Analyze each question and choose the best response. Record your rationale for each choice.

1. Quality improvement assumes that:
   a. Most problems with service delivery result from process difficulties, not individuals.
   b. Frequent inspection is necessary to improve quality.
   c. Employees generally try to avoid work.
   d. Top management leads all quality improvement activities.

2. The term “quality” as used in quality improvement usually refers to:
   a. Characteristics of a product or service that bear on its ability to satisfy stated or implied needs.
   b. A product or service free of deficiencies.
   c. Having a high degree of excellence.
   d. All of the above.

3. The major difference between traditional “quality assurance” activities (e.g., keeping track of the total number of different procedures conducted in your practice, rates of adverse outcomes) and “quality improvement” activities is that quality improvement also focuses on:
   a. People and competency.
   b. Analysis of data.
   c. Performance measures.
   d. Systems and processes.

4. Effective quality improvement does not require:
   a. Leadership and commitment from management with long-term vision.
   b. An emphasis on inspection of an individual’s work.
   c. Increased investment on employee education and training.
   d. Scientific redesign of processes/services.

5. A leadership style that is said to motivate employees, and that optimizes the introduction of change is:
   a. Autocratic – A clear top-down approach where a single individual has complete power of decision-making and little discussion is had for external input.
   b. Consultative – A style where leaders engage subordinates/peers in the decision-making and problem-solving process, but ultimately make the final decisions for the team.
   c. Participatory – An approach where leaders interact with other participants as peers, engaging them in the decision-making process and playing an equal role in the process as others and jointly carrying out the problem solving activities.
   d. Democratic – An open style of running a team where leaders facilitate discussion among all members, encourage ideas to be shared, and consider everyone’s input in order to make final decisions for the team.
6. Which representatives of a CV practice should be included on a quality improvement team to implement a new practice:

a. Cardiologists only.
b. Cardiologists and nurse practitioners.
c. Cardiologists, nurse practitioners, quality improvement staff, and practice administrator.
d. All staff directly affected by the quality improvement practice to be implemented.

7. When is it appropriate to collect and use data?

a. Before the QI project, to prove a problem exists.
b. During the QI project, to answer questions about the cause and help prioritize the implementation of improvements.
c. After the implementation of the improvement to maintain the gain.
d. All of Above.

8. Which of the following concerns would be best solved by a QI team?

a. A computer systems issue with linking the clinical database to the hospital ADT system.
b. A discipline issue with a problem employee.
c. An individual customer complaint regarding lengthy wait time.
d. A financial variance in cost per left heart cath procedure over the past 6 months.

9. The first step in problem solving is to:

a. Assume the worst.
b. Establish responsibility for change.
c. Collect and analyze data.
d. Define the problem issue.

10. After assessing current work flow and processes, a clinical team presumes that a delay can occur anywhere along the process of their tasks. Data is inadequate at this point to identify a particular time of day, day of week, type of patient, and/or step in the process that is largely responsible for the delays. Further data collection is necessary. What should the team “product” be for the next meeting?

a. A prioritization matrix.
b. A finalized data collection tool and instruction sheet for implementation.
c. A list of questions to be answered and a draft data collection tool.
d. A listing of possible solutions.

11. As a building block for determining whether or not quality has been improved, the use of basic descriptive statistics in applying CQI is critical. Which of the following is not a quantitative description of the basic features of a study?

a. Mean data values.
b. Frequency counts.
c. Hospital ratings.
d. Standard deviations.

12. Of the following quality tools, which would be most useful for identifying a problem in a process that could benefit from a quality improvement strategy?

a. Control chart  
b. Histogram  
c. Flow chart  
d. Run chart

13. A patient has a terminal illness. Against the family's wishes, the patient requests a "do not resuscitate" order. Which ethical principle supports the patient's decision?

a. Autonomy  
b. Beneficence  
c. Justice  
d. Nonmaleficence

14. Which ethical conflict places the equitable access to health care against actions that produce the greatest good?

a. Autonomy versus paternalism  
b. Fairness versus altruism  
c. Justice versus utilitarianism  
d. Veracity versus fidelity

15. Four strategies that promote staff empowerment are adopting a shared vision, team building, relinquishing administrative control, and:

a. counseling the staff frequently.  
b. delegating final decisions to the staff.  
c. providing detailed instructions of a proposed plan.  
d. rewarding performance that adheres to high standards.

