



## UPDATE IN PERIOPERATIVE INTENSIVE MEDICINE

# Perioperative Intensive Care Medicine. Contributing value to the surgical process<sup>☆</sup>



## Medicina Intensiva Perioperatoria. Aportando valor al proceso quirúrgico

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Millions of surgical procedures are performed annually across the globe with different levels of risk. Ten percent have a high risk of complications and many of the patients who survive the hospital discharge after having adverse events show functional effects and shorter long-term survival rates<sup>1</sup>.

In adult patients who receive non-cardiac surgery, 44% of all deaths are due to 3 different types of complications: hemorrhages, perioperative myocardial damage, and sepsis. Also, death occurs in an average time of 11 days following the intervention<sup>2</sup>.

The quality of perioperative care—seen as a process—includes perioperative assessments, optimization of coexisting medical conditions, clinical practice approaches to surgical procedures, surgical check-lists, advanced hemodynamic monitorization during surgery, the management of acute pain, early admission in intensive care units (ICU) in high-risk cases, the effective monitorization of vital signs after conventional hospitalization, rapid response teams in situations of clinical impairment, proper rehabilitation programs, and planning hospital discharge with primary care. Data registries and result auditing is key to improve quality<sup>3</sup>.

If we want to guarantee better results in surgical patients, Intensive Care Medicine Services should provide care during the entire process. The creation of rapid response teams and ICU settings without walls (teamwork among different healthcare providers, and automatic detection of severity by integrating clinical and laboratory variables) improve results and avoid unnecessary admissions in patients with treatment limitations<sup>4,5</sup>. Innovation in management and coordinated and multidisciplinary work efforts improves the care of critically ill patients, the patients' results, efficiency, and safety, and the healthcare providers' satisfaction<sup>6</sup>. These experiences have reduced the delays from ICU discharge to hospitalization which also reduces the number of scheduled surgical admissions that are canceled due to lack of beds at the ICUs and unforeseen

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discharges with higher risk for the patient. Ultimately, Intensive Care Medicine Services can bring added value to the surgical process in chronic critically ill patients with consultation follow-ups after hospital discharge<sup>7</sup> and also in special populations like oncohematological patients regarding their medical and surgical treatment<sup>8</sup>.

That is why the Perioperative Intensive Care Medicine series—published in the last issues of the journal<sup>9</sup>—was started in the first place. The treatment we have given to Perioperative Intensive Care Medicine is that of a comprehensive care process to improve the quality of healthcare (through a multidisciplinary approach) and bring actual value to the patient by looking into the intervention final results that should be relevant for the patient.

Some of the issues discussed here<sup>10-14</sup> have been the criteria used for ICU admissions based on perioperative risk, the criteria used for early discharges, and the patient care protocols used during their ICU stay. Special attention was paid to early recoveries, management of complications and control of infections associated with the procedures, and follow-up of patients after their ICU stay with automatic follow-up programs, and detection, prevention, and treatment of post-ICU syndrome.

The 2018–2022 SEMICYUC Strategic Plan<sup>15</sup> advocates for the quality of the surgical process by establishing specific actions to improve the care of surgical patients and their families. Also, work collaboratively with other medical specialties and disciplines to guarantee an effective, safe, accessible, efficient process that is also respectful with the values of the patient.

We need to support training and research in this emergent area that over the last few years has been involved in very important advances in physiopathology and technology changing the traditional concept of surgical patient<sup>16</sup>.

As the series finale we have been thinking of assessing these models of comprehensive healthcare rigorously using specific registries that would be of great social interest. There is no question that in the future Big Data systems will help us in this process of measuring what the real value of the interventions performed really is<sup>17</sup>.

## Conflicts of interest

The authors have declared no conflicts of interest whatsoever.

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