OVERVIEW

The likelihood an OHCA victim survives falls by 7% to 10% per minute, and emergency responders can take 10 to 15 minutes to reach and assess a patient. Bystander CPR can bridge this period and yield a two to three-fold increase in survival. Less than one-third of OHCA victims receive Bystander CPR in most communities, however.

Emergency medical dispatchers can help elevate rates of Bystander CPR and thus survival by providing 'just-in-time' CPR instructions to 9-1-1 callers. 9-1-1 managers, however, must measure performance and provide for continuing education to maximize staff proficiency in handling suspected OHCA calls. This requires that 9-1-1 centers continually evaluate a fraction of the cardiac arrest calls they handle. The workflow in this process is as follows:

1. Define the number of calls your center will evaluate each period (eg, each month or quarter).
2. Obtain for each period records of all cardiac arrests confirmed by the EMS systems your center dispatches for.
3. Find the calls that match these records in your archive.
4. Evaluate the calls using the Telephone CPR Data Form, a tool geared to collect data essential for improving the provision of 9-1-1 pre-arrival CPR instructions.

Apple QuickTime is the preferred software for evaluating calls. This software brings up a window with a dial that tracks time as the recording plays. The recording can be stopped at any given moment, and the dial will indicate the time elapsed from the start of the call in minutes and seconds. This allows the listener to define key moments in the call-handling process, such as when a dispatcher or call-taker starts CPR instructions or a bystander performs the first dispatch-directed compression.

The following Data Dictionary defines the terms used on the Telephone CPR Data Form. Please review it carefully and refer to it as needed – it is essential to have a clear understanding of the elements the data form aims to collect. Coding these elements requires attention to detail and, in some cases, careful judgment, so evaluators should code a few sample cases before providing data to CARES.

Criteria for ePAROS entries

1. As long as dispatcher recognizes Cardiac Arrest & initiate to do DA-CPR regardless whether it was being performed, this should be audited and entered in ePAROS.

2. For DA-CPR that is not possible to be conducted such as obvious death like trauma, fall from height, body floating in river, locked door, where caller or bystander is unable to access to subject, ePAROS are not require to be entered.

ePAROS entries not required

1. Criteria not met, thus no recognition need for CPR. Outcome is SB Cardiac Arrest/ Case of DOA
2. Cases where dispatcher do have the chance to ask the 2 questions

Examples:

- Subject conscious, but breathing normal (criteria not met) for CPR
- SPF routed message with no call back/ no number to call back
- 3rd party caller

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1. DISPATCH AGENCY

Definition:

- This is the agency that dispatched the call.

Description:

- The Dispatch Agency can receive the call directly or from a Transfer Agency. The Dispatch Agency provides whatever pre-arrival instructions are needed and sends medical units to the event location.

Instructions for Coding:

- Spell out the full name of the agency <u>or</u> use a standardized abbreviation. Please choose one or the other.

- Upper case letters are preferred.
- Do <u>not</u> use periods, commas, or semicolons.

Examples:

Dispatch Agency Fully Spelled Out	Dispatch Agency Identified By Standard Abbreviation
SINGAPORE CIVIL DEFENCE FORCE	SCDF

2. DATE AND TIME OF CALL

Definition:

- This is the date and time the call was received at the Dispatch Agency. If no date and time are given by time stamp, they can be retrieved from the agency's Computer Aided Dispatch (CAD) or alternate record keeping system.

Description:

- The date of the call is essential for a continuous quality improvement program that aims to track changes in process data through time. Combined with the time the call was received, it also helps link dispatch and pre-hospital records in cases where incident numbers between such records do not match.

Instructions for Coding:

- Enter the date according to the following format: DD/MM/YYY

- Enter the time according to the following format: HH:MM:SS

Examples:

Date of Call	Time of Call
23/07/2013	11:22:14

3.   INCIDENT NUMBER

Definition:

- This is the number sequentially assigned to the call by the Dispatch Agency's CAD.

