# A patient and family-centered quality management model in intensive care

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## Abstract

This paper is focused on the development of a proposal for implementing a quality management model with the central axis being a patient and family-centered care process in the intensive care unit. Expert recommendations and best practices developed by different certification initiatives for reaching high standards of quality have been gathered to solve the users' needs, considering their preferences and service expectations. **(Acta Med Colomb 2022; 48. DOI: https://doi.org/10.36104/amc.2023.2619).**

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## Introduction

The interrelationship between people and their families and healthcare facilities and their capacity should be part of the schedule of priorities for healthcare facilities, to identify the users' needs and expectations. That is, healthcare quality improvement refers to patient-centered care (PCC) and the PCC family, as presented in the "Crossing the Quality Chasm" report of the United States Institute of Medicine, a document which highlights it as one of the six key aspects for quality care (1, 2).

For the World Health Organization (WHO), PCC includes not only the individual, but also the health of his/her family and the community. The individual controls his/her health, and therefore the information he/she receives is provided to help in making decisions about his/her health throughout life (3).

Departments caring for people in acute and critical conditions, like the ICU, should heed the call to implement PCC, since care for acute life-threatening conditions leads to longer hospital stays and intensive care unit (ICU) admissions (4), resulting in an increased demand for physical and human resources (5).

There have been great advances in technical and scientific development for care and treatment in the ICU, which involve tasks that require more time and are more specialized. However, these advances do not, in and of themselves, guarantee better quality care; measures are needed that go beyond technology, to ensure high-quality care in the ICU and in the departments supporting its operation. A quality policy is needed to guarantee that the patients and their families recover their role, as a guideline for achieving the goals (6).

## Background

According to Levy, regardless of the model under which critical care services are provided, the most important thing is the quality of the care received in the ICU (7). For a long time, performance evaluation has been based on measuring mortality, morbidity and adjusted hospital stay. However, the focus should be on the details of the care process.

In this scenario, quality management models emerge as a tool and guide to contribute to healthcare services' achievement of value outcomes like population health, effective access, reliable and safe organizations, satisfactory experiences and reasonable costs (8).

Initiatives are being carried out in different countries around the world to improve the quality of care of people and their families, improving their experience with care teams and in the healthcare facilities (9). Many of these improvement initiatives are based on collaborative work with the consumers; cooperative work with the consumers ensures that they are the center and ultimate goal of healthcare system reforms.

The Planetree Designation program (10) is an initiative designed to recognize the healthcare centers that implement improvements around PCC. They promote global sustainable change in the care model. The program is conceived as an operative framework to evaluate the organizational systems and processes needed to transform the institutional culture and make it sustainable over time.

Another initiative for improving the quality of care in intensive care, from a patient and family-centered perspective, is the HU-CI project for humanizing the units (11). Their purpose is to support organizations in improving their quality of care by certifying the fulfillment of the requirements for providing humanized care, through seven strategic lines.

## Development of the proposal

The purpose of this document is to promote patient and family-centered clinical management in the ICU, based on the development of a management model that includes the expert recommendations and best practices proposed by the different certification initiatives, fulfilling the main components of a quality management model: leadership, policy and strategy, human development, alliances and resources, processes and clients, and results (12).

**Step 1**

While it may seem obvious, the implementation of a patient and family-centered quality management system begins with the voluntary decision of all interested parties to improve and generate value outcomes. Therefore, a public statement should be made by the institution's senior management and ICU leadership launching a patient and family-centered care policy expressing this commitment.

**Step 2**

Determining the scope of quality improvement which, in this case, is strengthening the PCC focus as a cross-cutting axis of care. The expected quality should be defined, based on the quality management model standards, which is proposed below as the guiding tool for reaching the goals (Table 1).

**Step 3**

Self-evaluation as a strategy for determining the situational diagnosis and baseline. Assessment groups should be organized by standard, with the participation of all ICU associates, including non-clinical staff. It is essential to listen to the voice of the customers (patients and families), which will provide information regarding how they are impacted and will be the indicator par excellence of the PCC focus implementation.

**Step 4**

Prioritizing the standards to be improved, according to the barriers identified in the self-evaluation and the gap between the observed and expected quality.

**Step 5**

Formulating and implementing the improvement plans by standard, aimed at reaching the expected quality.

**Step 6**

Evaluation; which, for this proposal, does not just mean evaluating the implementation of the improvement plans. We propose evaluating the impact of the PCC focus implementation, using not only process indicators but also value indicators for the individuals and families who experience ICU admission.

