Telephone CPR and Metrics

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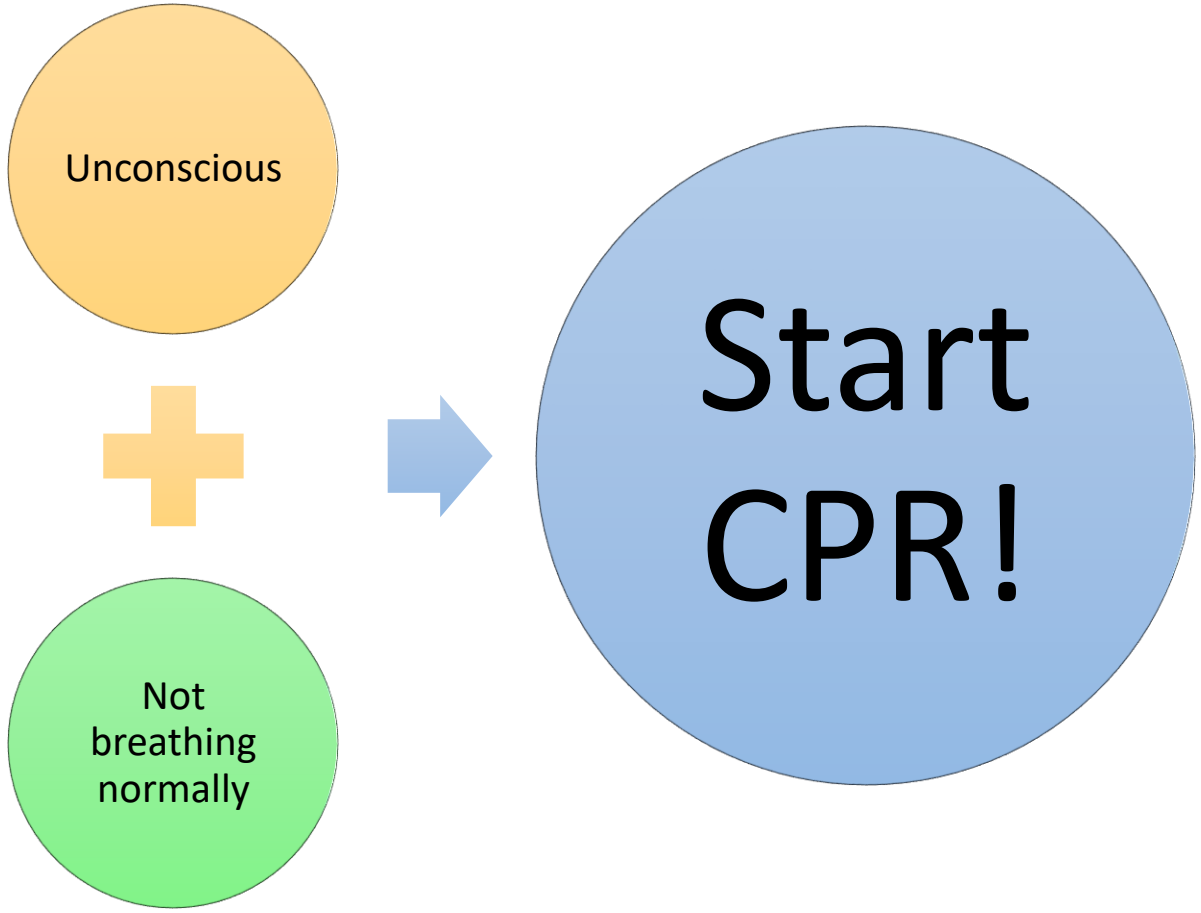
"Towards a World Class Pre-hospital Emergency Care System for Singapore"

Acknowledgements

- Dr Ng Yih Yng
- A/Prof Marcus Ong
- Dr Benjamin Leong

What is Dispatcher Assisted CPR?

