Continuous ambulatory peritoneal dialysis

Introduction and Definitions

This form of dialysis became freely available in 1980. There has been a substantial increase in use of this technique, interest in the procedure and development of biomedical expertise in continuous ambulatory peritoneal dialysis (CAPD). Approximately half of the dialysis patients in Britain receive this form of treatment; worldwide the figure is between 15 and 20 per cent. Long-term results are as good as those for haemodialysis or transplantation. Because of CAPD many people are dialysed who previously would not have received treatment.

In health the kidneys continuously remove waste products and water. Haemodialysis is used for relatively short periods of time. CAPD is used every day to remove waste products and water slowly but continuously. The odd name was chosen to emphasize that the patient receiving this treatment is free to walk about, drive or work. This contrasts with haemodialysis where the patient is restricted by having to sit or lie down during treatment.

Some definitions are necessary:

Bacteria

This is the technical name for germs. Bacteria live normally on the skin. They do not cause disease unless the skin is broken, when they come into contact with living tissues.
CONTINUOUS AMBULATORY PERITONEAL DIALYSIS

Sterile

This is a common medical word which means the absence of bacteria. This is not the same use of the word which means inability to produce children. Sterile is not the same as clean. Clean hands, for example, will have bacteria living on them. To obtain sterile hands they must be washed for about 3 minutes and then sterile gloves (from a packet) are put on. This is the same procedure that a surgeon undertakes before starting an operation. Instruments are specially treated by heat or chemicals to sterilize them.

Antiseptic

An antiseptic is a chemical such as carbolic or iodine which can be used to destroy bacteria on the hands of an operator and the skin of a patient before any procedure is done. It reduces the number of germs present but does not remove them completely.

Aseptic

No bacteria are present under aseptic conditions. The operator wears sterile gloves, as described above, and uses sterile instruments. If the hands accidentally touch something unsterile the procedure becomes 'dirty' and the gloves must be changed.

Mask

This is a strong piece of paper about 8 x 5 inches which is placed across the nose and mouth before starting a sterile procedure. The mask is kept in place by tapes tied around the head or by elastic loops which hook over the ears. Bacteria from the nose or mouth cannot then fall onto a sterile area. In some units masks are not used during the bag changes of CAPD.