5. MODERATED POSTER SESSIONS
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A.2. PUBLIC HEALTH AND DIFFERENT DIAGNOSES

Increasing anti-pneumococcal vaccination coverage rate: barriers and strategies

Anna Maria Ferriero

AM Ferriero[1], ML Specchia[1], S Capizzi[1], F Kheiraoui[1], MA Veneziano[1], MR Gualano[1], N Nicolotti[1], MD Gliubizzi[1], C de Waure[1], R Saulle[2], G La Torre[2], W Ricciardi[1]
[1]Health Technology Assessment Research Center, Institute of Hygiene, Catholic University of Rome
[2]Public Health and Infectious Diseases Department, Sapienza University of Rome
Contact: annamariaferriero@hotmail.it

Background
Anti-pneumococcal vaccination is an important public health strategy addressed to children, at risk adults and elderly people. Health professionals, particularly General Practitioners (GPs), play a key role in spreading and conveying information among target population, addressing services demand and administering vaccination. This study has been aimed to investigate the main barriers to anti-pneumococcal vaccination, mainly in adult and elderly population, in order to identify the possible future public health strategies to increase vaccine coverage levels.

Methods
A scientific literature review was performed by using the following electronic databases: PubMed, Cochrane Library and Embase. Italian institutional websites were also examined and grey literature was consulted through the search engine "Google Scholar" and other general purpose search engines. Specific key words and MeSH terms were used.

Results
The main barriers to anti-pneumococcal vaccination are: the lack of knowledge among population or health professionals and the lack of information received from GPs/specialists/pharmacists. In a survey on a sample of 400 subjects aged $\geq$ 65 years only 13% of respondents said that they were aware of anti-pneumococcal vaccination and 49% said that they would agreed to be vaccinated if it had been recommended. A study carried out on a sample of 500 GPs showed that only 17.1% of them give correct information to their patients about the population groups to which anti-pneumococcal vaccination is recommended. A survey on a sample of GPs and specialists showed that 81% of the former and 64% of the latter strongly recommend pneumococcal vaccination in the elderly. Other evidences showed that physicians considered the increase in vaccination coverage rate depending on an outpatient management of vaccination and the promotion of vaccination efficient campaigns.

Conclusions
Several public health strategies to increase coverage vaccination levels could be implemented, such as: appropriate training programs for GPs and all health professionals involved in the vaccination process; the empowerment of the patient/citizen through specific training and education programs, the strengthening of the planning process and the effective delivery of vaccines in Primary Care.

Differences in treatment and outcomes of patients with acute coronary syndrome with ST segment elevation

Jose Luis Navarro Espigares

A Reina Toral[1,6], M Colmenero Ruiz[1,6], C García Pérez[2,6], M Expósito Ruiz[2,6], E de Antonio Martín[3], C Bermúdez Tamayo[2,4,6], L García Mochón[4], JL Navarro Espigares[5,6,7], E Hernández Torres[5,6], ARIAM-Andalusian Group
[1]Intensive Care Unit, Virgen de las Nieves University Hospital, Granada, Spain
[2]Research Support Unit, Virgen de las Nieves University Hospital, Granada, Spain
[3]Operations Control Unit. Puerta del Mar University Hospital, Cádiz, Spain
[4]Andalusian School of Public Health, Granada, Spain
[5]Operations Control Unit. Virgen de las Nieves University Hospital, Granada, Spain
[6]Health Services Research Group, Virgen de las Nieves University Hospital, Granada, Spain
[7]International and Spanish Economic Department, University of Granada, Granada, Spain
Contact: jnavarro@ugr.es

Background
Percutaneous coronary intervention (PCI) and fibrinolysis are the two different reperfusion treatments for patients with acute coronary syndrome with ST segment elevation (STE-ACS). We seek to ascertain epidemiologic differences, related to care and results, of patients with STE-ACS depending on whether or not the hospital has a hemodynamic unit (HU).

Methods
This is a retrospective cohort study with an analysed population of 11,122 patients with STE-ACS attended in Andalusian public hospitals and included in ARIAM Register during the period 2005–2009. A descriptive analysis was carried out, along with a bivariate analysis and a logistic multivariate regression analysis. Variables analysed were epidemiologic characteristics of patients, type of hospital, reperfusion strategy, complications during hospitalisation, and mortality rate.

Results
Of the total registered patients, 5,728 (51.5%) were attended in hospitals with HU, compared to 5,394 (48.5%) in hospitals without it. From the first group, 1,891 (33.02%) patients underwent some type of PCI, while 2,052 (35.84%) were treated with fibrinolytic drugs. Regarding patients attended in hospitals without HU, 349 (6.5%) were given PCI and 2,665 (44.81%) ($p < 0.001$) received thrombolytic treatment. Concerning complications, statistically significant differences were found in post-infarction angina, heart failure, and number of hospital readmissions being higher in hospitals without HU. Nevertheless, we found a higher percentage of metabolic and infectious complications in patients treated in hospitals with HU. The multivariate analysis showed that factors associated with an increased risk of mortality are age OR 1.063 [1.053–1.074], female sex 1.462 [1.187–1.800], diabetes OR 1.2 [0.985–1.463] and Killip class III-IV OR 9.042 [7.320–11.169]. Patients with anterior location also have greater risk of death OR 1.421 [1.173–1.721] and the extension Q, OR 2.685 [1.896–3.801] as well. The hemodynamic unit acts as a protective factor OR 0.748 [0.619–0.904]; the risk of death of patients treated at hospitals without HU is 1.33 times higher.

powerful effect on public health. While estimates of the impact of the environment on health vary and the nature of environmental stressors changed over the decades, the public has consistently identified basic environmental amenity such as litter, fly tipping, noise, bonfires, housing disrepair, street lighting, and derelict land as being critical 'front-line' issues. These immediate interferences with day to day life have objective impacts on both health and quality of life. However, little is known about interactions between lifestyle and environmental factors, and the role of the contemporary environment in health is complex and multifaceted. This is especially important given the disproportionate exposure of, and effect on, vulnerable populations such as deprived communities and children.

