CIREN
By Sharon Pacyna, RN, BSN, MPH
Trauma Program Manager, UCSD Medical Center

The Crash Injury Research and Engineering Network (CIREN) is a multi-center research program involving a collaboration of clinicians and engineers in academia, industry, and government. Together, they are pursuing in-depth studies of crashes, injuries, and treatments to improve processes and outcomes. CIREN’s mission is to improve the prevention, treatment, and rehabilitation of motor vehicle crash injuries to reduce deaths, disabilities, and human and economic costs. **What CIREN is all about:**

CIREN is a multi-disciplinary research collaboration being conducted at eight national Trauma Centers which are linked by a computer network. Six of these Centers are funded by the National Highway Traffic Safety Administration (NHTSA), one by Honda R&D Co. Ltd. and another by Toyota Motor North America, Inc. The San Diego CIREN Center is the only center which incorporates a trauma system – six trauma centers and the County of San Diego Emergency Medical System collaborate to participate in CIREN. CIREN reviews patient injuries, vehicle damage, and crash dynamics to determine the source of injury. The eight CIREN Centers enter this information into a national database for analysis to identify injury trends and to determine if changes in automotive design can improve the crashworthiness of vehicles.

Each CIREN Center consents approximately 50 cases per year. There are strict inclusion criteria. Patient injuries must be of a certain severity. The Abbreviated Injury Scale (AIS) ranks injury severity between 1 (minor) and 6 (severe).

Generally speaking CIREN patients must have an AIS of 3. NHTSA is only interested in newer model vehicles (current year minus six years) because these cars already have safety improvements incorporated into their design. Researchers are interested in ascertaining how these improvements function in real world crashes.

For example, in a near side impact, did hip contact with the armrest result in pelvic injuries? Would these injuries have been more or less severe if armrest design was changed – less protruding, more cushioning?

Since its inception in November 1996, San Diego has enrolled more than 450 patients. County personnel use the QCS system to help Trauma Center case managers and nurse researchers identify potential CIREN candidates. Once it has been determined that the patient and vehicle meet inclusion criteria, the patient is approached for consent. Consented patients are interviewed regarding crash details. Soft tissue injuries are photographed to assist CIREN determine possible contact points. Nothing like a “seat belt sign” to validate restraint use. Radiology images are also key components, as they assist reviewers to determine the type of force required to produce the injury. A crash investigator measures vehicle crush, looks for contact evidence in the car (e.g. deformity in the knee bolster), and takes vehicle and crash scene photographs.

All patient and vehicle findings are discussed at a multidisciplinary meeting composed of nurses, physicians, a vehicle reconstructionist, and an engineer. The group reviews the case to assign a “source” for each injury. Once determined all the data is entered into the national CIREN database. Sanitized data is available for researchers, engineers, and physicians from the other CIREN centers and NHTSA.
The Mayor of the City of San Diego has granted permission for the City of San Diego to participate in the ROC trials. This is a huge boost for our program as it will increase the number of subjects we can enroll. We anticipate this could double our subject enrollment in all our trials. This influx of additional subjects adds new life to our program and will provide considerable support so that we can continue to provide data to the Resuscitation Outcomes Consortium. All proceeding as planned, the training for the hypertonic saline trial (HSD) will start very soon as that trial will be initiated first. Following the successful start up with HSD we will focus on bringing in the PRIMED trial. As with any trial with exception to informed consent there will be a series of community meetings to inform the public of who we are and what the trials are about. These will most likely take place end of March or first part of April. The public meetings are open to anyone. If you would like to attend and need more information as to time and location please watch the local papers or call the ROC office at 619-471-0616.

Other exciting news is that the CPR trial PRIMED is ready to start but a few remaining details linger. The training has been completed, the hospital approvals received and the IRB reviews complete. Each day we get closer to having everything in place. The level of detail required takes considerable time to complete. The PRIMED trial will start up in stages so that not all agencies will begin enrolling at the same time. To be successful we need to proceed carefully and bring in each fire/rescue agency one or two at a time. There are 41 fire/rescue agencies participating and only a few ROC staff!

Congratulations to the Hypertonic Saline trial (HSD) as it has now been 1 year this month since enrolling the first subject in San Diego. The trial is going very well overall. We have been a shining star to the ROC with high enrollments and quality data collection but unfortunately we are missing patients and starting to fall behind. Ideally anyone who is eligible should be enrolled but we do live in a real world and it is understandable that not all eligible subjects will be enrolled but the number being missed is starting to be significant. We encourage anyone who is in a position to please remind medics of the trial. It would be great to continue the outstanding start we had in our second year.

The County of San Diego is the only representative of the American South West in the consortium and vital to provide appropriate representation of all populations across the country. We play a very important role in the consortium and now we will be able to provide a stronger representation of this geographical area.

We are very appreciative of your interest, participation and support of the trials. We could not accomplish the vastness of this type of project without the entire EMS/ED community support.

Donna Kelly RN, CEN, CCRC
619-471-0616
The impedance threshold device (ITD) is a novel respiratory device intended to increase the degree of negative intrathoracic pressure during decompression. Studies in animal models of cardiac arrest or small randomized trials in humans demonstrate that the ITD improves hemodynamics and short-term outcomes but it remains unclear whether ITD improves survival to discharge or neurological outcome.

