TAG RECOMMEDATIONS FOR PNEUMOCOCCUS

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Contents

2004 Recommendations

The following recommendations, which particularly relate to surveillance, are made for countries considering the introduction of pneumococcal vaccine. PAHO will need additional financial support if it is to successfully coordinate them.

- Strengthen the overall laboratory capacity to maintain the high level of performance achieved thus far by the surveillance network.
- Strengthen the clinical and epidemiological components of surveillance.
- According to capacities, undertake one or more of the following at key surveillance centers:
    - Economic studies;
    - Surveillance of pneumococcal disease in adults; and
    - Strengthening of population-based component.
- Support PAHO's role in the regional coordination for oversight of the surveillance network, including country meetings, mobilization of pediatric societies, and supervisory site visits.

2006 Recommendations

- Based on the guidelines that will be prepared, countries should implement epidemiological surveillance of pneumonias and meningitis in children aged <5 years to assess the burden of disease and its profile in the population.
- PAHO should support the expansion of the laboratory network capacity developed with the original SIREVA project to strengthen its capacity for the serotyping of pneumococcus isolates.
- Support for pneumococcus surveillance is a top priority and the support now provided by

2009 Recommendations

- Countries should improve or begin sentinel surveillance of rotavirus diarrhea, pneumonia, and bacterial meningitis in children aged <5 years, so that the impact of vaccine introduction can be adequately assessed and the prevalence of circulating strains and changes in the epidemiological profile of the disease monitored.
- All countries should systematically report their surveillance data for rotavirus diarrhea, pneumonia, and bacterial meningitis to facilitate the development of an epidemiological profile for the diseases in the Region, compare the profiles of different countries, geographical areas, and seasonality, and evaluate the epidemiological changes in these diseases that could occur with the introduction of the vaccine.
- Before introducing any new vaccine, countries should develop a plan of action, based on PAHO guidelines, that includes basic activities such as the evaluation of the cold chain at all levels, logistics, training, and strengthening of the ESAVI network.
- PAHO should continue to support the countries and encourage them to conduct special studies on the introduction of a new vaccine when necessary.
- Rotavirus and pneumococcus vaccines should be universally introduced in the immunization schedule, using vaccination regimens with evidence of efficacy in developing countries. Introducing those vaccines in priority areas (i.e., only in certain municipalities/towns or provinces) makes it more difficult to assess the impact of the intervention and might create logistical and programming problems for the EPI. Therefore, these vaccines should be introduced nationwide whenever feasible. If a country can only introduce them to priority groups, this should be done as a first step toward universal introduction.

2011 Recommendations

- TAG endorses the recommendations of the ad hoc scientific group.
- Countries should consider three doses of the pneumococcal conjugate vaccine as the minimum for a vaccination schedule. The administration options can be 3 doses (primary series) without a booster or 2 doses (primary series) with a booster for children aged between 12 and 15 months, taking into account the epidemiological profile of the disease in each country.
- Countries should base the decision regarding the option of opting for a 3 dose schedule (primary series) without booster or a 2 dose schedule (primary series) with a booster for children aged between 12 and 15 months, mainly on the burden of the pneumococcal disease of the country and pneumonia mortality in children aged <2 years. If the country has a high burden of disease and a high mortality in children aged <7 months, the country should opt for the 3 dose schedule in the primary series; if the burden of disease and mortality is more important in children aged >7 months, the country could consider using the 2 dose schedule in the primary series with a booster.
- Considering that there is currently no direct data available regarding interchangeability among the various PCVs, and only indirect evidence is available:
    - Vaccination schedules should be completed with the same type of vaccine;
    - If the same vaccine is not available, the series should preferably be completed with a vaccine that has the same carrier, or;
    - If it is not possible to complete the series with the same type of vaccine, any other type of PCV can be used;
    - The options are therefore: If one begins a series with PCV7, one can complete the primary series with the vaccine available (PCV10 or PCV13) and if the primary series was completed with PCV7, the child can receive a booster dose with PCV10 or PCV13.
- Countries, and other stakeholders, should continue to research: immunogenicity, vaccination series, effectiveness, safety, vaccine interchangeability, and replacement of serotypes.
- Countries should implement and/or strengthen the surveillance of pneumococcal caused diseases in sentinel hospitals, in accordance with PAHO/WHO recommendations, in order to know the epidemiological profile of the disease and acquire evidence for decision-making with respect to the use of the PCVs.
- Countries should study the impact of PCV on hospitalization and mortality trends caused by pneumococcal disease.
- Countries, and other stakeholders, should continue cost-effectiveness studies on PCV introduction.

- Countries where interchangeability between PCV7 and PCV10 occurs, should document their results.

2013 Recommendations

- PCV should be introduced in the routine vaccination schedule for children and high coverage should be maintained. PCV not only protects vaccinated children, but also protects other age groups as a result of herd immunity.
- Countries should establish high quality epidemiological surveillance of pneumonia and invasive bacterial diseases in adults and the elderly, at sentinel sites, to better understand the epidemiological profile of the disease in these age groups and to measure the herd effect of the conjugate vaccines used.
- The available evidence does not support the use of PPV23 in adults with risk factors due to the questionable effectiveness of the vaccine in preventing pneumococcal disease in this risk group.
- Countries currently using PPV23 in adult populations should consider conducting strategic research to contribute to the understanding around the value this vaccine.
- At this time, TAG does not recommend the use of conjugate pneumococcal vaccines for all adults. Introduction of PCV in adults should be grounded in evidence and decisions should not be based on the availability of donations or other factors. PAHO should be sustained beyond the current two-year grant period for which resources have been made available.

2014 Recommendations

- TAG endorses the recommendations of the working group, including:
    - The introduction of pneumococcal conjugate vaccines in children continues to be the priority for reduction of pneumococcal disease.
    - Introduction of PCV13 vaccination for healthy adults into immunization programs will depend on the results of studies of efficacy, cost-effectiveness, and herd effect.
    - Countries that have already introduced the 23-valent polysaccharide vaccine for use in adults could use the sequential schedule (conjugate-polysaccharide) for high-risk adults*.
    - Countries that do not use pneumococcus vaccine in high-risk adults* and consider vaccination of this population a priority could include PCV13 in their vaccination schedules, based on immunogenicity studies.
    - Implementation or strengthening of epidemiological surveillance of pneumonias and IPD in adults is a priority for countries.
    - Countries that have already introduced PCV vaccines for children should spell out mechanisms to measure the impact of vaccination on other age groups (herd effect).
- TAG encourages innovative surveillance and assessment approaches to better understand the preventable burden of pneumococcal disease in adults. Interaction with influenza surveillance networks should be further explored.
- Countries should seek to improve PCV vaccination coverage rates in children.

* Adults in high risk groups are adults ≥50 years of age, with the follow conditions: cerebrospinal fluid leak, cochlear implant, sickle cell disease/other hemoglobinopathy, congenital or acquired asplenia, immunocompromised persons, congenital or acquired immunodeficiency, human immunodeficiency virus infection, chronic renal failure, nephrotic syndrome, leukemia, lymphoma , Hodgkin's disease, generalized malignancy, iatrogenic immunosuppression, solid organ transplant, and multiple myeloma. This is a special recommendation for individual clinical decision-making.