Description:

- The Incident Number serves as a call's unique identifier within a Dispatch Agency. It is usually sufficient for linking dispatch and pre-hospital records.
- Not nullable. A unique value must be provided to create a unique record ID within the database.

Instructions for Coding:
- Enter the Incident Number assigned to the call.

Examples:

Incident #	Examples
1234	Four (4) number incident #
123456	Six (6) number incident #
AB6468	Incident # with letters and numbers
000000123456789	Incident # with more than 6 characters with preceding "0"s.

4.   WAS THIS A CARDIAC ARREST BEFORE ARRIVAL OF EMS?

Definition:

> A suspected cardiac arrest is confirmed or not confirmed by Emergency Medical Technicians when they assess the patient's status upon arrival.

Description:

- Call-takers and dispatchers may mis-identify medical events as cardiac arrests based on a caller's description. Only calls linked to EMT-confirmed cardiac arrests should evaluated for quality-improvement purposes.

Instructions for Coding:

- Information for coding this entry is derived from EMS run sheets that match the call Incident Number or, barring an Incident Number match, share a date and time and/or address suggesting a probable match.
- If a call represents a confirmed cardiac arrest, mark the circle next to "Yes" under "Was this a cardiac arrest before arrival of EMS?"
  1. For PAROS, keep as default answer as "Yes" based on outcome SB Cardiac Arrest/ case of DOA.

- If a call does not represent a confirmed cardiac arrest, mark the circle next to "No."
  Examples for PAROS:
  1. Witnessed collapsed by EMS crew after arrival
  2. On route to hospital, later reported by EMS that subject has collapse (condition has changed)
  3. DA-CPR was administered, outcome as SB Unconscious/Hypoglycemia/AMS etc.

- If it isn't known whether the call represents a confirmed cardiac arrest, mark the circle next to "Unknown."
  1. For PAROS if unknown, do indicate under the remarks/comment the reason.

Example:

If a Cardiac Arrest
O Yes
O No
O Unknown

5. CPR ALREADY IN PROGRESS?

Definition:

- CPR is "already in progress" when callers indicate that they or other lay or trained rescuers on scene have started CPR before the dispatcher starts instructions for CPR.

Description:

- Calls where CPR is already in progress should be excluded from aggregate calculations of average or median times to dispatcher recognition of the need for CPR, time to start of dispatcher instructions, and time to first compression. These calls can be included when calculating the fraction of calls where dispatchers start CPR instructions, however (dispatchers may or may not provide instructions/coaching to rescuers already performing CPR).

Instructions for Coding:
- If CPR is known to start before a call-taker or dispatcher start instructions for CPR, mark the circle next to "Yes" under "CPR already in Progress?"
  Examples for PAROS:
  1. Bystander CPR is in progress as reported by caller.
  2. Scenario: Caller called from hospital/institution (E.g. Polyclinic or Medical Clinic) informed Code Blue / CPR in progress.

  Definition of Code Blue:

  Code blue: An emergency situation announced in a hospital or institution in which a patient is in cardiopulmonary arrest, requiring a team of providers (sometimes called a '**code** team') to rush to the specific location and begin immediate resuscitative efforts

- If CPR does not start before a call-taker or dispatcher starts instructions for CPR, mark the circle next to "No."

- If it isn't known whether CPR started before a call-taker or dispatcher started instructions for CPR, mark the circle next to "Unknown."
  1. For PAROS if unknown, do indicate under the remarks/comment the reason.

Example:

If a CPR in progress
O Yes O No O Unknown

6.   DID DISPATCH RECOGNIZE NEED FOR CPR?

Definition:

- A dispatcher or call-taker recognizes the need for CPR when he or she indicates that CPR should be performed in the course of the call.

Description:
- The dispatcher recognizes the need for CPR when he or she says any of the following in connection with a response to the victim's condition: "CPR," "chest compressions," "compressions," "continuous chest compressions," "CCR," "rescue breaths," "rescue breathing," "ventilations," or "rescue ventilations." In some cases, the dispatcher might not say any of these but indicates recognition by starting CPR instructions. In such cases, the time to dispatch recognition of the need for CPR and the time to start of CPR instructions are the same.