While patients with the shockable rhythms of VF and pulseless VT (PVT) have the best chance of survival amongst out-of-hospital cardiac arrest victims, the vast majority of such patients do not survive to hospital discharge. The traditional approach to these patients has been to analyze the cardiac rhythm and deliver defibrillatory shocks as quickly as possible with the onset of CPR delayed. Recent thinking suggests three phases for VF cardiac arrest: a) an early “electrical” phase where rapid defibrillation is effective, b) an intermediate phase where “priming” the heart with CPR enhances the effectiveness of defibrillation, and c) a late phase where defibrillation is rarely effective. Some now advocate delaying electrical shocks and providing early CPR in cases of VF where defibrillation cannot be carried out immediately. Three clinical studies have each attempted to evaluate this hypothesis of early CPR and delayed analysis. While two studies supported early CPR and one did not, none were definitive and all had important limitations.
San Diego ENA  
Chapter 228 Newsletter  
The Wave

2008 Course Offerings

**PALS Courses:**
- March 19 & 20  
  Children’s Hosp Ed Center  
  Employees: contact unit educator
- April 1 & 2  
  Children’s Hosp Ed Center  
  Non-employees: (858) 966-5941
- April 17 & 18  
  Children’s Hosp Ed Center
- May 1 & 2  
  Children’s Hosp Ed Center
- May 28 & 29  
  Children’s Hosp Ed Center

**AHA - ACLS Provider/Renewal Courses:**
- February 27 & 29  
  Sharp Grossmont Brier Patch  
  (800) 82-SHARP
- March 1 & 2  
  Sharp Grossmont Brier Patch  
  (800) 82-SHARP
- March 8 & 9  
  Sharp Grossmont Brier Patch  
  (800) 82-SHARP
- Monthly  
  EMSTA—El Cajon  
  (619) 593-6782 or emstainc.com

**PHTLS:**
- March 29 & 30  
  EMSTA—El Cajon  
  (619) 593-6782 or emstainc.com
- May 31 & June 1  
  EMSTA—El Cajon  
  (619) 593-6782 or emstainc.com

**ENA Meetings & Events**

**ENA San Diego Chapter 228 Meeting Schedule:**

*All meetings will be held from 1730-1930 at Sharp Spectrum (Rm. 135)*

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<th>Month</th>
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<tr>
<td>March</td>
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<td>Information: Linda Rosenberg (858) 939-3427</td>
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**ENA State Board Council Meetings:**

- March 6 & 7:  
  Sacramento with Cal ACEP's Legislative Conference March 5.
- August 14 & 15:  
  Santa Barbara Annual Business Meeting.
- November 6 & 7:  
  Monterey with Cal EN A Leadership Symposium & Educational Event.

**ENA National Leadership Conference:**

- February 28-March 2  
  Honolulu, Hawaii  
  www.calena.us

**ENA 9-1-1 Conference**

- April 18, 2008  
  (7:15-4:00)  
  Del Mar Hilton  
  linda.rosenberg@sharp.com

**CFED West: California Fire, EMS & Disaster Conference & Expo:**

- May 19-23, 2008  
  Pala Spa Casino & Resort  
  www.cfedwest.com

**San Diego Overcrowding Summit:**

- October, (TBA), 2008  
  Sharp Spectrum  
  linda.rosenberg@sharp.com

**Emergency Nurses Association General & Scientific Assembly:**

- September 24 & 25, 2008  
  Minneapolis, Minnesota  
  http://www.calena.us/
- September 25-29, 2008  
  Minneapolis, Minnesota
911 Conference
April 18, 2008
7:15 - 5:00

Room Availability:
Rate is $149/night plus tax for April 17th, rate available for selected dates before/after the event.
Reservations should be made individually; self parking charges are included if you register for the 911 Conference. Valet parking is available for an additional fee.
To receive the group rate mention you are with the San Diego Emergency Nurses Association.

Conference Info:
The room accommodates 180 - so reserve your spot ASAP.
Contact: Linda Rosenberg @ 858-395-4447 or linda.rosenberg@sharp.com
Fax: 858-939-3477

We have some great speakers lined up so sign up early!
Conference includes continental breakfast, lunch & snacks.
*Schedule & registration form forthcoming.

Hilton San Diego/Del Mar
15575 Jimmy Durante Blvd
Del Mar, CA. 92014
1-858-792-5200

The above FCAs are open to any MICN & East County FD personnel only.
San Diego ENA Nursing Scholarship Application for Spring 2008

Please complete this application in order to apply for a scholarship being offered by the San Diego ENA.

Requirements include 1) Current ENA membership, 2) Current professional licensure as an LVN, RN, EMT, or EMT-P in the state of California, and 3) Current enrollment or acceptance in an accredited undergraduate or graduate nursing program. You may answer the questions on a separate page and attach them to the application. Please limit your answers to no more than a total of 3 pages. Applications must be received no later than May 15 2008, for the spring.

Along with this application, your letter of intent should include answers to the following:

- How nursing will benefit from your education
- How the community will benefit from your education
- Describe any training/ volunteer work you have had in the ED or prehospital care.

Include a photocopy or other proof of enrollment or acceptance into a NLN Accredited School.

Name____________________________________________________

Phone Number_______________________

Address_________________________________________________

City________________________ Zip_____________

School Enrolled in________________________________________

Year of Graduation__________________

Year and Semester of Study______________________________

Submit your application for the scholarship to: Linda Rosenberg 13515 Essence Rd. San Diego, Ca. 92128-4721 or fax to (858) 939-3477
Postage

C/O Leslie Eldridge
1923 Aspen Ln.
El Cajon, CA. 92019

Address label