refusal, contraindication to drug);
2. Glyceryl trinitrate (GTN) given (Patient refusal, contraindication to drug, no chest pain);
3. Two pain scores recorded (Patient refusal / Patient unable / Patient unconscious);
4. Appropriate Analgesia given – Options available are Morphine, Entonox and paracetamol (Patient refusal / Patient not in pain / Contraindication to drug(s)).

##### Exceptions to SQU03\_05c

* 1. An exception to the care bundle can only be counted where there is an exception to the delivery of one or more elements and each of the remaining elements have been delivered.
	2. The table below sets out examples to illustrate whether a care bundle has been completed, not completed, or whether there is an exception from administering the care bundle.
	3. Where there is a valid exception to the care bundle, this case should be recorded in both the numerator and the denominator for this indicator.
	4. The number of such exceptions may be monitored separately and referred to in the narrative for the indicator to share learning (for example, where there are high numbers of exceptions due to patient refusal of an element in the care bundle).

##### Calculation of care bundle delivery and valid exceptions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Patient ID | Care bundle criterion 1 | Care bundle criterion 2 | Care bundle criterion 3 | Care bundle delivered? |
| 1 |  |  |  | Yes |
| 2 |  |  | x | No |
| 3 |  | Exception | x | No |
| 4 | Exception | Exception | x | No |
| 5 |  |  | Exception | Yes |
| 6 | Exception | Exception |  | Yes |
| 7 | Exception | Exception | Exception | Yes |

##### Monitoring Data Source

* 1. SQU03\_05b: For patients suffering a STEMI who are directly transferred to a centre capable of delivering primary percutaneous coronary intervention (PPCI), the time between T0 and arrival at a the PPCI Centre, and the percentage of patients suffering a STEMI who receive angioplasty within 150 minutes of the emergency call.
	2. Myocardial Ischaemia National Audit Project (MINAP) data. Acute trusts are required to work and support ambulance trusts in the provision and timely linking of data to ensure that outcome information is captured as accurately, and for as many patients as possible.
	3. SQU03\_05c: The percentage of patients suffering a STEMI who receive an appropriate care bundle:
	4. Ambulance Trust data collected as per National Ambulance Service Clinical Quality Group guidance and definitions (see Annex A).

### SQU03\_06: Outcome from stroke for ambulance patients

##### Detailed Descriptor

* 1. SQU03\_06a: The percentage of Face Arm Speech Test (FAST) positive stroke patients (assessed face to face) potentially eligible for stroke thrombolysis, who arrive at a hyperacute stroke centre within 60 minutes of emergency call.
	2. SQU03\_06b: The number of patients with symptoms of suspected stroke, or unresolved transient ischaemic attack, assessed face to face who received an appropriate care bundle.

##### Data Definition

#### SQU03\_06a: The percentage of Face Arm Speech Test (FAST) positive stroke patients (assessed face to face) potentially eligible for stroke thrombolysis, who arrive at a hyperacute stroke centre within 60 minutes of emergency call.

* 1. **SQU03\_6\_1\_1:** FAST positive patients (assessed face to face) potentially eligible for stroke thrombolysis within agreed local guidelines arriving at hospitals with a hyperacute stroke centre within 60 minutes of emergency call connecting to the ambulance service.
	2. **SQU03\_6\_1\_2:** FAST positive patients (assessed face to face) potentially eligible for stroke thrombolysis within agreed local guidelines.
	3. Exclusions that may be considered for inclusion in local guidelines:
1. Patient refusal;
2. Complete resolution of symptoms before arrival at stroke centre (transient ischaemic attack, TIA);
3. Advance Directive for refusal of treatment (ADRT);
4. Patients who are not clinically safe for bypass to hyperacute stroke centre (that is, patients with seizures / agitation; Glasgow Coma Scale score below 8; time critical features (airway problem, reduced consciousness).
	1. **SQU03\_6\_1\_3**:- Of the patients included in the denominator the mean time between T0 and the time when the patient arrives at the hyper acute stroke unit.
	2. **SQU03\_6\_1\_3a**:- Of the patients included in the denominator the 50th centile time between T0 and the time when the patient arrives at the hyper acute stroke unit.
	3. **SQU03\_6\_1\_3b**:- Of the patients included in the denominator the 75th centile time between T0 and the time when the patient arrives at the hyper acute stroke unit.
	4. **SQU03\_6\_1\_3c**:- Of the patients included in the denominator the 95th centile time between T0 and the time when the patient arrives at the hyper acute stroke unit.
	5. **SQU03\_6\_1\_3d**:- Of the patients included in the denominator the 99th centile time between T0 and the time when the patient arrives at the hyper acute stroke unit.

