to state "these results do show that both chloral hydrate and dichlorophenazone are unsuitable sedatives for patients on oral anticoagulants" is to draw a conclusion which is not very constructive and may be considered impractical.

Ideally, patients on anticoagulant therapy should not receive additional drugs suspected of giving rise to these interactions. The patient's condition, however, may be such that night sedation is necessary and not all respond to nitrazepam. In this article it is stated that nitrazepam is thought to be a safe sedative during anticoagulant therapy. Only a brief mention is made of barbiturates,

although these have been shown to be the most consistent of all the interacting drugs.¹

Chloral hydrate has been used as an hypnotic for 102 years and has been particularly useful in the very old and the very ill. Knowing that interactions occur and that they may be unpredictable, careful monitoring of the prothrombin time is essential. This will prevent mishaps without limiting the physician's choice of treatment.—I am, etc.,

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¹ Koch-Weser, J., and Sellers, E. M., *New England Journal of Medicine*, 1971, 285, 547.

Vacuum Termination of Pregnancy

SIR,—In the course of evaluating a method of outpatient termination of pregnancy using the Karman catheter, it has recently been found that a modified Malström vacuum extractor is as efficient as, if not better than, the electrically-operated pump in developing the required negative pressure of 28 mm Hg.

Gestation	Electric Pump	Hand Pump	
	(45 patients)	(36 patients)	
7-7 ⁺	132.5 ± 46.62	66.57 ± 20.4	P<0.001
8-8 ⁺	137.77 ± 40.5	81.57 ± 24.89	P<0.01
9-9 ⁺	161.2 ± 68.36	93.38 ± 49.16	P<0.02
10-10 ⁺	183.88 ± 80.06	126.88 ± 48.02	P<0.10

Mean Suction Time (secs) ± S.D.

As shown in the Table comparing two consecutive groups of patients (45 electric pump used, and 36 hand pump used) the mean suction time is significantly reduced in the latter group in pregnancies of less than 10 weeks gestation. Beyond this gestation the limiting factor is the diameter of the catheter when one larger than 6 mm is required. Furthermore, the tissues tend to remain more intact than those obtained using electrical suction. Identification of em-

byronic parts and thus confirmation of complete clearance are, therefore, facilitated.

The insertion of a two-way stop-cock in the afferent tube to the jar enables the pressure achieved by manual pumping to be maintained throughout the whole procedure. A second stop-cock in the efferent tube from the jar prevents overflow into the pump (Fig.).

A bicycle pump with reverse valve is a simple, cheap, and efficient alternative to the hand pump of the conventional extractor. Its ready local availability and low cost make it suitable for use in such countries where population control measures are practised. A foot pump has also been tested and though more cumbersome and expensive achieves the required pressure with even less effort.

The apparatus described, not being dependent upon electricity, has particular application to lesser developed countries.

Further details of the bicycle pump system may be obtained from: D. Casey, 141 Newmarket Road, Cambridge.

—I am, etc.,

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Infection from Arteriovenous Shunts

SIR,—Dr. A. J. Ralston and others (14 August, p. 408) emphasize that local infection is much less with the Brescia fistula compared with the Scribner shunt. However, higher incidence of septicaemia is also mentioned.

The latter point was dramatically illustrated by a patient on home haemodialysis who was admitted to Abington Hospital comatose. Spinal fluid revealed pleocytosis, and blood cultures grew on three separate specimens *Staphylococcus aureus* and beta *Haemolytic streptococci*. The patient had meningococcal sepsis with septicaemia. Antimicrobial therapy improved his clinical condition within 48 hours.

His Brescia fistula functioned well, but the forearm showed hypertrophy, dryness, scaliness, and pruritic excoriations. No source for the septicaemia was found except from his fistula forearm skin. Treatment of the forearm skin with a corticosteroid cream greatly lessened the pruritus, and scaliness.

Since uraemic pruritus, dermatitis, and cutaneous calcification are not uncommon in the haemodialysis patient, special care of the skin over the Brescia fistula is needed. Repeated use of cleansing preparations such as alcohol or povidone-iodine (Betadine) before needle insertions may also cause skin irritation and intensify local pruritus.

In view of the seriousness of septicaemia in the uraemic patient, scrupulous skin care over the Brescia fistula is needed. The occasional use of a corticosteroid cream or lanolinized ointment may be helpful in this regard.—I am, etc.,

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Removal of Abnormal Protein

SIR,—Dr. R. Powles and others (18 September, p. 664) indicate the undoubted value to some patients with paraproteinaemia of plasma exchange by means of a continuous flow blood cell separator. The procedure produces good clinical results associated with significant lowering of abnormal protein levels while the use of freeze dried plasma maintains normal or near normal immunoglobulin and clotting factor levels.

However, patients with paraproteinaemia often require repeated runs on the blood cell separator, and once the striking benefits of plasma exchange carried out in this way are fully realized the extremely limited facilities available in Britain will be overwhelmed.

The blood cell separator is an expensive machine and has usually been purchased in connexion with leukaemia research projects when its main uses are the provision of granulocytes (and perhaps platelets where these cannot be obtained elsewhere) from HL-A matched healthy donors for treating patients with marrow aplasia and the provision of blast cells from acute leukaemic patients for active immunotherapy and supporting investigations. I am aware of the existence of only three cell separators in Britain, and over any reasonable period of time a maximum of about five patients a week can be accommodated by a single team. It is thus important to assess the likely numbers of patients who could reasonably be treated by the method outlined by Dr. Powles and colleagues so that additional machines can be provided.