***Electrocardiography for Healthcare Professionals, 5e* (Booth)**

**Chapter 1 Electrocardiography**

1) What is the number one cause of death in the United States?

A) Cancer

B) Diabetes

C) Cardiovascular disease

D) Accidents

2) The abbreviation CAD stands for:

A) cold appendage disorder.

B) coronary application disease.

C) cerebral artery disease.

D) coronary artery disease.

3) What does the electrocardiogram or ECG detect?

A) The electrical activity of the heart

B) The muscle contractions of the heart

C) High blood pressure readings

D) The volume of blood pumped per minute

4) The first electrocardiograph was invented by:

A) Sir Thomas Lewis.

B) Willem Einthoven.

C) Thomas Edison.

D) Dr. James Herrick.

5) The abbreviation for myocardial infarction, also known as a heart attack, is:

A) IM.

B) HA.

C) MI.

D) MCI.

6) An electrocardiograph (ECG) technician should be able to:

A) determine if an ECG tracing is accurate.

B) interpret the findings of an ECG tracing.

C) discuss the results of an ECG with the patient.

D) recommend patient care based on ECG findings.

7) An ECG monitor technician's main responsibility is to:

A) view the ECG tracings and alert the health care professional of an abnormal heart rhythm.

B) assist the physicians with invasive cardiovascular diagnostic tests.

C) perform ultrasounds of the heart and blood vessels.

D) repair hospital telemetry monitors.

8) A "stat" ECG is done:

A) yearly, as part of a routine physical.

B) immediately.

C) in the early morning.

D) before surgery.

9) Continuous ECG monitoring done in a hospital setting with a small transmitter box is known as:

A) Holter monitoring.

B) telemetry monitoring.

C) exercise electrocardiography.

D) echocardiography.

10) Which of these tests is *least likely* done in a doctor's office?

A) Treadmill stress testing

B) Holter monitor

C) 12-lead ECG

D) Cardiac catheterization

11) What device enables lay rescuers to help a patient with sudden cardiac arrest?

A) Automatic external defibrillator (AED)

B) Telemedicine monitor

C) Pacemaker

D) 12-lead ECG

12) Which of the following topics is the *least* important for an ECG technician to understand?

A) Medical law and ethics

B) Infection control

C) The procedure and the ECG machine

D) Detailed evaluation of ECG results

13) Which of the following is not included in standard precautions?

A) Proper hand hygiene

B) Sterilizing the ECG machine

C) Wearing gown, mask, and eye protection

D) Use of gloves

14) If the patient asks questions after you have explained the ECG procedure, you should:

A) repeat the instructions and clarify any questions the patient has.

B) ask the physician to answer the patient's questions.

C) perform the ECG as ordered.

D) have a co-worker explain the procedure to the patient.

15) Ethics are:

A) rules of conduct that are enforced by an authority.

B) statements of cultural values

C) standards of behavior and concepts of right and wrong.

D) determined by government regulations.

16) HIPAA stands for:

A) Health Information Privacy and Availability Act.

B) Health Insurance Professionals Accounting Act.

C) Health Insurance Portability and Accountability Act.

D) Health Information Portability and Alternative Act.

17) Which of the following is an example of practicing ethics as a healthcare professional?

A) Maintaining professional liability insurance

B) Educating patients about the ECG procedure

C) Maintaining patient confidentiality

D) Troubleshooting the ECG machine

18) Which of the following is not implied consent?

A) Patient agreeing to be treated by the physician

B) Patient signing a consent form for a treadmill stress test

C) Patient agreeing to have an ECG

D) Patient coming to the doctor's office for care

19) Your patient states, "I do not want that electricity going through me!" as you are getting ready to perform an ECG on him. The best response is to:

A) explain that the ECG machine is not harmful and does not produce electricity.

B) ask the patient to please lie down and be still.

C) show the patient that you will not plug the ECG machine into the wall outlet.

D) go get the physician and have him explain the procedure to the patient.

20) Who should sign the consent form if a patient cannot read or write?

A) The patient's physician

B) A co-worker

C) A family member of the patient

D) Your supervisor

21) You have a patient that can only sign an "X" on the consent form. You need to:

A) leave the consent form blank.

B) explain the procedure to the patient with a witness present, have the patient place an X on the form, and have the witness sign the form also.

C) explain the reason the patient only signed an "X" on the consent form.

D) have the physician sign the consent form.

22) The term for an abnormal heartbeat is:

A) angioplasty.

B) dysrhythmia.

C) myocardial infarction.

D) coronary artery disease.

23) What does the term "Code Blue" mean when used in a hospital setting?

A) A biohazard spill has occurred in the hospital.

B) Severe weather is imminent.

C) A patient is experiencing pain around the heart.

D) A patient is unresponsive and needs immediate assistance.

24) The \_\_\_\_\_\_\_\_ monitor allows the patient to participate in normal daily activities while the electrical activity of the heart is being recorded.

A) Holter

B) biphasic

C) multichannel

D) telemetry

25) Which of the following is *not* a reason for performing an ECG?

