

J. Michael Bostwick, MD, on

## A lab test that may pinpoint patients at high risk of suicide

A frustrating reality for clinicians is that the technology does not exist to determine which individuals in a suicide risk group will kill themselves.

Moreover, such commonly cited risk factors as psychosis, depression, and alcoholism are themselves common social and medical ills. Even though these are worthwhile conditions to treat in their own rights, they are remarkably insensitive as suicide predictors. They fail because each of them occurs frequently, while suicide does not. In other words, using these risk factors alone will identify a multitude of suspects without singling out those at higher risk than others.

But a recent report highlights a laboratory test that might identify extremely high-risk patients. Coryell and Schlessler looked at 15-year follow-up data for suicide in 78 depressed, hospitalized patients who had been administered the dexamethasone suppression test.<sup>1</sup> Suppressors died at a rate of 2.9%; nonsuppressors at a rate of 26.8%. In a group already at elevated risk by virtue of both hospitalization and depression, being a nonsuppressor increased the chance of suicide by nearly an order of magnitude. Certainly a clinician managing a depressed and suicidal nonsuppressor should be concerned about that person's suicide potential.

Bostwick and Pankratz published a clinical epidemiology meta-analysis that also helps distinguish suicidal risk in depressed populations.<sup>2</sup> They showed that at 2.2% to 8.6%, the lifetime prevalence of suicide in affective illness is much reduced from the nearly universally cited 15% figure from a 1970 Guze and Robins paper.<sup>3</sup> They also demonstrated that these patients die in a hierarchy of rates based on admission status and suicidality.

The researchers classified their studies into four groups: those patients who entered the study after

hospital admission in a suicidal state, those admitted without specification of suicidality, those enrolled as outpatients, and people from the general population who had never had a psychiatric contact. Suicidal inpatients had a lifetime risk of 8.6%; affectively ill inpatients, 4%; outpatients, 2.2%; and nonpatients, less than 0.5%.

Bostwick and Pankratz also showed that suicides were much more likely to occur early in the course of the illness or soon after hospital discharge, underscoring the importance of a psychiatrist knowing where a patient is in the course of affective illness before determining the degree of suicide risk.

The Coryell and Schlessler study and the Bostwick and Pankratz findings allow clinicians to use a patient's treatment status and suicidality history, along with a dexamethasone suppression test, to get a general bead on the degree of risk.

Of course, neither lab tests nor historical analysis obviate the need for a gold-standard clinical interview to determine what dynamic factors—e.g., losses, injuries, acute depressive exacerbations—are operating at the moment to drive the suicidal state. Reminding us how difficult it is to predict suicide, even a 26.8% risk across 15 years means that three of four nonsuppressing patients will **not** die by suicide, and that those who do will not succumb at an easily predictable moment.

These two studies do, however, help to place the details of the suicidal presentation in a more precise context than risk-factors alone permit.



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### References

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3. Guze SB, Robins E. Suicide and primary affective disorders. *Br J Psychiatry*. 1970;117:437-438.