

## NOTES ON THE DEVELOPMENT OF RENAL SERVICES IN BRISTOL

by Campbell Mackenzie

It is, perhaps, appropriate that Bristol should have had, for many years, a high reputation in the field of renal diseases. Dr Richard Bright, the father of renal medicine, was born in the city and the Bright family house became the administrative block within Ham Green Hospital, not a stones throw from the first renal dialysis unit. In addition urology which as a specialty was so often involved in the early development of chronic renal failure programmes, both dialysis and transplant, had a strong presence in Bristol which was considered as one of the leading centres in the country. It was the first English teaching hospital to appoint a pure urologist, Wilfred Adams and he was joined later by Ashton Miller who introduced peritoneal dialysis for post-operative acute renal failure in the late 50s; the latter had trained under Terence Millin. . In fact the urologists, John Mitchell, Norman Slade and Michel Roberts all played a part in encouraging and supporting the introduction of dialysis in Bristol and helped practically with vascular access surgery using initially make shift temporary IV cannulae and then the Quinton-Scribner shunts. Later Tony Walsh, the Consultant Urologist from Dublin taught Norman Slade the technique of forming what was known as the Cimino-Brescia A-V fistula, a task that was taken over by Roger Feneley when the chronic renal failure programme was fully established.

However the first use of the artificial kidney in Bristol was the result of the foresight, initiative and drive of one remarkable man, Dr Jimmy McRae, a Consultant Physician in Infectious Diseases and Medical Superintendent who with Dr Ronnie Walley, a Consultant Chest Physician ran the intensive care respiratory unit at the Ham Green Fever Hospital . This unit had played an important role in the polo outbreaks in the 1940 and 50s and was one of the first to measure blood gases; both men were great inventors innovators and had a workshop

attached to the unit where they built several prototype respirators and even artificial kidneys and monitoring equipment. In recognition of the late Dr Mc Rae's outstanding achievements in all branches of medicine a road has been named after him in the village of Ham Green..

The first acute haemodialysis was performed at the Ham Green Unit in 1962 on a Scandinavian seaman whose ship had docked in Avonmouth. He was an alcoholic and had ingested ethylene glycol anti-freeze and gone into respiratory failure and was admitted to the respiratory unit. It soon became obvious that he also had acute renal failure and required dialysis. A far-seeing secretary at Southmead Hospital on the other side of the city had bought a Kolff twin coil kidney but it had never been used. Dr Mc Rae had it transferred to his unit and contacted RAF Halton where Wing Commander Jackson and his team were experienced in its use having returned from treating acute renal failure in battle casualties in Korea with the US Army Medical Corp. They flew into Ham Green by helicopter and passed on their expertise and following the successful treatment of this patient Ham Green became the referral centre for acute renal failure in the South West.

The first chronic renal dialysis patient began treatment in September 1966. Dr Stuart Parker who had been an SHO at the first acute dialysis was to play an increasingly important role in the development of the chronic programme. He had invented several pieces of equipment associated with dialysis before commercial equipment was available and later took over the formation of A-V fistulae

In fact both Dr McRae and he had used isolated intestinal loop dialysis on several patients but this was abandoned in favour of chronic haemodialysis.

The first patient went on home dialysis in 1967 and a year later Mr Humphrey White was appointed as a General and

Transplant surgeon having trained with Professor Roy Calne in Cambridge. He carried out the first transplant in Bristol in 1968 with very rudimentary cross matching from the UK Transplant Centre which was housed in the Regional Transfusion Centre in Southmead Hospital under the Directorship of Dr Geoffrey Tovey; the patient is still alive at the time of writing.

In 1969 Dr Campbell Mackenzie was appointed as a Consultant Nephrologist, ostensibly to oversee the rapid expansion of home dialysis. He had been trained by Stanley Shaldon's group including Rosemary Bailod and Raymond Crockett at the Lawn Street annex of the Royal Free Hospital while a Senior Registrar at Dr Spencer and Cattell's unit at St Bartholomew's Hospital. He founded the Bristol and Western Counties Kidney Fund which later helped to create the first Chair of Nephrology in the city

In June 1970 a new custom built dialysis unit opened in Southmead Hospital and the Ham Green Unit closed finally in 1977; at that time there were 70 patients dialysing in the home and a further 30 in the centre. At that time the Bristol Kidney Unit served a catchment area with a population of about 1.5 million. This sub-region was defined by the position of the other major units and lay between Exeter, Cardiff, Oxford, London and Portsmouth

A second Consultant Physician in Renal Disease, Dr Peter Harrison, was appointed in 1982. The CAPD programme began in 1985.