Epi-scoop has entered its second year as the Newsletter of the epidemiology section of the IPH. We hope that its first steps as a communication tool between you and our section were greeted favourably.

The last trimester of 2001 appeared to be quite hectic. This was not only due to peaks in the regular activities, such as those raised by the yearly report on the AIDS/HIV Register or by the completion of the fieldwork activities related to the national Health Interview Survey 2001. To be more precise, the events of September 11th also had their aftermaths.

Since the Dioxin and the Coca cola crises, our section set off the organization of a research program for the development of epidemiological methods to deal with acute outbreaks in Public Health domains. For instance, the IPH brought a valuable support to the federal government plan against bio-terrorism. In 2002, our section will be restructured in this respect, and after a vast internal training program, it will expand its permanent ward system.

Moreover, this year we will also increase our efforts to improve our WEB site. Given the large amount of information it contains, it is not always easy for the user to find the report or the person he is looking for. We are working hard to overcome this difficulty by improving and simplifying both the structure and the overall lay out of the site. We are also working on a system that allows an interactive access to different data banks. At this moment, two projects are being tested: one concerns the mortality data and the other, data from the sentinel laboratories.

A last important point for 2002 is to make a special effort to enhance the quality of all the documents we will edit for the people interested in Public Health topics.

Herman Van Oyen

RESULTS OF THE FIRST MULTI-CENTRIC SURVEILLANCE OF MULTI-RESISTANT Enterobacter aerogenes

Objective

In accordance with the Group for screening, study and prevention of infection in hospitals (GDEPIH), the section of epidemiology of the IPH started the first epidemiological surveillance program on multi-resistant Enterobacter aerogenes (MREA) in acute Belgian hospitals. Its objective was to collect data allowing the computation of the resistance rate of Enterobacter aerogenes as well as the incidence rate of nosocomial MREA (n-MREA) for the period going from the 1st of July to the 31st December 2000.

Methods

All Belgian hospitals were invited to participate to this surveillance. A sample of Enterobacter aerogenes was considered as MREA if it was resistant to at least one third-generation cephalosporine. The variables studied were: 1) the number of strains of MREA coming from clinical samples as well as screening samples; 2) the number of Enterobacter aerogenes, Enterobacter species and Enterobacteriaceae; 3) the number of patients presenting a nosocomial MREA (n-MREA) first positive culture after 48 hours of hospitalisation) and 4) the number of admissions and the number of hospitalisation-days during the study period. Each patient was only counted once per hospital admission.

Results

Fifty institutions participated, 21 in the Walloon region, 22 in Flanders and 7 in Brussels. Fifty one percent were multi-resistant (incidence of MREA : 0,55 MREA/1000 hospitalisation-days). The higher proportion (63,4%) was found in middle size hospitals (200 to 399 beds) compared to 52% in smaller hospitals (< 200 beds) and 46% in large hospitals (400 beds or more). Seventy eight percent of MREA was hospital acquired and the incidence of n-MREA reached 0,42 n-MREA/1000 hospitalisation-days. This rate was higher in the Walloon region hospitals : 0,76 n-MREA/1000 hospitalisation-days, against 0,29 in Brussels and 0,24 in Flanders.

Conclusions

The MREA situation in Belgium is quite alarming. In order to overcome this problem, the IPH and the GDEPIH should maintain their efforts in this sense. The surveillance should be enlarged to a broader public and be conducted in close collaboration with the hospital teams. It should also include a verification of the recommendations to minimize transmission of MREA within the hospital.

B. Jans1, Y. De Gheleerd2, P. De Moïl1, Y. Glupczynski2, M.J. Struelens4, C. Suetsens1 & working group of the GDEPIH

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The setting up of an Early Warning System (EWS) for New Synthetic Drugs (NSD) is a European obligation since 1997. In the framework of this project, a NSD is defined as a non-controlled drug of unnatural origin that presents a risk for public health and that has a limited therapeutic value. Thus a drug may be known to the authorities but still be considered as a NSD, as long as no regulation is foreseen at European level.

The EWS aims at the early detection of NSDs and implies close cooperation between the Departments of Justice and of Public Health. At international level, the same type of collaboration exists between the European Monitoring Centre for Drugs and Drugs Addiction (EMCDDA) and Europol. When a new synthetic drug is detected, this discovery is transmitted to the EMCDDA, and the EMCDDA informs the other Member States of the European Union. Subsequently the different EU-countries start to collect information on the drug, on the basis of which a risk assessment can be performed.

At present, there are no European directives that prescribe how the Early Warning System has to evolve. As a consequence, every country sets up its own system. In Belgium, the system is not limited to new synthetic drugs. Rare drugs, potentially dangerous drugs and new trends are also detected by the EWS. The EWS network is coordinated by the Belgian Information Retox Network (BIRN), which consists in a Focal Point located at IPH and four Sub-Focal Points** for the different Communities and the Region of Brussels Capital City. The Sub-Focal Points are directly in contact with the field of drug related prevention and assistance, and even in some cases with drug users themselves. Therefore, they provide a valuable contribution to the EWS.

