

AKPA Annual General Meeting July 2010

AGM Presentations

Medical care relies on science and technology – these talks illustrate the technology – new and revived.

The Technical Perspective

Haemodiafiltration –

Viv Phillips, Clinical Technologist



Viv Phillips

A new type of Dialysis machine is available using a combination of haemodialysis and haemofiltration. It promises some long term health improvements.

Viv described the techniques:

Haemodialysis – Blood is pumped through a semipermeable membrane, which removes waste products from the blood. This has been used to treat kidney failure for around 60 years. And, although haemodialysis machines have become much smaller and more efficient, the basic technique has not really changed.

Haemofiltration – Water and waste products are filtered from the blood over a period of time (around 12 hours) by a process known as **convection**. The patient's fluid and electrolytes are replaced from very expensive sterile bags. It is mainly used in intensive care as a temporary replacement until the kidneys recover.

The combination

Haemodiafiltration – The name for the combination process. The machines are much the same as a haemodialysis machine but with extra filtration. The extra filtration carries a greater number of toxin molecules across the dialyzer membrane by the **convection** process. In particular, it removes large size molecules that otherwise are not easily removed in traditional haemodialysis.

“golf balls and marbles”

Viv illustrated this by comparing the different sizes of toxin molecules to “golf balls” and “marbles”. The “marbles”, (creatinine and urea) are fairly easily removed but the “golf balls”, (micro-globulin), are more difficult.

If not removed, micro -globulin can cause a build up of amyloids (fibrous proteins) in areas such as the wrist, which in the long term can result in carpal tunnel syndrome and other complications. By removing more of the “golf balls”, haemodiafiltration has the potential to improve the long term health of patients.

“high purity water”

Very high purity water is essential for this technique. Addenbrooke's Dialysis Centre now has very high purity water, with the water quality regularly checked by other hospitals' laboratories. Additionally, the water is filtered at the machine and at entry to the patient's blood circuit.

Trials of Haemodiafiltration machines are now underway at the Dialysis Centre.

Home Haemodialysis: A Revival – Harold Saptou, Clinical Technologist



Harold Saptou

After a long decline in popularity, Home Haemo is now seeing a revival. Addenbrooke's Dialysis Centre currently has ten Home Haemodialysis patients and Harold Saptou is well known to all of them. Harold plans, installs and keeps their vital equipment running. Providing a 24/7 on call, technical support service covering Cambridge, Kings Lynn, Huntingdon and Bury St Edmunds areas.

Harold began his presentation by recalling being called out to unblock drains for a patient on Christmas Eve; not strictly part of his remit but all part of the service!

A new installation usually takes eighteen weeks from planning to completion and he showed the equipment, plumbing and cabin or room conversion necessary.

Modern haemodialysis machines are now very compact but it is vital to have very clean water. A reverse osmosis unit is used to achieve this and the plumbing for this equipment is the most important part of the installation. It is carried out by specialist contractors and usually costs in the region of £2,000.

“Government target is 70 home haemo patients by 2015, but there is no NHS funding for machines.”

The dialysis equipment along with patient's chair, blood pressure machine, scales, table and shelving make up the complete home dialysis installation and after four technical training sessions the patient and their partner are ready to start home dialysis.

Government guidelines have set a target for Addenbrooke's of 70 home haemodialysis patients by 2015; that will mean ten more home haemo patients by 2011. There are potentially sixteen eligible patients but there is no NHS funding for the dialysis machines, which cost around £22,000 each.

Donor Organ Mismatch – Desensitisation can provide the answer

Owen Lindsay, Plasmapheresis Nurse Specialist

Some patients on the transplant list have living donors, partners or other relatives willing to donate a kidney. But they discover, after tests, that their blood groups or tissue types are not compatible.

AKPA Annual General Meeting July 2010

AGM Presentations

Help is available; it's now possible for patients to be desensitised so that mismatched organs can be successfully transplanted.

For several years Addenbrooke's has been running a programme of desensitisation for potential transplant patients. Owen explained the background and current achievements.

If a non-compatible organ is transplanted it will be seen as foreign and will be attacked by the patient's antibodies and rejected. In the same way that a disease is attacked by the immune system.

In order to prevent this and make the organ acceptable, the patient can undergo desensitisation, a process to remove the antibodies. This prevents organ rejection from poorly matched blood groups and tissue types.

The antibodies are removed from the blood by a process known as "plasmapheresis". A machine, very similar to a dialysis machine pumps the patient's blood through filters to remove the antibodies. This dampens the patient's ability to fight (reject) the organ and although the antibodies can come back once the therapy is finished, immunosuppressive drugs keep them within acceptable levels.

Not only does the patient benefit from this by spending less time waiting for a deceased donor; it also reduces national transplant waiting lists and decreases waiting time for all patients.

A typical programme for a patient with a living donor begins with two weeks on immunosuppressive drugs as an outpatient. Followed by daily sessions of desensitisation (between 3.5 and 6 hours) until transplantation which is usually planned for the following week. Three more sessions are needed on alternate days following transplantation.

The downsides of desensitisation treatment include; longer sessions on dialysis and possible side effects including; hypocalcaemia (low calcium),

hypotension (low blood pressure), fluid gain, paraesthesia (tingling in lips and fingers) and fatigue

He ended by warning that desensitisation was not suitable for all patients. And it may not work with very highly sensitised patients.

Developments in the Renal Department

Clare Daniels, Senior Clinical Nurse



Clare Daniels

The Renal Department at Addenbrooke's continues to expand both in patient numbers and the range of treatments offered. Clare's presentation

reviewed recent developments.

