insidious: symptoms of insufficiency are non-specific and progression of the disease is slow. The patients described here presented with symptoms or problems that prompted their doctors to suspect hypothyroidism. Details of patients' clinical history only came to light at the time of their clinical endocrine assessment as did the results of the physical examinations; they were not apparent at the time the patients were first seen.

The results of thyroid function tests may be abnormal in patients with acute or severe non-thyroidal illness, the so called the sick euthyroid state. However, the assays used to investigate the patients described here may identify low concentrations of TSH or raised free thyroxine concentrations during the acute phase of critical illness; TSH concentrations may be slightly raised during recovery.

If a patient has a low concentration of thyroxine and a normal TSH concentration the need for further assessment is more likely to be apparent than if the patient is only tested for TSH. In cases in which only the TSH concentration is used for first line testing, thyroxine measurements are performed only if TSH is clearly too high or too low. This approach saves money for the laboratory. In the laboratory where the analyses were carried out for these six cases, the cost of early detection for patients with pituitary tumours or hypopituitarism is about £5000 (\$7000) per case per year. This could be reduced to £3800 if combined first line testing was limited to patients seen in primary care or hospital out-patient departments. However, it is essential to consider the implications of delayed diagnosis for patients with undiagnosed pituitary tumours or hypopituitarism and the consequential long term morbidity and mortality. This must be weighed against any benefit gained from implementing a first line strategy of offering only a single test. Any comparison needs to take into account the patient's quality of life and the decrease in morbidity associated with early identification and treatment.

First line thyroid testing of TSH and free thyroxine concentrations should be offered for all likely presentations of thyroid disorders including central hypothyroidism and central hyperthyroidism. A policy of testing only for free thyroxine concentrations in patients with hypopituitarism would seem to be more sensitive than testing only for TSH. However, this policy may be inappropriate in some clinical situations because of the small proportion of falsely raised results that are inherent in the design of the assays.

Caldwell et al proposed a testing strategy based on what was then the recently introduced second generation TSH assay.³ They suggested that if TSH concentrations were normal then no further action was needed. However, others pointed out that cases of hypopituitarism would be missed by such a strategy.⁴ Patients with central hypothyroidism occurring secondary to pituitary disorders may have low serum thyroxine in combination with normal or high concentrations of TSH.^{5,6} This is thought to be the result of the discrepancy between the biological and immunological activity of TSH.⁷

First line testing that includes only TSH concentration may be adequate to identify patients who are already under the care of specialists and for whom a high index of suspicion might mean that secondary hypothyroidism is likely to be identified on clinical grounds. However, these patients are usually seen in primary care first; if TSH testing is the only test used then central hypothyroidism has to be suspected clinically otherwise the diagnosis is likely to be missed. Since many patients with central hypothyroidism are likely to be elderly, routine thyroid evaluation in this group should also use combined testing.⁸

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Are fillers educational?

I have not seen a patient present with polymyalgia rheumatica for many years—perhaps over 15.

Thus, call it coincidence, but seven days after reading about two relatives with polymyalgia (*BMJ* 2000;320:1641) I saw a woman in general practice with marked weakness, headaches, lassitude, and a slowly rising erythrocyte sedimentation rate. She explained how the symptoms had come on quickly and had affected mostly her upper limbs but that her legs were also weak. After several discussions with her, repeat blood tests, and a short phone call to the local geriatrician, we decided that her condition was indeed polymyalgia rheumatica.

We hope that she is now heading for a steroid induced recovery, and I hope that osteoporosis prophylaxis will be sufficient to prevent her bones from becoming weaker.

The answer to the question in the title? Yes, they most certainly can be, though it is best if they can be timed so that they appear a few days before your next memorable patient. The feature is still one of the first articles I read in the *BMJ*.

Surinder Singh *general practitioner, south east London*

We welcome articles of up to 600 words on topics such as *A memorable patient, A paper that changed my practice, My most unfortunate mistake*, or any other piece conveying instruction, pathos, or humour. If possible the article should be supplied on a disk. Permission is needed from the patient or a relative if an identifiable patient is referred to.