Instructions for Coding:
- If the dispatcher indicates that he or she recognizes the need for CPR, mark the circle next to "Yes" under "Did dispatch recognize the need for CPR?"
- If the dispatcher does not indicate that he or she recognizes the need for CPR, mark the circle next to "No."
- If it isn't known whether the dispatcher indicated recognition of the need for CPR, mark the circle next to "Unknown."

Example:

Did dispatch recognize the need for CPR?
O Yes O No O Unknown

7. CPR INSTRUCTIONS STARTED?

Definition:

- CPR instructions are directions dispatchers and call-takers provide to guide callers through the process of performing CPR, whether compression-only or conventional CPR (CPR with rescue breathing). Instructions are considered "started" if they are simply started, even if they are not finished.

Description:

- Instructions to get a patient to a hard, flat surface should not be considered the start of CPR instructions. In many protocols, instructions start when a call-taker or dispatcher tells the rescuer to "kneel by the patient's side" after the patient is on a hard, flat surface. The moment when CPR instructions are considered started, however, may vary from one dispatch center to another according to language used in local protocols.

Instructions for Coding:
- If CPR instructions are started, mark the circle next to "Yes" under "CPR instructions delivered?"
    1. For PAROS, select 'Yes' if CPR instructed is started by dispatcher

- If CPR instructions are not started mark the circle next to "No."
    1. For PAROS, select 'No' if no CPR instructed is started by dispatcher.

- If it isn't known whether CPR instructions were started, mark the circle next to "Unknown."
    1. For PAROS, if unknown, do indicate under the remarks/comment the reason.
        - E.g. Audio recording untraceable/faulty thus unable to verify if CPR instructed was started.

Examples:

CPR instructions were started	A caller is ready to start CPR. The dispatcher begins instructions, saying, "Kneel by the patient's side," but the caller stops him abruptly, saying the patient is "waking up and is conscious now." The dispatcher does not continue the CPR instructions he started.	Code as "Yes." Although CPR instructions were stopped just after they were started in this example, they were still started.
O Yes O No O Unknown		

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8. CHEST COMPRESSIONS STARTED?

Definition:

- Chest compressions are considered "started" if a rescuer does *any* chest compressions, even if the rescuer stops just after starting.

Description:

- Determining whether chest compressions are started can be difficult in a minority of cases. Rescuers don't always count out their compressions, and sometimes their voices or the compressions themselves are inaudible.

Instructions for Coding:
- If chest compressions were performed, mark the circle next to "Yes" under "Chest Compressions Performed?"
    1. For PAROS, select 'Yes' if CPR instructed is started by dispatcher.

- If chest compressions were not performed, mark the circle next to "No."
    1. For PAROS, select 'No' if no CPR instructed is started by dispatcher.

- If it isn't known whether chest compressions were performed, mark the circle next to "Unknown."
    1. For PAROS, if unknown, do indicate under the remarks/comment the reason
        - E.g. Audio recording untraceable/faulty thus unable to verify if CPR instructed was started.

Examples:

Chest compressions were started
O Yes O No O Unknown

9.   BARRIERS TO CPR?

Definitions:

