



NEWSLETTER

EuSEN

European Society of Emergency Nursing

Official logo for EuSEN

On the 3rd and 4th of April 2012 the fourth meeting of the EuSEN board was organised in Brussels. The first gathering was held in Pordenone in Italy in 2010. Since that time much work has been done. We decided then that our main goal was to make ourselves as representative of as many emergency nurses as possible and to have emergency nursing recognised as a speciality across the continent of Europe.

On the 15th of April 2011 in London the members made decisions about finance and money. The board of EuSEN was elected in October 2011 in Gent, Belgium. Official statements were made. The board thinks that these statements can help our organisations and each member at home to use as standards for emergency care. We can use the statements for example in discussions with managers, universities, and other nurses to improve patient care.

In Brussels the board worked further on the statutes. An organisation has to have those papers to be legally and to contract sponsors. In the statutes is described what EuSEN does, how we do our election, and who is on the board. The statutes are nearly finished and will be in French (because of the Belgian law) with an English translation.

The **official logo** for EuSEN has seen daylight. It was made by a designer from Norway. The EuSEN website will be 'in the air' this year.

The **next general meeting** will be held in **the Hague in the Netherlands**. On Friday the **23rd of November 2012** all members are welcome in Medical Centre The Hague, Westeinde.

From nine till five o'clock there will be interesting presentations of the board and several members of EuSEN. The full agenda will be mailed in a few days.



For more information and hotel bookings you can contact Frans de Voeght, f.de.voeght@mchaaglanden.nl.

The Hague is very easily accessible from Schiphol airport and a hotel is within walking distance of Westeinde Hospital.



Report from One organization within EuSEN

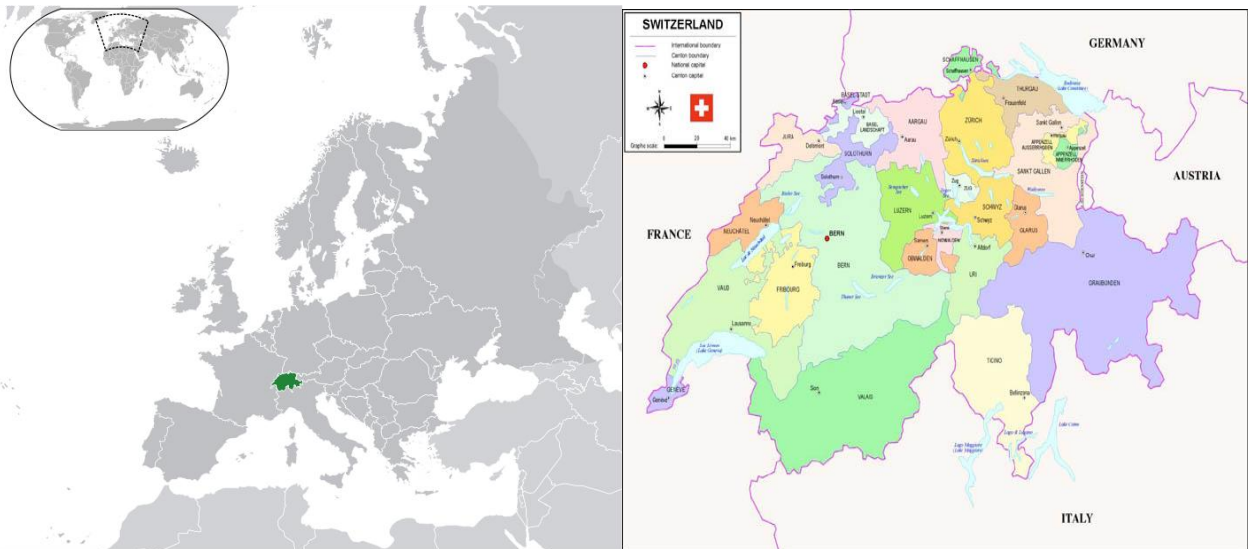


SCHWEIZERISCHE INTERESSENGEMEINSCHAFT NOTFALLPFLEGE
COMMUNAUTÉ D'INTÉRÊTS SOINS D'URGENCE SUISSE
WWW.NOTFALLPFLEGE.CH

Switzerland-Schweiz-Suisse-Svizzera-Svizera



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra



The Swiss Confederation consists of 26 cantons. Switzerland has four official languages, traditionally spoken in different regions of the country; these are German, French, Italian and Rumantsch