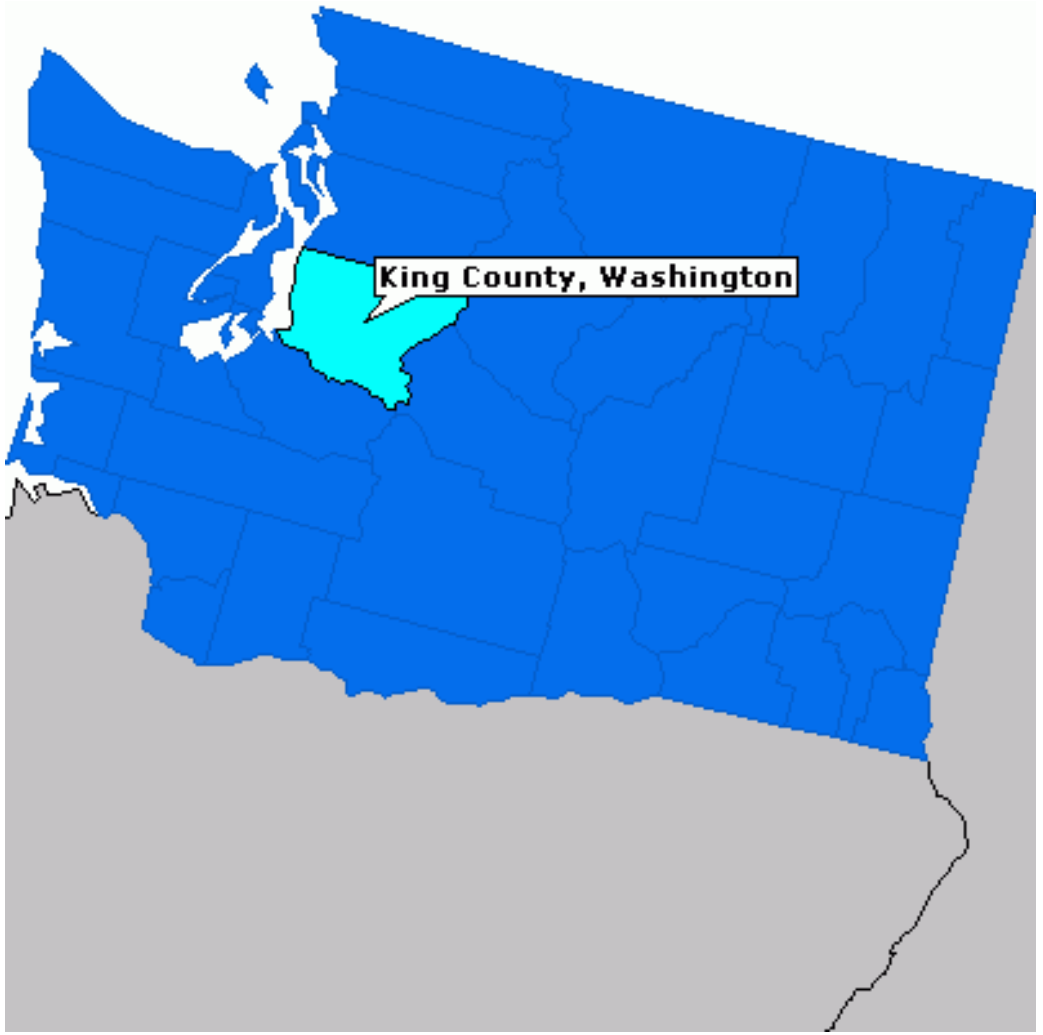
- Dispatcher asks 2 KEY questions
- Coaches caller to do hands-only CPR
- For paediatric age group – Mouth to mouth is encouraged



Beginnings of Telephone-CPR

- Beginning in 1981

- We have come a long way since then!



