Practical guide for improving performance

Part 2 of a two-part series on performance improvement in perioperative services by Patrice Spath.

Continual performance improvement is the goal of every surgery department. Quality depends on good system design, consistent long-term direction, adequate leadership and follow-up, and individual motivation.

Part 1 of this series, published in the March issue, discussed two of the three important components of performance excellence: the human factors and performance measurement. The third component—performance improvement—is addressed in this article.

Most health care professionals are already deeply committed to the highest quality work. In support of this commitment, leaders should initiate improvement actions whenever there is a gap between what is actually happening and what is desired. These opportunities may be discovered in a variety of ways:

- incident reports
- analysis of performance measurement data
- findings from regulatory and accreditation surveys
- patient or client feedback
- physician and/or staff member concerns.

Systematic analysis of the data generated through these activities may identify problems or opportunities for improvement in processes or systems. The essential next step is to use the information to improve the quality and safety of care and services.

Choosing projects

The standards of the Joint Commission on Accreditation of Healthcare Organizations require leaders to define criteria for selecting improvement priorities, with activities that significantly affect patient outcomes being most important to work on improving. Because improvement projects are resource intensive, choices may need to be made when several opportunities for improvement are identified. Criteria that can be used in choosing an improvement project are in the sidebar.

What model will you use?

Performance improvement has many names that are often used interchangeably. You may have heard of total quality management, continuous quality improvement, plan-do-check-act, or clinical practice improvement.

The organization’s performance improvement plan should identify the improvement model to be used in all departments. Regardless of the model’s title or steps involved, important components are that the model:

- brings together a team of people who have knowledge of the process
- starts with a common understanding of the improvement goal
- uses data, not intuition or anecdotal references, to determine what changes need to be made
- makes people who “own” the process responsible for putting the changes into action
- uses data to determine the effectiveness of actions after implementation.

What approach will you take?

The two main approaches to investigating the cause of problems and taking actions are:

- process improvement
- root cause analysis.

The process improvement technique is best when you are addressing aggregate data; for example, from incident reports, ongoing performance measures, or
complaints. A root cause analysis is undertaken if a single incident such as a sen-
tinel event or near miss is identified and is of significant severity. Quality
improvement tools and techniques are used throughout each type of improve-
ment project. Whatever the type of project, systematic improvement in quality
requires recognizing the systems and processes of the service being provided. The
diagram on page 21 illustrates the steps in a process improvement project and a
root cause analysis. While the steps are slightly different, the first four phases are
similar in both types of projects:

1. **Plan**
   This is the starting point of the project. At the outset, decide on the process to
   be improved. There should be data available supporting the assumption that
   there is a problem.
   Problems may be given to a team to examine (such as a sentinel event investi-
gation), or the manager or staff may choose the problem to be studied. Once the
   nature of the project has been decided, the next important step is to gather the
   appropriate people to work on solving the problem.

   **Selecting the team**
   The project team should comprise people who meet the following criteria:
   • They must have a fundamental knowledge of the process and therefore should
     be people who work with or have a particular interest in the process.
   • They must represent all parts of the process and, as appropriate, the various
     levels in the organization. It is easy to unintentionally omit people who are
     considered external to a process, for example, representatives of the pathology
     or x-ray departments, allied health professionals, maintenance, and house-
     keeping staff.
   • At least one team member should be skilled in process improvement method-
     ologies or root cause analysis. Ideally, the team leader should have training in
     team facilitation.
   Depending on the process being investigated, consider including former
   patients or consumers on the project team. They often are able to bring a different
   perspective of the process and areas for improvement. The consumer representa-
   tive may be someone working in the organization who has had personal experi-
   ence as a surgical patient or may be someone external to the organization.
   The ideal size of a team is five to nine members. If it becomes too large, this
   may indicate that the scope of the project is too ambitious. Improvement takes
   time, and in a stressed work environment, physicians and staff members may
   find it difficult to participate as active team members. For this reason, meetings
   should be well structured to ensure members are able to contribute in the most
   time-effective manner.

   **Stating a goal**
   Once the team is assembled, develop a clear statement of what is to be accom-
   plished. The project will not result in improvements without a clear and firm
   intention to do so. Express the goal or aim in specific terms; eg, 30% improvement
   in appropriate timing of preoperative antibiotic administration within 6 months,
   or a 50% reduction in surgery start time delays within 3 months.
   Agreement on the goal is crucial as is allocation of the people and resources
   necessary to accomplish the goal.

2. **Diagnostic phase**
   During this phase, the team:
   • establishes the full extent of the problem
   • determines what changes can be made that will result in an improvement
   • selects measures to evaluate the success of the changes.
   The process of care to be improved must be thoroughly examined so that an
   accurate “diagnosis” of problem causes can be made. This part of the project
   requires a fair degree of planning. No one person should be expected to under-
take all aspects of the review. Data collection and analysis may take some time, but the importance of gathering this information cannot be overstated.

