



# Susy Safe Newsletter

An European Project on Foreign Bodies Injuries in the Aero-Digestive tract in Children

## CE.RE.PR.I. CENTER FOR RESEARCH AND PREVENTION OF INJURIES

### HISTORY:

Established in 1991 by the Public Health Department of the Hellenic Ministry of Health, Welfare and Social Securities (OJ Hellenic Parliament 1050/91), **CEREPRI (Center for Research and Prevention of Injuries)** aims to reduce the number of people who sustain injuries in Greece and contributes to international injury research and safety promotion.

Nowadays, it is well known that injuries constitute the most serious health problem facing children and adults until the age of 34 years. One third of the total number of deaths from birth to age 14 is caused by injuries, while during adolescence and young adulthood the number of deaths caused by injuries rapidly increases to 75% and 90% respectively. In fact, injury is

one of the greatest killers of people and children worldwide, however, a considerable proportion of injuries are both predictable and preventable.

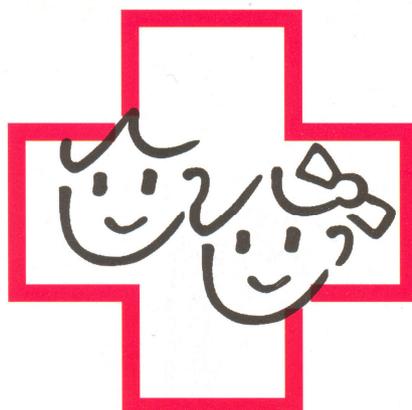
CEREPRI plays a central role in the field of injury prevention in Greece as well as is the main center representing Greece nationally and internationally regarding injury prevention. It not only conducts epidemiological and statistical programs, but also goes beyond facts and figures to accurately develop prevention strategies in many areas that have not previously been dealt

with such as intimate partner violence and accidents and injuries among the elderly. As a result, CEREPRI has become recognized internationally as a leader in injury prevention and representatives from all over the world correspond with us to access our information for use in their own countries. The benefits derived from our Center affect both Greece and other EU countries positively.

The Center operates on the premises of the Department of Hygiene and Epidemiology of the Medical School at the University of Athens. The Director of the Center is Professor Eleni Petridou.

### CEREPRI contributes to the prevention of injuries by:

- Assessing the magnitude of the injury problem and associated socioeconomic



implications on the family and the society at large.

- Setting targets for the reduction of injury mortality rates.
- Coordinating and supporting injury prevention and control, on the basis of systematic collection, surveillance and evaluation of medical research.
- Identifying risk factors of injuries.
- Developing innovative injury prevention programs based on the accurate interpretation and utilization of epidemiological data and emphasizing the dissemination of current knowledge.
- Assisting to the development of legal infrastructure for reinforcement of legislation concerning the safety of people.
- Developing health education projects.
- Working together with

other injury prevention institutes for the development of safer environments and the enforcement of passive safety measurements on a community level.

- Making up –to- date interventions on current topics in various settings.
- Developing further collaborations with institutes and individuals in order to share information and experience widely.
- Developing and expanding national and international networks regarding injury prevention
- Publications in national and international academic journals
- Participation in national radio and television programs

In the area of child safety and prevention of child injury prevention CEREPRI

has greatly contributed by participating in EU funded and co-funded programs, as well as national ones throughout its years of work; by developing educational material for injury prevention in schools and by cooperating with national hospitals for the collection of data in childhood injuries, as well as with non-governmental institutions which promote children ' s welfare, such as ANEC-Child safety working group, European Consumer Safety Association - European Child Safety Alliance and The Hellenic Society for Social Paediatrics and Health Promotion ( SOCPED ). CEREPRI is being supported throughout its work towards child safety by National and International organisations among which are: the European Union, the Greek Ministry of Health and the University of Athens.

For further details on the work of CEREPRI please visit the relevant website: [www.euroipn.org/cerepri](http://www.euroipn.org/cerepri)

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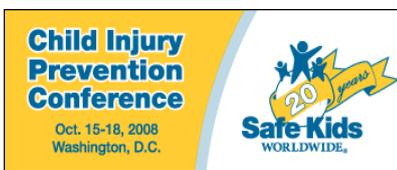
## News

These past months, especially October, have been very fruitful for our project in terms of conferences, congresses and international meetings. In the following lines the abstracts presented.