Methods

A multi-disciplinary confederation of surveillance, horizon scanning, exposure assessment, research, and integration of data and intelligence on hazards, exposures and outcomes is required. These are the fundamentals of an Environmental Public Health Tracking System established in Sandwell including the routine analysis of public health nuisance, the efficacy of local authority practice, local horizon scanning, and the innovative use of industrial quality control methods to target interventions as well as the routine surveillance of environmental insult and environmentally related disease to generate plausible and focussed hypotheses for research.

Results (effects/changes)

The Sandwell system introduced in 2011 has already produced some notable products receiving WHO endorsement, influencing practice, focusing research and is being taken up by other regions in England and Wales.

Improving road traffic injury surveillance: The importance of data linkage
Diana Rus

D Rus[1], EA Baragan[1], EO Marton-Vasarhelyi[1], RM Chereches[1], F Mocean[2]
[1]Babes-Bolyai University, Center for Health Policy and Public Health, Cluj-Napoca, Romania
[2]University of Medicine and Pharmacy Iuliu Hatieganu, Cluj-Napoca, Romania
Contact: dianarus.chpph@gmail.com

Background

Road traffic injuries are a major public health concern. It is estimated that road traffic injuries will become the third leading cause of the global burden of disease by 2020. Therefore, efforts should be made in order to reduce the burden of road traffic injuries, one of the key actions being related to proper surveillance systems development.

Methods

Secondary analysis was conducted on a sample of road traffic victims treated in the Emergency Department of the Mures County Emergency Hospital, Romania, as part of the European Injury Database (IDB) and linked to the Police Department database. Injury characteristics were detailed in the ED dataset while risk factors, environmental characteristics, and causality of the crash were found in the Police database.

Results

764 individuals treated in the ED had suffered a road traffic injury (26.6%), between March 2009 and July 2010. Preliminary results show that men were five times more likely to be injured than women as drivers/riders/operators. Men were also more likely to have an aggressive behavior while driving, to have a reckless driving and to speed.

Conclusions

Linking the available databases offers detailed information regarding injury outcomes, road traffic crash characteristics, as well as environmental risk factors and individual risky behaviors, leading to in-depth understanding of the consequences of crashes and accurate estimation of road traffic injuries. Health practitioners and road traffic experts should work together to develop a sustainable road traffic injury surveillance.

Towards a comprehensive web-based dietary infrastructure to support international monitoring and epidemiological nutritional studies
Nadia Slimani

N Slimani, C Casagrande, G Nicolas, G Le Moine, I Huybrechts, H Freisling, S Crispim
Dietary Exposure Assessment Group, International Agency for Research on Cancer, Lyon, France
Contact: slimanin@iarc.fr

The double nutritional and disease burden observed worldwide requires common methodologies to measure and follow-up dietary exposures, perform risk assessment and evaluate diet-disease associations, as strong scientifically-based evidence to support concerted public health actions across countries.

Through different EU funded projects (EPIC, EFCOSUM, EFCOVAL, PANCAKE, PANEU, EuroFIR-Nexus), a standardized computerized 24-hour dietary recall program (EPIC-Soft®) has been successfully developed by the International Agency for Research on Cancer (IARC), validated and used in both international epidemiological studies and monitoring surveys.

However, beside the availability of a common methodology for collecting dietary information across countries, it is equally important to provide a comprehensive framework and technical and managerial infrastructures to support international studies.

In order to respond to these needs, a centralised web-based platform, the dietary e-Standardised Methodologies Platform (e-SMP), is under development at IARC. It will be comprised of 4 main modules: 1) maintenance of the EPIC-Soft® databases, 2) interview collection using the EPIC-Soft® module, 3) management of collected interview data, and 4) administration.

The step-wise approach used to develop the platform includes 4 successive phases, 1) conceptual design; 2) evaluation by internal and external end users; 3) development of the applications and the web-platform; 4) testing and evaluation of the the applications and web-platform internally, by end users and in real study conditions (i.e. ongoing studies using EPIC-Soft®).

Beside the already applied EPIC-Soft® module, a first release of this web-platform is expected by the end of 2012 and will facilitate and support international studies, such as the EU Menu project, in terms of implementation, data collection and management of the collected data. This should also facilitate the standardization of dietary methodologies between countries and projects. Communication and data synchronisation/exchange will also be facilitated and e-training facilities will be provided to the different users of the platform.

Potentials and restrictions in the use of statutory health insurance data
Svenja Schauer

S Schauer[1], J Hartmann[1], S Eberhard[2], C Krauth[1], VE Amelung[1]
[1]Hannover Medical School, Hannover, Germany
[2]AOK Niedersachen, Hannover, Germany
Contact: Schauer.Svenja@mh-hannover.de

Background

Internationally, routine data are often used in public health research. Their advantages range from large numbers of included individuals to their quick availability. In relation to other countries, the use of routine data in Germany started later. But in the last years their relevance for research increased, mainly the relevance of statutory health insurance (SHI) data. This special kind of data can be used for national research and also for international comparisons, for example of health care expenditures or frequencies of health care utilization. For both it is important to know which data are available and how good