

Adult vaccination and the role of polysaccharide and conjugate vaccines

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Advancing age is associated with increased susceptibility to pneumococcal infection. The reasons for this are likely to be multifactorial but associated with immunosenescence. Vaccines to prevent pneumococcal infection have been licensed since the 1970's. Two vaccines are now available for use in adults. An unconjugated vaccine containing the purified polysaccharides derived from 23 different pneumococcal serotypes was licensed in 1983, is widely recommended for elderly adults, prevents invasive pneumococcal disease (IPD) but its impact on pneumonia continues to be debated. A 13 valent pneumococcal conjugate vaccine (PCV13) was recently licensed in adults following evidence that it is efficacious in the elderly and prevents a proportion of pneumonia. Discussion around the optimal use of these two vaccines has focussed on the utility of PCV13 in adults within communities where PCV13 is widely used in infants. In such communities the indirect effect of infant immunisation with PCV13 has shown dramatic reductions in serotype specific adult disease. An improved understanding of the residual burden of adult pneumococcal IPD and pneumonia with information about which serotypes are causing disease would go some way to simplifying the strategy required to optimise vaccine prevention of this important disease.