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Phone CPR Project

EENA CONGRES APRIL 2013



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Medical dispatching 112 of Liege (Belgium)

Federal Public Service: Health, food chain safety and environment



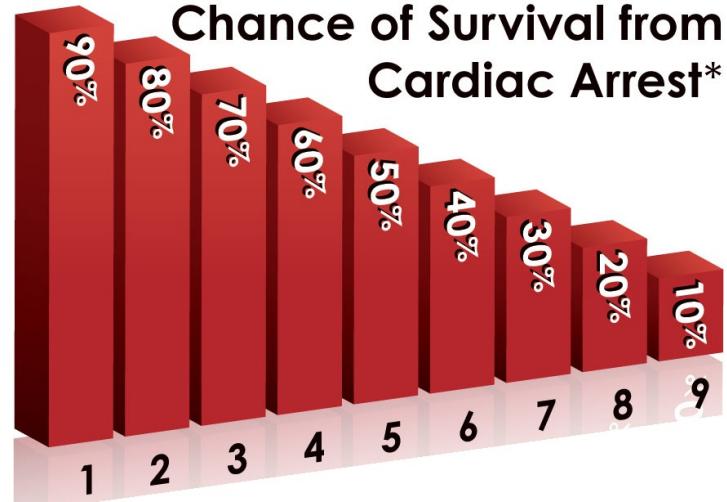
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Presentation outline

- 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.

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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

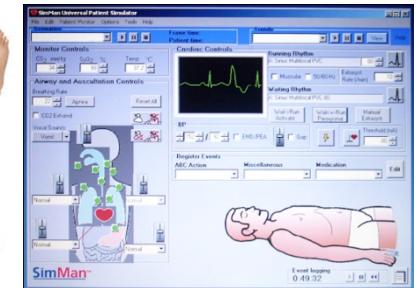


Feasibility study and difficulties.

Prospective study: CPR on Rescusi Anne

(SimMan Laerdal)

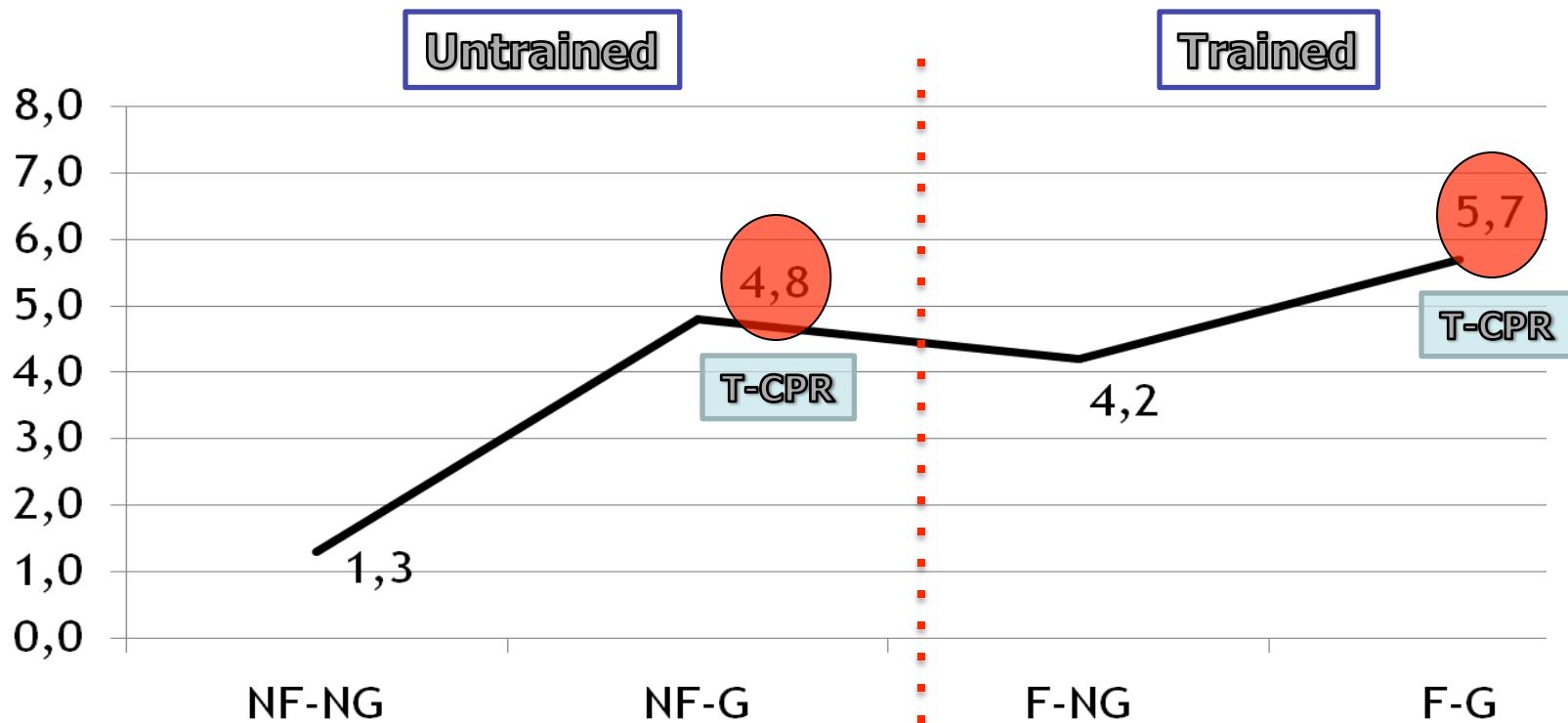
- Location: Kinepolis (Cinema)
- 4 Groups :
 - Untrained
 - 1.Assisted(NF-G)
 - 2.unassisted (NF-NG)
 - Trained: (nurses)
 - 3.Assisted (F-G)
 - 4.unassisted (F-NG)



