



Emergency in occupational setting: should we suggest a new scientific committee?




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Academic point of view: state of the art of research and academic training course




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ACADEMIC?

- > Workplace is a particular location of life-threatening emergencies could occur, with singularities
 - > Populations
 - > Young
 - > Healthy
 - > Environment
 - > Hazards
 - > But security and prevention
- > Specific research and academic training




AIM

- > The aim of the presentation is to give illustration of
 - > research
 - > and academic training classes
- > in this particular field



**RESEARCH
CARDIAC ARREST EX.**

- > Although the installation of automated external defibrillators (AED) in public places is still the subject of controversy,
- > only very limited data are available on the management of out-of-hospital cardiac arrest (OHCA) in the workplace
- > Many authors in the field of emergency medicine consider the workplace to be just another public place



**RESEARCH
CARDIAC ARREST EX.**

- > A study was performed to identify the frequency of OHCA in the workplace in a Paris register of all OHCA in 2004,
- > Characteristics of the chain of survival of workplace OHCA was compared to that of other sites of OHCA
- > Outcome: restoration of circulation allowing hospital admission

**RESEARCH
CARDIAC ARREST EX.**

- > In 2004, 2,717 OHCA were managed in Paris and the inner suburbs, but data of location were missing for 416 cases (15.3%).
- > Of the 2,301 OHCA studied, **61 (2.7%)** occurred in the workplace, with restoration of circulation allowing hospital admission was observed in **19/61 (31.4%)** of these cases by the emergency physician of the prehospital care unit,
- > Significantly higher than for other sites of OHCA (n = 438/2,240, 20.0%, **OR_{crude}=1.9[1.1-3.2]**).

ICOH 7

**RESEARCH
CARDIAC ARREST EX.**

	aOR (CI95%)
Age (years)	0.96 (0.95-0.98)*
Gender (female vs male)	0.53 (0.26-1.07)
Probable cardiac etiology (yes vs no)	1.06 (0.57-1.96)
Witness present (yes vs no)	1.24 (0.64-2.40)
Cardiopulmonary resuscitation performed before arrival of the emergency team (yes vs no)	2.28 (1.23-4.20)*
Electric shock delivered by firemen (yes vs no)	2.50 (1.36-4.57)*
Intubation by the emergency physician of the prehospital care unit (yes vs no)	2.59 (1.13-5.94)*

- > When these parameters were taken into account the link between workplace and restoration of circulation was no longer observed (OR=1.0 (0.6-1.8)).

ICOH 8

**RESEARCH
CARDIAC ARREST EX.**

- > OHCA in the workplace appears to be rare (<3%),
- > but is associated with a better immediate prognosis than OHCA in other places.
- > This is probably related to a more effective chain of survival and a healthy worker effect.

Descalhe A, Jost D, Carpentier JP. Is the workplace a site of cardiac arrest like any other? Resuscitation. 2009;80(5):602-3.

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**TRAINING
MASTER DEGREE EX.**

- > Since 2006, Versailles University organize a Master degree in emergency medicine training
- > EMS92 + Occupational health unit
- > 15 teachers including Professor-> practitioner from OH and EMS
- > 25 to 30 occupational physicians were trained in one year (100h), 6 workshops, 2 days

ICOH 10

**TRAINING
MASTER DEGREE EX.**

- > General emergency training, including
 - > Emergency « recalls »



ICOH 11

**TRAINING
MASTER DEGREE EX.**

- > General emergency training, including
 - > Emergency « recalls »
 - > Techniques training (basic airways management, IV, cardiac arrest support ...)




ICOH 12



TRAINING MASTER DEGREE EX.



- General emergency training, including
 - Emergency « recalls »
 - Techniques training (basic airways management, IV, cardiac arrest support ...)
 - How to organise emergency management when there are physicians and/or nurses
 - Drill and training in industrial disaster



PERSPECTIVES



- Research
 - Procedures evaluations
 - ADE style international registry for OHCA in occupational setting*
 - Country comparisons etc...
- Training
 - Tabletop exercises to virtual
 - E-learning development
 - Etc
- Only possible because interdisciplinary collaboration => international..