Resuscitation 102 (2016) 85–93

Contents lists available at ScienceDirect

Resuscitation

journal homepage: www.elsevier.com/locate/resuscitation

Clinical paper

A before–after interventional trial of dispatcher-assisted cardio-pulmonary resuscitation for out-of-hospital cardiac arrests in Singapore☆

Sumitro Harjanto[a], May Xue Bi Na[b], Ying Hao[c], Yih Yng Ng[d], Nausheen Doctor[e], E. Shaun Goh[f], Benjamin Sieu-Hon Leong[g], Han Nee Gan[h], Michael Yih Chong Chia[i], Lai Peng Tham[j], Si Oon Cheah[k], Nur Shahidah[e], Marcus Eng Hock Ong[e,l,*], For the PAROS study group

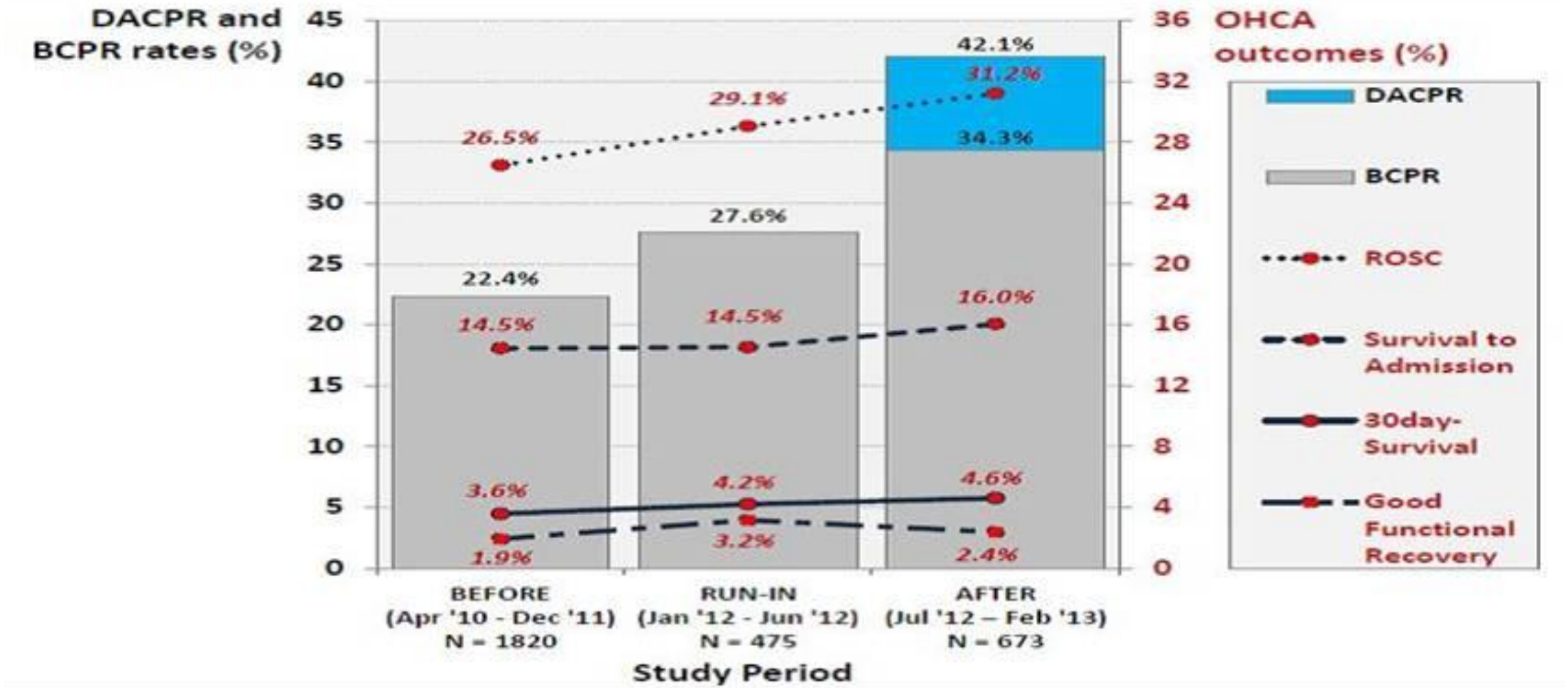


Figure 2: The trend of BCPR and DACPR rates and OHCA outcomes across the study periods.

