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Letters to the Editor

Investigation into paediatric bilirubin analyses in Australia and New Zealand

I read with interest the paper by Watkinson, *et al* in your issue of January 1982.[1] This paper provides valuable information regarding standardisation of total bilirubin assays, however I cannot totally agree with comments by the authors on estimation of conjugated bilirubin. The authors maintain that conjugated bilirubin cannot be reported accurately and advocate ranking results as (μmol/l):

<25
25–50
50–100
100–150
150–200

stating "This approach should be adequate for patient care and not lead to over-interpretation of results."

The authors themselves show with three histograms in Fig. 2, that this is in fact not so. These histograms show clearly that it is not possible for laboratories to perform conjugated bilirubin assays accurately enough to place correctly a value in one of these ranks. In the two neonatal plasma samples assayed (samples D and E), number of labs = 75) the results fall into the first two ranks (D) and first three ranks (E). In the specimen assayed with the high conjugated value, results for the laboratories range from 0 to 150 μmol/l—that is, the first four ranks.

With such large between-laboratory variation I feel it is meaningless to offer conjugated bilirubin results assayed by diazo techniques.

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Reference

[1] Watkinson LR, St John A, Penberthy LA. Investigation into paediatric bilirubin analyses in Australia and New Zealand. *J Clin Pathol* 1982;**35**:52–8.

Dr Watkinson and colleagues reply as follows:

Robert McKenzie's letter has given us the opportunity to further discuss the problem that exists in the measurement of conjugated bilirubin in neonates as shown in our paper (reference above).

Our survey clearly showed that there was a very wide dispersion of results for the measurement of conjugated bilirubin in plasma. From the limited information gained on conjugated bilirubin analyses we intended (a) to demonstrate clearly this dispersion and (b) to generate discussion on the need for conjugated bilirubin measurement.

It is our proposal that the need for this analysis requires review by the biochemistry laboratory and the clinical staff. Such discussion may as Mr McKenzie suggests result in the laboratory no longer offering a conjugated bilirubin assay but we feel that from our data and discussion with some clinicians that this may be too narrow an outlook at present. Our suggestion was an intermediate stance which while giving clinicans the benefit of the assay, would also identify the state of the art and hopefully prevent overinterpretation of the results.

We felt that our recommendation on ranking was valid by the fact that a significant percentage of laboratories as shown below did rank the results correctly.

There is no doubt that the analysis should be improved. If laboratories react to our investigation and seek improvement in their performance then the ranking we suggested is probably acceptable for this seemingly necessary analyte.

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	Laboratories ranking		
μmol/l	*Sample D (%)*	*Sample E (%)*	*High conjugated sample (%)*
< 25	87	86	5
25–50	13	13	8
50–100	—	1	49
100–150	—	—	38

n = 75
Sample D mean = 13 μmol/l
Sample E mean = 14 μmol/l
High conjugated sample mean = 87 μmol/l

Silicone lymphadenopathy

Silicone lymphadenopathy is a rare complication of silicone joint prostheses which may give rise to clinical suspicion of malignancy and be biopsied. It is important therefore that the surgical pathologist is familiar with this condition and the following case-report should be of interest.

A 60-year-old-man complaining of chest pain was found to have enlarged axillary lymph nodes and an opacity on chest radiography. Lung cancer with lymph node metastases was diagnosed and an enlarged axillary lymph node was biopsied. This showed numerous epithelioid and giant cell granulomata with refractile non-birefringent particles in many of the giant cells (Figure). No tumour was seen in the node but a transthoracic needle biopsy confirmed the diagnosis of pulmonary carcinoma. Enquiries about previous injections and operations on the arm revealed that the patient had had prosthetic finger