Other sources of information are the toxicological laboratories (private or linked to hospitals or universities) that perform analyses on seized drugs or on human samples, such as blood or urine. The laboratories inform the BIRN if they detect a new, a rare or a potentially dangerous drug.

The BIRN is also in contact with the Justice Department and the Federal Police Forces in order to organize and hasten the communication between the different partners in the EWS network. At this moment, a project concerning seized drugs is being developed in collaboration with the Federal Police. It would only concern seized drugs for which no analysis is requested in the context of a judicial inquiry. Usually, these drugs are temporarily stored, then destroyed. The project requires that a random sample of these drugs be analysed in the laboratory of the Drug Section of the IPH. This project should provide us with an overview of the circulating drugs and support the EWS.

* The four Sub-Focal Points :
  - ASL : Arbeitsgemeinschaft für Suchtprävention und Lebensbewältigung
  - CTB/ODB : Concertation Toxicomantes Bruxelles / Overleg Druggebruik Brussel
  - EUROTOX : Sous-Point Focal de la Communauté française
  - VAD : Vereniging voor Alcohol- en Andere Drugproblemen


Edith Leus

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**THE ASSOCIATION OF EDUCATIONAL ATTAINMENT WITH THE INCIDENCE OF COGNITIVE DECLINE AND DEMENIA**

**Objective**
Current research results are inconsistent on the role of educational attainment as a risk factor for the development of cognitive decline and dementia. The main purpose of this study is to investigate whether educational level predicts or influences the development of cognitive decline and dementia.

**Methods**
The data come from the project “Epidemiology Research on Dementia in Antwerp”, a longitudinal population-based study. This project started in 1990 and had two follow-up periods in 1994-95 and 1995-96. The study includes 1806 persons of 65 years and older. The incidence study examines the influence of socio-demographic variables, social behaviours and health status indicators on the clinical development of cognitive decline and dementia. Data are analysed using survival analysis methods (Kaplan Meier, proportional hazards models). Relative risks are adjusted for age, sex, depressive mood, having a person of trust, being married and having a physical limitation.

**Results**
The incidence density of cognitive decline is higher in women (3.7/100 person-years (PY)) than in men (2.7/100 PY). The incidence density of dementia is similar in women and men (1.7/100 PY). Lower educated persons (primary education or less) are at higher risk to develop cognitive decline and dementia compared to higher educated persons. The adjusted relative risks are respectively 2.93 (95%CI : 1.03-8.33) and 2.32 (95%CI : 1.14-4.74).

**Conclusions**
Subjects with a low educational attainment are at higher risk to develop cognitive decline and dementia. This finding has social, biological and medical implications. The observations indicate the importance of education. The mechanism through which educational attainment has a preventive effect remains one of the unanswered questions: educational attainment could act upon a healthier lifestyle and/or upon the threshold of a cognitive reserve.


Ann Versporten

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ACHIEVEMENT OF AN EXPERT’S CONSENSUS ON THE OPPORTUNITY AND PROCEDURES OF A SCREENING FOR DIABETES IN THE GENERAL POPULATION, NOVEMBER 2001

The increasing number of diabetics in the Belgian population is a major challenge to our national health care system.

The evidence on the benefits of an early and intensive treatment is so recent that, internationally, no guidelines on screening are yet available. Hence the urgent question of whether “to screen or not to screen” for diabetes in the Belgian population.

The French Community commissioned the Centre for Operational Research in Public Health (CORPH) to organise a consensus on the opportunity and modalities of a population-wide screening for diabetes. CORPH and almost 80 health professionals used the DELPHI and expert group methods to reach an agreement. All the participants of the expert groups signed a consensus declaration.

The results of this consensus were revealed after the Minister N. Maréchal communicated them to the press in the context of the international diabetes day on November 14th. The final text, which will include definitions of the target populations and the methods to be used, can be expected for March 2002. So far, a consensus has been reached on the following points:

1. **Prevention**
Prevention, or in any case delay of onset, of type 2 diabetes is possible through life style measures, at least in part of the population. Since type 2 diabetes and cardiovascular disease have common risk factors, a primary prevention of type 2 diabetes ought to be
conceived within a global strategy of prevention.

2. Screening

Screening for diabetes is justified, but only within the frame of a global approach to health problems. Actually, it seems that more health benefit can be gained by risk factor reduction in the population as well as by better care and follow-up of known diabetes patients than by early detection through screening.

There should be no screening unless a proper follow-up of detected patients can be assured.

Any doctor-patient contact should be an opportunity to detect unknown diabetes (case finding). The general practitioner should be pivotal here, his/her duty being to identify persons at risk amongst his/her patients.

The Belgian health care system, as it is today, does not allow for an efficient and integrated screening for diabetes. The major constraints are the organisation and the financing of preventive care at the primary care level (i.e. general practitioners).

