

14. Quality, Competency and Performance Assessment

A. Perceptions of Quality

1. Purpose is to minimize variations in laboratory testing by providing a systematic process for improving health care processes and outcomes.
2. Stakeholders are those who have an interest in or are influenced by health care services
 - a. Have internal and external stakeholders.
 - b. May be considered customers or consumers
3. JCAHO key stakeholder involved in the process in hospitals
 - a. Total quality management (TQM)
 - b. Continuous quality improvement (CQI)
 - c. Quality assurance (QA)
4. Other stakeholders include medicare, medicaid, CAP, and other groups.
5. Quality can be evidenced by:
 - a. Training programs to teach basic skills
 - b. Certification
 - c. Professional associations
 - d. Code of ethics for the profession
 - e. Identification of competencies for the profession
6. Quality can be described in a variety of ways
 - a. Technical or scientific aspects of care
 - b. Nontechnical or interpersonal aspects of care.
7. Three major concepts
 - a. Efficacy
 - b. Appropriateness
 - c. Caring functions
8. One famous framework developed by Avedis Donabedian involves TQM and CQI and is divided into 3 major components:
 - a. Structure
 - 1) physical structure
 - 2) personnel structure
 - 3) management or administrative structure
 - b. Process-what is actually done to patient or client
 - c. Outcomes-what is accomplished for the patient
 - 1) Most difficult to measure
 - 2) Includes recovery rates, cure rates, nosocomial infections, etc.
 - 3) poor patient outcomes include: death, disease, disability, discomfort and dissatisfaction
9. Quality improvement for phlebotomists include monitoring and evaluating the following:
 - a. Technique
 - b. Complications
 - c. Recollection rates
 - d. Multiple sticks on same patient

10. Can evaluate customer satisfaction through use of questionnaires, mail outs or interviews
 - a. Determine why customers are dissatisfied
 - b. Determine which customers are unhappy (specific department, floor, service)

B. Tools and Trends For Performance Assessment

1. Includes analytical and non analytical and can be documented in many ways:
 - a. Flowcharts to break process down into components
 - b. Pareto charts are bar charts to illustrate frequency of problems
 - c. Cause-and-effect to identify interactions of equipment, methods, people
 - d. Plan-Do-Check-Act cycle for assessing, changing and reassessing
 - e. Line graphs, histograms, scatter diagrams to illustrate performance trends
 - f. Brainstorming to stimulate creative solutions from group involved.
2. Westgard is a very popular model for “5 Q framework” for clinical laboratories which is a self-perpetuating cycle of processes integral to a quality improvement plan.
 - a. Quality planning - QP
 - b. Quality laboratory practices QLP
 - c. Quality control (QC) of processes
 - d. Monitoring performance, quality assessment
 - e. Quality improvement, QI, when problems occur

C. CQI for Specimen collection Services

1. Information gained from questioning patients about different aspects of phlebotomy, analyze each factor of blood collection and services and target areas for improvement.
2. The **RUMBA** model is utilized to ensure appropriate criteria are assessed:
 - a. **R**-relevant
 - b. **U**-understandable
 - c. **M**-measurable
 - d. **B**-behavioral
 - e. **A**-achievable
3. Collection of data can be difficult but much of the needed information is available in patient care areas.

D. Collection Procedures to Ensure Quality

1. Divided into three areas:
 - a. Pre-analytic
 - b. Analytic
 - c. Post-analytic
2. Pre-analytic begins before the sample is collected.
 - a. Patient and container must be prepared result may not be accurate if patient not properly prepared.
 - b. Phlebotomist should be aware of protocols necessary to prepare patients and containers and instruct nursing staff as needed.

- c. Nursing staff must be provided with a book of describing laboratory services including:
 - 1) Preparation of patient.
 - 2) Special handling of specimens.
3. Must target specific issues, track them, analyze the data, and form policies and procedures to reduce collection errors.

E. Anticoagulants and preservatives: Quality Assurance.

1. Proper use critical, invert additive tubes, order of drawing tubes.
2. National Committee for Clinical Laboratory Standards (NCCLS), established requirements to assure quality, all anticoagulants and preservatives used should meet these requirements.
3. **Shelf life** - Expiration date printed on package and each tube, additives become ineffective after a period of time, critical to rotate stock so oldest in-date supplies are used first and out-dated supplies are discarded.
4. Volume of specimen is critical, manufacturers must test and verify fill accuracy until stated expiration.
5. When new lot number of tubes is received they must be checked for designated factors prior to being placed into use.
6. Handling of specimens
 - a. Quality of results relies on use of fresh specimens.
 - b. If test not preformed immediately phlebotomist must know how to store.
7. Requirements for a quality specimen:
 - a. Standard precautions followed
 - b. Patient properly prepared
 - c. Correct specimen drawn from correct patient and properly labeled
 - d. Correct tube drawn for the test ordered
 - e. Specimen is not hemolyzed or, if drawn into an anticoagulant, not clotted
 - f. Fasting specimens drawn in a timely fashion
 - g. Clot specimens stand at RT for 30 minutes to promote clot formation
 - h. Specimens transported to lab within 45 minutes of collection
8. Number of collection attempts must be monitored.
 - a. Identify phlebotomists who have numerous attempts and identify the problem
 - b. Have a written procedure for unsuccessful draws:
 - 1) maximum number of attempts
 - 2) patient unavailable
 - 3) patient refuses

9. Blood loss due to phlebotomy
 - a. Must be closely monitored for some patients.
 - b. Phlebotomists must realize blood conservation is a priority to prevent anemia and other complications.
 - c. Analytical variables can directly impact blood volume requirements:
 - 1) machines require minimum volume for testing
 - 2) machines may require tubes of a specific size to function
 - 3) aliquoting samples for different departments or send-outs
 - 4) repeat testing if machine fails QC
 - 5) add-on testing by physician
 - 6) volume requirements by tube manufacturers
 - d. Strategies to reduce blood loss focus on organizing and coordinating blood draws.
 - 1) “morning run” or other collection intervals to decrease blood draws
 - 2) other times during the day for blood draws to eliminate STAT requests.
 - 3) carefully investigate duplicate requests
 - 4) maintain daily tally of blood loss from each patient esp infants
 - 5) review standing orders for tests no longer needed because patient has improved
 - 6) reduce turn around times by reviewing all processes
10. QC and Preventive Maintenance of Specimen Collection Instruments
 - a. Equipment must be monitored and periodically checked to ensure accurate results:
 - 1) Thermometers
 - 2) Blood pressure cuffs
 - 3) Centrifuges
 - b. Centrifuges must have speeds checked periodically since this can affect the quality of the sample and results..

F. Competency and Performance Assessment

1. Goals of competency and performance assesment may include the following:
 - a. Evaluation of individual performance
 - b. Evaluate group or department performance
 - c. Meet standards of regulatory agencies (JCAHO, CAP)
 - d. Address problem issues within institution
2. Process is ongoing and includes the following areas:
 - a. Responsibility-what needs to done that relies on one person to complete
 - b. Authority-right to act and make decisions
 - c. Accountability-measurable assessment of consequences