### Web-based surveillance system as an effective tool for risk assessment and for fostering product safety: the risk estimation engine of Susy Safe registry

Presented at: *EUROSAFE 2008 - 2nd European Conference on Injury Prevention and Safety Promotion, Paris, France, 9th-10th October 2008* and *Safe Kids Worldwide 2008 - Child Injury Prevention Conference, 15th-18th October 2008, Washington, D.C., USA*



**Background:** The goal of monitoring priority health events is to support the planning and the implementation of public health interventions and programmes. Increasingly, Public Health requires advanced computer-assisted technology to process a wide variety of information data, analyze them, detect risks and provide decision support as well as disseminate data and response to be used for adopting prevention measures, continuously educating and training. In recent years Web-based surveillance systems have become progressively more widespread just because of their capability of addressing timely such needs.

**Methods:** The Susy Safe is a EU funded registry on inorganic foreign body injuries in children aged 0-14. The Susy Safe system, which collected more than 7000 cases during in 19 European countries, allows for notifying from physicians over the internet thus taking advantage of Web reporting capabilities. Functions include automated risk analysis engine and results visualization. Risk analysis engine has been implemented in a Bayesian framework and provides an update estimate of the risk profile of the products causing injuries, effectively as new data become available.

**Results:** A Bayesian framework was adopted to set up the risk engine. Results from a simulation session showed that the estimated risk was largely consistent with previous findings by other authors. The major issue in the applicability of the method is the necessary simplification in building the risk model. Indeed, many variables affect the risk of a FB injury. Some of them are intrinsic characteristic of the foreign body, such as its shape or its consistency, while others are related to the intensity levels at which children are exposed and may be difficult to assess.

**Conclusions:** The system contributes to simplify the physician reporting and improve public health information dissemination within consumers and consumers' association. Also it gives physician and researcher the access of a large amount of data otherwise scattered all around in different hospitals. Finally, supplying a quantitative risk assessment for the identification of hazardous characteristics of objects, such as dimensions or shape, it works toward an improvement of consumer products' safety design.



## Foreign body injuries in the upper-aero-digestive tract in children: the Susy Safe project results

Presented at: *2nd Congress of the EAP - European Academy of Paediatrics, 24th-28th October 2008, Nice, France*

**Background:** Foreign body injuries in the upper-aero-digestive tract are a common and serious problem among children which is still poorly understood since the difficulty to collect information with a deep level of detail and a wide geographical coverage needed for active surveillance purposes.

**Methods:** A total of FB 7296 injuries in paediatric patients were gathered by the Susy Safe, EU funded, web-registry. The registry involves more than 60 institutions from 24 countries.

**Results:** About 62% (4047) of children was older than three years and the 54% (3700) were males. About 52% of the FBs were inorganics. Among them pearl, ball and marble (14%), toy (5%), coin (4%) were the most recurrent objects. Among organics, fish bones and bones accounted for 21% of cases and nuts for 13%. The shape of the objects was spherical in the 32% of the cases. The volume was estimated and the median value was 37.7 mm<sup>3</sup> (IR 16.76, 96.74). Complications arose in the 10% of the cases, and hospitalization was required in the 34% of the injuries with a median length of stay of one day. Injuries took place in the absence of adult supervision in the 51% of cases. The 52% of injuries occurred while children were playing and 41% while they were eating.

**Conclusion:** The Susy Safe Web-Registry is serving as a basis for a knowledge-based consumer protection activity. It distinguishes from other registries for its wide size and by a deep characterization of objects which caused the injuries.



## Susy Safe doctors: abstract from Turkey

### FOREIGN BODY ASPIRATION: A FOUR-YEARS' EXPERIENCE

Volkan ERİKÇİ, MD, Şafak KARAÇAY, MD, Ahmet ARIKAN, MD

**Background:** Foreign bodies (FB) in the airway require prompt removal in children. We reviewed our experience in patients with suspected airway FB.

**Methods:** A retrospective study was conducted in 189 consecutive children who admitted to the Department of Pediatric Surgery, SSK Tepecik Training Hospital between 1997-2001. Patients data on presentation, bronchoscopy findings and results were obtained. Of the 189 bronchoscopies, 127 (67.2%) showed FB which are commonly located in the right mainstem bronchus. Most of FB were non-radiopaque. Pips and hazelnuts were the most common FB. Mean hospital stay was 2.5 days. Many patients (151 out of 189; 79.9%) had transient stridor or fever that ceased within 24 hours after bronchoscopy. No mortality was observed in relation with bronchoscopy.

**Conclusion:** Chest radiographs of the children with FB in the airways are inconclusive. Children with a history of small particles in their mouths and subsequently showing wheezing, or choking episode should undergo prompt bronchoscopy. Complications related to bronchoscopy are uncommon.

**Key words:** Foreign body aspiration, bronchoscopy

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