- Barriers to CPR are defined as obstacles that prevent the start of CPR Instructions and/or bystander chest compressions. They include:
    - Hang up phone: This is when the caller disconnects from the dispatcher or call-taker processing the call
    - Language barrier: This when the caller and dispatcher do not speak the same language and therefore can't communicate effectively.
    - Caller left phone: This is when the Caller leaves the phone for purposes other than rendering aid to the patient after speaking with the dispatcher or call-taker
    - Caller not with patient: This is when the caller is speaking from a location that prohibits the caller's physical assessment of patient.
    - Overly distraught: This is when a caller's highly-distressed emotional state delays or prevents him or her from taking CPR instructions and/or performing CPR
    - Caller performed DA-CPR but stopped due to reasons like tired, emotional and thus unable to continue CPR.
    - Caller refused: This is when a dispatcher or call-taker suggests or instructs CPR and a caller refuses for reasons other than a physical inability to perform CPR
    - Couldn't move patient: This is when a caller reports his or her inability to move the patient to a hard, flat surface from an unsuitable location for CPR (eg, toilet or bed)
        - Example 1: Caller cannot turn patient around
        - Example 2: Caller cannot bring patient to the floor from the bed

    - Patient status change: This is when a patient initially thought to be in cardiac arrest presents indication that he or she is not in cardiac arrest.
    - Obviously dead: Caller conveys that patient is deceased. In this case, the caller provides sufficient evidence to the dispatcher in support of that conclusion (e.g. rigor mortis, mottled skin, decomposition, foul odor)

    - "Other": Any barrier apart from those defined above that prevents the start of CPR instructions and/or bystander chest compressions

        Examples for reference:
        - Trauma, multiple injuries due to RTA
        - Fall from height
        - Body floating in river
        - Locked door
        - Trained bystander decline DA-CPR assistance
        - Caller (Dr.) inform CPR is not required
        - Caller inform Dr.'s instruction (DNR)
        - Caller inform subject sign (AMD)

        DNR - Do Not Resuscitate; AMD – Advanced Medical Directive

Description:

- Barriers to CPR are important to track because the recurrence of given barriers can point the way to protocol changes addressing high-frequency obstacles. For example, a common barrier is that rescuers can't move a patient from a bed to a hard, flat surface where compressions could be effective. Knowing this, managers and medical directors can experiment with protocol language and procedures to help rescuers solve this problem.
- Multiple barriers can delay or prevent the start of CPR in any one call.

Instructions for Coding:

- Check the box next to the appropriate item under "Barriers to CPR" according to the definitions above.

Examples:

The caller, a native Spanish speaker, speaks and understands English poorly. The dispatcher knows little Spanish, but is able to get the caller to do CPR after several minutes of trying to clarify his instructions.	Code as a delay to start of CPR resulting from "Language barrier"
The dispatcher tries to calm an hysterical caller, but the caller screams and then leaves the phone. The caller is heard screaming in the background until EMTs arrive.	Code as "Overly distraught" and "Caller left phone"
A dispatcher tells the caller that she needs to start CPR and that he will help her. The caller refuses, however, saying she has hurt her back and that there is no way she can get the patient from the bed to the floor.	Code as "Other" (and what that "other" barrier was: physical inability). The caller has refused to take CPR instructions but for reasons owing to a physical inability to perform (her bad back) Code as "Couldn't move patient"
The patient appears to be unconscious in the back yard, but the caller is on a landline phone on the second floor of the house. The caller is thus not able to physically assess the patient's status.	Code as "Caller not with patient"
The caller reports that the patient is not conscious and not breathing normally. The dispatcher starts instructions for CPR, but the patient opens his eyes and begins to mumble and deliberately starts rubbing his	Code of "Patient status change"

head. The dispatcher recognizes the patient is conscious and discontinues CPR instructions.	
The caller indicates that the patient is not conscious and not breathing normally. The dispatcher starts instructions for CPR, but the caller subsequently says the patient is "blue, cold and stiff as a board." The dispatcher discontinues CPR instructions.	Code as "Obviously dead"

10. PATIENT IS ADULT, CHILD, INFANT?

Definitions:

- A patient is defined as an Adult if he or she is nine years old or older
- A patient is defined as a Child if he or she is between one and eight years old
- A patient is defined as an Infant is he or she is less than one year old
- In PAROs definition, age for child is less than 21 years old, in relation that self-consent taking is only for adult 21 years old and above.
    - Adult (Above 21 years of age)
    - Child (1 - 20 years old)
    - Infant (Below 1 year old)

Description:

- Patient age is important because it structures the kind of CPR dispatchers and call-takers should prescribe. While CPR on an infant and CPR on a child both involve chest compressions and rescue breaths, CPR on an Infant and CPR on a Child are distinct and different treatments. In the large majority of cases, dispatchers and call-takers should provide instructions for compression-only CPR for adults suspected to be in cardiac arrest.

