

Critical Care Delivery: A Common Starting Point is Needed

Marcelo Ochoa Parra

Hospital Universitario del Río, Cuenca, Azuay, Ecuador

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Corresponding author:
Marcelo Ochoa Parra

✉ mochoa@uazuay.edu.ec

M.D, Hospital Universitario del Río, Unidad de Cuidados Intensivos Adultos, Av. 24 de Mayo s/n y Autopista Cuenca-Azogues, Cuenca, Azuay 593, Ecuador.

Tel: 59374177914/593999952061

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Dear Editor,

Critical and intensive care medicine has an ancient origin, but in recent years it has developed dramatically although heterogeneous, both in design and in its structure, process, and even the basic terminology [1]. In this way, it becomes essential to unify criteria in order to share experiences between groups of different locations, which would help to make changes and improve results.

According to some of the latest studies published with respect to the provision of critical care in general [2, 3], there is an urgency of terms standardisation. In addition, we need to investigate universal data within the differences from, both the industrialized countries and those with fewer resources; in peacetime situations as well as in disasters, either natural or man-made and finally, to quantify the benefits.

On the basis of the critical care model guidelines proposed by the American Society of Critical Care Medicine [4] and The Safety and Improvement Guidelines accredited by the European Society of Intensive Care Medicine [5], we believe that a consensus should be promoted to determine a minimum of parameters investigated, including:

General data

- a. Number of UCI beds/100,000 inhabitants.
- b. Number of UCI beds/number of hospital beds.
- c. Number of patients per year, number of patients studied, age, gender, reference department, condition of admission, level and priority care, severity score at admission.
- d. Epidemiological profile: Diagnostic category, secondary diagnoses.

Organization

- a. Unit type: Multi-purpose, multi-disciplinary, mixed, clinical, surgical, coronary, neurological care, etc.

- b. Structure: Multi-disciplinary team, ward rounds, 24 h availability consultant intensivist, nurse to patient ratio, etc.
- c. Process:
 - i. Checklists and daily plan of care system.
 - ii. Clinical guidelines and protocols of care.
 - iii. Protocols of care, care packages, guidelines.
 - iv. Standardized handover process of discharge.

Use of resources

- a. Turn of beds.
- b. Bed occupancy rates.
- c. Length of ICU stay.
- d. Length of hospital stay.

Procedures

- a. Mechanical invasive ventilation.
- b. Mechanical invasive ventilation.
- c. Renal replacement therapy.

Security

- a. Unplanned endotracheal extubation rate.

- b. Early ICU re-admission rate.
- c. Adverse events reporting system.

Results

- a. Complications
 - i. Mechanical ventilation-related infection rate
 - ii. Central venous catheter-related infection rate
 - iii. ICU-acquired infections
- b. Mortality
 - i. Crude death rate
 - ii. Net rate of mortality
 - iii. Standardize mortality ratio

These findings will makes us understand better the nature of ICUs, considering that the provision of critical care includes a structure, a process, and a result. The parameters mentioned above would serve not only in the handling of each ICU in particular but the ICU as a whole when it comes to a country, region or worldwide.

Sincerely,

Marcelo Ochoa Parra

Intensive Care Unit. Hospital Universitario del Río. Universidad del Azuay.

Av. 24 de Mayo 7-77 and Hernán Malo. Cuenca. Ecuador. <http://www.uazuay.edu.ec>

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