We have also been interested in this problem and have measured serum L.D.H. levels in the postoperative period for 10 consecutive days in 29 patients. As the electrophoretic, chromatographic, and immunologic methods of separation of L.D.H. iso-enzymes are generally too cumbersome for the average hospital laboratory, we have used a simpler procedure. The L.D.H. level of the serum was assayed, the serum placed in a water bath at 60° C. for 30 minutes and the L.D.H. level assayed again. The second assay value was called the “heat stable” L.D.H. and closely correlates with L.D.H.,1 a the iso-enzymes which are raised in myocardial infarction.

It was found that there was no significant difference (P>0.05) from preoperative serum levels of L.D.H. or “heat stable” L.D.H. in patients who underwent surgical operation without concomitant blood transfusion. However, in patients who had transfusion of blood in the perioperative period there was a significant (P<0.05) elevation of total L.D.H. on the second and tenth postoperative days, and of “heat stable” L.D.H. on the second, third, and tenth postoperative days. We also found that L.D.H. levels from blood haemolysed at the time of sampling were abnormally high, and in one patient who had an intravascular post-transfusion haemolytic reaction both total L.D.H. and “heat stable” L.D.H. levels rose markedly. Serum L.D.H. is raised in cases of haemolytic anaemia.3

It is suggested, therefore, that the measurement of serum L.D.H. and “heat stable” L.D.H. in the postoperative period is of use in the diagnosis of myocardial damage provided that the patient has not received a blood transfusion and erythrocyte haemolysis has been avoided. The relation between L.D.H. levels and type of surgery described by Dr. Hunter and others may thus be incorrect, as blood transfusion in the perioperative period was not considered, and the administration of blood during abdominal and pelvic surgery is not uncommon.—We are, etc.,

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Paroxysmal Nocturnal Haemoglobinuria and Leukaemia

Sir,—Your leading article (30 August, p. 483) draws attention again to paroxysmal nocturnal haemoglobinuria (P.N.H.) and connections with leukaemia and the myeloproliferative disorders. While studying the lysis of P.N.H. cells in solutions of low ionic strength1 Dr. F. Stratton and I also tested cells from patients with some of these diseases with a screening test for P.N.H. as you suggest. One out of three patients with acute myeloid leukaemia was clearly positive. Of greater interest was the fact that three out of three cases of myelosclerosis gave a more strongly positive result. In an attempt to elucidate this I measured the levels of red cell acetylcholinesterase (AChE) in these and other blood disorders. This enzyme is known to be low in P.N.H.4 The expected