CPR evaluation on the basis of
the Cardiff test of BLS
version (3.1)

Feasibility study and difficulties.

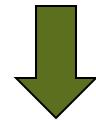
Median CPR score (under 8)



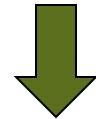
Feasibility study and difficulties.

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



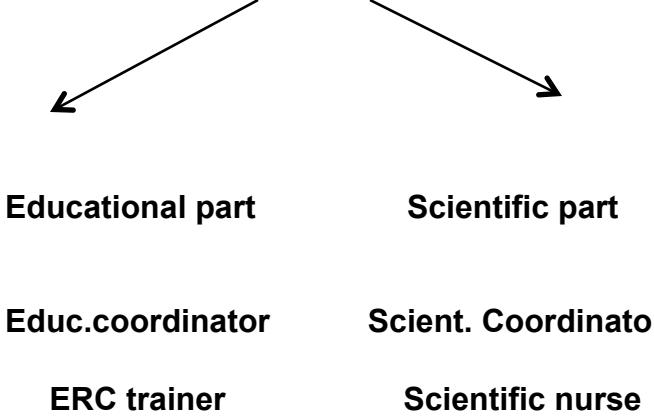
Phone CPR project

Organization of the Phone CPR's team

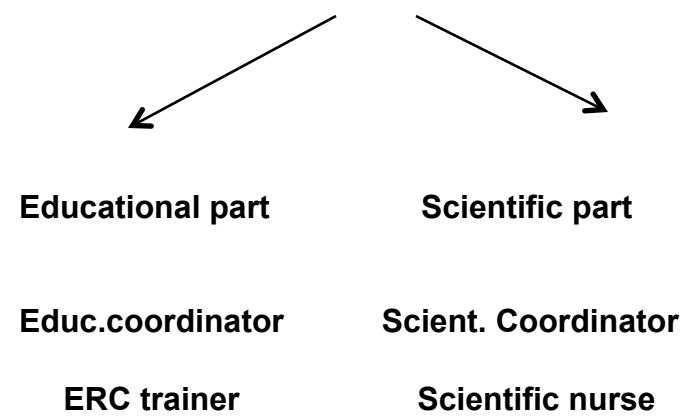
Working groups

PHONE CPR PROJECT FEDERAL SUPERVISION

Francophone Medical Dispatching



Dutch Medical Dispatching



Educational part

Educational choice



Updating theoretical and practical knowledge (Switzerland)

Vs.

Specific training in Phone CPR

→ Specific Training ←

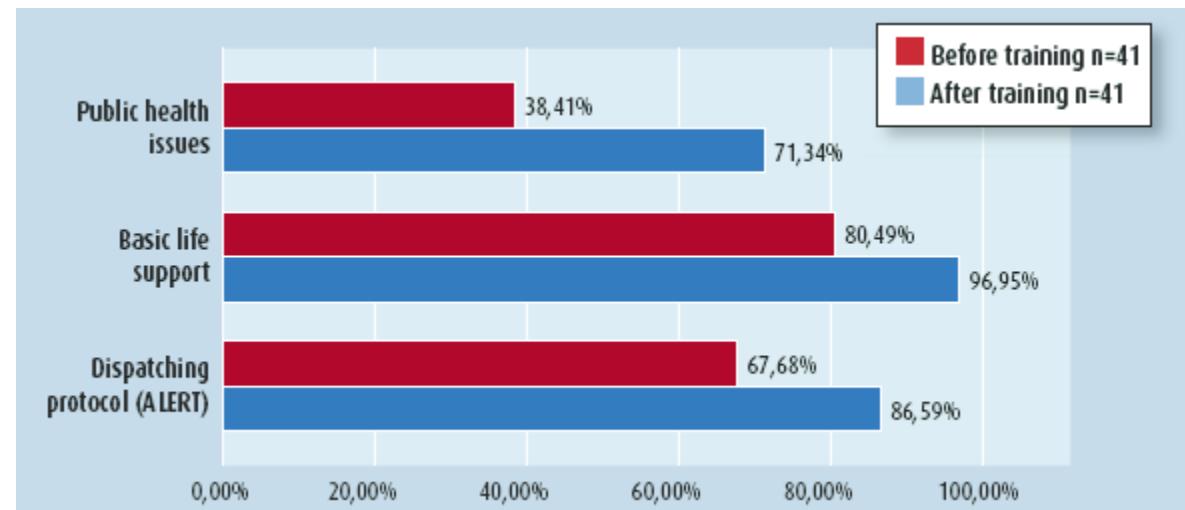
Message improvised less effective than a strict protocol
based on a list of specific words to use

