



V&I News

Bi-weekly Newsletter on Vaccines and Immunization

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News from VENICE

VENICE workshop in Venice

The second annual VENICE (Vaccine European New Integrated Collaboration Effort) Workshop, was held in Venice (Italy) on April 11 -13, 2007.

The VENICE project, sponsored by EC-DG SANCO, aims to establish a European Platform on Vaccinations, building up a European database on various aspects related to immunisation programmes carried out throughout the European member states.

The project is organised in work packages (coordination, dissemination of results, indicators of immunisation programmes, priority setting and decision-making processes, preparedness and management for AE occurrence) under the responsibility of four leading partners: Italian Istituto Superiore di Sanità (ISS), the Veneto Region of Italy, the French Institut de la Veille Sanitaire and the Irish National Disease Surveillance Centre. The project is coordinated by the Italian ISS.

National gatekeepers from twenty-five countries and representatives from EURO-WHO, ECDC, EUVAC.NET, DG SANCO, the Brighton Collaboration, VACSAT and the DG Research sponsored project POLYMOD participated to the II Workshop.

The meeting was the first occasion to present the advancement of the project after the first year of activity and to plan for future activities.

Within the project a dedicated information system has been developed within the website <http://venice.cineca.org>, and five surveys have been organised with electronic questionnaires to be filled in by the national gatekeepers on various issues related to vaccinations. The surveys were work-package specific and addressed the following subjects in EU member states: the description of national and sub-national immunisation programmes, the methods for measuring vaccine coverage, the systems in place for monitoring AEFI, and the process for introducing new vaccinations within the programmes, taking as examples the recently licensed HPV and rotavirus vaccines..

The new website has been designed in order to support the coordination effort and the sharing of documents among participants, with a specific area for documents uploading and retrieval.

The last day of the meeting was dedicated to presenting the collaboration with POLYMOD, a DG Research sponsored project that aims at developing mathematical models to be supportive of policy making with particular reference to economic and risk assessment models. Results from cost-effectiveness analysis for introduction of universal infant rotavirus vaccination in the UK were presented, as well the modelled impact of varicella vaccination.

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News from the Scientific Literature

The current status of HPV and rotavirus vaccines in national immunisation schedules in the EU – preliminary results of a VENICE survey

Y Kudjawa et al. Euro Surveill 2007;12(4), available [here](#).

Description: After a pilot survey had been completed in five volunteer countries, two questionnaires on Rotavirus and Human Papillomavirus vaccine were posted in January 2007 on a secured section of the VENICE website. Questions covered the availability of relevant epidemiological data as well as studies or analyses already carried out or planned to support the decision on the vaccines' introduction. Among those, the development of mathematical models or economic assessments was considered. The willingness of the participating countries to exchange developed tools was also assessed.

Protective efficacy of a monovalent oral type 1 poliovirus vaccine: a case-control study

Grassly NC, et al. Lancet. 2007 Apr 21; 369(9570): 1356-62

Description: A high-potency monovalent oral type 1 poliovirus vaccine (mOPV1) was developed in 2005 to tackle persistent poliovirus transmission in the last remaining infected countries. The efficacy of mOPV1 has been assessed in India with a matched case control study (2076 matched case-control pairs of confirmed cases of poliomyelitis caused by type 1 wild poliovirus and cases of non-polio acute flaccid paralysis). The authors found that, under conditions where the efficacy of live-attenuated oral poliovirus vaccines is compromised by a high prevalence of diarrhoea and other infections, a dose of high-potency mOPV1 was almost three times more effective than the trivalent vaccine. Achieving high coverage with this new vaccine in areas of persistent poliovirus circulation should substantially contribute to reducing the transmission of the disease and to reaching the elimination goal.

Immunity to pertussis five years after booster immunisation during adolescence

Edelman K et al. Clin Infect Dis. 2007 May 15; 44(10): 1271-7

Description: Re-emergence of pertussis among highly immunized populations has been reported in industrialised countries, raising concern about the effectiveness of current vaccination strategies. Both vaccine- and disease-induced immunity wane over time without boosting. As a result, adolescents and adults are susceptible to pertussis and potentially serve as sources of transmission to infants who are at highest risk for complications. All of these factors favour the rationale for expanding pertussis vaccination programmes beyond childhood to improve disease control. A five year follow-up study has been conducted to assess the persistence of pertussis-specific antibodies and cell-mediated immunity after booster immunisation of adolescents aged 11–13 years with a tri-component acellular pertussis vaccine.

Five years after pertussis booster vaccination, the levels of immunoglobulin G were still higher than the prevaccination levels. Filamentous hemagglutinin IgG and pertactin IgG levels were significantly higher in Tdap-boosted adolescents than in the control subjects. Cell-mediated immunity to PT, filamentous hemagglutinin, and pertactin persisted above the pre-booster levels measured five years earlier. The results of the present study on adolescents indicate that the interval between acellular pertussis booster immunisations could be extended beyond five years.

Effectiveness of the 7-Valent Pneumococcal Conjugate Vaccine: A Population-Based Case-Control Study

Barricarte A., et al. Clin Infect Dis 2007;44 (1 June): 1436-41

Description: The authors aimed to assess the overall effectiveness of PCV7 against invasive pneumococcal diseases (IPD) in Navarra, Spain. All children aged under five years who were diagnosed with IPD during the period 2001–2005 (n= 85) and five control subjects per case patient (n= 425), individually matched by birth date and birth hospital, were analysed. Eighteen case patients (21%) and

114 control subjects (27%) had received ≥ 1 dose of PCV7. PCV7 serotypes were responsible for 34 (51%) of the cases in unvaccinated children. The overall effectiveness for case prevention was 31% (odds ratio, 0.69; 95% confidence interval, 0.37–1.27). In a separate analysis, vaccination with PCV7 was 88% effective in preventing IPD due to vaccine serotypes (odds ratio, 0.12; 95% confidence interval, 0.02–0.91) and was associated with a higher risk of IPD due to non-vaccine serogroups (odds ratio, 6.16; 95% confidence interval, 1.63–23.3). These data reveal a higher risk of IPD caused by non-PCV7 serogroups among vaccinated children. Consequently, the overall effectiveness of PCV7 for IPD prevention may be greatly reduced.

ECDC comment: PCV7 effectiveness is a major concern in those countries that already started a vaccination programme to reduce the pneumococcal disease burden, and represents an important component of the decision making process in those that not yet started a programme. This study conducted in a Spanish region is of particularly importance because of the scarce evidence so far collected in European countries on such an issue.

News from the PAHO and US CDC *April 21-28, National Infant Immunization Week*

National Infant Immunization Week (NIIW) is an annual event to promote the benefits of immunisations and to focus on the importance of immunising infants against vaccine-preventable diseases by the age of two.

The NIIW was held in conjunction with the Pan American Health Organization's Vaccination Week in the Americas (VWA), April 21-28, 2007. The U.S. joined together with 39 countries in the Western Hemisphere to concurrently promote the need for routine vaccinations for infants and children during the last week in April.

Since 1994, NIIW has provided an excellent opportunity for local and state health departments, national immunisation partners, healthcare providers, and community leaders from across the country to highlight the positive impact of immunisation on the lives of infants and children and to call attention to immunisation achievements.

Further information, together with material such as educational resources and communication tools are available at the [US CDC web site](#) and to the [PAHO website](#).

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