



# “Resuscitation Academy (RA) 10- Step Implementations in the PAROS Group”

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- Munawar Khursheed (National Institute of Cardiovascular Disease NICVD)
- Junaid Razzak (John Hopkins University Bloomberg)



# Objectives of research-Pakistan site

- 1 Establish a cardiac arrest registry
- 2 Begin Telephone-CPR with ongoing training and QI.
- 3 Begin high-performance EMS CPR with ongoing training and QI.
- 4 Use smart technologies to extend CPR and public access defibrillation. programs to notify volunteer bystanders who can respond to nearby arrest to provide early CPR and defibrillation.



# Cardiac arrest registry

- Pilot registry set up since **2015**
- Started with **4** hospitals two public and two private hospitals
- Now extended to **11** hospitals. (3 Public and 8 private)
- Enrolled **1064** cases.



# Registry Sites

## Public Institutions:

1. Jinnah postgraduate Medical center
2. Karachi Institute of Heart Disease
3. National Institute of Cardio Vascular Disease

## Private Institutions:

1. Tabbah Heart Hospital
2. Darul Sehat Hospital
3. Memon Medical Institute
4. Chiniot Hospital
5. Aga Khan University Hospital
6. South City Hospital
7. Patel Hospital
8. Indus Hospital



# Public hospital sites





# High Performance EMS CPR

- Provided training to EMS and ambulance crew
  - AMAN, Alamgir, Al Mustafa
  - **50 ems** staff trained so far





# Layman training for Hands only CPR

- Rangers, traffic police, Sindh Police, School teachers and students (590 trained)
- Refreshers training conducted (within six months) (277 trained)
- Developed Master trainers 160
- Knowledge Attitude and Practices KAP survey pre and post CPR training



## Knowledge Assessment Questions:

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|  |   |   |   |
|--|---|---|---|
| <b>1. What do you think “Cardiopulmonary resuscitation (CPR)” means?</b>   |   | <b>۱۔ آپ کے خیال میں سی پی آر (CPR) کا کیا مطلب ہے؟</b>   |   |
| a  | To apply strong compression to the chest at certain intervals | سیٹے کو ایک مخصوص وقفہ پر زور دینا  | a |
| b  | To compress the heart by directly opening the chest wall.     | سیٹے کو کھول کر دل کا ڈائریکٹ مساج کرنا/دل کو پانا  | b |
| c  | I have no idea  | مجھے کوئی اندازہ نہیں ہے  | c |
| <b>2. Which of the following may be a sign of sudden heart arrest? (You can mark more than one option)</b>       |   | <b>۲۔ ان میں سے کونسی علامت اچانک دل بند ہونے کی علامت ہیں؟ (ایک سے زیادہ منتخب کر سکتے ہیں)</b>        |   |
| a  | Loss of consciousness   | بے ہوشی   | a |
| b  | No breathing/ Abnormal breathing                              | سانس کا نہ آنا یا رک رک کر آنا  | b |
| c  | No Pulse  | دل کی دھڑکن کارک جانا/ نبض کا نہ چلنا   | c |
| d  | A person sitting or standing suddenly collapsed               | کسی شخص کا اچانک سے گر جانا   | d |
| e  | Chest pain  | سیٹے/دل کا درد  | e |
| f  | I don't know  | میں نہیں جانتا / معلوم نہیں   | f |
| <b>3. How can the consciousness state of the individual be determined? (You can choose more than one option)</b> |   | <b>۳۔ کسی شخص کے ہوش و حواس میں ہونے کا تعین کیسے لگایا جاسکتا ہے؟ (ایک سے زیادہ منتخب کر سکتے ہیں)</b> |   |
| a  | No response when called                                       | جب آواز دیں تو جواب ناویں   | a |
| b  | No response when tapped                                       | تھپتھپانے/چھونے/ہلانے پر حرکت نہ کرنا   | b |
| c  | Not moving at all   | کوئی بھی حرکت نہ ہونا   | c |
| d  | None of the above   | ان میں سے کوئی نہیں   | d |



## Attitude and practice Questions:



|   |                        |   |   |
|---|------------------------|---|---|
| <b>1. Have you ever seen CPR being performed?</b>   |                        | ۱۔ کیا آپ نے کبھی سی پی آر (CPR) ہوتے ہوئے دیکھا ہے؟                |   |
| a   | Yes                    | ہاں   | a |
| b   | No                     | نہیں  | b |
| <b>2. If yes then where?</b>  |                        | ۲۔ کہاں تو کہاں دیکھا ہے؟   |   |
| a   | Television             | ٹیلی ویژن   | a |
| b   | Social media /Facebook | فیس بک یا سوشل میڈیا پر   | b |
| c   | Real life scenario     | حقیقی زندگی میں   | c |
| d   | Others                 | یا پھر کہیں اور   | d |
| Please specify others   |                        | کہیں اور کی وضاحت   |   |
| <b>3. Do you know how to do CPR in the case of cardiac arrest (namely, sudden death)?</b> |                        | ۳۔ کیا آپ جانتے ہیں کہ دل بند ہونے پر سی پی آر (CPR) کیسے کرتے ہیں؟ |   |
| a   | Yes                    | ہاں   | a |
| b   | No                     | نہیں  | b |
| اگر آپ کا جواب نہیں ہے تو سوال نمبر 4,5,6,7 چھوڑ دیں                                      |                        |   |   |
| <b>4. Have you received any CPR training?</b>   |                        | ۴۔ کیا آپ نے کبھی سی پی آر (CPR) کی تربیت لی ہے؟                    |   |
| a   | Yes                    | ہاں   | a |
| b   | No                     | نہیں  | b |
| <b>5. If your reply is yes to the above question, where did you receive the training?</b> |                        | ۵۔ اگر آپ کا جواب ہاں ہے تو کہاں سے لی؟                             |   |
| a   | At School              | اسکول میں   | a |



# Training to Rangers Pakistan



# Training for Traffic police and School students





# Mass CPR awareness





# Use of smart technology – mobile based app

- Good Sam app (UK based app) for alerting responder to provide CPR
- Memorandum of understanding (MOU) has been signed between AKU and Goodsam App
- Registration as Responder has been done
- Demonstration has been given
- We will do pilot in upcoming months



# Telephone assisted CPR

- Providing CPR instructions over phone by EMS dispatcher
- Collaborated with AMAN foundation
- Collected audio taped dispatcher calls – **five months** (CPR instructions given on unconscious patients)
- **200 calls re-listened/analyzed** for quality of dispatcher assisted CPR so far
- Data collection and entry on going

# Control room and Telephone assisted CPR





# Outcomes

## AKU research group

- Aga Khan University hospital developed multi-disciplinary research groups
- Each group is focused on a particular theme of people from different departments and institutes

## University grant application:

- Assessing hospital capacity and practices for managing cardiac arrest: A mixed-method study from Karachi, Pakistan

## Manuscript Write up:

- In analysis and planning phase

## Consortium:

- Cardiac arrest resuscitation research group (CARRG)
- More than seven NGOs and EMS organizations joint together to work on same interest.



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# Cardiac Arrest Resuscitation Research Group (CARRG)



Project Timeline: 27th July 2017 – June 27th 2019.



# Future plans

- Future grants → related to new questions arising
  - Training of hospital staff (proposal has been developed)
- Advocacy/policy dialogue-strengthening EMS
- CPR in schools curriculum
- More collaborations for research and developing registry



Thank  
you!