16. The nurse executive is the chair of a new performance improvement team whose purpose is to address patient flow through the emergency department. A laboratory team member openly blames emergency department nurses for a long turnaround time in obtaining patient test results. To which phase of group development does the nurse executive attribute the blaming behavior?

a. Forming
b. Norming
C. Performing
d. Storming

20. A nurse executive sponsors a multidisciplinary team that is charged with educating patients scheduled for total joint replacement surgery, about topics including what to expect after discharge. What is the nurse executive's response when encountering resistance from team members?

a. Direct the mid-level managers to reemphasize the vision to their direct reports
b. Encourage the first-level managers to reinforce the vision to the team members
c. Gather together the various disciplines and listen to their concerns about the project
d. Reeducate the team members about how their role affects the outcome of the team

21. Which statement is an outcome indicator for an educational strategy?

a. The nurse working in a coronary care unit has successfully completed an advanced coronary care course.
b. The nursing care plan outlines a strategy for each patient problem
c. The patient names all medications to be taken after discharge.
d. The patient who is newly diagnosed with diabetes receives 10 hours of instruction.

22. A nurse executive most effectively improves employee job satisfaction by:

a. increasing employee salaries.
b. increasing staff autonomy.
c. offering more educational assistance.
d. providing a clinical advancement program.

23. A committee in a large urban hospital is appointed to plan improvements in patient care. The committee members include the:

a. chief nursing officer and the chief medical officer.
b. institution's strategic planning committee members.
c. medical, nursing, and ancillary staff personnel.
d. senior management and the budget adviser.

24. Which of the following describe examples of patient safety barriers?

a. Persistent fear and hierarchical authority
b. Complexity and deficient measures
c. Reporting systems and safety culture
Analyze each question and choose the best response. Record your rationale for each choice.

1. Quality improvement assumes that:

   a. Most problems with service delivery result from process difficulties, not individuals.
   b. Frequent inspection is necessary to improve quality.
   c. Employees generally try to avoid work.
   d. Top management leads all quality improvement activities.

   Response A is correct. QI starts with the assumption that errors occur as a result of system failures, not individual errors. We should eliminate response C.

   In response B, frequent inspection might help ensure quality control over the process we have now, but will not help us exceed the capability of the existing process to improve quality.

   In response D, top management would be the CEO and senior management—there is not enough of them to go around to lead ‘all’ QI activities.

2. The term “quality” as used in quality improvement usually refers to:

   a. Characteristics of a product or service that bear on its ability to satisfy stated or implied needs.
   b. A product or service free of deficiencies.
   c. Having a high degree of excellence.
   d. All of the above.

   Although each of the definitions provided are different ways in which we think of attribute of “quality”, quality improvement focuses on delivering quality services or products as determined by the customer. Therefore, in QI, high “quality” rests on the ability to satisfy customer needs.

   A product or service that is free of deficiencies or has a high degree of excellence but does not meet the customer needs would not be considered a “quality” result (we would think of it as wasteful).

   Note also the IHI “Triple Aim”:

   - Improving the patient experience of care (including quality and satisfaction);
   - Improving the health of populations; and
   - Reducing the per capita cost of health care.
3. The major difference between traditional “quality assurance” activities (e.g., keeping track of the total number of different procedures conducted in your practice, rates of adverse outcomes) and “quality improvement” activities is that quality improvement also focuses on:

a. People and competency.
b. Analysis of data.
c. Performance measures.
d. Systems and processes.

While quality improvement strategies also stress the importance of data analysis, rely on performance measures to benchmark progress, and occasionally assess individual capabilities, one of its key principles is the focus on systems and processes (rather than individuals or products) to introduce positive change to an organization’s performance.

4. Effective quality improvement does not require:

a. Leadership and commitment from management with long-term vision.
b. An increased emphasis on inspection of an individual’s work.
c. Increased investment on employee education and training.
d. Scientific redesign of processes/services

Quality improvement strategies focus primarily on systems and process changes, but this does not mean that inspection of the results of individuals’ work or how well people perform in the existing systems should be ignored. Note: We’re talking about inspecting ‘work’ not a person.

Inspection or observation is a scientific method used in evaluating how systems and processes are working and can provide clues on how or where to improve. So while we wouldn’t ignore the need to inspect individuals work, we also wouldn’t increase our emphasis on this aspect of the process. Strong leadership, team commitment, and enhanced education and training are all very necessary for effective QI interventions to succeed.