Resuscitation

Volume 130, Supplement 1, September 2018, Page e25

AS045

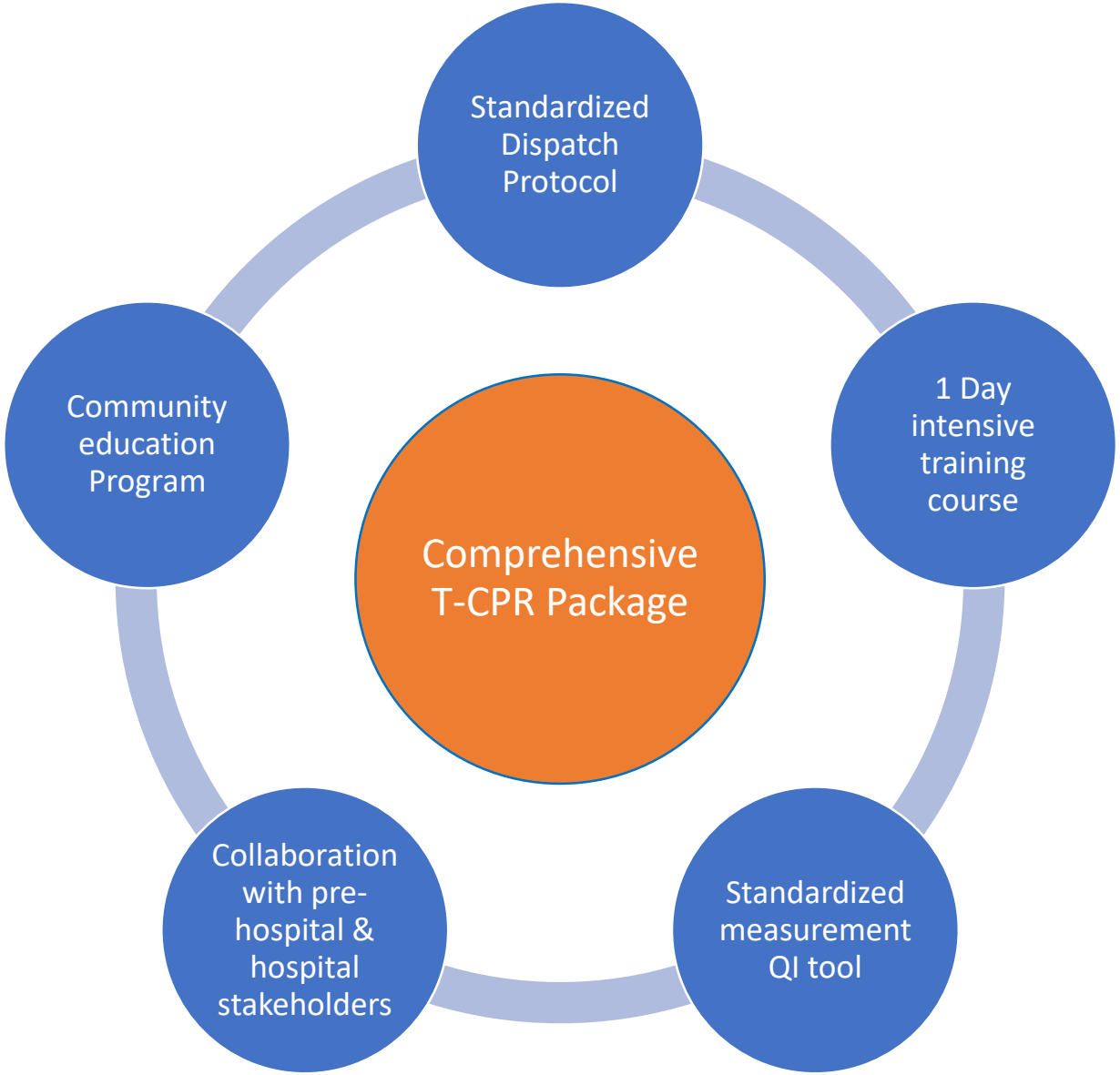
Improvements in bystander CPR rates and survival for Out-of-Hospital Cardiac Arrest with a comprehensive dispatcher-assisted CPR program in Singapore

