PostScript

LETTER

Are we still performing too many blood tests?

In June 2003, the National Institute for Clinical Excellence (NICE) produced clinical guidelines on preoperative testing for patients undergoing elective surgery.¹ It made recommendations on the use of the following investigations: chest x ray, ECG, full blood count, clotting profile, urea and electrolytes, random blood glucose, urine analysis, arterial blood gases and lung function tests. The recommendations were presented in the form of easy-to-use "look-up" tables, which used a colour-coded traffic light system to indicate tests that were recommended, to be considered and not recommended. NICE conducted a follow-up survey measuring the impact of this clinical guideline.² The results indicated a good level of compliance, but most responders felt that there had been no change in the use of these tests. We audited our practice to see what impact the guidance had had.

We reviewed the preoperative investigations of 125 consecutive adult inpatients presenting for elective surgery under general anaesthesia. For each patient we noted the preoperative investigations that had been performed, type of operation, age, American Society of Anaesthesiologists (ASA) grading and any systemic illness. The operations were classified into minor, intermediate, major and major plus. The results were compared with the recommendations made by NICE. Tests that were recommended or fell into the "to be considered" bracket by NICE were deemed to be compliant. If the investigation was not recommended by NICE it was deemed to be non-compliant.

Of the 125 patients, 47 (37.6%) had investigations compliant with NICE guidelines and 78 (62.4%) had non-compliant investigations. Of the 78 patients, 11 (14.1%) patients whose

Table 1 Breakdown of investigations deemed unnecessary according to the NICE guidelines

Investigation	Inappropriate extra test (n)	Inappropriately absent (n)
Full blood count	14	6
Renal profile	19	9
Random blood glucose	12	
Clotting profile	45	
Chest x ray	1	
ECG	1	
Lung function tests	1	

investigations did not comply with the guidelines had insufficient preoperative investigations and 67 (85.9%) patients had investigations deemed unnecessary. These 67 patients had a combined total of 93 extra tests (table 1). There were 13 patients who, according to the NICE guidance, did not require testing but in our audit had investigations. All were ASA I patients undergoing intermediate surgery.

With payment by results, we can see the implication of these excess tests. According to the tariff in our hospital,³ this amounted to an extra spend of £268.26. If we include the extra phlebotomy costs for those who had unnecessary blood tests, the expenditure increases to £397.22. This can be extrapolated to an extra financial cost of over £20 000 per year for the 7500 inpatient operations we perform per year in our hospital. At a time when many trusts are experiencing severe financial difficulties we recommend other hospitals to review their performance against the NICE guidance.

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References

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- 2 **National Institute for Health and Clinical Excellence.** *A survey measuring the impact of NICE guidelines 3: Preoperative tests.* London: National Institute for Health and Clinical Excellence, 2005.
- 3 **Department of Health.** *National tariff 2005-06.* http://www.dh.gov.uk/en/Policyandguidance/Organisationpolicy/Financeandplanning/NHSFinancialReforms/DH_4127010. London: Department of Health, 2004.

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