Country size: 41'285 km²

Inhabitants 7'952'600 (31. December 2011)

193 inhabitants per km²

Hospitals 299 (incl. Special clinics) (Quelle: BFS, Krankenhausstatistik)

Switzerland is not only the land of chocolate and watches it has also a well functioning health system. Looking back Switzerland also played a significant role in the world of healthcare.

Since 1863, when Henri Dunant founded the Swiss Red Cross and used the reversed Swiss flag  as its symbol, Switzerland had been known for its interest in helping others in need.

The first ones in Switzerland who got trained in nursing were the nuns. The pro bono work became an official education in 1882 when they opened the first official Swiss college for nurses, where they got professionally trained in their field of expertise.

Looking at today's world of healthcare and the nurses who care about what highly qualified nurses should be able to achieve, I would like to introduce the Swiss Society of Emergency Nurses called: SIN/SUS

SIN : Schweizerische Interessengemeinschaft Notfallpflege

SUS : Communauté d'intérêts soins d'urgence suisse

The Society was founded 20 years ago in 1992 by a couple of nurses who believed that emergency nursing should be seen as a specialty in nursing and that a specific education should be available to everyone. Since then the board members of the SIN have been lobbying for the specialisation of emergency nursing throughout Switzerland.

In the founding year in 1992 the SIN/SUS officially counted 75 members of which 7 were board members. Initially SIN/SUS was formed as a lobbying group which in 2008 became an official association.

Gradually over the years the number of members increased substantially: In 2004 already counting 330 it rose to some 630 members by today.

The main interest of the SIN/ SUS is and has always been, to promote a platform for information exchange for emergency nurses.

SIN/SUS objectives:

- Professionalising emergency nursing
- Commitment in education and rules of profession
- Collaboration with other groups, associations, societies working in the field of emergency care
- Representation of emergency care related statements and recommendations for nurses
- Promotion of professional development in emergency nursing
- Acknowledgement and regulation for a Swiss wide advanced training course in emergency nursing

Members benefit:

- Social networking: forum homepage, Twitter
- Job-exchange platform
- Organisation of training days 2x/year
- Organisation of emergency nursing conference every 2-3 years

When forming an interest group, the main focus for SIN/SUS was to create a nationally recognised advanced training course in emergency nursing.

In 1970 the first emergency nursing course was offered in Zurich. In 1990 St. Gallen was the first Canton which offered a professional emergency nursing course which was acknowledged by the health department.

Other Cantons followed over the years. Unfortunately every Canton started with their own regulations and course outline. Furthermore, they used different aspects due to the individual profile requirement of the institutes, as there were no Federal standards for a Vocational Education and Training Diploma (VET Diploma) available.

Out of the need, to standardise advanced training courses in Switzerland, a development committee was formed out of representatives from different Swiss associations: SIN/ SUS (emergency nursing), IGIP (Intensive care) SIGA, (anaesthesia nursing) SGI,SGNOR, SGAR (doctors) OdASanté (national umbrella organisation working environment healthcare).

The newly developed core curriculum for all advanced training courses was launched in July 2009, which is now available to all nurses who want to do some post graduate studies in their field of expertise.

