Continuous Quality Improvement: A Perioperative Nursing Approach

By Cindy Bruce-Barrett, Sherry Espin & Catherine Reichert

Since the 1980's, the health care community has shifted its interest from the traditional model of Quality Assurance to Continuous Quality Improvement. Most of the current work in this area originated from the efforts of Edward Deming in post war Japan. Deming developed a variety of techniques that North American industrialists adopted in response to the threat of Japanese competition. By the mid 1970's, Continuous Quality Improvement (CQI) had been successfully implemented by three of America's largest corporate giants; namely Xerox, Motorola and 3M. The Toronto Hospital, has kept pace with this emerging trend as they strive towards becoming a world class leader in patient care, education and research. By adopting Continuous Quality management, the institution will gain the direction it needs for achieving its mission "doing the right things right".

Abstract

This article describes in detail the steps taken in the Operating Room at the Toronto Hospital in implementing a Continuous Quality Management framework. Focusing on active participation, all levels of the O.R. staff worked through a process of identifying, developing, measuring and evaluating standards of practice. A step by step framework was followed in order to monitor current standards and develop new ones, thereby complying with the institution's mandate of supporting Continuous Quality Improvement.

Continuous Quality Improvement is a proactive approach to managing organizational activities while focusing on systems improvement and mutidisciplinary collaboration. There are five key components of the CQI framework that help to influence practice and create situations whereby quality "happens". These include a)Patient/Customer Focus; b)Total Staff Involvement; c)Measurement; d) Organizational Support; and e) Continuous Improvement.

Of paramount importance to the successful implementation of the Quality initiative is the involvement of staff from all areas of the Toronto Hospital (patient care, research, administration, support services). Everyone must actively contribute to the assessment and measurement of quality within their department on an ongoing basis. Quality is measured in terms of the seven dimensions of Quality which are inherent to the CQI framework. These include a) Accessibility; b) Acceptability; c)Appropriateness; d) Competence; e) Effectiveness; f) Efficiency and g) Safety.

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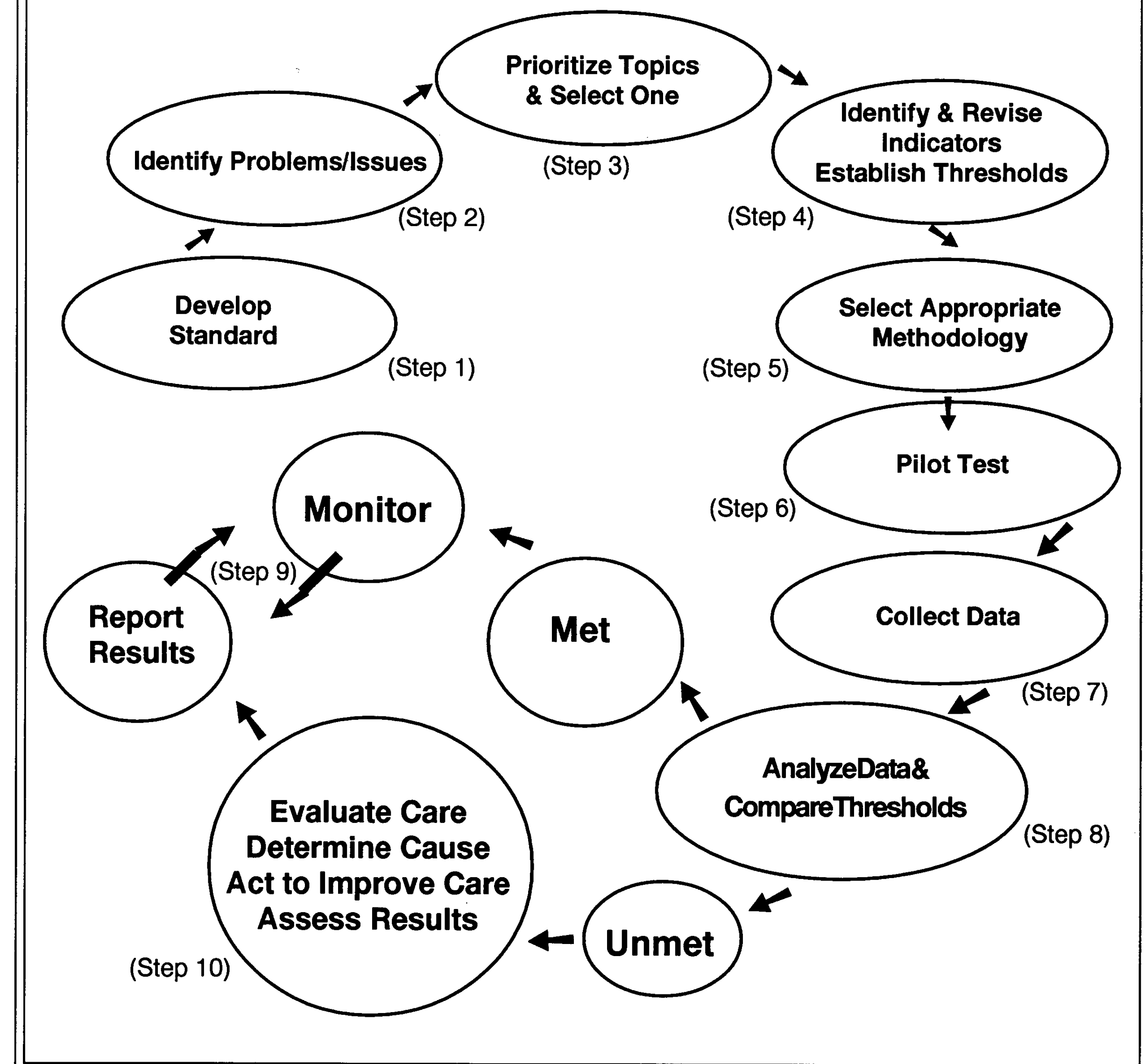
Figure 1