Marcus E.H. Ong [1, 2], Jasmine Y.Y. Lim [2], Win Wah [1], Nur Shahidah [1], Susan Yap [1], Pin Pin Pek [1], Yih Yng Ng [3], Benjamin S.H. Leong [4], Han Nee Gan [5], Desmond R. Mao [6], Michael Y.C. Chia [7], Si Oon Cheah [8], Lai Peng Tham [9]

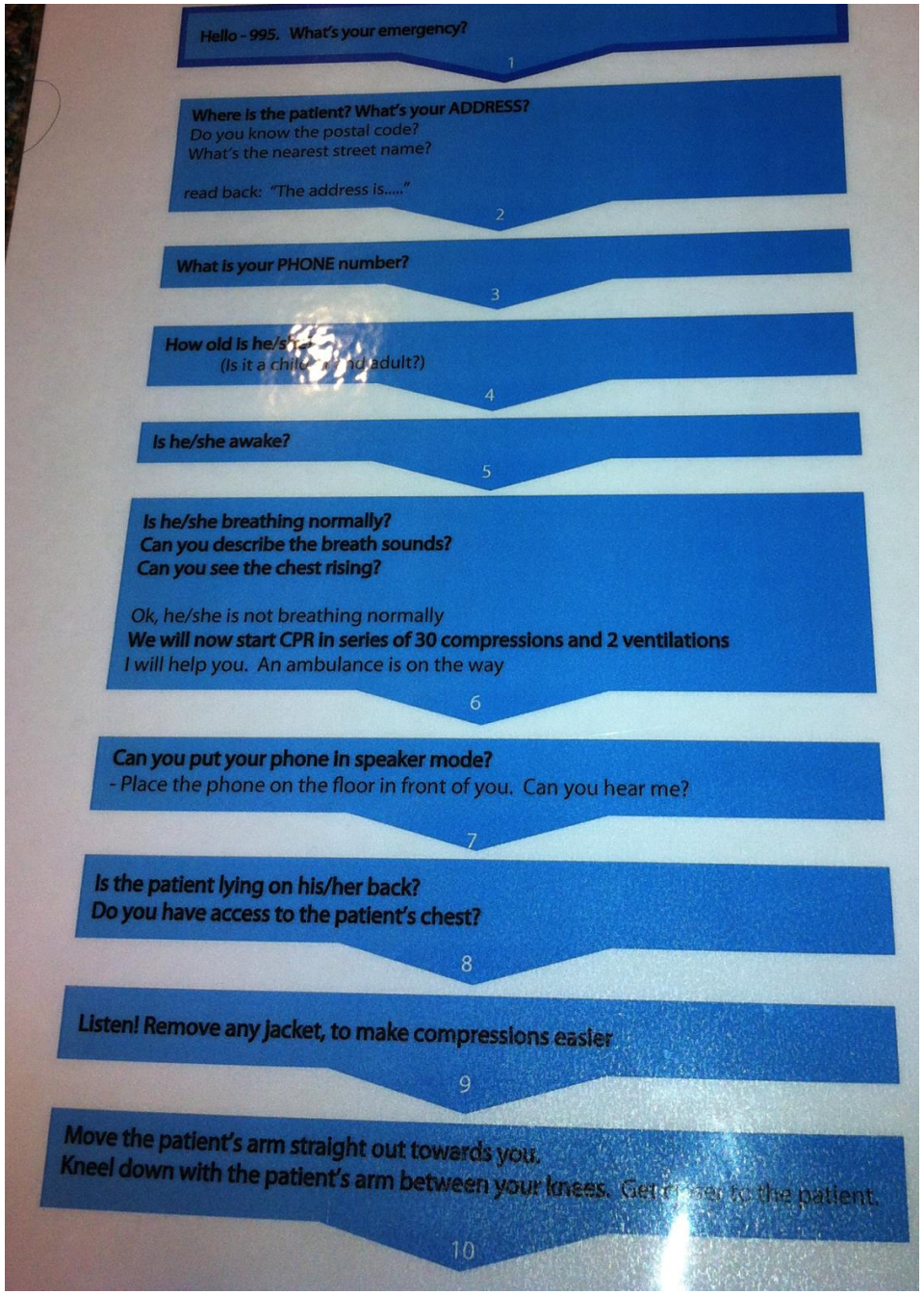
What we know

- T-CPR increases Bystander CPR rates
- Most data suggests that T-CPR increases survival rates and good neurological outcomes
- QI/QA improves quality of T-CPR