5. A leadership style that is said to motivate employees, and that optimizes the introduction of change is:

a. Autocratic – A clear top-down approach where a single individual has complete power of decision-making and little discussion is had for external input.
b. Consultative – A style where leaders engage subordinates/peers in the decision-making and problem-solving process, but ultimately make the final decisions for the team.
c. Participatory – An approach where leaders interact with other participants as peers, engaging them in the decision-making process and playing an equal role in the process as others and jointly carrying out the problem solving activities.
d. Democratic – An open style of running a team where leaders facilitate discussion among all members, encourage ideas to be shared, and consider everyone’s input in order to make final decisions for the team.
Bringing about change in health care settings often involves the participation of all staff. Each professional plays a role in satisfying the organization’s customer (i.e., patients) since the responsibility for the care provided is shared. Therefore, whoever leads a quality effort practice should be prepared to take a central but equal (team-oriented) role in the activities identified for establishing change. Shared governance is a feature of Magnet hospital status; this is a staff-leader peer partnership that promotes collaboration, participative decision making and shared accountability for improving quality of care, safety, and enhancing work life.

6. Which representatives of a CV practice should be included on a quality improvement team to implement a new practice:

a. Cardiologists only.
b. Cardiologists and nurse practitioners.
c. Cardiologists, nurse practitioners, quality improvement staff, and practice administrator.
d. All staff directly affected by the quality improvement practice to be implemented.

This is important because successful implementation of an intervention most often occurs when all relevant or affected parties are aware of the changes being made or tested, have been bought into the endeavor, are willing participants, and understand what their role will be in bringing about necessary changes. This is also important because these are the people who likely know the most about the process or system being changed.

7. When is it appropriate to collect and use data?

a. Before the QI project, to prove a problem exists.
b. During the QI project, to answer questions about the cause and help prioritize the implementation of improvements.
c. After the implementation of the improvement to maintain the gain.
d. All of Above.

Because quality improvement is intended to be continuous, and because data gathering and analysis is a key activity of assessing performance and areas for improvement, it is always appropriate to collect and use data to inform these processes. It is up to team members to evaluate if ceasing to collect data for a QI intervention is reasonable at any point.

Or to state another way, we need to substantiate the need for a particular improvement (and its associated cost) with data. We need to collect data and analyze it during the PDSA cycles. And we often want to continue monitoring to ensure we have sustained the improvement.

8. Which of the following concerns would be best solved by a QI team?

a. A computer systems issue with linking the clinical database to the hospital ADT system.
b. A discipline issue with a problem employee.
c. An individual customer complaint regarding lengthy wait time.
d. A financial variance in cost per left heart cath procedure over the past 6 months.
Substantial variation in cost for a procedure is a problem that directly affects customers and could have implications for organizational processes. It is an ideal concern for a QI team to handle.

Response A is a one-time technical fix that requires little QI analysis to solve. Response B is an employee concern, best handled by senior management. Although customer complaints about long waits could warrant a situation handled by a QI team, one customer complaint is usually insufficient for establishing and investing in a QI intervention.

9. The first step in problem solving is to:

a. Assume the worst.
b. Establish responsibility for change.
c. Collect and analyze data.
d. Define the problem issue.

In order to embark on any quality improvement activity, a problem that can benefit from an intervention must first be identified. In the IHI model, we identify the aim. Data collection and analysis would occur later during the PDSA cycle. We should eliminate responses A and B—neither of which are very useful.

10. After assessing current work flow and processes, a clinical team presumes that a delay can occur anywhere along the process of their tasks. Data is inadequate at this point to identify a particular time of day, day of week, type of patient, and/or step in the process that is largely responsible for the delays. Further data collection is necessary. What should the team “product” be for the next meeting?

a. A prioritization matrix.
b. A finalized data collection tool and instruction sheet for implementation.
c. A list of questions to be answered and a draft data collection tool.
d. A listing of possible solutions.

Because no root causes have been identified at this point for the problem at hand, developing a list of possible solutions or a finalized data collection tool to measure activities in specific areas would be premature. A prioritization matrix would be less helpful at this point since it is more of a decision tool intended to “rank” a list of problems or metrics to focus on next. In this case, because yet more data is needed to determine what intervention to put through the PDSA cycle, a list of additional questions that the team would like answered should be created along with a draft of how to capture data that would help them drill down to a root cause or a specific process to focus on.