Acceptability examines whether the care or service provided actually meets the expectations of a department's patient or client. Accessibility involves the ease with which required care and service is received. Appropriateness determines whether the correct care and service are delivered. Competence explores the skills, knowledge and personal qualities of staff providing care. Effectiveness looks at whether care and service are being provided properly. Efficiency measures the degree to which care and services are administered employing a minimum of effort and expense. Lastly, safety ascertains what potential risks are avoided

and/or minimized.

Initially, nursing staff in the Operating Room faced the hospital's challenging mandate with trepidation. This framework and the reporting structure were very new and unfamiliar to most of us. Within a relatively short time frame(4 months) however, we were able to introduce the framework and implement a formal process for standard development and quality measurement . Our apprehension has since given way to new found confidence in our abilities, as well as a sense of determination to continue the pursuit of quality within our peri-operative nursing practice.

The drive towards implementing the Quality framework began with a massive, hospital-wide education strategy. Staff were encouraged to participate in a two hour workshop that helped them learn the fundamental principles of Standard development. In the Operating Room, staff nurses, educators and managers all attended the learning sessions in order to establish the foundation for assessment and building of nursing practice and patient care standards.

Develop Standards

Within the Operating room, the clinical educators recruited staff to join small work groups. The purpose of the groups was to develop unit based standards of patient care. (See Step 1 - Figure l) Four criterion were used to identify those aspects of practice that staff considered imperative to the service provided by the O.R. These included areas that were a)High Risk, b)High Volume, c)High Cost and d)Problem-prone.**(See Steps 2&3 - Figure l)** Each of the Toronto Hospital's divisions(Toronto General and Toronto Western) developed two standards based on the criterion. The standards included a)Surgical Counts, b)Maintenance of Skin Integrity, c)Aseptic Technique and d) Consents.

The first task for the working groups involved writing a descriptive statement of what the expected level of performance was. This statement became the benchmark against which quality would be measured. In developing our standard statements, we defined expectations of particular roles and evaluated the performance of care we expected to provide. We then derived indicators from our chosen standards. Literature has described an indicator as a quantitative measure to monitor the quality of care or service that is provided(Schyve and Provost,1990). In the Operating Room, we used indicators to direct our attention to the problem areas within our current practice.**(See Step 4 - Figure l)**

The developmental format we chose to address our chosen standards consisted of three distinct parts. Firstly, a statement of the standard is given. Secondly, the expected outcomes are identified and lastly, the process of how to achieve the outcome is described.

