



(AP082) Are you beside the patient now - Barriers to telephone assisted CPR in an Irish Ambulance Control setting.

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Introduction

Early CPR with the assistance of a dispatcher via telephone (t-CPR) has been identified as an important factor in strengthening the chain of survival¹. To initiate t-CPR the caller must be beside the patient. Mobile phones have the advantage over fixed line phones of enabling the caller to be close to the patient, therefore increasing the reliability of the information about the patient's condition.

Objectives

The aim of this study was to:

1. Identify the proportion of callers that were at the patient's side and could potentially perform CPR.
2. Identify the proportion of calls from mobile versus fixed line phones, of those at the patient's side.

Methods

Calls identified as cardiac arrests to a single Irish ambulance control centre for the period 2011-2012 were examined. 202 cardiac arrests calls were identified. The recordings of these calls were reviewed to determine if the caller was actually beside the patient, thereby allowing identification of the proportion of cardiac arrests in which a caller is available to carry out telephone CPR and the phone type used.

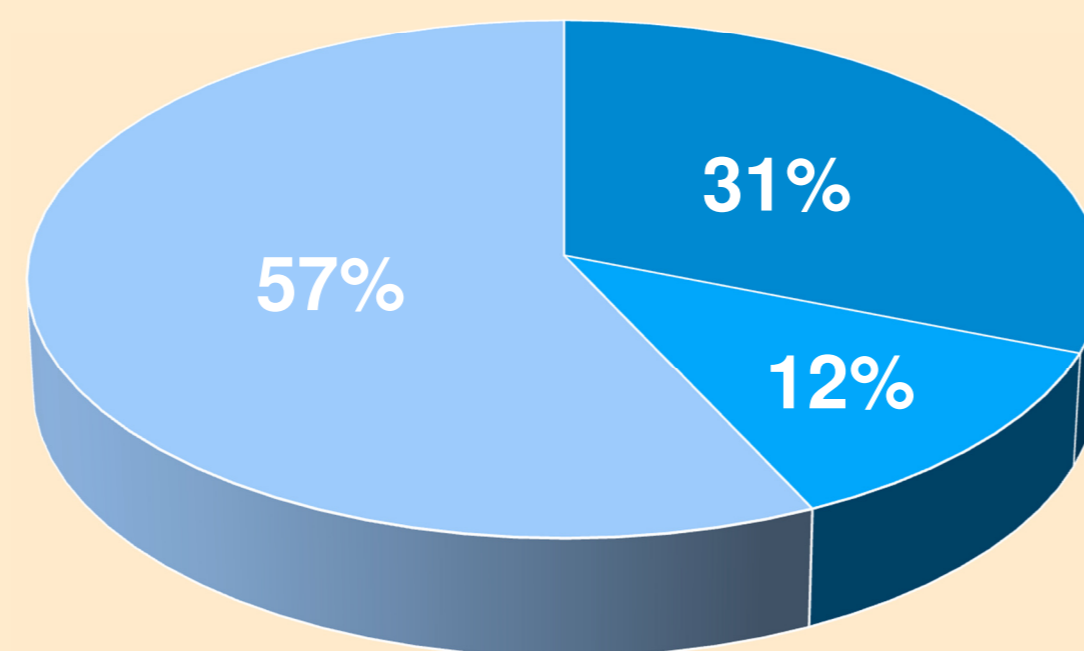
Limitations

While the number of cases were small they are consistent with national out-of-hospital cardiac arrest rates of 39 per 100,000 population/year.

Result 1 – Caller on scene

Of the cases where data was available and the patient was in arrest at the time of the call, 63/145 (43%) were not in a position to attempt CPR, as they were not beside the patient

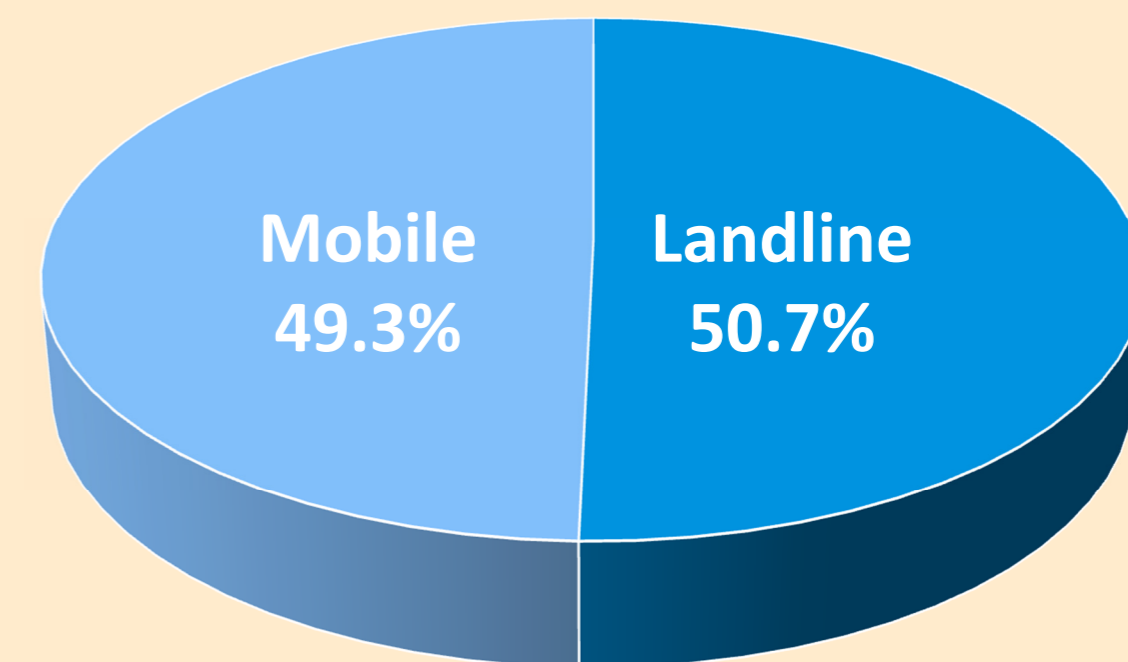
- 31% of callers were not at the scene of the cardiac arrest (3rd Party Callers)
- 12% were at the scene of the arrest but not at the patient's side.



- Not at scene (3rd Party)
- At scene but not at patients side
- At Patients Side

Result 2 – Phone Type usage

Phone type was identifiable in 187 cases. When the 47 third party calls were excluded, there was no statistically significant difference in the use of mobile and fixed line phones when contacting the Ambulance Service. 69/140 (49.3%) from mobiles compared to 71/140 (50.7%) from fixed lines.



Conclusion

The high proportion of third party callers² is a weakness in the chain of survival. These callers reduce the quality of information available to the Ambulance Control Centre and may affect the rate of t-CPR. Due to the limited data available in relation to mobile phone use, further research is required to examine if the rate of use is universal.

Recommendations

A campaign to encourage all callers to ring 999/112 while at the scene and where possible to use the mobile phones, is needed.

References

1. 2012 AHA Scientific Statement, Emergency Medical Service Dispatch Cardiopulmonary Resuscitation Pre-arrival Instructions to Improve Survival From Out-of-Hospital Cardiac Arrest, Circulation. 2012; 125: 648-655
2. 2013 Circulation, Dispatcher-Assisted Cardiopulmonary Resuscitation: Time to Identify Cardiac Arrest and Deliver Chest Compression Instructions, Lewis, Miranda BS; Stubbs, Benjamin A. MPH; Eisenberg, Mickey S. MD, PhD, Issue: Volume 128(14), 1 October 2013, p 1522-1530