11. As a building block for determining whether or not quality has been improved, the use of basic descriptive statistics in applying QI is critical. Which of the following is not a strictly quantitative description of the basic features of a study?

a. Mean data values.
b. Frequency counts.
c. Hospital ratings.
d. Standard deviations.
Although hospitals ratings are one way to describe a hospital’s performance or a way to compare hospitals against each other, it is not a basic component of general descriptive statistics. Mean data values, frequency counts, and standard deviations are all foundational elements of typical data analysis. Hospital ratings are usually based on a suite of indicators—some built from quantitative data and some from qualitative data.

12. Of the following quality tools, which would be most useful for identifying a problem in a process that could benefit from a quality improvement strategy?

a. Control chart  
b. Histogram  
c. Flow chart  
d. Run chart

A flow chart (or process map) would be very useful for examining the steps in a process failure to identify a root cause.

13. A patient has a terminal illness. Against the family's wishes, the patient requests a "do not resuscitate" order. Which ethical principle supports the patient's decision?

a. Autonomy  
b. Beneficence  
c. Justice  
d. Nonmaleficence

The patient is looking for self-determination—autonomy would support this.

14. Which ethical conflict places the equitable access to health care against actions that produce the greatest good?

a. Autonomy versus paternalism  
b. Fairness versus altruism  
c. Justice versus utilitarianism  
d. Veracity versus fidelity

Responses A and D should be eliminated—we’re not talking about truth, self-determination, loyalty, or treating others like children. Fairness and altruism have more to do with our emotions and concerns about others. Justice is about equality or equity; utilitarianism deals with actions resulting in the greatest good for the greatest number of people.

15. Four strategies that promote staff empowerment are adopting a shared vision, team building, relinquishing administrative control, and:

a. counseling the staff frequently. --?!
b. delegating final decisions to the staff. —the leaders need to retain final authority/responsibility

c. providing detailed instructions of a proposed plan.—micromanaging/needs to elicit team input
d. rewarding performance that adheres to high standards.

16. The nurse executive is the chair of a new performance improvement team whose purpose is to address patient flow through the emergency department. A laboratory team member openly blames emergency department nurses for a long turnaround time in obtaining patient test results. To which phase of group development does the nurse executive attribute the blaming behavior?

a. Forming—the team is brought together
b. Norming—team members begin to resolve differences
c. Performing—team members begin to obtain results
d. Storming—refers to the conflict-ridden stage of team development

20. A nurse executive sponsors a multidisciplinary team that is charged with educating patients scheduled for total joint replacement surgery, about topics including what to expect after discharge. What is the nurse executive's response when encountering resistance from team members?

a. Direct the mid-level managers to reemphasize the vision to their direct reports
b. Encourage the first-level managers to reinforce the vision to the team members
c. Gather together the various disciplines and listen to their concerns about the project
d. Reeducate the team members about how their role affects the outcome of the team

Response C is the only one that respects the perspective of the team members and engenders participation.

A law is binding; a regulation is an interpretation of how a law is to be applied. A policy is broad and describes how people should act in a particular situation. When usual or unplanned events occur, exceptions to policy can be granted (with good justification). A procedure has detailed steps.

21. Which statement is an outcome indicator for an educational strategy?

a. The nurse working in a coronary care unit has successfully completed an advanced coronary care course.
b. The nursing care plan outlines a strategy for each patient problem
c. The patient names all medications to be taken after discharge.
d. The patient who is newly diagnosed with diabetes receives 10 hours of instruction.

Response B should be eliminated due to no focus on any educational strategy (this is a care strategy). Completing a course or receiving instruction indicates successful completion of the material but the individual in these is not actively demonstrating competency—which we do see in response C.
22. A nurse executive most effectively improves employee job satisfaction by:

a. increasing employee salaries.
b. increasing staff autonomy.
c. offering more educational assistance.
d. providing a clinical advancement program.

Money is a short term fix for employee satisfaction. Intrinsic motivation, such as increasing autonomy, will produce long term results.

23. A committee in a large urban hospital is appointed to plan improvements in patient care. The inter-professional committee members include the:

a. chief nursing officer and the chief medical officer.
b. institution's strategic planning committee members.
c. medical, nursing, and ancillary staff personnel.
d. senior management and the budget adviser.

The stakeholders of the processes need to be involved. The other personnel are too far removed from patient care.

24. Which of the following describe examples of patient safety barriers?

a. Persistent fear and hierarchical authority
b. Complexity and deficient measures
c. Reporting systems and safety culture—this is the only item that would support patient safety!
d. Diffuse accountability and lack of leadership
e. All of the above
f. A, B, and D
g. B, C, and D