

# Ideal Severity of Illness Scoring System for Critically Ill Cancer Patients: A Dream

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*Beware of the half truth. You may have gotten hold of the wrong half.*  
– Author Unknown

Prognostication of disease outcome is a misguided art fraught with the limitations of both objective and subjective assessments.<sup>1</sup> Several severities of illness scoring systems have been developed over the last three decades as objective tools for disease prognostication. Despite their limitations, the scoring systems are necessary for quantification of illness, prediction of outcome, resource allocation, and to make comparison between intensive care units (ICUs).<sup>2,3</sup>

The commonly used general severity of illness scoring systems were developed on large cohorts of mixed ICU population. The scoring systems may under- or overestimate mortality when used on specific subgroup of patient population (e.g., cancer), especially if these groups of patients were not well represented in the original cohort on which the model was developed.<sup>4</sup>

Very few severity of illness scoring systems have been developed specific to cancer patients and on a limited population. These scoring systems include variables specific to cancer, such as disease progression, recurrence, stage of disease, and the treatment given.<sup>5</sup>

The performance of these severity of illness scoring systems may be challenged when applied to a different geographic region where the spectrum and management of disease may be varied.

The advancement in cancer therapy and ICU care has led to better outcome of cancer patients.<sup>6,7</sup> Hence, the performance of the severity of illness scoring systems deteriorates over time and needs improvisation by changing the coefficients or variables.<sup>8</sup>

Unfortunately the available limited severity of illness scoring systems for cancer patients have not been upgraded recently.

The authors of this article have dealt with the above limitations and have compared the performance of recent general severity of illness scoring systems like Acute Physiology and Chronic Health Evaluation, Simplified Acute Physiology Score, and Mortality Probability Model with the existing cancer-specific severity of illness scoring system—ICU Cancer Mortality Model.<sup>9</sup> A much needed study, as limited data exist on the validation of these severity of illness scoring systems on cancer patients from the Indian subcontinent. The study has included a large cohort of cancer patients of varied etiology and complications, with a well-penned discussion of the results.

The future is bleak if we continue to use the present severity of illness scoring systems in cancer patients. The way forward with respect to ideal severity of illness scoring system for any ICU population would be prediction models that have been developed from national databases.<sup>10</sup> This can be achieved in India only if the

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first hurdle of compulsory implementation of electronic medical records and national registries is overcome.

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