

was implemented. Into the steri-room or Room 14 if available, we went. We collected all the equipment and machine which often had a mind of its own when wheeling it out to set up. Supposedly it was a very simple machine but 'not user friendly'. Equipment consisted of a 'stick catheter', basic tray, dressing towels, local anesthetic, gown, gloves and mask, betadine, tape, peritoneal dialysis fluid, peritoneal dialysis lines with a 'Y' line and a heating coil and link sets. When we say peritoneal dialysate fluid we are talking 20 two litre bags.

Somehow we managed to line all the peritoneal dialysate bags up, pierce them, detangle the link sets and then you were ready for 'action'. If you happened to puncture the sides of the bags you had to start all over again. We were often reminded about wasting supplies and making a mess! You can imagine the sticky floor. It took two staff to actually 'hang the bags and link sets' in order. This process usually took 20 minutes.

Inserting the stick catheter was usually done by a consultant nephrologist with a registrar in attendance. No ultrasound technology in those days just good old fashioned 'touch and feel technique'. If the fluid return after insertion was clear, you knew you were successful however, if it was stained brown, (faecal fluid) you knew the patient was in trouble.

Taping of the peritoneal dialysis stick catheters was an 'art form' and only a selected few were chosen to perform this task. Once connection to the machine was completed, you held your breath, until the fluid all flowed in and out with no leaks. The heating bath was a peritoneal dialysis line coiled and inserted into a container of warm water. The temperature of this bath had to be maintained exactly at body temperature which was not always easy to achieve. The drain-out bags were emptied into drums which were measured 12 hourly and ongoing fluid calculations were completed and the orders for the next 12 hours were given. We tested the

initial drain out volumes into a cylinder which only had approximately a five litre capacity. You can imagine the floor when busy nurses forgot to empty it or re-attach the drain out bags to the drum. Often the trickling dialysate effluent could be seen, and squelched, down the hallway. Even though this form of treatment seems archaic, patients did very well and usually survived their acute episode of renal failure.

Ward 3 nurses were a great team and delivered five star quality care. The order of the day was, physiotherapy at 10am, rest period 11-12 am, sitting out of bed 9am - 11am, no visitors until 2.30pm and best of all hair washing and nails to be done on Sundays. These were some of the rules that patients adhered to sometimes reluctantly but invariably were very appreciative when they were discharged. Today's patients can only dream of receiving such care.

Great friendships remain from those days on Ward 3.

Continual ambulatory peritoneal dialysis in the 1980s

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Abstract

In the late 1970s and 1980s, the introduction of continual ambulatory peritoneal dialysis in Australia gave people suffering from kidney disease another treatment option. Although techniques appeared crude, nurses responded to the clinical challenges developing models of care to meet patient needs while maintaining multidisciplinary collegiality and teamwork.

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The 1980's were an exciting time to be working in continual ambulatory peritoneal dialysis (CAPD). The technique

of CAPD was described by Popovich and Moncrief (1976) and the United States Food and Drug Administration (FDA)

Key Words

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approved polyvinyl bags for use in 1978. The earliest patients in Australia that I am aware of started CAPD around 1979 when the polyvinyl bags replaced glass bottles for Travenol solutions in this country.

When I started working in the Renal Unit at Royal North Shore Hospital

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(RNSH) in 1984 the pioneering patients of CAPD included a number of long term end stage renal failure survivors. These were people who had started haemodialysis in the 1960's and 70's and had a history of multiple access procedures including external shunts and transplants. They had no vascular access left and CAPD was their lifeline. In some cases until they got a transplant, in others until new vascular surgery techniques emerged and they were able to have a synthetic graft. Other patients were young and chose CAPD because of the promise of independence and flexibility. In fact all patients were young by contemporary standards. In 1986 the average age of the patients on CAPD at RNSH was 59. I recall when 70 was "old" and caused comment and discussion about the wisdom of starting dialysis.

The first connection method was a simple spike, like an IV line complete with roller clamp. The patient did "wear a bag", because, after filling, the empty bag was folded up and tucked inside the clothing. To drain out the bag was unfolded and placed on a tray on the floor and the roller clamp opened. This technique had obvious limitations: the patient had to be able to see well enough and be dexterous enough to remove the spike from the used dialysate and insert it in the new dialysate bag without contamination. Inevitably the peritonitis rate was high and patients with any impairment were really hard to maintain safely.

Therefore a lot of the early nursing work was about teaching a safe technique and ensuring patients were able to continue doing that at home. We were fortunate at RNSH that regular home visits, including for country patients and after hours on call were an accepted part of

the service. Before the nurses' award changes of 1986, the CAPD nurses at RNSH were classified as Community Nurses and wore the uniform of a Community Liaison Nurse.

At least one third of the patients came from outside the metropolitan arc from the Hunter to the Illawarra and the hospital's catchment area wasn't strictly defined. Doing home visits could take the CAPD nurse anywhere in NSW. We always went home with the patient to be there for the first exchange and then aimed to visit every three months or every six months for the regional and rural patients.

The early CAPD transfer sets (lines) were supposed to be changed every month – which was stretched out to six weeks. For patients who lived outside Sydney we had trained community nurses to do line changes for these routine changes, plus in case of spike contamination and for the peritonitis protocol. These community nurses were also important local support for patients and their families. Later on when there were patients in regional areas who needed more support, we also asked the Sydney Dialysis Centre nurses to call in when visiting in the area.

A major focus by the companies was to develop safer systems to reduce the peritonitis rate and to make the treatment more accessible for people with impaired sight and dexterity. CAPD was favoured by some units for diabetics because it was thought by avoiding exposure to heparin the risk of retinal bleeds would be reduced. This increased the need to provide options for people with disabilities. CAPD Units in the 80's were places of innovation and a sense of creative opportunity. There

was always something to be working on and improving.

One could also see the emerging trend towards older and frailer patients and the changes in healthcare on the horizon. One survivor of dialysis and transplant who had started dialysis as a child in the 1960's had no vascular access by the 1980's and had acquired aluminium dementia. We had the challenge of finding nursing home placement for her at a time when nursing homes didn't expect to accommodate people in their 30's, let alone have their staff doing procedures like CAPD.

When I think back on those times two things stand out for me. Firstly I experienced how nursing responds to clinical challenges and can develop models of care to meet patient needs that hadn't even been imagined ten years before. Secondly, the value of collegiality and teamwork. This was my first opportunity to work as a registered nurse in a multidisciplinary team and within a complex organism like a teaching hospital Renal Unit. There can be few professional experiences more rewarding than working in a strong team environment. It is the foundation of quality care and positive patient outcomes.

Thank you to all who worked with me in CAPD in the 80's.

Reference

Popovich, R.P, Moncreif, J.W, Decherd, J.F et al. The definition of a novel portable -wearable equilibrium peritoneal technique. *Am Soc Artif Intern Organs* 1976 5:64