## ICU

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## **Biomarkers**

Biomarkers are quantifiable indicators of physiological or pathological processes in the body. They can be useful in establishing a diagnosis, assessing disease progression and a patient's condition and guide therapeutic interventions. However, a great deal could still be done to further improve the utilisation of biomarkers in critical care.

Biomarkers can help identify early signs of disease, leading to timely interventions and improved patient outcomes. Also, it may be more efficient to identify patients likely to benefit from certain treatments and tailor therapy per individual patient needs using biomarkers. In addition, biomarkers can help predict outcomes such as disease recurrence and mortality so that clinicians can make informed decisions. Finally, an important benefit of biomarkers could be reduced healthcare costs as clinicians could avoid unnecessary treatment and/or interventions.

While all these are important, it is essential to remember that not all biomarkers are created equal. Some may not have the desired sensitivity or specificity; therefore, their use should be in conjunction with other clinical and laboratory data.

Biomarkers can be more effectively utilised in intensive care by improving standardised protocols for biomarker testing and interpretation. This is essential as biomarkers may vary in measurement, interpretation and clinical significance. Better access to specific biomarkers can also help clinicians use them more routinely in critical care settings. Additional training to understand complex and often difficult-to-interpret biomarker data can provide clinicians with the necessary expertise to utilise these data effectively. Research can also play an important role in identifying and validating new biomarkers that are sensitive, specific and clinically relevant.

In this issue, our contributors discuss the use of **Biomarkers** in critical care and where and how biomarkers can provide valuable diagnostic, prognostic and therapeutic value. As always, if you would like to get in touch, please email JLVincent@icu-management.org.

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