**Using assessment techniques**

Many proactive risk assessment techniques and process improvement tools may be used during this phase: process flow chart, customer focus group, brainstorming, checklist, cause-and-effect diagram, run chart or statistical process control chart, Pareto chart, events and causal factors chart, failure mode and effects analysis, etc.

A person trained in improvement techniques can help the team select the best tools to identify and analyze the process. Once all the information about the problem is gathered and examined, the team will need to agree on the principal causes for the problem. Based on the evidence presented, the team selects the interventions that will be trialed to bring about improvement.

**Identifying promising changes**

All improvement requires making a change, but not all changes result in improvement. Since changes in the system can be disruptive, it is important to identify the most promising changes. Many sources can contribute good ideas for changes: critical thinking about the current system, creative thinking, watching the process, getting insight from a completely different situation, learning how other organizations do it, and more. In addition, knowledge-based information such as the standards, recommended practices, and guidelines of the Association of peri-Operative Registered Nurses, recommendations by other professional groups, and relevant literature may provide ideas on how to change the process.

It may be helpful to know the types of errors people are making. This information can guide the team in determining what actions can best be taken to reduce mistakes. For example, procedural errors may indicate poor workload management, teamwork problems, and/or ineffective procedures. Communication errors may reflect inadequate team training or complacency. Decision errors point to the need for more training in expert decision making or critical thinking. Finally, violations of current policies or procedures may be an indication of poor procedures, weak leadership, or a culture of noncompliance.

**3. Intervention**

In this phase, the changes identified in the diagnostic phase are implemented. Changes must be tested prior to full implementation to assure everything goes as planned. People are far more willing to test a change if they know the changes can and will be amended as needed. Often, project teams are involved in testing more than one change at a time, all aimed at achieving the same ultimate goal.

Continuous performance improvement is basically a “trial-and-learning” approach. Process changes are tried, the consequences observed, and people learn from those consequences. The completion of one project can lead directly into the first phase of another project. The perioperative team learns what worked and what did not work; what should be kept as is, changed, or discarded; and this knowledge is used to plan the next improvement project.

Performance excellence requires a departmentwide commitment to constantly testing better ways of doing things as part of the daily routine. Such a commitment is not easy, but the alternative can be worse—accept an inadequate status quo or take blind stabs at improvement without a clear understanding of the consequences.

**4. Studying the impact**

All improvement projects include a follow-up phase; that is, data are gathered to determine the effectiveness of action plans. In some instances, existing performance measures can be used to evaluate results. In other situations, special studies of performance may be necessary. Health care organizations must be able to demonstrate to themselves and others that improvement activities have resulted in better performance. The accreditation standards of most groups, including
JCAHO and the Accreditation Association for Ambulatory Health Care, require that the effectiveness of improvement interventions be measured. The accreditation decisions made by these groups will be based in part on demonstrated effectiveness of an organization’s improvement projects.

**Measuring and recording**

After the changes are fully implemented, the effect is measured and recorded. If the actions were taken in response to a single event (a root cause analysis), and desired improvements are not realized, a process improvement project is undertaken to examine all the issues in greater depth. If actions were taken in response to a process improvement activity, and desired results are not realized, the team “back-tracks” to the diagnostic phase to re-evaluate the problem and select alternate solutions.

If the preliminary analysis of the process changes shows that actions have been successful, as defined by the goals of the project, then the changes are made on a permanent basis. This may require rewriting procedures, educating and training physicians and/or staff, formal communications, or other ventures for the actions to be incorporated into the way of doing things.

5. **Sustaining gains**

This fifth phase is the ongoing monitoring aspect of continual improvement. During this phase, the team determines how the process will be monitored periodically to determine if the process changes continue to achieve desired results. Relevant measures of performance are incorporated into the department’s routine monitoring activities.

**Summary**

Research has established that health care is not error free. The question facing perioperative units, as well as all health care services, is how to minimize the human factors that impact quality and safety. This two-part series on performance improvement in perioperative services was intended to help answer this question. Achieving performance excellence starts with a supportive work culture. The human issues of teamwork, communication, and leadership are crucial to achieving performance excellence. Next, perioperative caregivers must accept that all people make mistakes so systems and processes can be designed to be more “forgiving” of errors. Last, a planned and systematic approach must be used to measure, analyze, and improve performance.

Successful implementation of performance improvement calls for strong partnerships between physicians, managers, and staff members. Performance excellence requires that everyone work together to ensure that perioperative care is safe, effective, appropriate, customer focused, and efficient. 

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Criteria for choosing a PI project

Criteria that can be used include:
- The problem is important. It has been a problem for some time and is widespread. The benefit of solving the problem is obvious.
- Support for change exists. People recognize the need for change either because of personal experiences or because performance measurement data has persuaded them that a change is necessary.
- The project has emotional appeal or visibility. People are motivated to work on solving the problem.
- The status quo has risks. There are hazards associated with not addressing the problem. If something is not done, it may create other problems; eg, patient care may suffer, staff morale may drop, and/or physicians may no longer admit patients.