Letters to the Editor

RED CELL SUSPENSION AS A WORKING STANDARD

In response to a number of requests, we would like to make available details of the preparation of a red cell suspension which we have found satisfactory as a working standard. This preserved red cell suspension can be used for manual methods as well as for electronic counters and multichannel equipment such as the SMA-4/7a.

The suspension is prepared as follows:

One litre of Alsever's solution is modified by the

40 to 45%. The suspension is dispensed into 25 ml aliquots and stored at 4°C. It has been found important to resuspend the red cells by inversion daily, to ensure constant contact of the cells with the medium.

Aliquots of this preparation have been examined at weekly intervals by estimating the parameters which it is designed to control, *ie*, haemoglobin, red cell count, and packed cell volume, and the results are given in Table I. Mechanical fragility has also been studied and shows no significant alteration during the four-week period.

In our department, daily standardization of the SMA 7a requires 2 ml of the suspension, and a similar amount is passed through after every 20 blood samples in order to detect instrumental drift. Thus with a daily turnover of about 200 specimens, 20 to 25 ml of the red cell suspension is required for each working day.

TABLE I

STABILITY DURING STORAGE AT 4°C

Week	Haemoglobin (g/100 ml)	Red Cell Count (10 ⁶ /cmm)	Haematocrit (%)	MCV (cμ)	MCHC (%)
1	13.1 ± 0.21	4.34 ± 0.23	40.0 ± 0.00	90.0 ± 3.4	32.6 ± 1.3
2	13.0 ± 0.24	4.43 ± 0.54	40.0 ± 0.00	90.0 ± 1.6	32.4 ± 1.1
3	13.1 ± 0.12	4.46 ± 0.26	40.0 ± 0.00	90.0 ± 1.9	32.8 ± 1.2
4	13.1 ± 0.28	4.48 ± 0.27	40.0 ± 0.00	89.0 ± 1.8	32.6 ± 1.3

¹Mean of 25 replicate observations ± 2 SD

addition of 3.6 g of inosine and 240 mg of adenine. From this solution 200 ml is transferred to a standard 550 ml blood bottle and autoclaved. In order to maintain sterility an aseptic technique is employed at all subsequent stages. Next 340 ml of blood from a healthy donor is collected into this anticoagulant. The blood is then centrifuged at 1,200g for 20 minutes and approximately half the supernatant is removed to give a packed cell volume of

This standard has the advantage of being easily prepared, and of maintaining viable red cells apparently unaltered for a period of at least four weeks. This limited storage life does not present a problem in our hands, since each batch prepared as described is sufficient for about three weeks of routine use.

J. M. CARVILLE
D. LEE

FALSE POSITIVE CURRY'S TEST

We wish to draw attention to a cause for a false positive Curry's test for barbiturates in gastric contents which appears not to have been previously reported.

Recently we suspected barbiturates to be present in gastric contents because of a strongly positive colour reaction with Curry's test (ACP Broadsheet no. 52, 1966).

Subsequent investigation showed that Slow K (Ciba) contains a substance which reacts with the reagents in Curry's test to give an orange colour. This substance is extracted in the A₂ fraction of Clarke (1969) so that this preliminary procedure used to separate barbiturates from the other acid and neutral drugs is of no help in removing the contaminant. This interfering substance is not potassium chloride and is detectable at a concentration of 1 tablet in 10 ml water but not at half this concentration.

The substance does not give a colour reaction with cobalt acetate-lithium hydroxide nor does it interfere with barbiturate ultraviolet spectrographic absorption

bands (Clarke, 1969).

A. W. MATTHEWS and P. G. I. STOVIN

REFERENCE

Clarke, E. G. C. (1969). *Isolation and Identification of Drugs*, pp. 8 and 908. Pharmaceutical Press, London.

DR A. S. CURRY replies:

Curry's test to which the writers refer is for barbiturates in blood and not in gastric contents. This fact is implied in the title of the original paper and specifically pointed out on page 30 of Curry's 'Poison detection in human organs', 2nd edition, 1969 (Charles C. Thomas, Publisher), ED.

MONOVALENT TYPHOID VACCINE

We felt that it might be timely to remind readers of the Journal that a monovalent typhoid vaccine is being marketed and used in this country (Burroughs Wellcome & Co.), and that its use may give rise to confusion in interpreting the results of a single Widal reaction. Most pathologists are accustomed to interpreting a serological