

Immunization Status of Children under 5 Years Hospitalized in the Paediatric Ward of the Hôpital Roi Baudouin de Guediawaye

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To the Editors of Neonatal and Pediatric Medicine

In Senegal, as in other sub-Saharan African countries, diseases preventable by vaccination are among the leading causes of morbidity and mortality among children under 5 years of age [1]. Compliance with vaccine recommendations is essential to help reduce infant and child mortality [2]. The objective of our study is to evaluate the immunization coverage rates of children less than 5 years of age hospitalized in the pediatric ward of the Hôpital Roi Baudouin de Guédiawaye. This hospital center is located in the Dakar suburbs, namely 17 km from the city center with a population of 1 050 000 inhabitants. A retrospective study was conducted from the records of children hospitalized from January 1, 2013 to December 31, 2015. Immunization coverage data for children were assessed for each vaccine from the children immunization records.

During the study period, 1432 children aged 0-5 years were hospitalized. Most of children were male (51.4%). In our study, we have infants aged 0-11 months (44.83%), children aged 12-23 months (31.63%) and 24-60 months (23.54%). The coverage rate of vaccines were 93% for BCG; 80.4% for the 3 doses of Pentavalent + Polio; 78.6% for Pneumococcus; 79.7% for Rotavirus; 69.3% for the first dose of Measles and Rubella (RR1) + anti-Yellow Fever vaccine (VAA) and 65% for the second dose of Measles (RR2). As far as non-Expanded Programme on Immunization (EPI) vaccines are concerned, the Pentavalent booster coverage rate was 32.1% while those for anti-Meningococcal, anti-Pneumococcal and anti-Typhoid vaccine coverage were low at 18.6%, 14.9% and 24.5%, respectively. After 2 years of age, only 2.2% of hospitalized children had been vaccinated.

The immunization coverage rates observed in our study are lower for some vaccines compared to national rate [3]. These differences are less marked for older vaccines such as BCG, Pentavalent and RR + VAA. Coverage's of newly introduced vaccines such as Rotavirus and Pneumococcus are slightly lower than those of the previous vaccines with which they are administered at the same session.

These differences are due to the fact that vaccine introductions are spread over time as medical districts do not introduce vaccines on the official dates recommended by the Central level. The introduction of new vaccines does not affect significantly the immunization coverage of the children in general because it integrates a vaccine platform that already exists. [4]. There is a very low coverage for the second dose of measles and rubella. Some studies showed that parents prefer a single administration of a vaccine instead of repetitive doses [5]. It can be

predicted that communication efforts may be needed to make mothers return for the second dose as implied in other studies that highlight the role of communication as a factor in the success of good immunization coverage [6]. Coverage remains very low for non-EPI vaccines (pentavalent booster, anti-meningococcal, anti-typhoid). This can be easily explained by the cost of these vaccines which are not subsidized. This cost often influences with morbidity of disease [7].

Conclusion

The immunization coverage rate among hospitalized children is low compared to the national average. Achieving and maintaining good immunization coverage is essential for reducing the incidence of diseases or even eradicating them.

Conflicts of Interest

The authors do not declare any conflict of interest.

Contributions of the Authors

All authors participated in the drafting of this manuscript.

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