The working groups approached the development of critical indicators with these three key points in mind. The indicators, by definition, had to be measurable, well defined and valid. It was also important that the indicators be worded in such a way that they would solicit a Yes or No response. This latter point became necessary when developing a "user friendly" audit form. The ability to use a "check-box" format was far more practical for O.R. staff particularly with their exposure to time and staffing constraints. **(See Step 5 - Figure l)**

Pilot Test

After much discussion and revision, the completed audit tools were implemented. Staff who had not participated in the Standards working groups were updated through inservice presentations. Written instructions augmented the presentations and provided greater detail regarding the audit tools and the chosen standards.**(See Step 6 - Figure l)**

The first audit involved Surgical Consents. We asked nurses to complete one audit form for all patients every third day for a period of six weeks(day shift only). This proved to be far too lengthy a time period for auditing however, since the amount of paper generated was enormous and compliance with completing the audits gradually declined. Some of the audits were not completed hence, they had to be discarded. Despite these minor problems, the amount of data gathered was highly significant. In subsequent audits, the actual auditing time frame was reduced to include all patients, every day for a period of 2 weeks(day shift only). This revised frequency proved to be a better balance between quantity and quality of completed audits. **(See Step 7 - Figure 1)**

Analyze Data

Upon completion of the first audit period, data was compiled onto the data collection forms. Results were then transferred to Quality Status Report forms that were implemented hospital-wide. The results of the

audit provided a baseline ("where we are now") against which subsequent audits could be compared. The threshold("where we want to be") was agreed to be 100% for all of the indicators. Identification of baseline and threshold values enables us to measure our improvements in a practical and concrete way. To date, we have found that compliance with the standards measured was within range of the desired threshold. Comparisons were made with those indicators which fell below threshold. Data was analyzed and reviewed by the O.R. staff to help heighten awareness and consider revisions to practice.
(See Step 8 - Figure 1)

An educational inservice was given to present the results of the audits to the nursing staff. To make the presentation interesting and enjoyable, the Standards working groups (Toronto General division) reviewed the results of their audit and then presented a video that they had created. The video clearly demonstrated the more salient points with respect to aseptic technique and O.R. counts.

Evaluate Care

After analyzing the collected data and comparing it to our identified thresholds, we must now decide how to proceed. Essentially, if the threshold has been achieved, we will continue to monitor our practices and report the results on a quarterly basis **(See Step 9 - Figure 1)**. If the indicators are below threshold, we will make modifications to our practices. Once this is accomplished, we will then re-evaluate our improved practices to determine whether we have achieved the desired outcomes. **(See step 10 - Figure 1)**

Peri-operative Nursing at the Toronto Hospital intends to move forward in support of the Quality initiative and the institution's commitment to excellence. Through an established standard development process, nurses will be able to monitor existing standards as well as evaluate new methods of practice. Education and ongoing evaluation will play a vital role in our future endeavors if we are to continue to be successful in the implementation of a Quality Management framework.

References

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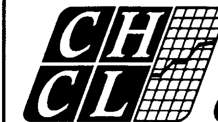

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Manuscripts are reviewed by the editorial review board members appointed by ORNAC, and when necessary by outside experts. Submissions are invited on new surgical techniques, descriptions of new technologies or new programs and educational material. Selection is based chiefly on the following criteria: originality, timeliness and relevance to the needs of the journal's readers.

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ORNAC/Johnson & Johnson Medical Products

Bursary for OR Nurses

By Shelly Zareski
Chairperson
ORNAC Awards Commmittee

This bursary was established to financially assist ORNAC members in furthering their education in areas that will enhance perioperative nursing practice. The ORNAC Awards Committee, comprised of members from across the country, choose successful applicants in accordance with established selection criteria

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