

Brief History of Paediatric Nephrology Services in South Australia

The original renal consultative service for patients at the Adelaide Children's Hospital (ACH) was provided by Dr David Lines from 1974. He encouraged Dr Ken Jureidini to train in paediatric nephrology and in 1977 Ken established a paediatric nephrology department at ACH and was appointed its first (full time) paediatric nephrologist. In the late 1990s the ACH became the Women's and Children's Hospital (WCH) when it was amalgamated with the Queen Victoria Hospital, the chief academic obstetric and neonatal hospital in South Australia. The WCH remains the only 'stand alone' paediatric hospital in the state.

Ken used a multi-disciplinary clinical team model, one that included nurses, dieticians, social workers and psychologists. In addition, close links were formed with Urology, Imaging (especially Ultrasound specialists) and paediatric and neonatal intensive care services at the hospital. A limited clinic service to regional centres and metropolitan hospitals was provided, and phone and telemedicine consultation available throughout SA and the Northern Territory. These clinical service attributes and models have been maintained throughout the history of the Renal Unit at ACH/WCH.

Specialist clinics in paediatric nephrology, a consultative service and acute dialysis were initially provided, together with undergraduate and post-graduate teaching in conjunction with the University of Adelaide Medical Faculty. A small laboratory was also established. After a short period Adelaide's first paediatric chronic peritoneal dialysis program was initiated, followed by a chronic haemodialysis service from 1980. The paediatric renal transplant program was established with the support of Mr Geoffrey Burfield from the adult renal service at the Queen Elizabeth Hospital. The first transplant was performed (successfully) in 1980. This support remains and continues a key connection with the adult renal transplant service.

Ken established an active research program into models for screening children for the early detection of renal disease, later developing a special focus within remote aboriginal communities (including the joint project in Coober Pedy with the Flinders Medical Centre renal unit: "Umoona"). The dietary management of chronic kidney disease (CKD) in children, and assay development for non-invasive markers of renal disease and CKD were other areas of study.

In 1986, Paul Henning was appointed as the second nephrologist in the unit. In 1999, he took over from Ken as the Head of Unit (who remained as a renal physician within the unit until 2014). Nineteen ninety-five proved to be a challenging year in our history when 21 children dramatically impacted by an outbreak of haemolytic uraemic syndrome were treated at WCH, led by the renal unit. More happily, in 2004 the unit hosted the 13th Congress of the International Pediatric Nephrology Association in Adelaide (the first occasion in Australia).

As observed elsewhere, the 1990s and 2000s saw the prevalence of CKD in childhood and adolescence increase, and the use of end-stage treatments for this age group become routine. New aspects of patient care began to draw our attention:

- Therapeutic camping for children with chronic renal disease was established.
- The unit pursued the ethical arguments for giving children and young people priority in deceased donor graft allocation, then successfully lobbied the SA Renal Transplant Service to establish a protocol to this end, the first in Australia to do so.
- Our small dialysis unit was co-located with the newly established Medical Day Ward at the WCH, with real staffing benefits and greater stability to our service.
- Dialysis nurse training programs were established and paediatric apheresis services provided on-site at WCH by our dialysis staff (a new initiative).
- The challenging issue of transition of paediatric patients with CKD to adult services became a focus, resulting in a structured Transition Program led by Dr Rob Carroll (an adult nephrologist at the Royal Adelaide Hospital) who joined us to start an 'on site' transition clinic at WCH in 2009. A Young Adult Clinic (2013) was later established with on-going contributions from our nursing staff. Both initiatives have addressed a major clinical need with outstanding success and were amongst the first such services provided within Australia and New Zealand.

Many paediatric nephrology trainees have been supported and trained throughout the unit's history, including several overseas graduates.

The Renal Unit currently continues its work with 2 full-time equivalents of consultant medical staff, provided by 3 consultant paediatric nephrologists: Dr Sam Crafter, appointed in 2007 and now Head of Unit; Dr Selma Torronen appointed in 2014 and Dr Sally Kellett appointed in 2018. The unit incorporates specialist nursing and administrative staff in its team. The Unit premises (including the dialysis area and Medical Short Stay ward) have recently undergone major renovation and modernisation.

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