Process evaluation requires assessing care throughout the ICU stay, from admission to discharge. However, just providing care does not guarantee its quality; the relationship between the specific service aspects and the expected outcomes must be determined. The quality of the PCC process in the ICU, under this perspective, includes the way of doing things, how the patients and their families are involved, synchronization between the interested parties (the family, the patient, management staff, the clinical team, administrative staff) and communication efficacy (13) (Table 2).

Traditionally, ICU mortality has been the most used indicator. However, other outcomes related to the patients'

**Table 1.** *Quality management standards.*

| What | How |
|---|---|
| **Leadership** | Establish a committee or structure to support and supervise the implementation and maintenance of PCC practices. |
| | Designate a strategy coordinator and reference point for the consumers. |
| | Foster employees' autonomy to personalize their strategies as they interact with and identify the needs of patients and families. |
| **What** | **How** |
| **Policy and strategy** | Explicitly state the organization's commitment to PCC within its strategic platform. Develop a strategic plan for the ICU with objectives and goals for implementation and improvement, defined and evaluated yearly, and involving the interested parties. |
| **What** | **How** |
| **Human development** | Implement a program to develop institutional leaders and inspire other associates. |
| | Implement an on-the-job orientation and reorientation program for staff involved in direct care, regardless of their type of affiliation with the institution. |
| | Provide support and wellbeing mechanisms for staff, as prioritized by the beneficiaries themselves. |
| | Implement a human resource selection and performance evaluation process that reflects the institutional PCC policy. |
| **What** | **How** |
| **Alliances and resources** | Establish strategic alliances with patient societies and governmental and non-governmental organizations. |
| | Implement collaborative work with other care departments and entities to ensure continuity of care and treatment. |
| **What** | **How** |
| **Processes and clients** | Establish structures to promote the relationship between patients/families and the organization's senior management, with evidence of the outcomes of the relationship. |
| | Establish a formal, documented process for open, respectful and empathetic communication to respond to adverse events or unexpected outcomes. |
| | Design administrative processes with a PCC focus. |
| | Balance safety considerations with support for patient empowerment, dignity and independence. |
| | Continuity of care and the attending team's responsibility during and throughout shift changes or transfers, with family participation. |
| | Family participation in care. |
| | A flexible, 24-hour family stay plan. |
| | Options for patients and families regarding their immediate environment and their control over it, without risking their safety. |
| | Support for patients' and families' understanding of and access to treatments within the therapeutic options, when desired and appropriate. |

**Table 2.** *Process indicators*.

| What to measure | Definition | How to measure |
|---|---|---|
| **Communication and education on admission to the ICU** | Implementation of a welcome and education protocol with the families of patients admitted to the ICU. | Frequency: quarterly evaluation<br>Observation unit: ICU stay per patient (for patients with more than one admission, each admission is taken as an independent event).<br>Measurement unit: percentage fulfillment of the protocol.<br>Source of information: clinical care charts selected through a representative sample of all the clinical charts in the evaluation period, selecting clinical charts using simple random sampling. |
| **End-of-life communication and treatment guidance** | Implementation of a protocol for communicating and making shared treatment decisions with the families at the patients' end of life, for reassessing and withdrawing life support and refusing resuscitation. | Frequency: quarterly evaluation.<br>Observation unit: ICU stay of patients who have died in the ICU.<br>Measurement unit: percentage fulfillment of the protocol.<br>Source of information: clinical records of care from a representative sample of all clinical records during the evaluation period, selecting clinical charts through simple random sampling. |
| **Reassessment of the need for and level of sedation** | Implementation of a guideline to minimize the use of sedation and ventilation in awake patients, in suitable cases. | Frequency: quarterly evaluation.<br>Observation unit: patients' ICU stay.<br>Measurement unit: percentage fulfillment of the guideline.<br>Source of information: clinical care records from a representative sample of all the clinical records during the evaluation period, selecting clinical charts through simple random sampling. |
| **Care transfer** | Implementation of a protocol for care transfer between shifts, departments and institutions. | Frequency: quarterly evaluation<br>Observation unit: patients' ICU stay.<br>Measurement unit: percentage fulfillment of the protocol.<br>Source of information: a care transfer checklist obtained from a representative sample of all clinical records during the evaluation period, selecting clinical charts through simple random sampling. |

and families' ICU experience and what they consider to be value outcomes can be evaluated (14). Table 3 provides some indicators.

### Step 7

Organizational learning, through the lessons learned from the analysis of the improvement cycle implementation, at the end of the established implementation period, to identify new improvement opportunities.