#### SQU03\_06b: The number of suspected stroke, or unresolved transient ischaemic attack, patients assessed face to face who received an appropriate care bundle.

* 1. **SQU03\_6\_2\_1:** The number of suspected stroke or unresolved transient ischaemic attack patients assessed face to face who received an appropriate care bundle. This refers to patients with a new onset / presentation of suspected stroke symptoms, or unresolved transient ischaemic attack. It does not exclude patients with previous stroke or transient ischaemic attack who have a new onset of symptoms.
	2. **SQU03\_6\_2\_2:** The number of suspected stroke or unresolved transient ischaemic attack patients assessed face to face. This refers to patients with a new onset / presentation of suspected stroke symptoms, or unresolved transient ischaemic attack. It does not exclude patients with previous stroke or transient ischaemic attack who have a new onset of symptoms.

##### Notes

* 1. Components of the care bundle for suspected stroke or unresolved transient ischaemic attack patients, in line with National Ambulance Service Clinical Quality Group guidance, are presented below, with their exceptions in parentheses:
1. FAST assessment recorded (Patient unable / patient declined);
2. Blood glucose recorded (Patient refusal);
3. Systolic and diastolic blood pressure recorded (Patient refusal / Time critical features (airway problem, reduced consciousness)).

##### Exceptions to SQU03\_06b

* 1. An exception to the care bundle can only be counted where there is an exception to the delivery of one or more elements and each of the remaining elements have been delivered.
	2. The table below sets out examples to illustrate whether a care bundle has been completed, not completed, or whether there is an exception from administering the care bundle.
	3. Where there is a valid exception to the care bundle, this case should be recorded in both the numerator and the denominator for this indicator.
	4. The number of such exceptions may be monitored separately and referred to in the narrative for the indicator to share learning (for example, where there are high numbers of exceptions due to patient refusal of an element in the care bundle).

##### Calculation of care bundle delivery and valid exceptions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Patient ID | Care bundle criterion 1 | Care bundle criterion 2 | Care bundle criterion 3 | Care bundle delivered? |
| 1 |  |  |  | Yes |
| 2 |  |  | x | No |
| 3 |  | Exception | x | No |
| 4 | Exception | Exception | x | No |
| 5 |  |  | Exception | Yes |
| 6 | Exception | Exception |  | Yes |
| 7 | Exception | Exception | Exception | Yes |

##### Potential eligibility for thrombolysis

* 1. Trusts are encouraged to clearly define their local criteria for determining eligibility for thrombolysis (including local exclusions), and this information may be referred to in the narrative for this indicator.

##### Monitoring Data Source

* 1. SQU03\_06a: The percentage of Face Arm Speech Test (FAST) positive stroke patients (assessed face to face) potentially eligible for stroke thrombolysis, who arrive at a hyperacute stroke centre within 60 minutes of emergency call:
	2. Ambulance Trust data (including clinical and CAD data) collected as per National Ambulance Service Clinical Quality Group guidance and definitions (see Annex A).
	3. SQU03\_06b: The percentage of suspected stroke or unresolved transient ischaemic attack patients (assessed face to face) who receive an appropriate care bundle:
	4. Ambulance Trust data collected as per National Ambulance Service Clinical Quality Group guidance and definitions (see Annex A).

### SQU03\_07: Outcome from cardiac arrest – Survival to discharge

##### Detailed Descriptor

* 1. SQU03\_07a: Survival to discharge – Overall survival rate.
	2. SQU03\_07b: Survival to discharge – Utstein Comparator Group survival rate.
	3. This survival to discharge measure reflects the effectiveness of the whole urgent and emergency care system in managing out of hospital cardiac arrest.