A) To determine if there is a blockage in a coronary artery

B) To check for heart rhythm abnormalities

C) To document irregular heartbeats

D) As part of a yearly, routine physical exam

26) Slander is an illegal and unethical act and is defined as:

A) writing defamatory words.

B) violating patient confidentiality.

C) making derogatory remarks about someone.

D) failing to obtain informed consent.

27) \_\_\_\_\_\_\_\_ means writing defamatory words. It is illegal and unethical and could result in the loss of your job.

A) HIPAA

B) Libel

C) Consent

D) Liability

28) Which device recognizes an abnormal rhythm and can deliver an electric shock to the heart if necessary?

A) ECG

B) CAD

C) MSET

D) AED

29) PPE is used to reduce the risk of transmission of infection. PPE stands for:

A) personal protective equipment.

B) possible percutaneous exposure.

C) pulmonary protection equipment.

D) patient protective electrocardiograph.

30) The problem-solving process includes which of the following steps?

A) Identify and define the problem.

B) Inform the patient of the problem.

C) Report the problem to a supervisor.

D) Obtain informed consent from the patient.

31) When caring for patients and recording an ECG, you may encounter many situations that require you to:

A) think critically about the situation.

B) perform the ECG before getting the patient's informed consent.

C) not worry about what the patient may tell you.

D) ask a supervisor to perform the ECG.

32) Which of the following include measures to ensure that patients' health information is protected?

A) Standard precautions

B) Isolation precautions

C) HIPAA

D) CDC

33) Procedures that are used with all patients to prevent the spread of infection are:

A) airborne precautions.

B) standard precautions.

C) contact precautions.

D) droplet precautions.

34) You have just finished performing an ECG on a hospital patient who is known to have a Clostridium difficile infection when you are called to perform a stat ECG in the emergency department. Which of the following is your best course of action?

A) Proceed to the emergency department immediately to perform the ECG.

B) Quickly apply an alcohol-based hand rub while you are on your way to the emergency department.

C) Remove all PPE and wash your hands thoroughly before proceeding to the emergency department.

D) Wash your hands but leave the PPE in place to save time because you may need it for the emergency patient as well.

35) You have been asked to perform an ECG on a hospital patient in ICU. When you reach the patient's room, you notice that the patient is under airborne precautions. In addition to gloves, which of the following PPE should you wear while you perform the ECG?

A) Gown

B) Goggles

C) Face mask

D) HEPA respirator

36) An electrocardiograph is a(n):

A) electrical tracing of the heart's activity.

B) picture of the heart recorded using ultrasound.

C) instrument used to record blood flow through the heart.

D) instrument used to record a tracing of the heart's electrical activity.

37) Narrowing of the arteries that supply the heart with blood is a condition known as:

A) myocardial infarction.

B) coronary artery disease.

C) dysrhythmia.

D) hypotension.

38) The second level of procedures implemented by the Centers for Disease Control and Prevention (CDC) to prevent infections is known as:

A) isolation precautions.

B) vital signs.

C) body mechanics.

D) standard precautions.

39) The single most important thing you can do to prevent the spread of infection while performing ECGs is to:

A) wear appropriate PPE.

B) perform proper hand hygiene.

C) follow standard precautions.

D) follow isolation precautions.

40) The use of an alcohol-based hand rub for hand hygiene is appropriate:

A) when there is no visible soilage on your hands.

B) after a patient sneezes, spraying your ungloved hands.

C) whenever your hands look and feel dirty.

D) after accidental direct contact with blood or body fluids.

41) Which of the following statements best describes the action you should take after performing an ECG on an accident patient whose chest is abraded and bloody?

A) Clean the electrodes thoroughly before using them on another patient.

B) Use a mild soap to clean the ECG machine without harming its sensitive electronics.

C) Clean, disinfect, or sterilize all reusable equipment before using it again.

D) Wash your hands thoroughly before cleaning the ECG machine.

42) Which of the following items is *not* included in an assessment of a patient's vital signs?

A) Respiration

B) Pain assessment

C) Level of consciousness

D) Blood pressure

43) The normal range for respirations in adults is:

A) 12 to 20 respirations per minute.

B) 22 to 30 respirations per minute.

C) 40 to 50 respirations per minute.

D) 60 to 100 respirations per minute.

44) The amount of blood the heart pumps each minute is known as the:

A) diastolic blood pressure.

B) systolic blood pressure.

C) pulse.

D) cardiac output.

45) The adult pulse is most commonly measured at the:

A) brachial artery at the antecubital space.

B) radial artery at the wrist.

C) temporal artery at the forehead.

D) carotid artery at the neck.

46) For how long should you count a patient's respirations?

A) 15 seconds

B) 30 seconds

C) 45 seconds

D) 60 seconds

47) A person who has tachypnea is:

A) breathing deeply.

B) breathing rapidly.

C) having trouble breathing.

D) finding it painful to breathe.

48) A patient who is having difficulty breathing is said to have:

A) hyperpnea.

B) tachypnea.

C) dyspnea.

D) apnea.

