CENTRAL SERVICE (CS) DEPARTMENT MANAGERS MUST BE concerned about patient safety, physician satisfaction, and quality customer service tasks. They must consistently exhibit compassion, focus, and finely-tuned skills to meet expectations and departmental goals of 100% accuracy as they support healthcare facility services.

The discovery of errors is a critical activity in moving toward perfection. Attaining perfection is much like attaining instrument sterility: a germ survival rate of 10^-6 is required, and this “one in a million” goal must be met day-after-day and shift-after-shift. The goal of 100% accuracy rate for all CS functions may seem impossible to attain, but it is well worth the effort to seek it.

OBJECTIVE 1: EXPLAIN THE NEED TO PURSUE PERFECTION AND REVIEW THE IMPORTANCE OF 100% ACCURACY GOAL

CS professionals provide services to patients who require protection from infection and contamination. Surgeons depend on CS for the tools and products required to save lives. Quality customer service is needed and activities to attain and maintain high accuracy levels require time, effort and careful record keeping.

Daily CS activities are diverse, and specific functions must be separately identified when establishing activities for which 100% accuracy is required. The extent of sub-dividing activities can be based on departmental size, different surgical specialties, and responsibilities. Facility size and reporting structure should also be considered because the larger the facility and more diverse the service lines, the greater potential for error exists. Not surprisingly, human error is the most common type of documented error.

What does “100% accuracy” mean? The CS team in each specific facility must...
answer this question and agree on the definition, including factors that must be met before a product or service is considered “perfect.”

Where should the journey toward 100% accuracy begin? The best tactic often involves “baby steps” with a small first project that allows team members to learn the process and gain confidence. An early success encourages them and helps build momentum for more complex projects. As an example, if the primary goal (project) is to eliminate all processing defects, a smaller but critical building block project might involve ongoing inservice training directed at eliminating processing errors that occur.

**OBJECTIVE 2: DISCUSS THE NEED FOR COMPLETE INFORMATION WHEN ACCURACY RATES ARE ASSESSED**

Recorded information is required to measure accuracy/error rates, and the numbers must be factual. A surgeon who complains, “Every time I do surgery there is always an instrument missing that slows my case” does not provide accurate and useful data for analysis and decision-making. In this surgeon’s mind, the CS error rate is 100%. This example illustrates anecdotal information that can only be used to suggest a potential need for an error tracking study.

Some facilities may use tags attached to or included inside instrument trays that allow surgical suite staff to document tray discrepancies, but this method has its shortcomings. First, it relies on users to take the time and effort to record problems, and the tags must be returned to CS. Also, recovered tags indicating errors may not provide adequate information. Specific details about errors help to make corrections. Knowing what is missing, which scissors need sharpening, and which suction tip has no stylet can indicate where the error originates.

This example emphasizes the need for accurate and complete data and illustrates that inaccurate or missing information can skew the meaning of data that is collected. If quality improvement demands are driving the need to increase the accuracy of CS output, accurate data is essential. Manual data collection is time and energy consuming and may be appropriate when the project’s scope is small and adequate resources are available; however, electronic programs can cost-effectively streamline data collection and assist with data analysis. While this will likely require a financial investment prior to launching an improvement project, a valuable resource for additional process improvement projects will then be available. An advantage: CS professionals will spend less time in data collection and be more certain that relevant information is collected.

**OBJECTIVE 3: REVIEW A POSSIBLE ERROR TRACKING PROCESS (CASE STUDY) FOR ONE CENTRAL SERVICE FUNCTION**

Assume problems with the accuracy of surgical instrument trays have created a demand for improvement, and the CS manager has created a cross-functional process improvement team to address the challenge. The team has an equal number of representatives from CS, the Operating Room (OR), and a non-impacted area, such as dietary, finance, or education. Note: There should generally be an equal number from each department, and teams with more than nine members can create unwanted power struggles. Also, team members unaffected by the problem may guide the problem definition building process since they have no working knowledge of the CS/OR vocabulary or operating procedures. Team members who are not managers should be included because the best solutions for improving performance often come from those who perform the tasks being studied.

The accuracy rate of trays currently being assembled and sterilized is disputed by the OR staff, and surgeons’ complaints have been routed all the way to the Chief of Surgery. The project team must narrow the project’s scope to one that can be easily analyzed and resolved just as the project to eliminate all processing errors begins with training employees as part of an error corrective action process.