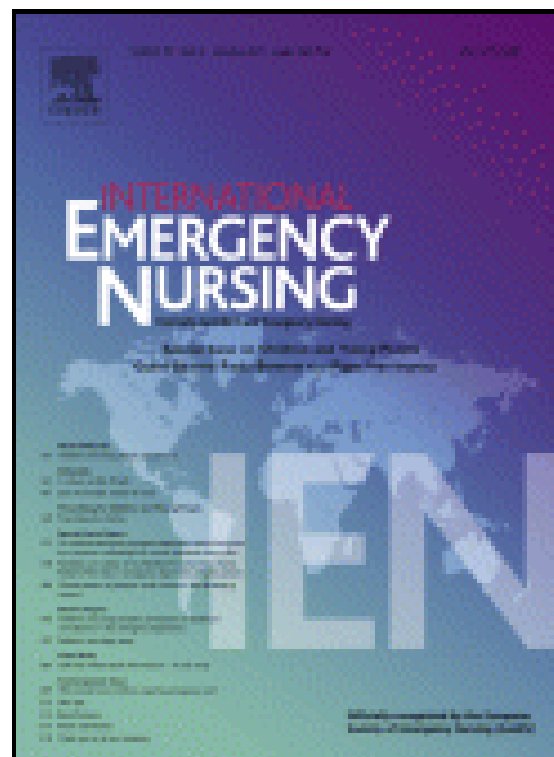
By now 5 training providers are offering an advanced study course in emergency nursing which takes 2 years in an extra occupational training course. All of them require the same admission principles as well as a standardised exam. Furthermore, a national VET Diploma is available which allows the nurse to bear the title: emergency nurse specialist.

SIN/SUS is proud to have played an important role in this development and will continue to lobby for the needs and interests of emergency nursing.

Petra Valk-Zwinkl; board member SIN/SUS & EuSEN
August 2012

Official Journal of EuSEN

Discounts for European Society
of Emergency Nursing (EuSEN) members



Clinical: submitted by Christien van der Linden RN CEN ENP MSCE¹, Koen van 't Hof MSc², and Marnix Eysink Smeets³

Aromatherapy at the Emergency Department: Decreasing violent behaviour?

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Introduction

The emergency department (ED) is a vulnerable setting for workplace violence [1,2]. It is perceived that often the perpetrators of violence are under the influence of alcohol and/or drugs [3,4]. Long waiting time seems to contribute to violence in the ED [5]. Other studies found that most violent incidents occur within 1 hour of patients' arrival [3].

The Medical Centre Haaglanden (MCH) Westeinde serves an inner-city population. Especially during off-hours, many patients present to the ED with alcohol- and drugs related conditions, occasionally leading to verbal and physical violence. Observable antecedents of violence are mostly identified early in presentation, at registration or during triage. Supporting staff and ensuring a safe working environment are priorities of ED management, so several preventative and safe strategies were implemented in the past ten years. These varied from deploying visible security personnel presence, installing of an alarm system and panic buttons, and organizing aggression minimisation training for the staff nurses, to even building a bullet-proof entrance.

Because it is unlikely that patient-related violence can be totally eliminated [6], ED management is always interested in additional strategies to prevent violence. Therefore, MCH participated in a trial to determine the effect of aromatherapy on anxiety levels and violent behaviour of ED patients. This paper presents the findings of this study.

Methods

An experimental trial was performed at the ED of MCH Westeinde, a level 1 trauma centre in The Netherlands, with 52,000 patient visits annually. Approval from the Research Ethics Board was obtained. Odours (vanilla, fig) and a control condition (no odour) were distributed through aromatherapy diffusers. Oil was added automatically to the diffusers during the study period of 18 days between 6 and 30 June 2012. The air-conditioning system ensured that the odours were distributed throughout the entire ED, including the reception area, the waiting room, and the treatment area. The target level of odour intensity was determined by using a standardized calibration method and was set just above the average perception threshold of ED visitors. During the experiment, front desk staff, medical personnel, and visitors were unaware of which type of

aromatherapy was being administered or whether no aromatherapy (control condition) was being distributed at all.

Upon arrival, patients were registered by front desk staff. After registration, patients were approached by a research assistant who asked if they would be willing to participate in a hospital satisfaction study. After consent, participants were asked to fill out a questionnaire handed to them by the research assistant.

