Phone CPR Project
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Presentation outline

- Introduction
- Feasibility study
- Organization of the Phone CPR’s team
- Educational part
- First educational outcomes
- "Call in" : How to give instructions and send rescue in the same time
- Scientific studies
- Perspectives
- Conclusions
Introduction

- Sudden cardiac arrest: Epidemiological aspects
- Capital factor: Promptness of the response
- Delays before the first medical response: + / - 8 minutes
- Low rate of initiated CPR by witness
Introduction

The phone CPR is an action that involves:

Guide to a witness, trained or not to basic life support, calling 112 giving simple instructions by telephone to perform CPR.
Feasibility study and difficulties.

Development of a T-CPR protocol:

Assess the victim's level of consciousness

**Airway management:**
Assess the airway
Look, listen, and feel for breathing

- If the patient is breathing normally → recovery position
- If patient is not breathing normally → Starting Chest compressions
Feasibility study and difficulties.

Prospective study: CPR on Rescusi Anne

(SimMan Laerdal)

- Location: Kinepolis (Cinema)
- 4 Groups:
  - Untrained
    - 1. Assisted (NF-G)
    - 2. unassisted (NF-NG)
  - Trained: (nurses)
    - 3. Assisted (F-G)
    - 4. unassisted (F-NG)

CPR evaluation on the basis of the Cardiff test of BLS version (3.1)
Feasibility study and difficulties.

Median CPR score (under 8)

Untrained

Trained

4,8

5,7

1,3

4,2

NF-NG

NF-G

F-NG

F-G
Feasibility study and difficulties.

Conclusion of the feasibility study:
- Providing expertise for guided untrained provider
- Improved performance in trained guided provider

Introduction of pre-orders for the policy note 2010

Phone CPR project
Organization of the Phone CPR’s team

Working groups

PHONE CPR PROJECT
FEDERAL SUPERVISION

Francophone Medical Dispatching

- Educational part
  - Educ. coordinator
  - ERC trainer

- Scientific part
  - Scient. Coordinator
  - Scientific nurse

Dutch Medical Dispatching

- Educational part
  - Educ. coordinator
  - ERC trainer

- Scientific part
  - Scient. Coordinator
  - Scientific nurse
Educational part

Educational choice

Updating theoretical and practical knowledge (Switzerland)

Vs.

Specific training in Phone CPR

→ Specific Training ←

Message improvised less effective than a strict protocol based on a list of specific words to use
# Educational part

<table>
<thead>
<tr>
<th></th>
<th>Perceptions</th>
<th>Theoretical knowledge</th>
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<tbody>
<tr>
<td><strong>PRE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge on basic life support</td>
<td>79%</td>
<td>80%</td>
</tr>
<tr>
<td>Assistance skills</td>
<td>45%</td>
<td>68%</td>
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<tr>
<td><strong>POST</strong></td>
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<tr>
<td>Knowledge on basic life support</td>
<td>97% (+18%)</td>
<td>97% (+17%)</td>
</tr>
<tr>
<td>Assistance skills</td>
<td>82% (+37%)</td>
<td>89% (21%)</td>
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**KNOWLEDGE**

- Issues:
  - Before training: 38.41%
  - After training: 71.34%

**CONFIDENCE**

- Basic Life Support:
  - Before training: 80.49%
  - After training: 96.95%

**MOTIVATION**

- Dispatching Protocol (ALERT):
  - Before training: 67.68%
  - After training: 86.59%
"Call in" : How to give instructions and send rescue in the same time
"Call in" : How to give instructions and send rescue in the same time

Phone CPR software

Assess the victim's level of consciousness

Assess the airway

Starting CPR

Interactive software based on binary responses
Scientific studies

Impact of the implementation of the T-CPR protocol:

2 study in progress

IN VIVO STUDY  ➔  STRESS STUDY
Scientific studies

IN VIVO objectives:

**Pre-post comparison of the impacts of the implementation of the protocol (general):**
(Number of CPR initiated by the witness, mortality, morbidity)

**Pre-post comparison of the impacts of the implementation of the protocol (specific):**

*In case of Phone CPR:*
Impact on the "no flow time", the quality of CPR, the mortality and morbidity

*In case of sudden death without activation of the T CPR protocol:*
Search for the cause:
(Non-participation of the bystander, poor estimation of the call taker, ...)

→ Proposal of improvement strategies
Scientific studies

Stress

Sudden Death = painful situation for the witness

Assessing the psychological impact (positive and negative) on the providing of basic life support
Scientific studies

Objectives:

• Assess and quantify the stress during the call

• Improve the protocol to increase the number of CPR without it being harmful for the bystander

• Assessing the stress factors during the call
Perspectives

- Basic training for new employees
- Feasibility study: T CPR with DEA
- Feasibility study: Pediatric T CPR
- Implementation of Pediatric and DEA T CPR protocol
- Further studies "in vivo" and "Stress (longitudinal studies)
- Establish a register of sudden cardiac arrest
- Public campaign
- International Collaboration
Conclusions

• Public health need
• Desire of professionals and population
• Educational part: Identical training for every call takers
• Scientific part: Use of data in progress
• Communication: Several media used
• Perspectives:
  – Added DEA and Pediatric protocol
  – Public campaign
  – Longitudinal studies
Thank you for your attention

For more informations and to obtain the final report:

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