



International Academies of Emergency Dispatch.

EMERGENCY DISPATCH RESEARCH AT WORK

R E S E A R C H B R I E F



OVER 70% OF CPR CALLS INVOLVE BARRIERS



DO CPR CALLS HAVE BARRIERS? Yes! EMDs can anticipate and manage them.

Cardiopulmonary Resuscitation (CPR) is a lifesaving technique. It involves getting “hands on chest” to perform compressions that manually pump blood and oxygen to vital body organs. Early CPR dramatically increases a patient’s chance of survival.




Telephone CPR (tCPR) can and does work. It has been a formal part of Emergency Medical Dispatch since the late 1970s. The American Heart Association (AHA) reports that up to 50% of bystander CPR occurs because an emergency medical dispatcher (EMD) provided tCPR. While only 1-2% of the calls EMDs receive require CPR, these calls are high priority.

If the scene is safe and the patient requires CPR, the EMD immediately instructs the caller to establish an open airway by laying the patient flat on the ground on their back and removing any pillows. If the patient is not breathing after establishing an open airway, the EMD provides age-appropriate instructions to begin CPR.

Ideally, the AHA recommends, a caller can establish an open airway and begin CPR within 2-3 minutes of making the emergency call.

In reality, barriers delay and sometimes prevent the start of CPR. Studies indicate that over 70% of CPR calls experience barriers. Understanding that most CPR calls will involve barriers means EMDs can learn to anticipate and deal with them and work with callers in real time to overcome them.

In reality, a CPR call is a series of predictable events that EMDs can manage. These predictable events are barriers of three types:

-  **Physical:** *Objects or conditions* that delay CPR. The longer it takes to overcome a physical barrier, the more emotional barriers come into play. For example, a caller cannot use their hands because they are holding a baby.
-  **Emotional:** *Feelings or reactions* that delay CPR. Emotional barriers lead to a breakdown in communication. For example, a caller is afraid of hurting the patient and refuses to follow directions.
-  **Communication:** *Misunderstandings* that delay CPR. These misunderstandings can result in additional physical and emotional barriers. For example, the EMD and caller speak different languages or even local dialects. 🗣️

CPR Calls:
A series of predictable events

RECEIVE EMERGENCY CALL



ANTICIPATE BARRIERS



MANAGE BARRIERS



CPR BARRIERS IN ACTION

Anatomy of a CPR Call With Multiple Barriers Craig Sturgess of Welsh Ambulance Services NHS Trust (Wales, U.K.) took this CPR call in 2016, encountering and expertly managing over 50 barriers in 17 minutes. Auditors found this call during a random QA audit and sent it to the IAED™. This call demonstrates a gold standard of providing extraordinary customer service while remaining compliant to the Medical Priority Dispatch System™ (MPDS®) Protocol. Read below to find excerpts of some of the barriers (**Physical** 🚫, **Emotional** 🧡, and **Communication** 🗣️) he managed. Listen to the redacted call and read the transcript on aedrjournal.org

0:00 Call begins



CALLER Did not provide address when asked

CRAIG Acknowledged her response and repeated the question

0:26



CALLER Explained what happened a week before

CRAIG Acknowledged her response and asked, "What happened to him now?"

0:47



CALLER Was in a different room from the patient

CRAIG Continued Case Entry questioning. Later in the call (1:15), he instructed her to return to the patient on the available cordless phone

0:58



CALLER Said he was breathing normally but "just"

CRAIG Clarified what "just" meant and recognized her answer as evidence of agonal breathing

2:06



CALLER Explained the patient fell in the bathroom, and she couldn't move him

CRAIG Offered suggestions and encouragement to get him flat on his back

2:55



CALLER Worried the patient had died

CRAIG Modeled calm behavior and used repetitive persistence to encourage her to keep trying to get him flat on his back

3:02



CALLER Explained that he was wedged between the toilet and something else

CRAIG Offered suggestions on how to move the patient out of the bathroom

3:10



CALLER Became too upset to keep trying

CRAIG Used a calm, concerned tone and repetitive persistence to calm her

4:06



CALLER Panicked and stated she couldn't do anything

CRAIG Offered an alternative—told her to go outside and find someone to help her

4:55-7:11



CALLER Placed phone by the patient's head and left him alone to find help

CRAIG Reassured him that he was not alone, she was finding help, she would return as soon as possible, and an ambulance was on its way

7:18



CALLER Discussed with other bystanders who wanted to perform CPR

CRAIG Started CPR instructions, encouraged her to start compressions, and asked questions to confirm that the patient was flat on his back

9:16



CALLER Explained that he was flat on his back, stuck, and no one could reach him

CRAIG Offered suggestions on how to get the patient out of the bathroom

9:42 Chest compressions begin



Craig Sturgess

Craig Sturgess joined the Welsh Ambulance Services NHS Trust in July of 2011 as an Emergency Medical Dispatcher. After 3 years, he qualified as an EMD-Q* and served as a mentor for newly-hired EMDs. On his own time, he volunteered as a community first responder and trained as a paramedic. He enjoyed adapting his EMD training and skills to a face-to-face environment.

Tragically, in January 2018, Craig passed away suddenly at home. We appreciate the support and cooperation of Welsh Ambulance Services NHS Trust and his family on this project to honor his gold standard of customer service. 🙏

FOR MORE INFORMATION:

- aedrjournal.org/applying-the-american-heart-associations-recommended-hands-on-chest-time-performance-measures
- aedrjournal.org/time-to-first-compression-and-barriers-to-dispatch-assisted-cardiopulmonary-resuscitation

TWO OPPORTUNITIES FOR CDE CREDIT:

- Go to learn.emergencydispatch.org
- LOGIN with your Username and Password, click COURSES, and click RESEARCH BRIEF
- LOGIN with your Username and Password, click COURSES, click TARGET LESSONS, and click OVERCOMING CPR BARRIERS