Instructions for Coding:
- Mark the circle next to the appropriate age group in the "Dispatch: Patient" section of the QA form.

Examples:

The caller says her husband is, "passed out, snoring and unresponsive. "	Code patient age as "Adult," as indicated by the fact that the patient is the caller's "husband."
The teacher from a pre- school calls in reference to an unresponsive student on the playground.	Code patient age as "Child."
A teacher from an elementary school calls in reference to an unresponsive student on the playground. No other information about the student's age is provided.	Code as "Unknown." The patient may be either a child or an adult.

11. PATIENT IS CONSCIOUS?

Definition:

- A patient is considered conscious if the caller reports the patient is conscious and/or responsive to the caller. A patient is considered not conscious if the caller reports the patient is not conscious and/or is not responsive to the caller.

Description:

- A patient's level of consciousness is a key indicator of whether he or she is in cardiac arrest. It can be difficult to get a clear answer on whether the patient is conscious. Callers often give contrary answers to this question at different times in the call. Type-appropriate CPR instructions should be given when a patient is deemed not conscious and not breathing normally.

Instructions for Coding:
- Mark the circle next to the appropriate answer ("Yes," No," or "Unknown") under "Conscious?" on the "Dispatch: Patient" section of the QA form.

Examples:

The caller says her husband is "passed out and not responding."	Mark the "No" circle, coding the patient as not conscious.
The caller does not commit in answering whether the patient is conscious, saying "yes" at one point, "no" at another and "I can't tell" at another. The dispatcher asks if she can speak with the patient. The caller says, "No, there's no way he can talk to you."	If the caller reports that the patient can't speak, it indicates the patient is most likely not conscious. Mark the "No" circle, coding the patient as not conscious.
A caller says the patient is in a seizure. The seizure then stops, and the caller reports that the patient "is snoring like he's in a deep sleep and he won't wake up."	A patient who "won't wake up" should be classified as not conscious. Mark the circle next to "No", coding the patient as not conscious.
The caller reports the patient wouldn't wake up a minute ago, but now appears to be "getting better." The dispatcher tells the caller to shake the patient's shoulders to see if the patient responds. The caller says he moaned and pushed her arms away.	A patient who makes purposeful movement (pushing the caller's arms away) is demonstrating conscious intent and should be coded as conscious. Mark the circle next to "Yes".

12. PATIENT IS BREATHING NORMALLY?

Definition:

- A patient is considered to be breathing normally if the caller reports the patient is breathing normally. A patient is considered to be breathing not normally if the caller reports the patient is (A) not breathing or (B) the caller reports abnormal breathing and/or (C) the Quality Assurance (QA) rater hears abnormal breathing and/or identifies it through the caller's description of the patient's breathing. Abnormal breathing is defined as breathing with a rate and/or character different from the victim's normal breathing at rest.

Description:

- A patient's breathing status is a key indicator of whether he or she is in cardiac arrest. It can be difficult to get a clear answer on whether the patient is breathing normally. Callers often give contrary answers to this question at different times in the call. Agonal breathing is very common in cardiac arrest. Callers often use specific words or phrases to describe this kind of breathing. These descriptions include, but are not limited to, "gasping," "gasping for air," "gurgling," "gargling," "snoring," "snorting," "humming," "moaning," "groaning," "breathing every once in a while" and "shallow breathing." Type-appropriate CPR instructions should be given when a patient is deemed not breathing normally and not conscious.

Instructions for Coding:
- Mark the circle next to the appropriate answer ("Yes," No," or "Unknown") under "Breathing Normally?" on the "Dispatch: Patient" section of the QA form. In cases where callers describe agonal breathing or where the quality assurance rater hears agonal breathing, patients should be coded as not breathing normally.