Assessments included patients' self report of anxiety levels and mood during the waiting time, judgments regarding the personnel at the front desk (kindness, skill, and helpfulness), evaluations of the waiting room (in terms of e.g. smell and crowdedness), and painfulness and severity of their medical complaint. All items were measured by a 9-point scale. Personnel's perception regarding the kindness of the patient was registered by the reception personnel themselves. Each contact with a visitor was scored on a 4 point scale, varying from 'friendly' to 'threatening'. In addition to these measures, once per day, treating personnel was asked by the research assistant to register how many times they had encountered a visitor that behaved inappropriately.

Results were controlled for date and time of arrival, number of waiting persons in the waiting room, ethnicity, age, and sex. To achieve 80% power, 65 participants per condition should be sufficient to detect medium effects. (Multivariate) analysis of variance was used to identify whether differences between experimental groups occurred.

Results

Visitors

The dataset contained 367 questionnaires, of which 112 were obtained during the fig odour condition, 117 during the control condition, and 138 during the vanilla scent condition. Slightly more women (54%) than men (46%) were surveyed. Mean age was 37 years. No violent incidents were reported during the study period. ED visitors who registered during the vanilla condition were significantly less anxious and less likely to feel irritated than ED visitors who registered during the control condition (figure 1&2). No significant differences in anxiety levels and sensitivity to irritation were found between the fig odour condition and the control condition.

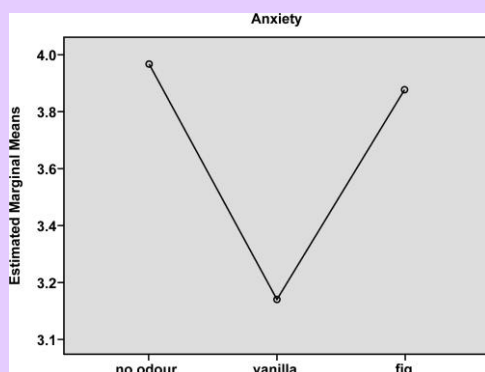


Figure 1: Main effect of scent on feelings of anxiety. In the vanilla odour condition, visitors feel significantly less anxious compared to the control condition.

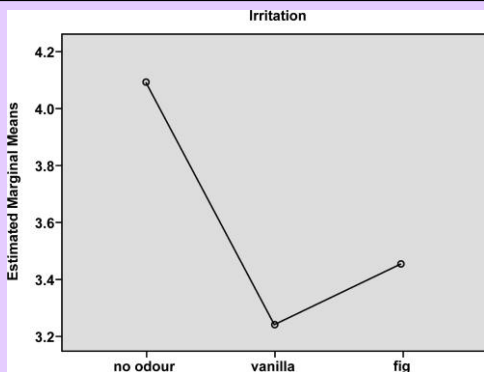


Figure 2: Main effect of scent on sensitivity to irritation. In the vanilla odour condition, visitors are significantly less likely to feel irritated compared to the control condition.

Vanilla odour was also found to have a positive effect on visitors' evaluations of the front desk staff, but this effect was not found for all participants and not on all items. Only male visitors evaluated front desk staff as being more friendly during the vanilla odour condition. No effects were found on patients' judgements regarding professional behaviour and helpfulness of the front desk staff. During the fig odour condition, no significant effects were found.

Front desk staff

Front desk staff judged 1,293 patient contacts, of which 423 took place in the control condition, 619 in the vanilla condition, and 251 in the fig condition. The distribution of friendly, neutral, and negative encounters differed significantly between conditions. In both odour conditions (but especially in the vanilla condition), relatively more friendly contacts were registered. This means that front desk staff judge contacts with visitors more positively under odour conditions (table 1).

Behaviour	Control	Vanilla	Fig	TOTAL
Friendly	221	381	137	739
Neutral	190	226	111	527
Negative	12	12	3	27
TOTAL	423	619	251	1293
Friendly	52%	62%	55%	57%
Neutral	45%	37%	44%	41%
Negative	3%	2%	1%	2%
TOTAAL	100%	100%	100%	100%

Table 1: The number of friendly, neutral, and negative encounters at the front desk, registered by front desk staff.

