EDITORIAL

Vaccination in the penitentiary environment

Vaccination within penitentiary facilities, alike in the general population, is a first order preventive measure, by implying that it is a highly efficient measure in the eradication and elimination of communicable diseases. Generally a vaccine is given once the health-care services recommend it to the individual. Thus solid vaccination coverage is achieved and group immunization, able to interrupt the transmission of the disease that is targeted with the vaccine, is established. Another quicker and direct medical procedure intended to achieve optimal vaccination coverage consists of the access to a closed and susceptible group by the healthcare professionals.

In these cases, the results obtained from this intervention are significantly better when compared to the immunization campaigns done by the healthcare services. Therefore, in order to achieve the highest level of impact of the vaccination program, it is essential to have access to the targeted population. In this aspect, the penitentiary environment and considering that it has its population confined, fulfills this requirement. From the point of view of vaccine-science the convicted population is considered as a really interesting healthcare background arena because of three fundamental reasons.

1. Because the imprisoned population has a high risk profile 1, 2. Among the imprisoned population men are predominant compared to women (10/1), the average age is rather young (37 years old), there is a low level of studies (88% did not begin upper secondary education and risk behaviors such as taking drugs, sexual promiscuity, non compliance of prescribed care plans or medical treatments and the scarce use of the healthcare services, are common. In addition, it must be pointed out that in many cases, the imprisoned population comes from run-down areas, with family instability, unstable work patterns and with limited incomes. This is why, mainly among inmates with background on drug abuse, there is a high rate of "communicable infectious diseases" such as tuberculosis, infection by human immunodeficiency virus, and hepatitis B and C 6.

- 2. Because it is a very open population in close contact with the general population. Even though they are confined in closed facilities, they often are released on ordinary as well as extraordinary leaves which mean that they interact and are in contact with the community. For instance, last year in Catalonia ², the number of leaves issued were 13.124 second grade leaves, 18.813 third grade leaves, 64.364 weekend leaves and 581 special leaves, which means an average of more than 9 leaves/year per inmate.
- 3. Because it is a population susceptible of being vaccinated and of easy access. Since it is a confined population, its access is easy and simple, and enables to achieve high vaccination coverage rates with little difficulty ⁷ and with frequently satisfactory results ⁸.

In the penitentiary facilities, vaccines are used with different objectives and purposes. The most common vaccination modality is a systematic vaccination, either as primovaccination, as booster dose or as post-exposure prophylaxis against tetanus and adult diphtheria, and as primovaccination against hepatitis B. Throughout recent years, the convicted population has suffered demographic modifications; similar to those suffered by the general population. The increase of foreign-born population that has come seeking for a better life to our country is also observable in the penitentiary facilities. Therefore, it has been possible to vaccine and access a population that could be partially susceptible in our vaccination schedule. Another important characteristic of vaccination within the correctional facilities is that it is possible to protect individuals that are susceptible of suffering complications from basal diseases. This is the case of hepatitis A and B vaccination in HIVinfected or hepatitis C infected inmates.

Finally, and as Sequera VG and Bayas JM remark in the revision of vaccination in the imprisoned population published in this same number 9 besides the fact of insisting in the need of following the recommended adult vaccination schedule, additional efforts must be made in starting immunization

programs focused on prison's intrinsic risks. With it, as the aforementioned authors state, prevention of infectious diseases among the convicted population is improved, but also among prison's staff and secondarily among their families and the general community. Hence, the vaccination campaigns within the correctional facilities are basic tools for achieving the health objectives of both the imprisoned and the general population.

J Batalla

Cap del Servei de Medicina Preventiva (*Head of Preventive Medicine Services*)

Agencia de Salut Pùblica de Catalunya

BIBLIOGRAPHICAL REFERENCE

- Secretaría General de Instituciones Penitenciarias.
 Unidad de Apoyo. Estadística General de la Población Penitenciaria[Internet]. Madrid: Secretaria General de instituciones Penitenciarias; 2011 [citado 29 agosto 2012]. Disponible en: http://intranet/ Documentos/Gabinete/ Estadistica/M-2011-05.pdf
- Descriptors estadístics de serveis penitenciaris i Rehabilitació[Internet]. Barcelona: Generalitat de Catalunya; 2012 [actualizado Ag 2012; citado 29 agosto 2012]. Disponible en: http://www.gencat.cat/justicia/estadistiques_serveis_penitenciaris/1_pob.html

- 3. García-Guerrero J, Marco A, Saíz de la Hoya P, Vera-Remartínez EJ. Estudio multicéntrico de prevalencia de infección tuberculosa latente en los internados en prisiones españolas. Rev Esp Sanid Penit. 2010; 12: 79-85.
- 4. Marco A, Solé N, Orcau A, Escribano M, del Baño L, Quintero S, Caylà JA. Prevalence of latent tuberculosis infection in inmates recently admitted to a men's prison in Barcelona. Int J Tuberc Lung Dis. 2012; 16: 60-4.
- 5. Marco A, Saíz de la Hoya P, García-Guerrero J, Grupo PREVALHEP. Estudio multicéntrico de prevalencia de infección por el VIH y factores asociados enlas prisiones de España. Rev Esp Sanid Penit. 2012; 14: 19-27.
- 6. Saiz de la Hoya P, Marco A, García-Guerrero J, Rivera A; on behalf of the Prevalhep study group. Hepatitis C and B prevalence in Spanish prisons. Eur J Clin Microbiol Infect Dis. 2011; 30: 857-62.
- 7. Bayas JM, Bruguera M, Martín V, Vidal J, Rodes J, Salleras LY. Hepatitis B vaccination in prisons: the Catalonian experience. Vaccine. 1993; 11: 1441-4.
- 8. Bedoya A, Leal MJ, Torrez E, Busquet E, Guerrero R, Marrón T, et al. Evolución de la infección por virus de la hepatitis B en un Centro Penitenciario de Jóvenes: 1987-98. Rev Esp Sanid Penit. 2000; 2: 37-40.
- 9. Sequera VG y Bayas JM. Revisión: Vacunación en población encarcelada. Rev Esp Sanid Penit. 2012; 14: 99-105.