DISCUSSION

JACOBS (Paris): Have you not observed any complications due to the infusion of iron? In the literature, there have been reported some cases of shock even after intramuscular administration of this complex. What are the suitable precautions to be taken before its administration?

WRIGHT (Liverpool): In fact we were very fortunate. We were very well aware of this possible risk, but we felt in the circumstances that it was a reasonably justified programme. We have observed patients develop early or late complications from parenteral iron; unfortunately we have no data to suggest that oral iron will be as effective. I do not know the answer, but I think, from the point of view of a prophylactic programme, there might be something to be said for giving your parenteral iron over a rather longer period; this might reduce the risks.

FERIOLI (Parma): J’aimerais demander au Dr. Will s’il a observé une différence dans le taux d’absorption du fer en fonction de la durée du traitement par la dialyse périodique.

Ma deuxième question est au Dr. Wright: pense-t-il que l’on doit toujours éviter les transfusions sanguines ou existe-t-il certains malades chez lesquels il est nécessaire de pratiquer des transfusions au moins 1 fois par mois?

WILL (Glasgow): I do not know.

WRIGHT (Liverpool): As to the second half of the question, my co-author, I think, is anxious to answer that.

GOLDSMITH (Liverpool): We have one patient who has required some blood. In the last year, I think, she has had two units only. We do not know why; she is having folic acid, she is having iron, she has no evidence of infection; biochemically she is extremely well dialysed, but her haemoglobin drops down to a p.c.v. of less than 16 per cent every now and then. She is the only case who has required what might be called ‘routine’ blood, but even then only in very small doses.

HAWKINS (Birmingham): We are accumulating a good deal of evidence that there is a specific deficiency in oral iron absorption in these patients on repeated dialysis treatment. Have any of the speakers any evidence to back this up?

PLATTS (Sheffield): I cannot answer this question precisely, but we have divided our patient on twice-weekly dialysis into two groups: one half has been having oral iron, the other has been having weekly intravenous iron. We have noticed no change in the haemoglobin level of the patients on oral iron, whereas the haemoglobin levels of the patients with intravenous iron have all risen by 1.5 g/100 ml within a period of about six weeks.

KERR (Newcastle): I would like to ask Dr. Will if he has any explanation for the strange discrepancy between residual blood volume in coils measured with chromium, and the many results, including his own, done by haemoglobin levels which show a much lower residual blood volume.

WILL (Glasgow): My own feeling is that the estimation of blood loss using the radioactive technique is much more accurate than using haemoglobinometry; the results that we obtained using radioactive chromium fit in very well with the increased rate of iron turnover.
**DISCUSSION**

**KAYE (Montreal):** My collaborators in Montreal have some data which bear on the discussion. Dr. Comty did a certain amount of work on iron-absorption, and we do have a few patients who are clearly iron-deficient; their $\text{Fe}^{59}$ absorptions from an oral dose were high as compared with uraemic non-iron-deficient controls.

Secondly, Dr. Michael Whitehead, in our Department of Haematology, has done an extensive study on folic acid and vitamin $\text{B}_{12}$. Briefly, the findings were that folic acid was dialysable, that the values were normal pre-dialysis, that they fell during dialysis to low values post-dialysis, and then came up again to normal values pre-dialysis, so that there was a complete zigzag type of graph. Nobody had megaloblastic marrows. About 20 of our patients were studied. Therefore we believe that folic acid deficiency does not occur provided the diet is adequate in folate.

**DE PALMA (Los Angeles):** We contacted the people in Seattle who are doing $\text{Fe}^{59}$ absorption studies on uraemic patients—Dr. Finch of Dr. Scribner's group and Dr. Joseph Eschbach. Their studies indicate that radio-isotopic iron absorption is indeed very poor for most uraemics, and they give i.v. iron, 250 mg weekly or biweekly for four doses to bring up the haematocrit.