Correspondence

3 Gillon J, Hussey AJ, Howe SP, Beckett GJ, Prescott RJ. Post-transfusion non-A, non-B hepatitis: significance of raised ALT and anti-


Measurement techniques for melan-
oma: a statistical comparison

The paper by Calder, Campbell, and Plaistow is misleading when it says that the depth of invasion of the dermis is the single most
important prognostic factor in determining the outcome of any melanoma. 1 This factor is of importance in stage 1 melanoma, as quoted in
their first reference, but in any melanoma the most important prognostic factor is the stage
of the disease. 2 It should also be emphasised that in measuring the thickness of a melanoma the examination of multiple levels from multiple blocks
to find the thickest part of the tumour is more important than the accurate measurement of tumour thickness on a single section.

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E GRADWELL
Department of Histopathology, Whiston Hospital,
Prescot, Merseyside L35 5DR


2 Ackerman’s Surgical Pathology, vol 1. 7th Ed. 135.

Drs Calder, Campbell and Plaistow comment: The letter from Goulding and Gradwell is correct in pointing out that the most impor-
tant factor in the prognosis of a melanoma is the stage of the disease, and also that multiple blocks must be cut to find the thickest part of the
tumour. Having found the thickest part of the melanoma, however, it is then important to be able to measure it accurately: this is
the problem that our paper was addressing.

Cost effectiveness of dipssticks

MacGowan and colleagues express their doubts about the cost effectiveness of dipssticks for screening urines in a routine diagnostic
laboratory. 1 We have reservations about their accuracy in detecting pyuria after performing a blind comparison of 1000 urine samples
by BM stix and microscopy.

BM stix (Neutro-test + Leuco; Boehringer
Mannheim, Germany) were graded as follows: 0 = negative; + = 10–25 pus cells/µl; ++ = about 75 pus cells/µl or + + + about
500 pus cells/µl, according to the manufacturer’s instructions. Microscopy was graded as 0 = less than 20 pus cells/µl; + =
20–50 pus cells/µl; ++ = 60–200 pus cells/µl;
+ + + = 200–500 pus cells/µl and
+ + + + = > 500 pus cells/µl.

The results are summarised in table 1.

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<th>Leucocyte esterase stix</th>
<th>Microscopy</th>
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The results of the 1000 urine samples examined, 499 (49.9%) were negative for pyuria by both microscopy and BM stix; 328 (32.8%) were
positive by microscopy and BM stix; 21 (2.1%) were negative on microscopy but positive by BM stix; and 152 (15.2%) were positive for
pyuria on microscopy but negative on BM stix testing. This suggests that BM stix grossly underestimate the presence of pyuria. Of the 480 samples in
which pyuria was found on microscopy, BM stix were negative in 152, giving a false negative rate of 31.6% and a sensitivity of 76%.
Furthermore, the degree of pyuria was underestimated by BM stix in 249 (51.8%) samples.

Several workers have advocated the use of dipssticks for screening urine before culture. 3,4 Most studies took 10³ organisms/ml as evidence
of significant bacteriuria. Various criteria for a positive dipsstick have been used: positive nitrate or positive esterase and protein; esterase,
or nitrite, or blood positive; visual appearance and nitrite or esterase positive; blood, protein, nitrate or esterase positive. 1

Using these differing criteria, dipssticks have been found to have a sensitivity of 85–93% and a specificity of 38–85%. MacGowan et al
took > 10³ organisms/ml as being significant and found dipssticks to have a sensitivity of 97.2% and a specificity of 57.5%.

In this study the sensitivity of dipssticks was 76%, but rather than using BM stix as a screening test before culture, we were only looking for the presence of pyuria, and unlike
other workers, only took the leucocyte esterase into consideration. All our urine samples are preserved in boric acid because most are received from GPs and may spend
up to 72 hours in transit. Delay in transit did not have any influence on the sensitivity of BM stix but it is conceivable that the presence
of boric acid has some effect.

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Table 1 Comparison of microscopy and BM stix for detecting pyuria

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In a subgroup of 460 consecutive samples of urine we correlated the findings on micro-
scopy and BM stix with the culture result (table 2).

Table 2 Comparative results of subgroup

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<td>&lt; 10³ organisms/ml</td>
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In a subgroup of 460 consecutive samples of urine we correlated the findings on micro-
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1 MacGowan AP, Cowling P, Marshall RJ, Reever DS. Screening of urines with dipssticks, does it reduce workload and consumable costs?

2 Flanagan PG, Rooney PG, Davies EA, Stout RW. Evaluation of four screening tests for bacteriuria in elderly people. Lancet 1989;i:
1117–19.


4 Smith TK, Hudson A, Spencer RC. Evaluation of six screening methods for detecting sig-

5 Stamm WE, Hooten TM, Johnson JR, Johnson C, Stapleton A, Roberts PL, Mosely SL, Finn SD. Urinary tract infections: from patho-

This 400 page book covers the wide field of
lung tumours. It is well written with an
excellent introductory chapter on the normal
structure of the lung. All illustrations, both at
the light microscopic and electron micro-
scope level, are of excellent quality and add
considerably to the book’s appeal. The chap-
ter on staging is up to date and well informed.
The authors emphasise that cytology needs
closer liaison with clinical work to avoid false
positive diagnoses which can be seen in a wide
range of non-neoplastic conditions.

BOOK REVIEWS