Educational part

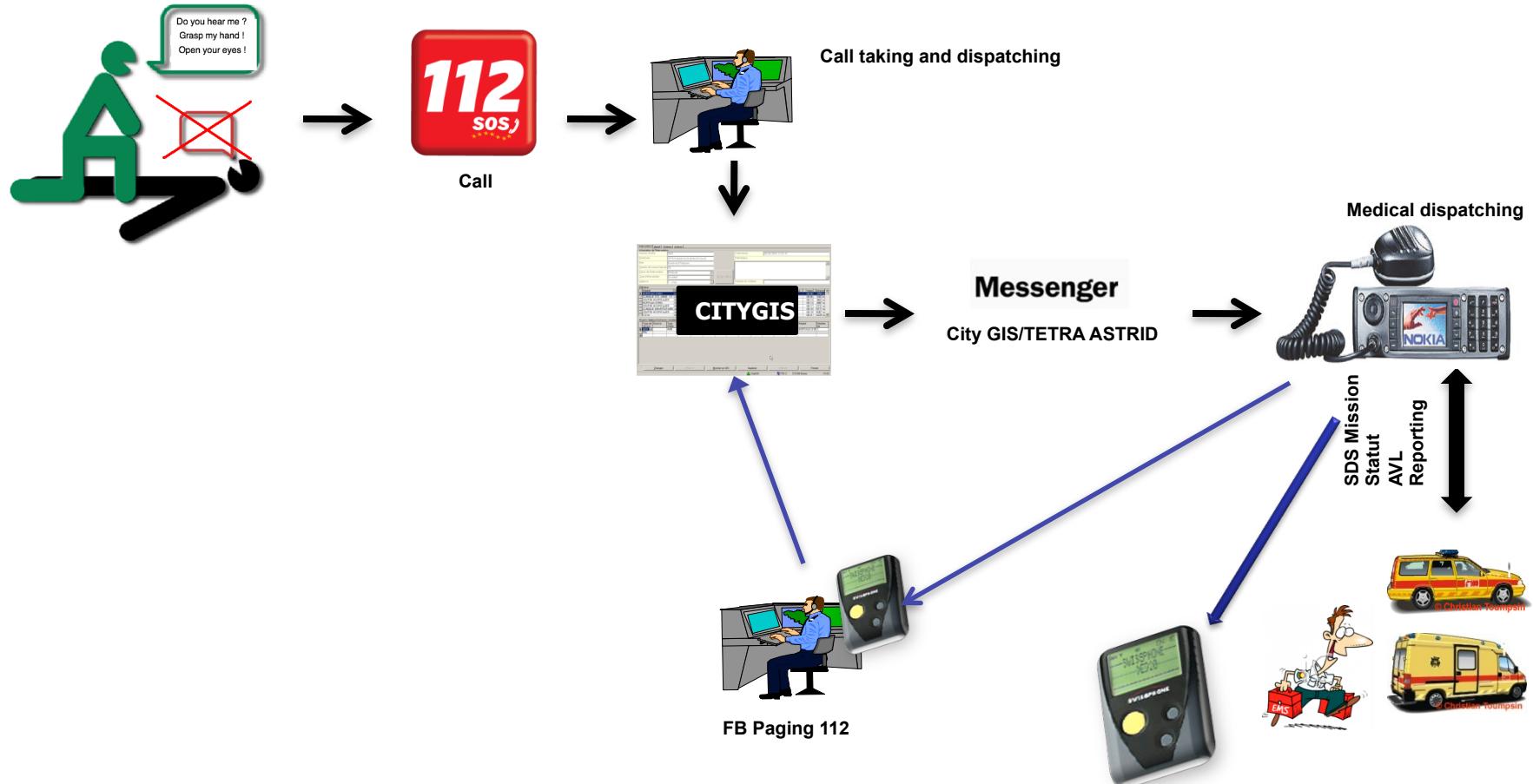
		Perceptions	Theoretical knowledge
PRE	Knowledge on basic life support	79%	80%
	Assistance skills	45%	68%
POST	Knowledge on basic life support	97% (+18%)	97% (+17%)
	Assistance skills	82% (+37%)	89% (21%)



**KNOWLEDGE
CONFIDENCE
MOTIVATION**



"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, ...)

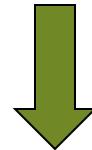
→ Proposal of improvement strategies

Scientific studies

4/4

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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