Examples:

The caller says her husband is drunk and that he keeps "gurgling and gasping for air."	The descriptors "gurgling and gasping for air" indicate agonal breathing. Even if the caller suspects it's just because her husband is drunk, mark the "No" circle, coding the patient as not breathing normally.
The caller says his wife "seems to be breathing okay," but the quality assurance rater hears a soft snoring sound in the background. The dispatcher does not hear it or hears it but does not identify it as abnormal breathing.	Mark the "No" circle, coding the patient as not breathing normally.

13. TRANSFER CALL (NOT APPLICABLE TO PAROS)

**Not applicable to SCDF context as there is no transfer call from other agency (E.g. SPF) to SCDF. SPF routed message are send over to SCDF as incident for ambulance to be dispatch.

Definition:

1. A call is coded as a Transfer Call when the recording includes audio from an agency that first

   receives and then relays the call to the Dispatch Agency for processing.

Description**:**

- Many recordings include audio from Primary Safety Answering Points (PSAPS), agencies that initially receive and then transfer calls to a Dispatch Agency. These PSAPS are usually law-enforcement agencies transferring calls to "Secondary PSAPS," or fire/medical dispatching agencies.

Instructions for Coding:
- If a recording includes audio from a PSAP, mark the circle next to "Yes" under "Transfer Call?" on the Telephone CPR Data Form.
- If a recording does not include audio from a PSAP, mark the circle next to "No".
- If it isn't clear whether the recording includes audio from a PSAP, mark the circle next to "Unknown".
- If the call is coded as a Transfer Call, note in minutes and seconds the time elapsed from the start of the recording (time 0:00 in Apple QuickTime window) to the moment when a dispatcher at the Dispatch Agency first addresses the caller.

Examples:

If a Transfer Call
O Yes
O No
O Unknown

If a Transfer Call, Time Elapsed Before Dispatcher First Addressed Caller
0:17

14. DISPATCH RECOGNIZES NEED FOR CPR

Definition:

- The time dispatch recognizes the need for CPR is the time elapsed from the start of the call (or, in the case of a Transfer Call, the time elapsed from the moment the dispatcher or call-taker first addresses the caller) to the moment when the dispatcher or call-taker indicates that he or she realizes CPR should be performed.

Description:

- Dispatcher and call-taker recognition of the need for CPR is the first of three key time intervals in the provision of pre-arrival CPR instructions.

- Dispatchers and call-takers indicate their recognition when they say any of the following in connection with a response to the patient's condition: "Cardiopulmonary Resuscitation," "CPR," "chest compressions," "compressions," "continuous chest compressions," "Hands-Only CPR," "CCR," "rescue breaths," "rescue breathing," "ventilations," or "rescue ventilations." In some cases, the dispatcher might not say any of these but indicates recognition by starting CPR instructions. In such cases, the time to dispatch recognition of the need for CPR and the time to start of CPR instructions are the same.

- If the dispatcher or call-taker indicates his or her recognition, but subsequently instructs the caller or rescuer either to "lift the patient's chin and tilt his or her head back" and/or "to look, listen and feel for breathing," the time to dispatch recognition of the need for CPR should be defined as the moment the dispatcher or call-taker indicates his or her recognition AFTER instructing the caller or rescuer to perform this formal breathing assessment.
  - Example for PAROS: Caller called from hospital/institution (E.g. Polyclinic or Medical Clinic) informed Code Blue / CPR in progress.
  - Time recognize will be taken when caller indicate Code blue or CPR in progress whichever is earlier stated.

Instructions for Coding:
- Enter in minutes ("MM") and seconds ("SS") the elapsed time from the start of the call (or, in the case of a Transfer Call, the time elapsed from the moment the dispatcher or call-taker first addresses the caller) to the moment of dispatch recognition of the need for CPR.