## Conclusions

Given the highly complex nature of ICU care, quality management models are needed to help clinicians, administrators, patients and families understand their leading role in change management and direct their efforts toward improvement.

Leaders must be developed in all areas, who are convinced that finite resources are not an excuse for not providing quality care. Although it is true that improvement requires investment, it is ultimately more expensive to deliver low quality, as this increases care costs, wastes resources, and negatively impacts patients and families and even the unit's work environment.

Clinically relevant and measurable outcomes and processes in ICU care must be found, to thus provide clinicians and management with the inputs needed for decision making. Even so, this does not mean that all the important quality determinants can be measured, or that those that cannot be measured should be ignored. Deming stated that one of the seven deadly sins of management was to try to "lead a business using only visible figures" (15). However, measurement is needed to show improvements or detect deviations from the expectations.

Generating value outcomes and health impacts in patients and their families is the main goal of care, and it is advisable to not just include mortality and hospital stay indicators. Variables of interest to the consumers should be measured, reflecting their preferences, the meeting of their needs and the benefits they perceive in their ICU stay.

In designing the indicators, it is relevant to keep in mind that the outcomes are highly influenced by aspects like the patients' prior health status and healthcare behaviors (16). Therefore, these are complex measurements which, to be evaluated fairly and accurately, require identifying other potentially related factors that could modify the results, and making adjustments for them.

The pressing need to improve the quality of care in the ICU is essentially the way to close the gap between what the care teams believe happens in the unit and what the critically ill people and their families actually perceive and experience.

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**Table 3.** *Outcome indicators*.

| What to measure | Definition | How to measure |
|---|---|---|
| **Companionship** | **Patient**: Patients' perceived availability of someone with whom to share social activities like visits and conversations.<br><br>**Family:** Families' perceived availability of someone with whom to share and converse about the critical situation. | Frequency: quarterly overall unit evaluation.<br>Observation unit: individual ICU patient and family satisfaction surveys, in the item: Were you able to find companionship when you wanted it during your ICU stay (relatives, support groups, professionals, PCC leader, family schools)?<br>Measurement unit: Likert scale. For the overall evaluation, percentage by response option.<br>Source of information: satisfaction survey, obtained from a representative sample of all clinical records for the evaluation period, selecting clinical charts through simple random sampling. |
| **Emotional support** | **Patient**: Patients' perceived availability of someone with whom to express feelings and perceptions about the ICU experience and their health status.<br><br>**Family:** Families' perceived availability of someone with whom to express their feelings and perceptions about their ICU experience, their needs, and the patient's health status. | Frequency: overall quarterly evaluation of the department.<br>Observation unit: individual ICU patient and family satisfaction survey of the item: Did you find someone available with whom you could talk about your feelings, needs and perceptions of your ICU experience? (relatives, support groups, professionals, the PCC leader, family school).<br>Measurement unit: Likert scale. Percentage by response option for the overall evaluation.<br>Source of information: satisfaction survey, obtained from a representative sample of all the clinical records for the period, selecting clinical charts through simple random sampling. |
| **Information support** | Perceived availability of information or useful advice in making decisions. | Frequency: Quarterly overall evaluation of the department.<br>Observation unit: individual ICU patient and family satisfaction survey for the item: Did you find an available professional on the care team to give you information or guidance when you needed it during your ICU stay? Do you feel that the information or guidance you received was clear and useful in your situation?<br>Measurement unit: Likert scale. Percentage by response option for the overall evaluation.<br>Source of information: satisfaction survey, obtained from a representative sample of all clinical records during the period, selecting clinical charts through simple random sampling. |
| **Social isolation** | Perceptions of being avoided, excluded, separated, disconnected from their family members. | Frequency: quarterly overall evaluation of the department.<br>Observation unit: individual ICU patient and family satisfaction survey for the item: During your ICU stay, did you feel isolated from the significant person(s) in your life?<br>Measurement unit: Likert scale. Percentage by response option for the overall evaluation.<br>Source of information: satisfaction survey obtained from a representative sample of all clinical records for the period, selecting clinical charts using simple random sampling. |
| **Respect for preferences** | The perception that the patients' and families' preferences and needs were considered in therapeutic and care decision making. | Frequency: quarterly overall evaluation of the department.<br>Observation unit: individual ICU patient and family satisfaction survey for the item: During your ICU stay, do you feel that your needs and preferences were considered in making care or treatment decisions for you or your family member?<br>Measurement unit: Likert scale. Percentage by response option for the overall evaluation.<br>Source of information: satisfaction surveys obtained from a representative sample of all clinical records during the period, selecting clinical charts through simple random sampling. |


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