49) The force at which blood is pumped against the walls of the arteries is a person's:

A) cardiac output.

B) blood pressure.

C) stroke volume.

D) pulse.

50) The minimum amount of pressure that is exerted against the walls of blood vessels at all times is the:

A) diastolic blood pressure.

B) systolic blood pressure.

C) cardiac output.

D) pulse.

51) All of the following factors can affect a person's blood pressure *except*:

A) blood volume.

B) blood type.

C) cardiac output.

D) blood thickness.

52) During her last two doctor appointments, a patient's blood pressure was measured at 160/92 and 156/94. The physician has not been able to identify a cause for these blood pressure readings. This patient has:

A) hypotension.

B) low cardiac output.

C) essential hypertension.

D) secondary hypertension.

53) To measure a patient's blood pressure, you would place the blood pressure cuff:

A) midway between the wrist and the elbow.

B) around the antecubital space at the elbow.

C) 1 to 2 inches above the antecubital space.

D) 3 to 4 inches above the antecubital space.

54) The reason for determining a patient's palpatory blood pressure is:

A) because it is faster and more accurate than using a stethoscope to measure blood pressure.

B) to ensure that the patient's cardiac output is sufficient before measuring blood pressure.

C) to find the patient's vein so that you can place the stethoscope accurately.

D) to avoid over- or underinflation of the blood pressure cuff.

55) A blood pressure measurement that is determined using a sphygmomanometer and a stethoscope is known as a(n):

A) palpatory blood pressure.

B) systolic blood pressure.

C) diastolic blood pressure.

D) auscultated blood pressure.

56) One out of every \_\_\_\_\_\_\_\_ American adults has some form of coronary artery disease.

A) five

B) three

C) six

D) ten

57) Cardiac dysrhythmias are:

A) the natural rhythm of the heart.

B) abnormal heartbeats.

C) the natural result of physical activity.

D) considered normal in pediatric patients.

58) Slander and libel are:

A) nearly impossible to prove.

B) ethical but not illegal.

C) illegal but not unethical.

D) both illegal and unethical.

59) If a patient refuses to sign the informed consent form for an ECG, a good example of troubleshooting is to:

A) have a witness present and carry on with the procedure.

B) explain to the patient how the procedure works in order to get his/her consent.

C) have a relative sign the consent form.

D) put an X on the consent form to indicate that the patient was not competent.

60) Which of the following is *not* a specific type of isolation precaution implemented for hospitalized patients?

A) AIDS precautions

B) Droplet precautions

C) Airborne precautions

D) Contact precautions

61) Which of the following is *least* likely to help the ECG technician maintain infection control while performing an ECG procedure?

A) Use standard precautions.

B) Wash hands prior to the procedure.

C) Wear gloves if there is a risk of exposure to the patient's blood or other body fluids.

D) Be sure the patient is not touching the bed frame.

62) You have been asked to perform an ECG on a patient who is known to be infected by the varicella virus. You have not had chickenpox, and you have not been vaccinated against it. What should you do?

A) Observe the usual standard precautions while performing the ECG.

B) Wear gloves and respiratory protection while performing the ECG.

C) Wear gloves and eye protection while performing the ECG.

D) Wear a disposable gown while performing the ECG.

63) You have been asked to perform an ECG on a hospital patient who is known to have infectious pulmonary tuberculosis. Which of the following precautions should you take?

A) Standard precautions only

B) Standard precautions and airborne precautions

C) Standard precautions and droplet precautions

D) Standard precautions and contact precautions

64) A patient complains of feeling lightheaded and having frequent fainting spells. Which test might the physician order to determine whether a drop in heart rate or blood pressure may be causing the patient's symptoms?

A) Holter monitoring

B) Angiogram

C) Tilt table test

D) ECG

65) Which of the following monitoring methods is performed while the patient is outside of the hospital/clinical setting?

A) Stress test

B) Telemetry

C) Pacemaker implantation

D) Transtelephonic monitoring

66) What is the approximate size and shape of the smallest transtelephonic monitor?

A) Pencil eraser

B) Candy bar

C) Jump drive or credit card

D) Pack of cigarettes

67) Which of the following is most important to perform prior to performing an ECG?

A) Explain to the patient what you are going to do before you do it

B) Take your assigned break

C) Remove your gloves

D) Don a mask

68) The term ethics is defined as:

A) Standards of behavior and concepts of right and wrong

B) The principles and regulations established in a community by some authority

C) Something that is handed down

D) The limit which the law allows for specific education and experience, to perform certain acts

69) Medical record documentation requires all the following EXCEPT:

A) Medications and prescriptions

B) Patient's medical history

C) Physician examination and results

D) Foster parent medical history

70) Which of the following techniques is the BEST demonstration of proper body mechanics?

A) Lift with your legs, not your back

B) Always move patients without assistance

C) Face in the opposite direction that you intend to move

D) Keep heavy weights as far away from your body as possible

71) Which of the following types of hypertension has no known cause?

A) Essential (Idiopathic)

B) Adventitious

C) Secondary

D) Hypovolemic