Examples:

The dispatcher says, "We need to start CPR right away."	Enter the time elapsed to the moment when the dispatch says "CPR."
The dispatcher says, "We need to start CPR" at 1 minute and 27 seconds into the call. She then instructs the caller to lift the patient's chin, tilt his head back and to look, listen and feel for	Enter 1:52 as the time to dispatch recognition of the need for CPR.

breathing. The caller performs this procedure. It takes 25 seconds, and at 1:52 the dispatcher says, "Ok, let's start compressions."	
The patient is on the floor and the caller describes him as "not conscious" and "not breathing normally." A second later, at 55 seconds, the dispatcher then says, "Kneel by his side and put the palm of one hand in the center of his chest. Put your other hand on top of that hand."	The dispatcher has not said "CPR" or anything synonymous. He has launched directly into the start of CPR instructions. In this case, the time elapsed to dispatch recognition is the same as the time elapsed to the start of dispatch instructions: 55 seconds.

For PAROS examples, see below:

1. Select Yes, if CPR is being administer
   a. E.g: Caller called from hospital/institution (E.g. IMH/ Polyclinic/ Prison Service) informed Code Blue / CPR in progress. Time recognize will be taken when caller indicate Code blue or CPR in progress whichever is earlier stated.
2. Select No, if no CPR is being administer
3. If unknown, do indicate under the remarks/comment the reason.
   a. Example 1: SPF message where there is no callback, and thus dispatcher do not know if there is a need for CPR.
   b. Example 2: Dispatcher nil ask conscious, but subject is still breathing normal, thus recognize need for CPR is unknown.

15. DISPATCHER BEGAN INSTRUCTIONS

Definition:

- This is the time elapsed from the start of the call (or, in the case of a Transfer Call, the time elapsed from the moment the dispatcher or call-taker first addresses the caller) to the moment when the dispatcher or call-taker starts CPR instructions.

Description:

- The time at which a dispatcher or call-taker starts CPR instructions is the second key time interval in the provision of pre-arrival instructions. This method for assigning this time will vary from dispatch center to dispatch center, depending on the wording of protocols. Instructions to get a patient to a hard, flat surface should not be considered the start of CPR instructions. In many protocols, instructions begin when a call-taker or dispatcher tells the rescuer to "kneel by the patient's side" after the patient is on a hard, flat surface.

Instructions for Coding:
- Enter in minutes ("MM") and seconds ("SS") the elapsed time from the start of the call (or, in the case of a Transfer Call, the time elapsed from the moment the dispatcher or call-taker first addresses the caller) to the moment the dispatcher or call-taker starts CPR instructions.

Examples:

The dispatcher has recognized the need for CPR, and the caller reports that the patient is now on the on the floor. The dispatcher says, "OK – kneel by his side" at 2 minutes and 12 seconds and then goes on to finish instructions for CPR.	Enter 2:12 as the time at which the dispatcher began instructions for CPR.
CPR is already in progress at the time a call is received. The dispatcher asks the caller to tell the rescuer to count the compressions out loud. The rescuer counts out loud, and it becomes evident that he is performing compressions too slowly. The dispatcher then corrects the rate at :57 seconds, telling the caller to tell the rescuer to go faster.	Though CPR was already in progress, the dispatcher began CPR instructions at :57 seconds. Enter this as the time the dispatcher began instructions.

16. TIME TO FIRST COMPRESSION

Definition:

- This is the time elapsed from the start of the call (or, in the case of a Transfer Call, the time elapsed from the moment the dispatcher or call-taker first addresses the caller) to the moment when the caller or rescuer delivers the first chest compression.

Description:

- The time to first compression is the third of three key time intervals in the provision of pre-arrival CPR instructions. The time is noted when the first compression is audible or the caller/rescuer indicates he or she has started compressions (i.e. by counting with dispatcher).

