Urine collection system.

negative pressure through the collection vessel to its lower end (see fig). For trace element analysis, the tubes, bag, and collection vessel should be rinsed in 0.01N hydrochloric acid, followed by deionised water. Rubber bungs should be avoided as they contain both zinc and iron.

The collection bag is applied with spray on plastic adhesive (Dow Corning). For boys, the penis is drawn into a round hole in the side of the bag, which is then sealed over the scrotum and pubis. For girls, an oval opening is more successful; the seal should include the perineal body. The inlet tube should be secured plastic tape around the lower abdomen, and the free lower end of the bag should be wrapped with a strip of absorbent material, which is changed when the patient passes stool.

The most common complication encountered is urinary leakage, usually the result of the patient playing with the collection bag or tubes. A well fitting nappy and toys attached to the tubes may prevent this complication.

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Glucose polymer regimens and hyponatraemia

SIR,—In response to the recent report of hyponatraemia associated with the use of glucose polymer feeds in the management of metabolic decompensation,¹ we would like to report our practice in the management of such cases.

It is well documented that feeds used in metabolic decompensation should not have an osmolality greater than 500 mmol/l.² While a generous intake of energy is desirable, fluid and osmolality tolerance will restrict energy provision.

In mild to moderate metabolic stress we advise volumes of oral rehydration solution (Dioralyte, Rorer) and separate drinks of up to 15% strength (w/v) glucose polymer solution. The use of separate solutions eliminates the problems of hyperosmolar feeds and yet provides adequate fluid and a sufficient energy intake over the temporary period of metabolic decompensation. This is generally well tolerated and after 12 to 24 hours the appropriate feed regimen is reintroduced, initially at a reduced strength with regrading to full strength achieved usually by 24 hours.

The authors' reminder of the hazards of

hyperosmolar feeding during incidental illness in children with metabolic disease is timely. While glucose polymers have improved the treatment of metabolic disease, their inappropriate use can lead to further complications.

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Ozone in medical gases

SIR,—Ozone is a powerful oxidant and is recognised as causing lung fibrosis if over-exposure occurs in adults. We investigated the possibility that concentrations of ozone in medical gases could be such as to be a factor in the development of fibrotic change in lungs in the neonate. Ozone is constantly forming in the atmosphere, particularly in the stratosphere where energetic extraterrestrial photons interact with molecules in the air. Ozone decays continually, normally giving a ground level concentration of around one part per billion.

Cylinders of medical oxygen were analysed using a Dasibi Environmental Corporation model 1108 UV photometric analyser. The limit of detection of the instrument is one part per billion. Six D size oxygen cylinders were analysed, some filled the same day as the analysis, as well as cylinders filled on previous days. In all cylinders no ozone was detected, indicating concentrations of less than one part per billion. During the course of the analysis the ozone concentration of the ambient air in the laboratory was also monitored and readings in the range of 0-6 parts per billion were obtained.

Failure to detect ozone in any of the oxygen cylinders is reassuring, but is not unexpected due to the high reactivity of ozone.

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