She began by listing the range of clinics now available. As well as clinics for Nephrology, Dialysis and Transplant patients there are now clinics for Vasculitis and Renal Genetics.

She continued by describing the very large area covered by Addenbrooke's and the Satellite Units. This includes most of East Anglia and stretches into Bedfordshire and Lincolnshire.

Across the area patient numbers continue to increase and she gave figures for patients treated. Addenbrooke's Dialysis Centre currently has 40 CAPD, 127 haemo and 10 Home haemo patients. There can also be up to 235 unplanned dialysis patients in a month. Numbers of patients at the satellite units are also increasing with 84 at Kings Lynn, 54 at Bury St Edmunds and 55 at Hinchingsbrooke.

The Transplant unit is a very important part of the Department. She detailed the the ongoing programmes to increase organs available for transplantation. 30 kidney, and 8 Kidney and pancreas were performed in the last year.

She ended with a long list of new programmes being put in place to improve and expand services in the department. These include, expansion of Kings Lynn Satellite unit, expansion of home haemodialysis, the transplant desensitisation programme, aAPD, Global Adequacy haemodialysis scores, button hole needling and haemodiafiltration.

AKPA Chairman's Report – Tony Weaver (Vice Chairman)

Tony presented the chairman's report in the absence of Val Slade who was unwell.

He began by thanking the the committee for their tireless work throughout the year. Mentioning in particular, Brian Wood for his work as Treasurer and *Newsflash* editor, Michael Moore for the Street collections and collecting boxes, Jane and David Wyatt for regenerating the 200 Club and Val Slade for her work as Chairman and Christmas card sales organiser.

One of the main projects of the year has been funding the new televisions in the Dialysis Centre. And Tony was pleased to announce that after a great deal of work by the committee and Estate Management the installation was now complete. The new televisions were made possible by a legacy to AKPA. Tony had spoken to the benefactor's husband who was very pleased the money had been used for this purpose.

The economic situation has made a significant difference to the Association. Tony explained that the amount of welfare grants to sick and needy patients has increased, but we are finding it increasingly difficult to raise money. Any fund raising efforts by members and supporters would be most welcome. AKPA will help as much as we can, maintaining our enthusiasm and acting in the best interests of the patients and their families.

AKPA Annual General Meeting July 2010

AKPA AGM FINANCIAL REPORT 2010 – The Year to March 2010

Brian Wood (Treasurer)

Income:

Our income for 2009/10 was £67,540; significantly more than last year's total. This was mainly due to large legacies totalling £40,771. Sadly, it reflects the fact that we have lost more of our loyal supporters. But we are very grateful they chose to support our work with generous legacies.

We still need regular income, and for this we rely on the the hard work and generosity of our dedicated fundraisers. This income, totalling over £16,600 in the last year, came from raffles, 200 club, Christmas cards sales, craft stalls, bric-a-brac sales, collecting tins and donations and enabled us to provide support for patients and their families who are experiencing real hardship as a result of renal disease. Without this regular source of income it would be impossible to continue with these commitments. Thank you to everyone who raised money for us.

Expenditure:

Our total expenditure was £48,156; slightly less than last year.

The amount we spend on welfare and holiday grants to sick and needy patients increased by 78% on the previous year's figures. This reflects the increase in patient numbers and the difficult economic climate. Our total combined expenditure on these worthwhile services amounted to just under £27,000.

The amount spent on medical resources in this financial year was less than in recent years. We funded a trial version of the Renal Patient View software at £4,000 enabling Addenbrooke's dialysis units to communicate patients' results with other dialysis units throughout the UK.

Our proposed purchase of a new television system for the Dialysis Unit was delayed. But, the system at an estimated cost of £25,000, has now been installed and will be paid for in the current financial year.

We gave a grant of £1,099 for a trip to Warwick for dialysis patients treated at the West Suffolk satellite dialysis unit, and provided £750 for Christmas buffets for patients.

Future Developments:

We have plans and commitments for several important projects in the 2010/11 financial year. We are committed to spending around £27,000 on several pieces of medical equipment for the Renal Department, which are needed but have not been funded by the NHS. These include a dialysis machine for the Hinchingsbrooke satellite unit and a new drug station for the Dialysis Centre.

Administration Costs:

Our administration costs remain very low. At £4,515 it represents less than 10% of our total annual spending.

The Treasurer's job would be very difficult without the dedication and skills of our two paid, professional staff; Book keeper, Polly Connell and Secretary, Jenny Ridgeon. Thank you both.

Thanks to the continuing support of patients and their families, the charity is in a good financial position and we look forward to more achievements in the coming year.

Addenbrooke's Team Medal Winners at British Transplant Games, Bath, August 2010

Tim Adamson – 1 Gold Medal, 1 Silver Medal and 1 Bronze Medal

Margaret Alston – 1 Gold Medal and 3 Silver Medals

Inderjit Bhalla – 2 Gold Medals and 1 Silver Medal

James Goodall – 1 Silver Medal and 1 Bronze Medal

Colin Hammond – 1 Silver Medal

Terry Herbert – 2 Silver Medals

Ian Morgan – 3 Silver Medals

Ottillie Morgan – 3 Gold Medals and 1 Silver Medal

Kevin Pearson – 1 Silver Medal and 1 Bronze Medal

Tony Scott – 2 Gold Medals and 2 Silver Medals

Jason Smit – 3 Gold Medals and 1 Silver Medal

Sarah Smith – 3 Gold Medals and 1 Silver Medal

Malcolm Souza Lewis – 2 Silver Medals and 3 Bronze Medals

Glen Taylor – 1 Bronze Medal

John Tibbutt – 2 Gold Medals, 1 Silver Medal and 1 Bronze Medal

