

‘On the shoulders of giants’ – The evolution of paediatric pulmonology in South Africa

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‘Children are not small adults’ is a common adage we were taught at medical school. This was recognised as far back as the first century, when the Roman medical encyclopaedist Celsus wrote, ‘In general, boys should not be treated in the same way as men.’

These differences in size and physiology have led to the development of paediatrics as a speciality. Likewise, so developed the different subspecialties of paediatrics, including pulmonology.

In 2016, paediatric pulmonology is a well-established subspeciality in South Africa (SA) with accredited units at most of the academic centres as well as a number of pulmonologists in the private sector, nationally. The SA Thoracic Society (SATS) has 25 registered

paediatric pulmonologists as members, compared with 87 adult pulmonologists. However, arriving where we are today has not been without hard work, dedication and the perseverance of some ‘giants’ of paediatric pulmonology.

The birth of paediatric pulmonology in SA most likely lies in the famed adult respiratory unit of Prof. Attie de Kock. Prof. de Kock was trained at the University of California, Los Angeles (UCLA) in San Francisco in the 1960s, where he worked with one of the doyens of adult pulmonology, Prof. Jay Nadel. When he returned to SA, Prof. de Kock started performing rigid bronchoscopies as well as medianoscopies. He also acquired a paediatric bronchoscopy set which led to paediatric

bronchoscopies being performed, mostly for suspected foreign bodies and tuberculosis gland obstruction of the airways. Prof. de Kock's unit was the incubator for two names synonymous with the development of paediatric pulmonology in SA: initially, the late Prof. Max Klein, and some years later, Prof. Robert Gie.

Paediatric pulmonology in its infancy was closely linked to adult pulmonology through the then named SA Respiratory Society. It was under the guidance of the credentials committee headed by Prof. J Joubert that paediatric pulmonology became a subspecialty recognised by the Health Professions Council of South Africa in 1993, and a 'grandfather' clause saw the registration of a number of paediatricians as pulmonologists, including Profs M Klein, R P Gie, P Jeena, A Argent, R Green and Drs D Richards, A van Niekerk and SA Thula. Prof. H J Zar and Dr S Ponde, who each trained overseas, were also subsequently registered as paediatric pulmonologists.

The growth of paediatric pulmonology saw the development of a curriculum by Profs Zar, Green, Gie and Jeena, and from around 2002 the paediatric pulmonology training programme was renewed with the establishment of training programmes in the Western Cape and Pretoria. In 2010, the College of Paediatricians revised the rules and regulations for the Certificate in Paediatric Pulmonology to standardise the examination, strengthen diversity and create a legal framework for examinations.

Prof. Refiloe Masekela was the first person in SA to achieve the Certificate Pulmonology Paeds, in October 2007. Since then, 31 trainees have successfully achieved this. The speciality has attracted a group of people both transformative and representative of SA diversity. Successful trainees are working in both academic and private sectors. There is much research being conducted in various aspects pertaining to childhood respiratory health, from pneumonia

and tuberculosis to pulmonary function tests in young children, resulting in the development of a number of clinician researchers.

Further growth has included the establishment of new training units at the universities of the Witwatersrand (Wits) and Limpopo. In the Department of Paediatrics at the University of Cape Town (UCT), a successful African paediatric pulmonology fellowship has been running since 2006, training paediatric pulmonologists for Africa in partnerships with African academic institutions.^[1] Through this, several African trainees have been trained in the past 5 years, including seven from Kenya, one from Uganda, two from Nigeria and one from Ghana; this has built considerable capacity in Africa for child lung health. At UCT a 1-year postgraduate Diploma in Paediatric Pulmonology has recently been established, enabling general paediatricians or specialists to acquire additional training and skills in this area. Of note, Dr Leah Githinji (Kenya), who trained at the University of KwaZulu-Natal and UCT, and Dr Edgar Kalimba (Rwanda), a Wits trainee, successfully achieved the certificate in paediatric pulmonology.

Paediatric pulmonology is also recognised as an integral part of respiratory health, with active participation in the SA Thoracic Society (SATS). Prof. Heather Zar was the first paediatric pulmonologist to serve as president of SATS, a testament to the importance of childhood respiratory health in the SA context. The first SA Paediatric Asthma Guideline was published in 1992. Since then, SATS has endorsed 11 guidelines with a paediatric interest (including asthma, community-acquired pneumonia, bronchiolitis, ventilator-associated pneumonia and influenza). Paediatric pulmonology has also been prominent in the Pan-African Thoracic Society (PATS), with Prof. Zar currently serving as the PATS president and Prof. Masikela as the current secretary.