Treating staff

Due to the limited amount of registered unfriendly encounters (only 12 out of 115 registrations) experienced by treating personnel, the chi square test was not reliable. Hence, odour effects could not be identified.

Conclusions

Vanilla scent has a positive effect on the mood of visitors and on interpersonal assessment. The latter applies for both patients (male visitors were found to evaluate front desk staff as being more friendly) and for staff (front desk staff registered more positive front desk encounters under exposure of vanilla odour). The effects found in this experiment were significant, but the effect sizes were medium at best. Aromatherapy should be seen as an additional intervention in the battle against violence at the ED, after ensuring all other preventative measures have been accounted for. As a result of this study, MCH implemented regular baseline odour as standard practice.

The MCH study is part of a larger project in which several experiments were conducted. The project's aim was to improve (feelings of) security by using sensory stimulation. The results of these experiments will be presented at the conference 'Laboratorium van de zintuigen: anders werken met veiligheid'. During the conference, inspiring speakers in the field will share their expertise. Participants can register for this conference via <http://ccv.hvmp.nl/> (NB the conference talks will be in Dutch).

References

- (1) Gates DM, Gillespie GL, Succop P. Violence against nurses and its impact on stress and productivity. *Nurs Econ* 2011; **29**:59-66, quiz.
- (2) Ray MM. The dark side of the job: violence in the emergency department. *J Emerg Nurs* 2007; **33**:257-261.
- (3) Crilly J, Chaboyer W, Creedy D. Violence towards emergency department nurses by patients. *Accid Emerg Nurs* 2004; **12**:67-73.
- (4) Imlach GF, Butler S, Cech T, Curtis E, Douglas M, Emmerson L et al. How do intoxicated patients impact staff in the emergency department? An exploratory study. *NZ Med J* 2011; **124**:14-23.
- (5) May DD, Grubbs LM. The extent, nature, and precipitating factors of nurse assault among three groups of registered nurses in a regional medical center. *J Emerg Nurs* 2002; **28**:11-17.
- (6) Pich J, Hazelton M, Sundin D, Kable A. Patient-related violence at triage: A qualitative descriptive study. *Int Emerg Nurs* 2011; **19**:12-19.

Clinical: submitted by Yves Maule

Mechanical chest compression systems: Better compressions, but above all, more compressions

Yves Maule

The purpose of this retrospective study is to demonstrate the superiority of mechanical chest compression systems with regard to the duration of compressions during a resuscitation event by comparing the ratios of compressions duration and the total Cardiopulmonary Resuscitation (CPR) time.

Translated from the French: Maule Y. Assistance cardiaque externe : Masser mieux, mais surtout masser plus... *URGENCE PRATIQUE*. 2011;106:47-48.

METHOD USED

Physio-Control has designed a new version of its data review software; CODE-STAT™ V7.0, which is used to archive the data collected by their LIFEPAK® defibrillators. New functionalities have been implemented in this software, one of which attracted my attention: the possibility of generating reports on the performance of CPR. In addition to a simple data storage system, the software provided an analysis of the data collected.

Thanks to a detailed analysis of records collected, based on transthoracic impedance measured by the defibrillator throughout CPR, the software allows the precise identification of chest compressions. This allows us to obtain a ratio of the duration of compressions over the total duration of the CPR. The time period analyzed is limited to the period between the power on and off of the defibrillator, but it may be selected manually.

From this perspective, it was interesting to compare compression ratios when using the LUCAS® to that of manual compressions.

Initially, a dozen recent files were analyzed, and there appeared to be a difference in the ratios in favor of using the mechanical chest compression system. However, because multiple biases could be involved, we randomly created two cohorts of 200 patients and reran the software analysis. This software is capable of using the data recorded even before this version. The software uses the database of the LIFEPAK without the need

to record specific additional data. This allows the re-use of old recordings for inclusion in the study.

