Chapter 1 Clinical Reasoning, Differential Diagnosis, Evidence-Based Practice, and Symptom Analysis

Multiple Choice
Identify the choice that best completes the statement or answers the question.

_____ 1. Which type of clinical decision-making is most reliable?

A	Intuitive
B	Analytical
C	Experiential
D	Augenblick

_____ 2. Which of the following is <u>false</u>? To obtain adequate history, health-care providers must be:

A	Methodical and systematic
B	Attentive to the patient's verbal and nonverbal language Able to
C	accurately interpret the patient's responses Adept at reading into the
D	patient's statements

_____ 3. Essential parts of a health history include all of the following <u>except</u>:

A	Chief complaint
B	History of the present illness
C.	Current vital signs
D	All of the above are essential history components

_____ 4. Which of the following is <u>false</u>? While performing the physical examination, the examiner must be able to:

A	Differentiate between normal and abnormal findings
B	Recall knowledge of a range of conditions and their associated signs and symptoms Recognize how
C	certain conditions affect the response to other conditions
D	Foresee unpredictable findings

_____ 5. The following is the <u>least</u> reliable source of information for diagnostic statistics:

A	Evidence-based investigations
B	Primary reports of research
C	Estimation based on a provider's experience
D	Published meta-analyses

_____ 6. The following can be used to assist in sound clinical decision-making: Algorithm

A	published in a peer-reviewed journal article
B	Clinical practice guidelines
C	Evidence-based research
D	All of the above

_____ 7. If a diagnostic study has high sensitivity, this indicates a:

A	High percentage of persons with the given condition will have an abnormal result
B	Low percentage of persons with the given condition will have an abnormal result Low likelihood
C	of normal result in persons without a given condition
D	None of the above

_____ 8. If a diagnostic study has high specificity, this indicates a:

A	Low percentage of healthy individuals will show a normal result

B	High percentage of healthy individuals will show a normal result
C	High percentage of individuals with a disorder will show a normal result
D	Low percentage of individuals with a disorder will show an abnormal result

____ 9. A likelihood ratio above 1 indicates that a diagnostic test showing a: Positive result is strongly associated with the

A	disease
B	Negative result is strongly associated with absence of the disease Positive result is weakly associated with the disease
C	Negative result is weakly associated with absence of the disease
D	

____ 10. Which of the following clinical reasoning tools is defined as evidence-based resource based on mathematical modeling to express the likelihood of a condition in select situations, settings, and/or patients?

A	Clinical practice guideline
B	Clinical decision rule
C	Clinical algorithm

Answer Section

MULTIPLE CHOICE

1. ANS: B

Croskerry (2009) describes two major types of clinical diagnostic decision-making: intuitive and analytical. Intuitive decision-making (similar to Augenblink decision-making) is based on the experience and intuition of the clinician and is less reliable and paired with fairly common errors. In contrast, analytical decision-making is based on careful consideration and has greater reliability with rare errors.

2. ANS: D

To obtain adequate history, providers must be well organized, attentive to the patient's verbal and nonverbal

language, and able to accurately interpret the patient's responses to questions. Rather than reading into the patient's statements, they clarify any areas of uncertainty.

3. ANS: C

Vital signs are part of the physical examination portion of patient assessment, not part of the health history.

4. ANS: D

While performing the physical examination, the examiner must be able to differentiate between normal and abnormal findings, recall knowledge of a range of conditions, including their associated signs and symptoms, recognize how certain conditions affect the response to other conditions, and distinguish the relevance of varied abnormal findings.

5. ANS: C

Sources for diagnostic statistics include textbooks, primary reports of research, and published meta-analyses. Another source of statistics, the one that has been most widely used and available for application to the reasoning process, is the estimation based on a provider's experience, although these are rarely accurate. Over the past decade, the availability of evidence on which to base clinical reasoning is improving, and there is an increasing expectation that clinical reasoning be based on scientific evidence. Evidence-based statistics are also increasingly being used to develop resources to facilitate clinical decision-making.

6. ANS: D

To assist in clinical decision-making, a number of evidence-based resources have been developed to assist the clinician. Resources, such as algorithms and clinical practice guidelines, assist in clinical reasoning when properly applied.

7. ANS: A

The sensitivity of a diagnostic study is the percentage of individuals with the target condition who show an abnormal, or positive, result. A high sensitivity indicates that a greater percentage of persons with the given condition will have an abnormal result.

8.   ANS: B

The specificity of a diagnostic study is the percentage of normal, healthy individuals who have a normal result. The greater the specificity, the greater the percentage of individuals who will have negative, or normal, results if they do not have the target condition.

9.   ANS: A

The likelihood ratio is the probability that a positive test result will be associated with a person who has the target condition and a negative result will be associated with a healthy person. A likelihood ratio above 1 indicates that a positive result is associated with the disease; a likelihood ratio less than 1 indicates that a negative result is associated with an absence of the disease.

10.   ANS: B

Clinical decision (or prediction) rules provide another support for clinical reasoning. Clinical decision rules are evidence-based resources that provide probabilistic statements regarding the likelihood that a condition exists if certain variables are met with regard to the prognosis of patients with specific findings. Decision rules use mathematical models and are specific to certain situations, settings, and/or patient characteristics.