On some questions, the consensus is not attained yet: the existing criteria defining the population at risk need to be reviewed and there are no clear guidelines regarding the methods to be used in screening and diagnosis confirmation. A working team has been set up to deal with these questions.

http://www.iph.fgov.be/epidemio/epien/index000.htm

Francis Capet

ORGANIZED SCREENING OF CERVICAL CANCER: FINALLY A REALITY FOR THE WHOLE OF BELGIUM?

Since the 50’s, mortality due to cervical cancer in Belgium decreased regularly. Since 1990, the trend hasn’t declined any further in spite of increased consumption of Pap smears. Women born after 1940 express a higher mortality risk due to more extensive categories of the population and a heterogeneous quality of examinations, insufficiently compensates the increased risk. In Finland, organised cytological screening at five-year intervals yielded a substantial decline in mortality rate (1.7/10^5/year in 1995, age-standardised rate based on the European reference population). In Belgium, for the same calendar year, this rate is 4.6/10^5/year (Source: Eur J Cancer 2002; 38: 96-166).

The Flemish Community attempted to organise screening following the European guidelines (Eur J Cancer 1993; 29A Suppl 4). By lack of structural measures regarding financing, this program had little impact.

On October 18th 2001, the Chamber of Representatives unanimously approved a resolution calling the Federal Authority to prepare a nation-wide cervical cancer-screening program, in collaboration with the Communities. The proposed screening test should be the Pap smear using an optimal collection method. Adjunct HPV testing could be offered in case of cytological lesions. The resolution foresees the creation of a steering committee that embraces all professional groups, in order to accompany the process and to develop quality standards. Organised screening involves surveillance of the participation of the target population, quality assurance of the screen test and adequate follow-up of positive screenings. To reach these objectives an appropriate population-based registration system is essential.

This resolution is the expression of a solid political consensus that hopefully will result in a more efficient prevention of cervical cancer in the near future.


Marc Arbyn

DETECTION OF MEASLES ANTIBODIES IN SALIVA WITHIN A FRAMEWORK FOR EXANTHEMATIC DISEASES

In 2001, the sections of Epidemiology and Virology started a project designed to detect measles antibodies in saliva. Measles is an extremely contagious disease, which is responsible for more than one million deaths worldwide every year. The World Health Organization (WHO) has established the goal of eliminating measles from the European Region by the year 2007. According to the Sentinel network of general practitioners, the incidence of measles has declined from 1987 to 1997 from 79 to 23 per 100.000 in Flanders, and from 252 to 40 per 100.000 in Wallonia.

A tight surveillance, in which every suspected clinical case of measles is confirmed by laboratory analysis, is necessary to claim Belgium free of measles in 5 years. A diagnosis merely based on clinical signs is not specific enough, since infections caused by rubella and parvovirus B19 have overlapping symptoms.

The aim of the project is to develop a diagnostic test for measles antibodies in saliva. The use of saliva instead of serum has a great number of advantages: the use of swabs for the collection of saliva is easy, fast, painless, safe and non-invasive.

Since the existing commercial kits for the detection of measles IgM are only developed for serum samples, the feasibility, sensitivity and specificity have to be determined for saliva samples as well, by testing paired saliva and serum samples. The more paired samples are collected and analyzed, the greater the reliability in the results of the laboratory analysis will be.

In order to test the largest amount possible of paired samples, we invite all medical doctors (general practitioners, pediatrics, ...) to participate in this project by contacting us whenever a clinical case of measles is suspected. Participation is of course voluntary.

If you want to take part in the project or obtain additional information, please contact:

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Antibiotics and acute sore throat: results of a registration project by Belgian general practitioners, February-May 1999

The appropriate use of antibiotics is one of the leading priorities regarding the quality of care in general practice. At the request of the Ministry of Public Health, the IPH coordinated a 4 months registration project on acute sore throat, in collaboration with the "Société Scientifique de Médecine Générale" (SSMG) and the "Wetenschappelijke Vereniging van Vlaamse Huisartsen" (WVH). This subject was chosen not only because of the frequency of episodes of acute sore throat in general practice, but also because of a guideline on this topic developed by the WVH.

A total of 321 Belgian general practitioners carried out the project. The registration was done before the publication of this guideline and can thus be considered as a basic measurement. Various items related to the management of acute sore throat were
recorded, including prescription of antibiotics. According to the guideline of the WVVH, among 100 patients with acute sore throat, maximum 20 patients will have an active streptococcal tonsillitis and 5 will receive antibiotics because of risk for complications.

This study showed that an antibiotic was prescribed in more than 50% of the 14451 episodes of acute sore throat. Pressure from the patient to receive an antibiotic treatment seemed to explain a major part of these results. Only 8% of the patients receiving an antibiotic were given small spec-

The conclusion of this study underlines that a good policy regarding the use of antibiotics should take into account both the aspects of alerting and training physicians, as well as the need to inform the public about the disadvantages of excessive use of antibiotics.

http://www.iph.fgov.be/epidemio/epien/index000.htm

Pascale Jonckheer

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- Arbyn M, Temmerman M.
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