In order to avoid any problems with the duration of the recordings, each file was reviewed to be sure that the end of the data collection corresponded well to the end of CPR, and, for example, that one didn't leave the defibrillator on for an additional 10 minutes after the

end of CPR. In about 7% of the recordings it was found that the software was not able to determine the compression time due to a lack of recording of the transthoracic impedance. For these files, manual identification was necessary.

For all cases, this was CPR performed pre-hospital. The defibrillator was powered on when the medical team was at the victim's side, and was powered



off at the end of CPR. In cases of ROSC (return of spontaneous circulation), the moment that ROSC occurs is considered to be the end of CPR. In day-to-day practice, this represents a cardiac rhythm recording that is compatible with cardiac output, and of stopping compressions for more than 3 minutes. The subsequent episodes of compressions in the same record are excluded from the evaluation for ease of calculation, but these could have been retained as a new episode of CPR.

Example of the utilization of the CODE-STAT software:

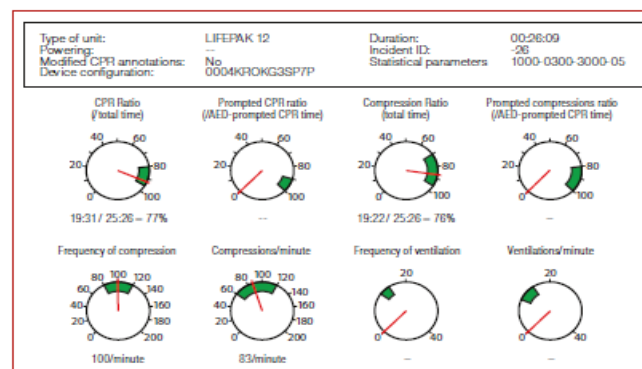


Image 1: Representation of a CPR analysis with mechanical chest compressions.

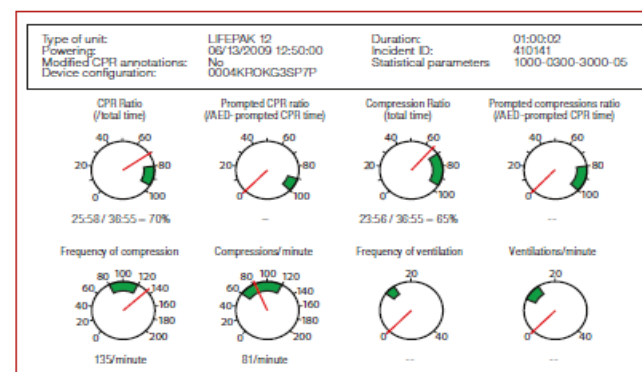


Image 2: Representation of a CPR analysis without mechanical chest compressions.

VALIDATION OF CODE-STAT SOFTWARE

One of the first steps was to see whether this functionality of the software had been scientifically validated. This had been done as described in the following article: Stecher FS, Olsen JA, Stickney RE, Wilk L. *Transthoracic impedance used to evaluate performance of cardiopulmonary resuscitation during out of hospital cardiac arrest*. Resuscitation 2008; 79:432-7.

There was therefore nothing opposing the realization of the study.

CREATION OF COHORTS

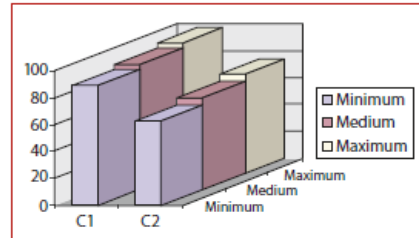
Two cohorts, each including 200 recordings of non-traumatic CPR were randomly selected. They are comparable in terms of total duration of CPR: 41 minutes 20 seconds \pm 5 minutes 15 sec.

C1 includes the recordings of CPR using a mechanical chest compression system. In this case the LUCAS. C2 includes the recordings of CPR with manual compressions.

