


**Response to Letter to the Editor Regarding: Head and Neck Complications after PCV7 Vaccination**

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No sponsorships or competing interests have been disclosed for this article.

Our group would like to thank Ruhl et al for their interest in our manuscript entitled “Pediatric Head and Neck Complications of *Streptococcus pneumoniae* before and after PCV7 Vaccination.” We conceptualized this work as a means to demonstrate the benefits of pediatric vaccination and the marked improvements in terms of public health outcomes.1

Some variables that could not have been discussed in the original manuscript were due to constraints by the database. These variables may include alterations in manufacturing formulations of certain antibiotics, such as Augmentin.2 At this time, this is one of the mainstays in treatment of sinusitis after initial therapeutic trials of amoxicillin have failed. We agree that changes in guidelines are beneficial, as our community continues to rely on evidence-based medicine to support clinical decision making.3-5 As already mentioned in our study as a weak point, the database places constraints on available information, and as a result, our group could not differentiate among therapies that were provided to patients. We ask that the authors please refer to this section in the discussion.

With regard to the asymmetric confidence intervals, our group was limited to searches from 1997 to 2009 in which to compare admissions. As a result, our group utilized a pooled variance and standard deviation from the pre- and postvaccination period for all pneumococcal complications to ensure a wider data set. This standard deviation was then applied to the confidence intervals and led to the aforementioned asymmetry. Furthermore, this may be due to an asymmetrical distribution inherent within the original data because, while the database attempts to ensure an even distribution of patients across each geographical region, it may not always be successful as we would hope. In terms of the age distribution, again, we mentioned that we included only patients between the ages of 1 to 4 years, owing to database limitations regardless of period.

We appreciate the authors’ interest in our manuscript, and our group feels that this conversation demonstrates the limitations of such databases, which are utilized for cross-sectional analyses. However, at this time, these data sources are the best means of evaluating national trends because of their inclusion of urban, rural, and tertiary hospital centers to obtain a generalized sampling estimate.

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**References**


