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Hilton Head, SC – Rapid Dispatch

Rapid Dispatch for Sudden Cardiac Arrest in Hilton Head, South Carolina

BRIEF BACKGROUND

Decreasing total response time is vital for the most critical calls — none more so than sudden cardiac arrest. In some communities, EMS calls can take up to several minutes to process. But better understanding rapid dispatch can play a huge role in improving total response time. Since 2012, Hilton Head Island Fire Rescue has utilized rapid dispatch.

STEPS TAKEN

The PSAP affiliated with Hilton Head Island Fire Rescue adopted rapid dispatch with the goal of dispatching the first arriving unit within 60 seconds. Depending on call severity, additional units were added to the call after the initial unit was dispatched. Suspected cardiac arrest calls received one ambulance, two engines and one battalion chief (for a total of seven to 11 rescuers).

CHALLENGES

Rapid dispatch requires a high level of coordination between the call taker and dispatcher. Often, the dispatcher only knows the call is a generic medical call as they start to assign the first unit. The dispatcher must listen to the type of questions being asked to better determine the call nature before the final call type is determined. Additionally, as the call taker gathers patient information, they must communicate to the dispatcher the need to upgrade the response. Additional units dispatched may have switched to a tactical radio channel and not always hear the upgraded response. The sooner additional units can be added to the response, the greater the opportunity to ensure everyone responding to the call knows about the upgrade.

RESULTS

Rapid dispatch has become part of the Hilton Head Island Fire Rescue's routine performance and has significantly shortened the interval from call received to patient's side on Hilton Head Island.

An example of a recent situation: An incident of sudden cardiac arrest occurred on June 11, 2019. The 911 caller disconnected prematurely, prior to sending T-CPR instructions. An off-duty paramedic from Atlanta was nearby and able to perform bystander CPR.



Bystander CPR: Mr. Kevin Rainwater, Survivor: Mr. Joseph Berkner

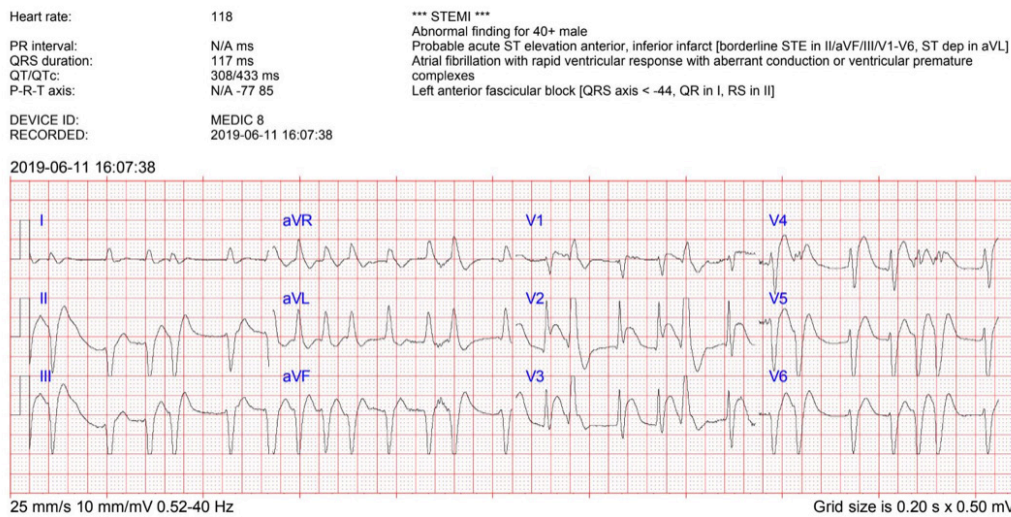


Mr. Kevin Rainwater has lots of kids!

The timeline:

- Call received 15:51:25 0 seconds
- **Dispatch 15:51:56 31 seconds**
- Responding 15:52:28 1 minute and 3 seconds
- Arrival 15:54:15 2 minutes and 50 seconds
- **Patient side 15:55:26 4 minutes and 1 second**
- HP-CPR 15:55:36 4 minutes and 11 seconds
- Defibrillation 15:58:20 6 minutes and 55 seconds
- ROSC 16:00:20 8 minutes and 55 seconds
- 12-lead ECG 16:07:28 16 minutes and 3 seconds
- Code STEMI 16:09:39 18 minutes and 14 seconds
- En route hospital 16:19:41 28 minutes and 16 seconds
- Arrived hospital 16:26:45 35 minutes and 20 seconds

12-lead ECG



OUTLOOK

Hilton Head Island Fire Rescue continues to evaluate potential ways to monitor the American Heart Association's (AHA) recommended performance measures on an ongoing basis.

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