Results:

For C1, we found an average of 93% \pm 4% of time ratio of compressions to total CPR time.

For C2, we found an average of 69% \pm 6% of time ratio of compressions to total CPR time.



CONCLUSIONS

Some studies have already demonstrated the contribution of mechanical chest compression systems to CPR. The results of these studies are at times contradictory, probably due to the actual implementation of the chest compression device. In fact, the protocols for use differ from one center to another, and the time before starting the mechanical chest

compressions varies from one study to another, such that it is very difficult to get an overall effect of performance.

What we know comes from the 2005 Guidelines of the ERC (European

Resuscitation Council), which emphasize the compressions portion of CPR. This study demonstrates that the use of mechanical chest compression devices is an advantage in CPR.

If we elaborate on our results and look at a typical resuscitation event of 40 minutes, as in our study, and use manual chest compressions, the patient would receive compressions for 27 minutes and 36 seconds, while in the case where mechanical chest compression device is used, the patient would receive compressions for 37 minutes and 12 seconds.

lost time in terms of manual compressions, thus explaining the differences observed.

It is therefore already evident that based on these ratios we can conclude that the mechanical chest compression device (regardless of the type of machine used) allows for optimization of compression time in CPR. The software shows the compression ratio and if the compression has been provided at the frequency recommended by the ERC, i.e. 100 compressions per minute. By including frequency in the comparison, it appears in this case that the gap between the two cohorts is even greater.

Finally, in November 2010, the ERC published its 2010 Guidelines with an increased focus on chest compression and its duration. This study clearly points to the use of mechanical chest compression systems to obtain the desired objective.

The Editor:

What we know:

The 2010 International guidelines for cardiopulmonary resuscitation (CPR) emphasize the importance of chest compressions. The victim's survival depends on the quality of these compressions, as much in terms of their frequency and of their depth.

What the article tells us:

New software allows for the optimization of the performance of CPR. This study also emphasizes the interest in mechanical chest compression devices.

Why such a difference?

Changes in rescuers, stopping and restarting for defibrillations and intubations, ... represent

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BIBLIOGRAPHY:

- Stecher FS, et al. Transthoracic impedance used to evaluate performance of cardiopulmonary resuscitation during out of hospital cardiac arrest. *Resuscitation*. 2008; 79:432-7.
- Ochoa, et al. The effect of rescuer fatigue on the quality of chest compressions. *Resuscitation*. 37 (1998) 149-152.
- Wik, et al. Quality of cardiopulmonary resuscitation during out of hospital cardiac arrest. *JAMA*. January 19, 2005, Vol.293 N°3.
- Hightower, et al. Decay in quality of closed-chest compression over time. *Ann Emerg Med*. 1995; 26:300-303.
- Ashton, et al. Effect of rescuer fatigue on performance of continuous external chest compressions over 3 min. *Resuscitation*. 55 (2):147-157.
- Aufderheide, et al. Incomplete chest wall decompression: A clinical evaluation of CPR; performance by trained laypersons and an assessment of alternative manual chest compression-decompression techniques. *Resuscitation*. 2006 Oct 26.
- Abella, et al. Circulation Chest Compression Rates During Cardiopulmonary Resuscitation Are Suboptimal; February 1, 2005.
- Paradis, et al. Coronary perfusion pressure and the return of spontaneous circulation in human CPR. *JAMA*. 1990; 263:1106-1113.
- Steen, et al. The critical importance of minimal delay between chest compressions and subsequent defibrillations: a haemodynamic explanation. *Resuscitation*. 58 (2003); 249-258.
- Wik, et al. Delaying defibrillation to give basic cardiopulmonary resuscitation to patients with out-of-hospital ventricular fibrillation. *JAMA*. March 19, 2003-vol 289 n°11.
- Cobb, et al. Influence of CPR prior to defibrillation in patients with out of hospital ventricular fibrillation. *JAMA*. 1999, 81:1182-8.
- Edelson, et al. Effects on compression depth and pre shock pauses predict defibrillation failure during cardiac arrest. *Resuscitation*. 71(2006); 137-145.
- Kern, et al. Limiting interruptions of chest compressions during cardiopulmonary resuscitation. *Resuscitation*. 58 (2003); 273-274.
- Rea, et al. Increasing Use of Cardiopulmonary Resuscitation During Out-of-Hospital Ventricular Fibrillation Arrest. *Circulation*. 2006 Dec 11.
- Steen, et al. Evaluation of LUCAS, a new device for automatic mechanical chest compression and active decompression for cardiopulmonary resuscitation. *Resuscitation*. 2002; 55:285-299.
- Axelsson, et al. Clinical consequences of the introduction of mechanical chest compression in the EMS system for treatment of out-of-hospital cardiac arrest - A pilot study. *Resuscitation*. (2006) 71, 47-55.
- Rubertsson, et al. Increased restoration of spontaneous circulation after cardiac arrest with the LUCAS device compared to manual chest compressions - A pilot study. *Resuscitation* (2006) 69, 46 (Abstract).
- Olivecrona, G. Mechanical Chest Compressions in a Patient with Left Main Closure during PCI Case Study In : TCTmd.com 24th of Oct. 2006.