Ingredients for Success


Standardized Dispatch Protocol
1 Day intensive training course
Standardized measurement QI tool
Collaboration with pre-hospital & hospital stakeholders
Community education Program
Comprehensive T-CPR Package

Standardized Dispatch Protocol



1 Day Intensive Program for both Call-takers and Dispatch Center Managers

Standardized Measurement QI Tool

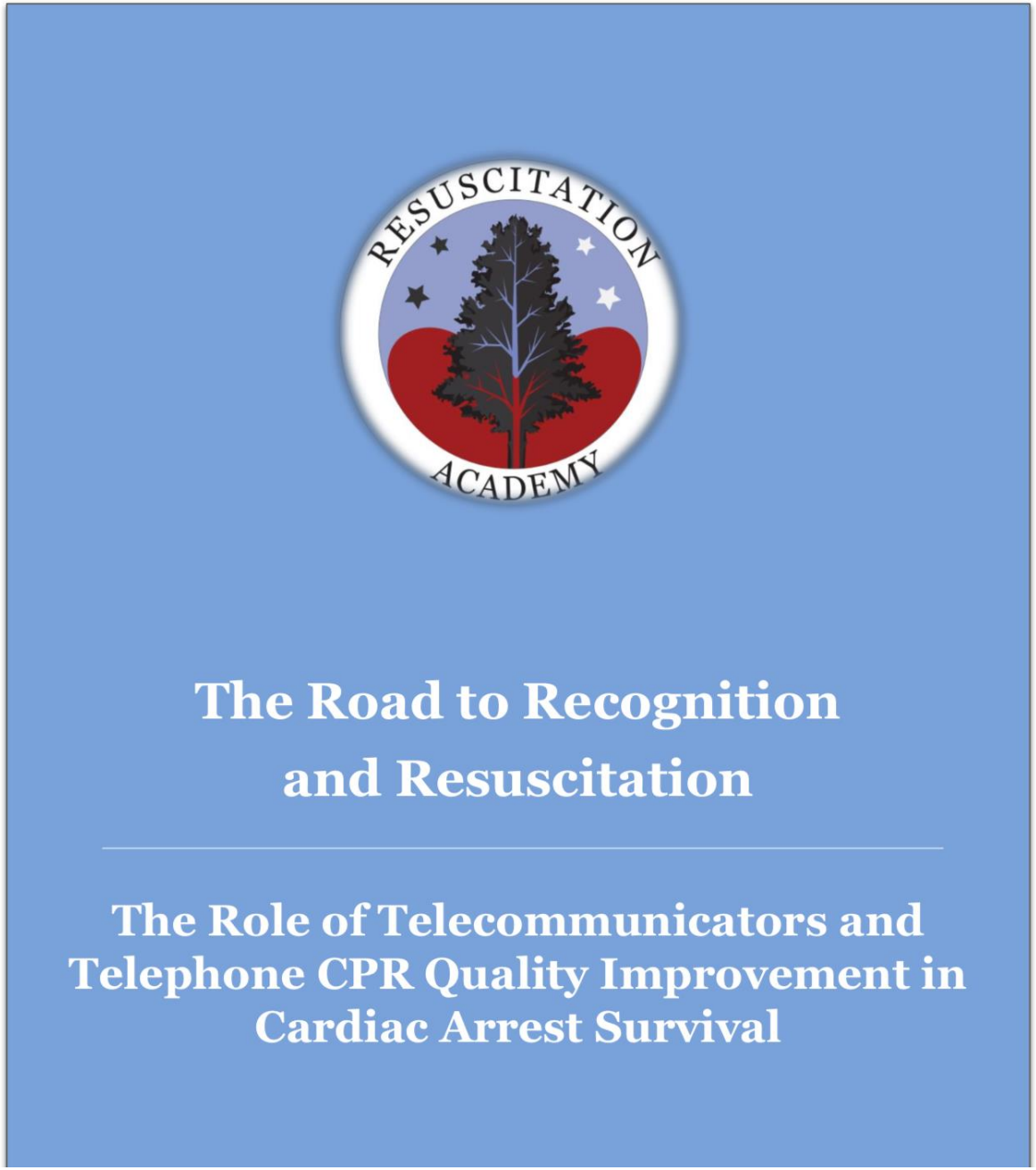
Dispatch: Preliminary

Dispatch agency	SCDF
Date of call	☐☐ / ☐☐ / ☐☐☐☐ (dd/mm/yyyy)
Time of call	☐☐ : ☐☐ : ☐☐ (hh:mm:ss)
PAROS case number (Official/PAROS HQ use only)	S G S I N ☐☐☐☐☐☐☐
Incident No/CAD	_____
Was this a cardiac arrest before arrival of EMS?	☐1 Yes ☐2 No ☐3 Unknown
CPR already in progress?	☐1 Yes ☐2 No ☐3 Unknown
Did Dispatch recognize need for CPR?	☐1 Yes ☐2 No ☐3 Unknown
CPR instructions started?	☐1 Yes ☐2 No ☐3 Unknown
Chest Compressions performed?	☐1 Yes ☐2 No ☐3 Unknown
Barriers to CPR	☐1 Hang up phone ☐2 Caller left phone ☐3 Caller refused ☐4 Caller not with patient ☐5 Language barrier ☐6 Overly distraught ☐7 Couldn't move patient ☐8 Patient's status changed ☐9 Difficult patient access ☐10 Other (please specify) ☐11 Not applicable _____

7 It Takes a System to Save a Victim

Collaboration is needed

Community Education



Continuous Quality Improvement

Current Recommendations - Diagnosis

2.10: RECOGNITION PERFORMANCE STANDARDS AND BENCHMARKS

Percentage of total OHCA cases correctly identified by PSAP[8]	**75%**
Percentage of OHCA cases correctly identified by PSAP that were recognizable[9]	**95%**
Percentage of call taker recognized OHCA Receiving T-CPR[10]	**75%**
Median time between 911 call and OHCA recognition[11]	**Less than 120 seconds (less than 60 seconds from address acquisition to telecommunicator recognition of OHCA)**

Current Recommendations - Treatment

Time to rapid dispatch <60seconds

Median time between 911 call and first T-CPR directed compression[14]	**<180 seconds (less than 120 seconds from address acquisition to first CPR compression directed by the Telecommunicator)**

Discussion Time!

Discussion (1)

1) Tele-Diagnosis of OHCA

- What are the shortcomings with current methods/phrasing?
- What are more accurate ways to pick up OHCA?