##### Data Definition

#### SQU03\_07a: Survival to discharge – Overall survival rate

* 1. **SQU03\_7\_1\_1:** Of the patients included in SQU03\_7\_1\_2, the number of patients discharged from hospital alive.
	2. **SQU03\_7\_1\_2:** All patients who had resuscitation (Advanced or Basic Life Support) commenced / continued by ambulance service following an out-of-hospital cardiac arrest.

#### SQU03\_07b Survival to discharge – Utstein Comparator Group survival rate

* 1. **SQU03\_7\_2\_1:** Of the patients included in SQU03\_7\_2\_2, the number of patients discharged from hospital alive
	2. **SQU03\_7\_2\_2:** All patients who had resuscitation (Advanced or Basic Life Support) commenced / continued by ambulance service following an out-of-hospital cardiac arrest of presumed cardiac origin, where the arrest was bystander witnessed and the initial rhythm was VF or VT.
	3. The denominator and numerator for this indicator should exclude patients for whom outcome data was not available. For example, the diagram below sets out that the value for lines SQU03\_7\_2\_1 should be 55 patients and the value for line SQU03\_7\_2\_2 would be 458 rather than 527, as no outcome data was available for 69 patients who otherwise should have been included in the denominator.



Reproduced from London Ambulance Service: Cardiac Arrest Annual Report: 2007/08

##### Monitoring Data Source

* 1. Survival to discharge information will be obtained from clinical and operational information from ambulance trust records, and data obtained from national databases and hospital sources as per National Ambulance Service Clinical Quality Group guidance and definitions (see Annex A).
	2. Although the denominators for the survival to discharge indicator (that is, lines SQU03\_7\_1\_2 and SQU03\_7\_2\_2) have the same definition as the denominators in the SQU03\_03 Return of Spontaneous Circulation indicator (that is, SQU03\_3\_1\_2 and SQU03\_3\_2\_2) it should be noted that the values of the denominators in the survival to discharge indicator may be lower as outcome data may not be obtained from acute trusts for all patients. Acute trusts are required to work and support ambulance trusts in the provision and timely linking of data to ensure that outcome information is captured as accurately, and for as many patients as possible.
	3. Trusts are encouraged to use the narrative section for this indicator to set out the number of patients for whom full outcome data were not obtained, and to provide information on why these data could not be obtained.

### SQU03\_04: Service Experience (Not collected in Unify2)

##### Detailed Descriptor

* 1. Narrative on how the experience of users of the ambulance service is captured, what the results were, and what has been done to improve the design and delivery of services in light of the results.

##### Data Definition

* 1. There is no one definitive data source or method for understanding the experience of service users. Ambulance services have therefore been given the flexibility to develop and commission the methods they feel are most appropriate for understanding and assessing the experience of their users.
	2. However this indicator should include a qualitative understanding and description of user experience, and should not be restricted to reporting quantitative measures of user satisfaction from questionnaires. This indicator aims to ensure that the health needs and issues which matter most to patients (in all call categories), such as timeliness and being treated with dignity, are being effectively met.
	3. Providers are expected to provide a narrative which sets out:
1. What work they have undertaken to understand and assess the experience of a wide and representative range of patients, carers and staff, reflecting the 24 hour nature of the service, over the whole of the previous quarter;
2. What the results of these assessments were;
3. What has been done to improve services in light of these results;
4. What the outcome has been in terms of improved user experience.
	1. It is important that all four components of the narrative are completed. For example, it is not enough to note that user have been asked “Were you treated with dignity and respect?” or that discovery interviews have been conducted (Component 1); or to report the percentage of users reporting dissatisfaction on this measure, or anonymised narrative information summarising the interviews (Component 2); providers should also say what they have done to improve services (Component 3), and what the outcome was in terms of users reporting an improvement on this particular aspect of their care (Component 4).

##### Basis for Accountability

* 1. This data will be reported for all Ambulance Trusts at a Trust-wide level.

##### Collection Information

* 1. Level: Ambulance Trusts
	2. Basis: Provider
	3. Returns:

##### Monitoring Data Source

* 1. Please see data definitions section.