Meetings and Congresses

Qawar, Malta
Dolmen Hotel resort, Qawra, Malta
October 11th & 12th 2012

3rd International Orthopaedic Nursing
Conference.
Hosted by the Association of
Maltese Orthopaedic Nurses (AMON)

Details at:
www.insightnursing.com/conference.html

Switzerland
7th & 8th November 2013

Notfallpflege-Kongress
Interlaken

www.notfallpflege.ch

The next full meeting of
EuSEN will take place
23th and 24th of
November 2012
in **The Hague**
The Netherlands



Board:

President: Door Lauwaert (B)

Vice-President: Liselotte Bjork (S)

Secretary: Ole-Petter Vinjevoll (N)

Treasurer: Yves Maule (B)

Website: Paul Calleja (Malta)

Newsletter editor: Liselotte Bjork (S)

Other Executive committee members:

Luciano Clarizia (I)

Petra Valk-Zwicker (CH)



EuSEN
European Society of Emergency Nursing

Are you interested in Emergency Nursing?
Then join the European Society of Emergency Nursing NOW!

The society's aim is to promote nursing activities in the field of emergency care

The Society's purpose is:

- to promote science and art of nursing in emergency care
- to promote contacts, exchange and cooperation between European emergency nursing associations
- to represent emergency nurses within and outside of Europe
- to draft and promote standards for training, implementation of the profession and management in the field of emergency nursing
- to harmonize the training of emergency nursing across Europe
- to promote cooperation with all healthcare professionals, institutions and organizations with a professional interest in emergency care
- to promote basic knowledge about emergencies throughout the population.

EuSEN is a NON-Profit association. To be a member with EuSEN you need to be a member of a local or national emergency nurse association. The association needs to have local standards and official statutes.

Do you want to learn more about the EuSEN Please contact :

The President of EuSEN

Door Lauwaert

Post address: UZ Brussel, Emerg. Dpt, Laarbeeklaan 101, 1090 Brussels, Belgium
Or door.lauwaert@uzbrussel.be

To join us - Fill in the admission form on the next page.



EUSEN
European Society of Emergency Nursing

Application form EuSEN

Name of the Association

.....

Country.....

URL Website.....

Number of members.....

Does the association follow official statutes **Yes** **No**

The associations main purpose in emergency care

.....
.....
.....

Name of the President.....

Contact address, E-Mail and phone number

.....
.....

Second contact person of the association (if not the President is the contact person)

.....

Contact address, E-Mail and phone number

.....
.....

Send the application form and relevant documents presenting your organization to:

The President of EuSEN Door Lauwaert

Post address: UZ Brussel, Emerg. Dpt, Laarbeeklaan 101, 1090 Brussels, Belgium

Or door.lauwaert@uzbrussel.be