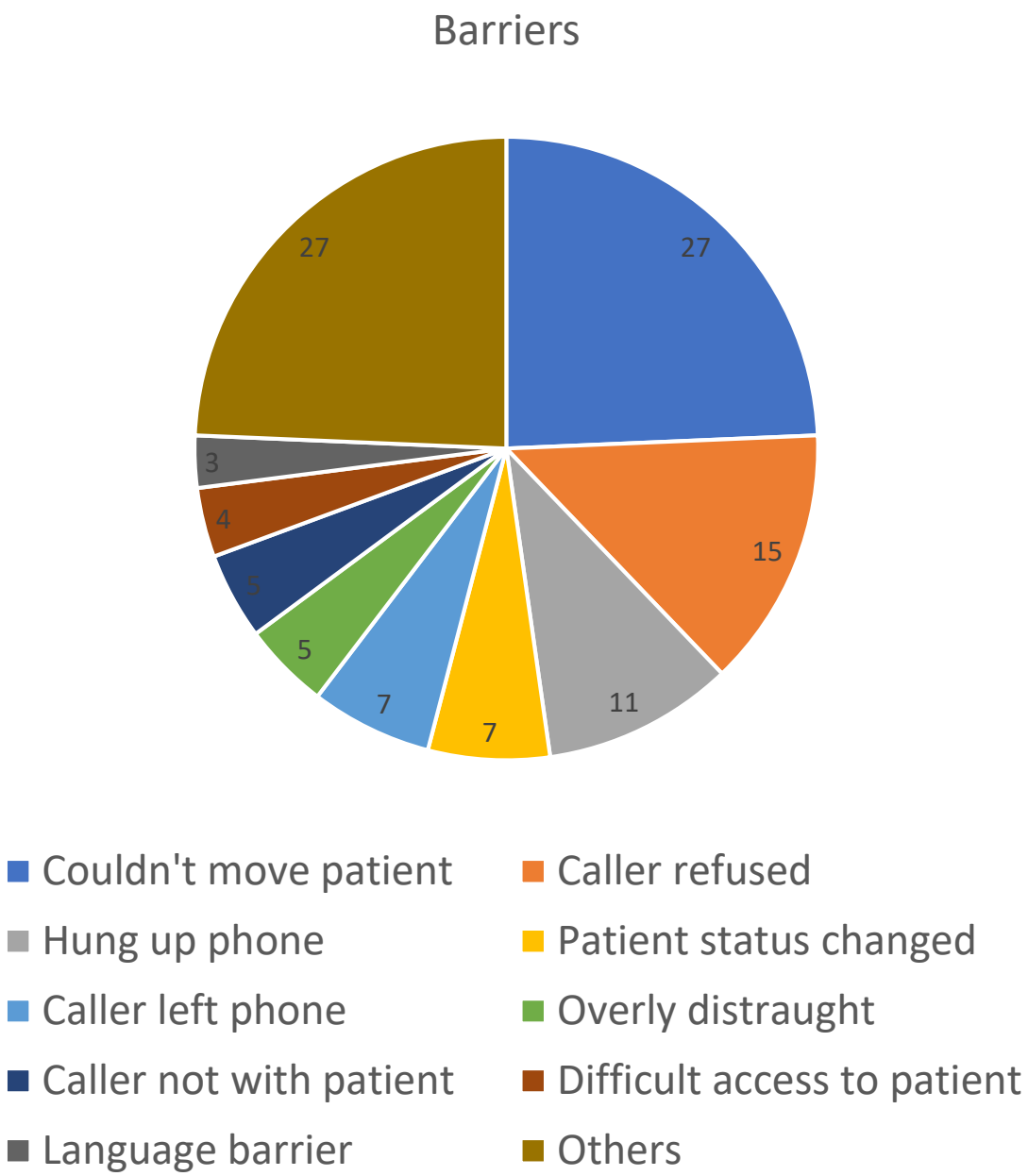
Discussion (2)

2) Treatment

- Barriers to starting DA-CPR —> What are the possible solutions?

- CPR on the ground vs the bed? Which is better?

- Methods to measure the quality of tele-CPR. Are there any?



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EUROPEAN RESUSCITATION COUNCIL

Clinical paper

Barriers to dispatcher-assisted cardiopulmonary resuscitation in Singapore☆

- 37.2% of cases had one or more barriers

Discussion (3)

3) Reporting Metrics

- Areas that we need further standardisation.

4) Training

- Role of dispatchers. Horizontal vs Vertical component. What is the ideal workflow?

- What should training focus on?

Discussion (4)

6) New Operational Roles for Dispatchers

- Handling crowd-sourced CPR Apps

- What are the standards & reporting metrics?

Discussion (5)

7) Collaboration with other stakeholders

- Standardization with CPR educators

- Giving location

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Areas for Discussion

1. Tele-diagnosis of OHCA
2. Treatment Barriers
3. Reporting Metrics
4. Training of Dispatchers
5. New Operational Role for Dispatchers
6. Collaboration