Appendix 1 Working Group and methodology

Adult Pneumococcal Vaccine Epidemiology and Recommendations Working Group members

Co-chairs

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Working Group methodology

Professor Charles Feldman (Pulmonologist), initiated this project, and invited Professor Sipho Dlamini (Infectious Diseases Clinician) to co-chair this initiative with him. The initial intention was for the two co-chairs to agree on prospective participants, based on their expertise and representation, and to invite the delegates to participate in the project. Initially a face-to-face national meeting with all the delegates who had agreed to participate was to be organised, to plan the process of development of the review and recommendations, and the proposed manuscript. An unrestricted educational grant from

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Pfizer Pharmaceuticals was secured through the Federation of Infectious Diseases Societies of Southern Africa (FIDSSA) for the development, publication, and advocacy of the document. The funders had no role in the development of the document and/or the recommendations, and all funds were distributed and/or reimbursed through FIDSSA.

Unfortunately, with the outbreak of the COVID-19 pandemic, and the associated lockdown restrictions, such a meeting could not take place. The co-chairs, therefore, assembled a Working Group and developed an outline of the proposed review and document. The Working Group consisted of individuals in various fields of medical practice in South Africa, who were from different areas of the country, and included clinicians from both the public and private sectors. The expertise of the participants differed widely, according to their training and specialty, encompassing different organ systems, disease conditions, and/or practice types. Each participant was allocated a different section of the recommendations, for which they were required to review current literature and write the specific section. The different sections and their references were incorporated into a single manuscript. The entire Working Group then reviewed the whole document several times, following additional comments and recommendations. The document was subsequently finalized and approved for publication by all authors.

Table S1 Major groupings of inborn errors of immunity and current recommendations for pneumococcal vaccination

Group	PCV13:PPV23 (2 months later)	PPV23:PPV13 (12 months later)	Explanatory comments
High increased risk of IPD			
Inborn errors of immunity			
Immunodeficiencies affecting cellular and humoral immunity SCID or CID	X	X	Inactivated vaccines no value
Severe antibody deficiency, e.g., agammaglobulinemia	X	Ö*	Work-up for diagnosis may require evaluation of response to polysaccharide only PPV23
Defects of innate immunity, including phagocytic cells	Ö	X	–
Moderate increased risk of IPD			
Inborn errors of immunity			
Mild to moderate antibody deficiency	X	Ö*	Work-up for diagnosis requires evaluation of response to polysaccharide only PPV23
Complement deficiency	Ö	X	Additional coverage recommended for terminal complement deficiency. Boosting every 5 years with PCV13
Autoinflammatory disorders, e.g., FMF	Ö	X	–
Disorders of immune dysregulation, e.g., HLH, ALPS, T-reg defects	Ö	X	–

*, no vaccine if on replacement immunoglobulins. PCV13, 13-valent pneumococcal conjugate vaccine; PPV23, 23-valent pneumococcal polysaccharide vaccine; IPD, invasive pneumococcal disease; SCID, severe combined immunodeficiency disease; CID, Combined Immunodeficiency disease; HSCT, haemopoietic stem cell transplant; FMF, familial Mediterranean fever; HLH, haemophagocytic lymphohistiocytosis; ALPS, autoimmune lymphoproliferative syndrome; Ö, recommended; X, not recommended; T-reg, regulatory T.

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