Team members narrow the focus of the study to building block size by determining if one service line (examples: orthopedics, or neurosurgery) can be documented with objective data (numbers) to have a lower accuracy rate than others. Data can be generated from OR or CS team member tray inspections.

After selecting the type of instruments
to study, the team builds definitions that everyone can agree on. They survey OR staff and surgeons who use the chosen category of instruments to learn how users describe a 100% accurate tray. The objective information collected indicates that the majority of the problems/errors that impact the accuracy rate involve specific trays. Total Hip and Total Knee Arthroplasty trays have the largest error rate, and members decide to narrow the project’s scope and initially focus on them.

Team members representing the CS and OR departments develop and agree on a list of what constitutes an error. This input will help to develop a specific data tracking tool and will ensure that everyone can agree on improvement results. The list is long and includes points not previously considered errors by some members of the team. Examples of numerous items on the error list include:

- Incomplete trays
- Unclean instruments
- Instrument stringers in improper order
- Holes in the package/tray
- Sterilization indicators have not appropriately changed
- Sterilization indicators were not easy to locate
- Moisture was present
- The tray was not ready at the requested time
- The tray was delivered to the wrong OR
- Scissors were not sharp

The project team uses the error list to build a tracking tool that measures the extent to which CS professionals avoid the problems identified on the tracking list and, in so doing, meet their customers’ needs and expectations.

The team also brainstorms about the actions and activities that contribute to each type of possible error. Team leaders want to ensure that brainstorming sessions do not become blaming sessions. To do so, they guide the discussion so members respectfully consider each point of concern they share with each other.

The result of these discussions is a draft of a survey tool team members think could be used to validate or eliminate causes of errors. The tracking tool can be completed by anyone after the person assembling the tray says it is ready for use. They decide that the tracking tool should be used for an agreed-upon limited time, and then team members will review the data generated to learn if the information collected was what they expected.

Team members decide that the survey was adequate (it did not require revision and re-testing), but they recognize that the project’s focus could be narrowed even more: Total Knee Arthroplasty trays (not Total Hip Arthroplasty trays) cause a majority of tray errors.

Since the team believes the current version of the tracking tool could not be improved upon, members select a project start date and measurement intervals for data collection and reporting. First, they consider the size and activity level of the Total Knee Arthroplasty procedures because they want to collect complete data at the best opportunities to provide a 100% accurate product. A small facility that does 10 total joint replacements a month might decide that a weekly data collection time frame is best to more quickly spot trends and make adjustments. Larger facilities that perform ten total joint replacements a day may choose a daily data collection format.

Project team members know that the data collected will steer the team into process improvement actions because it is difficult to argue with objective numbers. They also know that surprises do occur, that easy-to-make changes might bring the accuracy rate closer to 100%, and that data analysis will likely yield change suggestions.

The team understands that change is not easy, so they allow adequate time

Data collection is paramount in demonstrating the quality of products and services produced. Data must be accurate and complete regardless of whether the data is collected manually or with state-of-the-art computer programs. Determining the success of activities to help attain perfection requires the discovery of any errors that do occur.
OBJECTIVE 4: DESCRIBE BENEFITS THAT ACCRUE FROM IMPROVING PRODUCT AND SERVICE ACCURACY

Tracking and identifying errors is only part of the journey towards increased accuracy rates in CS departments of all sizes. The number of opportunities to demonstrate 100% accuracy must also be part of the equation. Data collection is paramount in demonstrating the quality of products and services produced. Data must be accurate and complete regardless of whether the data is collected manually or with state-of-the-art computer programs. Determining the success of activities to help attain perfection requires the discovery of any errors that do occur.

Reducing errors also reduces the cost of providing services. Time is money in the OR. Reducing wait times to correct tray errors and improve product turn over and availability saves money. Each of these benefits and others directly relate to patient safety, the success of surgical procedures, and the teamwork between CS and the OR, which, in itself, impacts each patient’s wellbeing.

IN CONCLUSION

Striving for 100% accuracy should be a goal of all CS professionals. Their compassion for the patient receiving services is not dependent on department size, number of service lines, or their organizational reporting structure. Their ongoing efforts to ensure that the surgeons and physicians have exactly what they need, and when and where they need it, are remarkable. They remain acutely aware that the life being saved might very well belong to one of their own family members. A process improvement team that involves CS professionals is a winning team for everyone.