Mistaking the population refer-
ence range for that of thyroid-stimu-
ulating hormone for an individual’s “normal” range can lead to suboptimal diagnosis and treatment of thyroid disease. According to Carole Spencer, Ph.D., professor of medicine and director of the Endocrine Services Laboratory at the University of Southern California in Los Angeles.

The decision to perform fine-needle aspiration on a patient with a thyroid nodule depends on several factors, including nodule size, serum thyroid stimulating hormone level, and presenting symptoms. Dr. Erik Alexander said at a meeting jointly sponsored by the American Thyroid Association and Johns Hopkins University.

Dr. Alexander, who is with the division of endocrinology, diabetes, and hypertension at Brigham and Women’s Hospital in Boston, outlined the algorithm he uses to evaluate a thyroid nodule.

Male gender, young age, and being symptomatic can increase the risk of a nodule being cancerous by about twofold, he said. But even if a nodule turns out to be cancerous, it doesn’t necessarily mean that something has to be done about it. “Is it really a danger? I think the answer likely is no,” said Dr. Alexander, who is also an assistant professor of medicine at Harvard Medical School. Boston.

One recent 10-year study of 630 patients with well-differentiated follicular or papillary thyroid carcinoma found that with papillary thyroid carcinoma, there was essentially a zero risk of extra-

tery disease in 10 cm or less in diameter, further validating the idea of a 1-cm cutoff, Dr. Alexander said (Cancer 2005;103:2269-73).

Ultrasound imaging can help further determine the risk of a nodule being cancerous, but cannot rule out the need for fine-needle aspiration, Dr. Alexander noted. That’s because several studies have shown that ultrasound identifies only about 80% of thyroid cancers. “Would any of us be willing to have a 20% false-negative rate? I don’t think so.”

On the other hand, “Ultrasound is highly useful; it’s most effective at assessing cancer risk,” he continued.

One study done at Dr. Alexander’s hos-
pital found that a woman who presents with the risk of a nodule being cancerous, but cannot rule out the need for fine-needle aspiration, Dr. Alexander noted. That’s because several studies have shown that ultrasound identifies only about 80% of thyroid cancers. “Would any of us be willing to have a 20% false-negative rate? I don’t think so.”

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