Correspondence

Inexpensive and reliable haemoglobin colour scale

The development of "An inexpensive and reliable new haemoglobin colour scale for assessing anaemia"¹ is of historic interest to elderly clinical pathologists, who, more than half a century ago, were familiar with the Tallqvist scale (now rejected even by advocates of simple medical technology for developing parts of the world).² But the work of Dr Lewis and his colleagues is of real importance for the future, as they have refined and tested the simple idea of a direct colour match in such a way as to make it a potentially much more reliable test for anaemia than the Tallqvist method.

There are, however, a few points which must be considered before universal adoption of the projected WHO test. First, there is no doubt that the new technique is much cheaper than other methods of haemoglobinometry, but one notes from the current paper that validation was carried out using *venous* blood. This must imply that, unless the venous sample is to be used for tests additional to the exclusion of anaemia, the not inconsiderable price of a safe venepuncture must be added to the total cost of a test. Furthermore, there is no mention of how much blood is to be applied; the permissible range should be stated. This point also has implications if, for example in paediatric work, capillary blood is to be used, for I remember that sources of error in the Tallqvist method were obtaining too little blood from capillary sampling and dilution with tissue fluid when the part was wrongly squeezed (particularly in malnourished babies). Rapid sedimentation of the blood and the degree of dampness/dryness of the paper may also have to be considered. Also how is the blood to be applied to the paper (rod or tube)?

Finally, Dr Lewis and his associates have gone a long way to making simple colour comparison a useful test for anaemia, but the potential, even with tiny amounts of blood, for transmission of HIV and viral hepatitis should also be borne in mind, especially if lay people are to be involved.

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- 1 Lewis SM, Stott GJ, Wynn KJ. An inexpensive and reliable new haemoglobin colour scale for assessing anaemia. *J Clin Pathol* 1998;51:21-4.
- 2 Cheesbrough M, McArthur J. *A laboratory manual for rural tropical hospitals*. Edinburgh: Churchill Livingstone, 1976:56.

Dr Lewis and colleagues comment

We appreciate Dr Goodall's favourable comments on the WHO haemoglobin colour scale. He draws attention to important implications of the use of the scale in practice. After the laboratory based evaluation reported in the Journal, a field study was carried out, with tests on 6380 subjects in primary health clinics and blood transfusion services. In about half of these cases the tests (and the concomitant reference haemoglobin measurements) were performed on capillary blood; the clinical reliability of the scale was confirmed on both the capillary and the venous blood samples, but we are aware of the importance of instructing the users on the

correct technique for capillary blood collection to avoid the errors described by Dr Goodall. With venous collection a drop of the blood can be applied to the test strip directly from the syringe or needle or from the specimen bottle by a capillary tube or rod; with capillary sampling the drop of blood from a skin puncture can be adsorbed onto the test strip by direct contact. Approximately 30 µl of blood are required to obtain a spread diameter of around 10 mm on the test strip; to avoid an uneven spread it is important not to use more than this amount, which is easily obtained with a simple lancet, as penetration of the skin to a depth of 2-2.5 mm will generally produce 50-60 µl of blood.^{1,2}

It is necessary to ensure that the test strips are dry when the blood is applied. However, we have found that even when the strips have been soaked in water they can be dried before use (for example, by leaving them in a 37°C incubator) without affecting spreading of the blood or their other properties. Workers in tropical countries will be familiar with the effects of a damp hot climate on all equipment and reagents; we advise users in these countries to keep the strips in airtight containers and to avoid exposing them unnecessarily to the atmosphere.

Finally, we are aware of the potential hazards of handling blood specimens, and users of the scale are urged to take care, as with any other clinical procedure, to operate in accordance with the established protocol of universal precautions

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- 1 National Committee for Clinical Laboratory Standards. *Procedures for the collection of diagnostic blood specimens by skin puncture*, 3rd ed. London: NCCLS (Document H4-A3) 1991;11:1-20.
- 2 Garvey K, Batki AD, Holder RL, Thorpe G. *Thirteen lancing devices. Part 1. Laboratory study*. London: Department of Health, Medical Devices Agency (evaluation report MDA/97/22), 1997.

Notices

Non-gynaecological and fine needle aspiration cytology course

Oxford Cytology Training School,
John Radcliffe Hospital

1-5 June 1998

A one week course suitable for trainee and career medical staff and clinical scientists. Recognised for CME. Some accommodation available. Course fee £300. FNA cytology component (4-5 June) may be attended separately, £125.

Course organiser Dr I D Buley, Consultant Pathologist, John Radcliffe Hospital, Oxford OX3 9DU. Further details from Ms Patsy King, tel 01865 220510.

Royal College of Pathologists Histopathology Update

University of Liverpool, UK

18-19 June, 1998

A two day intensive update on current aspects of histopathology and cytopathology designed for candidates preparing for the MRCPPath examination as well as for qualified histopathologists wanting to update their knowledge. Fee £75 inclusive of overnight accommodation and full board.

Full course details from: Professor C S Foster, Department of Cellular and Molecular Pathology, University of Liverpool, Duncan Building, Daulby Street, Liverpool L69 3GA, UK; tel 0151 706 4480; fax 0151 706 5883; email: christopher.foster@liv.ac.uk

Third National Conference of the British Society for the Study of Vulval Disease

13-15 September 1998, Oxford, UK

The programme includes lectures, workshops, and poster sessions on topics including vulval cancer and VIN, paediatric vulval disease, Viral diseases of the vulva, and inflammatory vulval disease. Speakers will include Dr M Anderson, Dr L Brown, and Dr M K Heatley.

Registration £150 (members), £200 (non-members), £100 (trainees).

Further information from Dr Fenella Wojnarowska, Secretary BSSVD, Department of Dermatology, Churchill Hospital, Old Road, Headington, Oxford OX3 7LJ, UK; tel 01865 228236; fax 01865 228233.

XXII International Congress of the International Academy of Pathology and 13th World Congress of Academic and Environmental Pathology

18-23 October 1998, Nice, France

The scientific programme will feature an opening lecture on "Lymphotropic herpes viruses" and two long courses on immunocytochemistry and inflammatory diseases of the gastrointestinal tract. There will also be a daily guest lecture, short courses, seminars, symposia, free papers, and companion meetings.

For further information contact: Convergences/IAP98, 120 ave Gambetta, 75020 Paris, France; tel (+33) 1 43 64 77 77; fax (+33) 1 40 31 01 65; email: converge@iway.fr; internet: http://www.convergences.fr