or stable disease after further adequate treatment (surgery and/or $^{131}$I administration) (n = 19); and (D) persistent disease after initial therapy and fatal progression of disease after further adequate treatment (surgery and/or $^{131}$I and/or radiotherapy (n = 11).

Results
Median follow-up was 4 to 5 years (55 months) in the four groups. Ablation Tg increased significantly from group A to group D. Ablation Tg of 50 ng/ml or greater gave the highest PPV for recurrence, 0.97, of any clinical parameter, including tumor size, grade, lymph-node status, and MACIS score. The multivariate logistic model showed that only three parameters (ablation Tg, tumor dimension, and nodal status) were independently and significantly associated with disease persistence. Ablation Tg levels were the most important predictive and prognostic factor in terms of risk estimates, especially when comparing patients who had ablation Tg levels of 50 ng/ml or higher with patients in the lowest-level category (ablation Tg, <2 ng/ml). A total of 58 of 60 patients with ablation Tg of 50 ng/ml or greater had persistent disease; in contrast 126 of 136 patients who had ablation Tg <10 ng/ml had complete remission after initial therapy. The prognostic value of ablation Tg was also confirmed in Kaplan–Meier survival curves.

Conclusions
Ablation Tg levels of 50 ng/ml or greater are a valuable initial predictor of disease persistence or recurrence in patients at high risk for DTC.
Serum Tg before Radioiodine Ablation Is an Effective Predictor of Recurrence in Patients at High Risk for Differentiated Thyroid Cancer

ANALYSIS AND COMMENTARY

The current study provides a valuable, easily measured indicator of disease recurrence in high-risk subjects, namely the serum Tg at the time of ablation when it is stimulated by TSH. Although the authors measured ablation Tg 4 to 6 weeks after surgery (without substitution therapy), which gives a more sustained elevation of serum TSH levels than recombinant TSH, the likelihood is that ablation Tg after recombinant TSH will be similarly useful.

The study confirmed that ablation Tg <10 ng/ml has a high negative predictive value (93%) for disease recurrence in high-risk patients, as this group had reported previously for low-risk patients (1).

The study has some limitations, including the retrospective nature of the evaluation and the relatively short follow-up of 4 to 5 years for DTC. However, in the high-risk patients, this may be sufficient for evaluating recurrence.

This study will alter my practice by adding the measurement of ablation Tg to my routine management of patients with DTC in order to predict disease recurrence.

Reference