Instructions for Coding:
- Enter in minutes ("MM") and seconds ("SS") the elapsed time from the start of the call (or, in the case of a Transfer Call, the time elapsed from the moment the dispatcher or call-taker first addresses the caller) to the moment the caller or rescuer delivers the first chest compression. There are often calls in which the time to first compression must be carefully inferred or entered as "Unknown."

Examples:

The dispatcher finishes instructions for starting compressions, and the caller clearly counts out the first compression at 3 minutes and 23 seconds into the call.	Enter the time elapsed to first compression as 3:23.
The dispatcher finishes instructions for CPR at 2 minutes and 50 seconds into the call and tells the caller to count the compressions out loud. The caller doesn't count, however, and, eight seconds later, at 2:58, the dispatcher asks, "Are you doing the compressions?" The caller says, "Yes." The dispatcher then reminds the caller to count out loud, and the caller begins: "1, 2, 3 …"	In this scenario, it becomes clear that the caller is doing CPR at 2:58 seconds (the caller says, "Yes" when asked if he's doing compressions.) The dispatcher told him to count out loud at 2:50. Since 8 seconds later the caller said he had been doing compressions, it can be reasonably inferred that the first compression occurred somewhere between 2:51 and 2:55. In the absence of more perfect information, enter the elapsed time as 2:53, the midpoint between 2:51 and 2:55.
The dispatcher finishes instructions for CPR and tells the caller to count out loud at 1 minute and 46 seconds. The caller doesn't count, but the first of a string of audible compressions occurs at 1:49.	Enter the time elapsed to first compression as 1:49.

17. COACHING OR COMPLIMENTS FOR DISPATCHER

Definition:

- Coaching refers to any advice a manager or colleague could give the dispatcher or call-taker based on his or her performance in a given audio recording. Compliments refers to any positive comments a manager or colleague could give the dispatcher or call-taker based on his or her performance.

Description:

- Coaching dispatchers and call-takers on select audio recordings is essential for improving their performance on suspected cardiac arrest calls. Call evaluators should listen for any clues to recognition of cardiac arrest a dispatcher or call-taker may have missed (eg, agonal breathing or descriptions of agonal breathing). They should also evaluate how assertive the dispatcher or call-taker was in getting instructions started once he or she identified the need for CPR. It is equally important to point out those things a dispatcher or call-taker does well when handling a suspected cardiac arrest call.

Instructions for Coding:
- Enter free text comments.

Examples:

The dispatcher missed an audible agonal breath 54 seconds into the call. Identifying it could have accelerated the time to recognition of the need for CPR.
The dispatcher missed descriptions of agonal breathing. The caller said the patient was "gasping" at 1 minute and was "breathing really hard" at 1:15.
The dispatcher identified the need for CPR quickly, but asked if the caller wanted to do CPR instead of telling him, "We need to start CPR." This likely enabled the caller to refuse CPR instructions.
The dispatcher calmed and reassured a highly-distressed caller and got him to perform CPR until EMTs arrived.

18. OTHER COMMENTS?

Definition:

- Other Comments refers to any thoughts the QA evaluator may have with respect to research and process improvement ideas.

Description:

- Patterns that emerge when evaluating audio recordings can lead to research and process improvement ideas.

Instructions for Coding:
- Enter free text comments.
- For PAROS, kindly indicate the outcome in comment box as follow:
  - SB Cardiac Arrest
  - Case of DOA
  - SB Unconscious/Hypoglycemia, AMS. etc.

Examples:

Dispatchers tend not to listen as closely as possible to callers' descriptions of patients when first receiving calls. Callers often indicate that the patient is an adult and is not conscious in the first few seconds of a call (eg, "My husband is passed-out on the floor"), but dispatchers often miss these indications. Several seconds later they ask the patient's age and whether he or she is conscious. The time to recognition of the need for CPR could be considerably reduced if dispatchers caught this kind of information when callers first provide it.
It would be interesting to know if the time to dispatch recognition of the need for CPR varied according to whether dispatchers ask if the patient is "conscious" instead of "responsive," and vice-versa.