In addition, to optimize the sensitivity and specificity for predicting future diabetes, the American Diabetes Association lowered the fasting glucose cut point from 110 mg/dL to 100 mg/dL for the diagnosis of impaired fasting glucose in their 2003 guidelines.6 This criterion has been widely accepted and used.

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Subarachnoid Hemorrhage Diagnosis

To the Editor: In their recent study, Dr Perry and colleagues1 addressed the challenging problem of misdiagnosis of subarachnoid hemorrhage. Perry et al reported 100% sensitivity for detecting subarachnoid hemorrhage, using the new Ottawa subarachnoid hemorrhage rule (OSHR). Despite this finding, 3 of the 6 characteristics in the rule showed only modest reliability (κ<0.60) among physicians. Limited flexion, thunderclap headache, and neck pain and stiffness were prevalent in subarachnoid hemorrhage, and the OSHR required that only 1 needed to be present for further investigation to be warranted.

In general, criteria that are unreliable will result in misclassification and poor sensitivity. If physicians cannot agree on which patients experienced a thunderclap headache, how can they accurately determine which patients require further investigation? The expected correlation between high reliability and high sensitivity was not apparent in this study, possibly due to a spectrum effect alluded to by Perry et al.1 A spectrum effect can be apparent when patients included in diagnostic screening studies are less heterogeneous than typical patients seen in routine clinics.2

Evidence of this spectrum effect is illustrated by the high number of confirmed cases of subarachnoid hemorrhage (6%) compared with the 1% to 3% expected among patients with headache.1 By excluding patients with a history of headache, Perry et al acknowledged they have reduced the number of cases of headache less likely to be subarachnoid hemorrhage in their sample, resulting in an estimated sensitivity that may be higher than what would be expected in a routine clinic. They recommended use of the OSHR be restricted to patients with similar characteristics.1

However, this spectrum effect may also be related to lower reliability. Specifically, a homogeneous sample of patients would have less variability, and as variability decreases so does the ability to use the OSHR in different patient groups over time (ie, reliability).3 Although developing and restricting clinical decision rule use for patients with a narrow spectrum of disease is appealing because it may lead to improved sensitivity, repeated application of the OSHR may reveal poorer performance over time.

One would expect that the risk of misclassification of important characteristics such as thunderclap headache would be high in this OSHR, and thus, even if applied precisely, the rule may not perform as well as expected at different centers.5 Development of formal training criteria may be necessary before its widespread use.

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In Reply: Dr Specogna is concerned about selected elements of the OSHR showing only modest reliability. With κ values of 0.44, 0.49, and 0.55, and as high as 0.65 in the derivation study,1 these elements should not be deemed unreliable. κ Statistics represent a range from 1 (perfect agreement) to 0 (random chance). Even though excellent reliability is desired, κ values from 0.41 to 0.60 represent moderate agreement and can be used to construct a rule.2,5

More importantly, we reported substantial to excellent overall agreement (ie, rule positive or negative; κ range, 0.79-0.96) for the 3 candidate decision rules. Physicians often show better global agreement than might be assumed by chaining together the reliability estimates of each component of a rule as if they were independent tests. This observation explains why it is important to characterize not only the target population of a rule but also the operator applying a clinical deci-
Changing the Terminology of Cancer

To the Editor

Dr Esserman and colleagues suggested reserving the term cancer for conditions with natural histories ending in metastasis and death to decrease rates of overtreatment for less aggressive forms of disease. Esserman et al acknowledged that the term cancer has taken on a broad meaning within the cultural lexicon; however, they do not consider the psychological consequences of changing the diagnosis for millions of people who already see themselves as cancer survivors.

The lay public has adopted many medical terms that represent a wide spectrum of illness. For example, myocardial infarction and stroke can refer to small subclinical incidental findings or massive lethal events. In mental health, depression ranges from occasional sadness to chronic crippling disease leading to suicide. Importantly, the public at large understands the range that these terms represent.

The way to address overtreatment should not be removal of the word cancer because the term strikes so much fear into patients and clinicians that they are driven to non-evidence-based unnecessary treatments. The solution must be for physicians to properly educate patients about prognosis and to offer only those treatments with a firm evidence base.

For better or worse, cancer is no longer just a diagnosis, it is an identity. For example, telling a woman who underwent surgery and years of hormone therapy for ductal carcinoma in situ that she endured these treatments not for cancer but for an indolent lesion of epithelial origin, as Esserman et al suggested, invalidates her experience.

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To the Editor

The etymology of cancer dates to Hippocrates. Dr Esserman and colleagues proposed restricting this term to subsets of cancer with increased malignant potential in an effort to reduce screening for indolent lesions. This represents a synecdochic perspective, and is roughly analogous to reclassifying tick species that uncommonly transmit Lyme disease. The suggestion that nosology drives disease screening behavior is not wholly without merit, but it is also not a sufficient basis for the proposed taxonomic changes. Moreover, there is no evidence that such changes would produce the desired behavioral results.

Medical nomenclature is an essential tool for classifying disease and directing both treatment and research. Nosological conflicts typically derive from incomplete knowledge, so any taxonomy that does not provide a framework for scientific discovery and mechanistic understanding is, for that reason, undesirable. Clinical outcomes should inform under-