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**IMPACT OF 10-VALENT PNEUMOCOCCAL CONJUGATE VACCINE INTRODUCTION ON  
INVASIVE PNEUMOCOCCAL DISEASE (IPD) IN NEPALESE CHILDREN**

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**Background:**

We assessed the distribution of pneumococcal serotypes in children with microbiologically-confirmed invasive pneumococcal disease (IPD) before (2014-2015) and after (2016-2019) PCV10 introduction in Nepal in 2015.

**Methods:**

Children (aged 2 months to <14 years) admitted to Patan Hospital, Nepal with pneumococcus detected in blood, CSF or pleural fluid were included. Serotyping was by Quellung method.

**Results:**

Pre-vaccine, 6/22(27.3%) IPD cases were age <2years; post-vaccine, 5/36(13.9%) were <2years.

Ratio of vaccine-type to non-vaccine-type IPD among <2y olds was 5:1 pre-vaccine and 2:3 post-vaccine; among  $\geq 2$ y olds, the ratio was 13:1 pre-vaccine and 7:1 post-vaccine.

Most (32/41, 78%) vaccine-type IPD was serotype 1: 3/7 among <2 year olds (n=1 post-vaccine); 29/34 among  $\geq 2$  year olds (n=17/19 post-vaccine were >4 years old).

Among 44 IPD cases detected from blood, 36 (82%) were vaccine-type (n=29 were ST1), and 7 were non-vaccine-type (6C, 10A (n=2), 19A, 24F, 38, 41). Of 13 detected from CSF (1 culture, 3 PCR and 9 Binax-only), 5 were serotyped (1, 14, 6B, 6A/B, 7F). The 3 pleural fluid cases were serotypes 1 (n=2) and 19A.

**Conclusion:**

Post-PCV10 introduction, IPD among <2 year olds fell; although a high proportion of ST1 IPD remains, most were >4years old.

**Key words**

Invasive pneumococcal disease, pneumococcal conjugate vaccine, children, Nepal, vaccine impact