as the lower limit of normal, was less than 5%. The type of anaemia was mostly microcytic and followed the usual distribution seen in hospital practice. The mean levels of serum vitamin B₁₂ were lowest in the Asian males and females, 40% and 32% respectively being below 150 pg/ml, and the Welsh means were lower than the English. In no subject was a low level associated with macrocytic anaemia. Serum folate levels showed differences between groups, the Welsh of both sexes having significantly higher means and the Asians the lowest. The red cell folates were also significantly lowest in the Asian females, 27% having a level below 150 ng/ml and 54% below 200 ng/ml. There was no correlation between either the serum or red cell folate with mean red cell volume.

It was concluded that while there was evidence of impaired nutrition in the Asian population of Coventry, the low incidence of anaemia in the survey indicated that haematological population screening of the elderly, apart from epidemiological studies, was of doubtful economic value.

Experience with Further Mechanization of Walthers’ T₂ Sephadex Uptake Ratio Method

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This method of assessing thyroid function by uptake of ¹³¹I T₂ added to serum on Sephadex G25 is now used for weekly batches of 30 tests. It has been simplified to six steps by omitting preswelling of beads and the third washing. The turntable of an automatic counter holds polystyrene tubes for all steps of the test and automatic dilution and printout of count rates are employed. None of these changes has affected the results.

Duplicate tests on different days give a correlation of 0.93 with mean difference of 0.008 or of 0.15 allowing for significance. The 95% percentile range is now 0.75 to 1.25 with log-normal distribution. Two hundred and sixty-nine clinical tests in two months compared with PBI, clinical impression, and serum cholesterol gave a firm diagnosis in 203 and 33 were modified by treatment. In the remaining 33 equivocal cases the SUR was more helpful in 17 and the PBI in 15. Each test had an individual error rate of 8%. When combined in a free thyroxine index this was reduced to 5% and to only 2% in dysthyroidism. False positive results are thus fairly common. On these numbers the test saves about £500 pa and one technician-day per month when compared with reagent kits.

The Implications of SI Units in Haematology

N. K. SHINTON (Coventry and Warwickshire Hospital, Coventry)

The introduction of SI units to haematology will involve changes of symbols, change in expressing numerical value which retains previous proportion, and change of unit resulting in change of numerical value. Haemoglobin may either be reported as mass concentration (g/l) or molar concentration (mmol/l). The former is being recommended by the British Society for Haematology (BSH) as this change in numerical order only is less likely to cause confusion due to unfamiliarity which could lead to lethal misunderstanding. The BSH for similar reasons also recommend that albumin and fibrinogen be reported as mass concentration (g/l). Red cell, white cell, and platelet counts should be reported as the number per litre of whole blood and the packed cell volume (PCV) as volume per litre (l/l). The mean red cell volume (MCV) would be in fl, the mean corpuscular haemoglobin (MCH) in pg, and the mean corpuscular haemoglobin concentration (MCHC) in g/l. Serum iron, siderophyllin, vitamin B₁₂, folate and red cell folate would be in moles per litre using the appropriate prefix. Measurements in coagulation would remain unchanged. These proposals are subject to agreement with the International Committee for Standardization in Haematology which is meeting in September 1972.

The Implications of SI Units in Chemical Pathology

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SI units are a coherent system founded on the metric concept, but using only seven base units from which all other units are derived through a simple mathematical relationship. SI units have been promoted by the General Congress of Weights and Measures (CGPM) to which most national governments subscribe.

Three base units (metre, second, and kelvin) have absolute values assigned by measurements of specified properties of matter. The remaining four (kilograms, ampere, mole and candela) have values directly or indirectly derived from the mass of the unique standard kilogramme. The mole (amount of substance) is the base unit for chemistry: if a decision were taken to specify the exact number of particles in the mole it would no longer, in theory, be necessary to preserve the unique standard kilogramme and hence all the SI units could have absolute values.

Clinical chemistry is now a mature discipline closely linked to analytical and physical chemistry and to molecular biology, as well as to medicine. Collaboration between the International Federation of Clinical Chemistry and the International Unions of Pure and Applied Chemistry and Physics has resulted in agreement with the International Standards Organization (which advises the CGPM) on the application of SI units in the relevant fields. Medical physicists, specialists in clinical measurement, and anaesthetists have generally shown awareness of the need to conform. A multidisciplinary working party is at present trying to reach an agreement on how and when SI units should be introduced in British hospitals.

Meantime, hospitals in several European countries, and many international journals, have already made the change, and SI has been adopted by most British schools and universities.

Cellular Response in Skin Windows in Hodgkin’s Disease and Allied Disorders

G. HUDSON AND E. K. BLACKBURN (University of Sheffield) AND M. L. GHOSH (St Helen’s Hospital, Barnsley)

The cellular response in malignant lymphoma has been investigated by a modification of the method of Rebeck and Crowley (Am. N.Y. Acad. Sci., 89, 1955). After removal of the surface epithelium over a small area of the forearm, a sterile coverslip was left in place for 24 or 48 hours and then removed and stained. Forty-five cases have so far been studied in detail. The general pattern was similar in all cases, with over 90% of the cells being macrophages; neutrophils, eosinophils, basophils, and lymphocytes were present in smaller numbers.

In malignant lymphoma the macrophages appeared to show less phagocytic activity than normal and significantly fewer contained pigment particles. The percentage of macrophages containing cell fragments and vacuoles was also significantly less in sarcoma. Counts from