**Chapter 1 Changes With Aging**

**Multiple Choice**

1. Mrs. Smith, 75 years old, reports that she is weak, has difficulty urinating, and is dehydrated. Although she is afebrile, the nurse conducts a thorough physical examination, including urinalysis and complete blood count (CBC). The total assessment is necessary because:

1. All body systems interact, and symptoms could indicate a variety of diagnoses.

2. The symptoms are vague and may be signs of aging.

3. There may be other signs or symptoms more indicative of the condition.

4. Mrs. Smith may not be reporting all significant information.

2. A patient with renal disease has blood work drawn, and the results show an increase in serum creatinine. The nurse practitioner needs to know which of the following laboratory values before

ordering medications?

1. CBC

2. Culture and sensitivity of the urine

3. Creatinine clearance

4. Uric acid levels

3. Which of the following statements is true regarding diagnostic testing?

1. A test is ordered for a specific purpose.

2. A test is the most invasive available.

3. There is no need to discuss results with the patient.

4. If a test is needed, it should be ordered regardless of risk to the patient.

4. Janey, 25 years old, may experience arthritis differently than 65-year-old Mrs. Johnson because:

1. The body undergoes physiological changes with aging.

2. A healthy body does not experience significant changes as one gets older.

3. Older patients do not feel any systemic symptoms, such as malaise and weight loss.

4. Even though the same joints are usually affected, age makes it feel different.

5. The nurse practitioner is examining an 85-year-old man with reports of abdominal pain, weakness, and loss of appetite. Which is the most likely condition to be tested for and ruled out?

1. Neoplasms and carcinomas

2. Partial seizure

3. Sarcopenia

4. Hirschsprung’s disease

6. For individuals over 65 years old, the most common morbidities are related to:

1. Heart disease, arthritis

2. Respiratory problems, cancer

3. Diabetes, stroke

4. All of these are common morbidities.

7. A gerontological patient is being examined for a report of pain in the shoulder. The nurse practitioner completes a thorough systemic examination because:

1. Older patients with one morbidity often express difficulties in general.

2. Arthritis of the shoulder is accompanied by other neurological symptoms.

3. Older patients with arthritis often experience pain in lower extremities.

4. The patient may not report significant signs and symptoms.

8. The nurse practitioner performs a thorough systemic examination of a patient who reports diarrhea and pain in the upper left quadrant of the abdomen. One possible diagnosis would be:

1. Hirschsprung’s disease

2. Pancreatitis

3. Appendicitis

4. Gastrointestinal inflammatory bowel disease (GIBD)

**Multiple Response**

9. A 70-year-old man is seeing a nurse practitioner because he is feeling weak and dizzy. The nurse practitioner is discussing a care plan with him and makes which of the following statements? Select all that apply.

1. I want to order a test for your heart to evaluate its function.

2. I will perform a thorough examination of your functional abilities.

3. I will order a blood sugar test to check for diabetes.

4. Many older people feel this way. It is to be expected.

5. I will assess you for the presence of other conditions.

10. The nurse practitioner is leading a class of seniors over age 65 years and is teaching about

nutritional needs. One of the men asks why, even though he eats correctly according to the standards presented, he still feels weaker than he did 10 years ago. He also wonders why he gets more infections than he used to. Which of the following are helpful answers? Select all that apply.

1. I suggest that you exercise a little more than you are currently doing.

2. Some people experience a decrease in reserve energy.

3. For some people, the immune system weakens.

4. More viruses are being spread throughout the community.

5. I suggest that you see your primary caregiver for extensive testing.

11. An older woman is seen in the ambulatory clinic for a routine checkup. The patient asks about results of her blood work compared to last year’s results. How is it best for the clinician to respond? Select all that apply.

1. They are likely to be the same if you have had no diseases since then.

2. Blood work results may be different just because of your aging process.

3. Your results may be different because the body changes with disease and medications you are taking.

4. Blood work is not a reliable indicator of health because many things can affect your health that may not show up in the results of your blood work.

5. There is likely no significant difference as your body remains stable in its functioning.

12. An elderly couple is discussing health concerns with the nurse practitioner. The couple is

concerned that each of their individual blood studies show different results. One set of test results shows a significant decrease in blood sugar, but the test results of the partner does not show an equal decrease. Their physician does not seem concerned, and the couple is wondering why. How is it best for the nurse practitioner to respond? Select all that apply.

1. Studies show that each person’s pattern of chemical make-up is different.

2. There is no difference between one person’s range of blood results and that of any other person.

3. Each person’s chemical make-up is the same as that of others of the same gender and age group.

4. Many factors affect an individual’s chemical make-up.

5. Ranges of the values provided by the laboratory are correct for any age.

13. Adam, 70 years old, is admitted for possible myasthenia gravis (MG). The nurse practitioner knows that MG is commonly seen in women between 20 and 40 years old. Adam, however, is experiencing an ocular form of MG, has dysphonia, and does not have any thymus abnormalities. Adam asks why the nurse is concerned about MG since he is older and this is a “young person’s disease.” Which of the following are the best answers? Select all that apply.

1. We need to assess for anything, just in case.

2. Some diseases show up in two different age and gender groups.

3. Older people often experience weakness, and we must rule out other conditions.

4. Your insurance will cover this, and we want to rule out as much as possible.

5. Signs and symptoms of illness are the same for each disease regardless of age.

14. Mrs. Smith is 75 years old and has had type 2 diabetes for 30 years. She sees her nurse practitioner on a regular basis. Mrs. Smith asks the nurse practitioner why her treatment has not been changed, even though her laboratory values are seemingly out of normal range. Which of the following answers are best? Select all that apply.

1. A decision to make changes must be based on a pattern and not on one set of laboratory results.

2. The normal range charts are based on patients younger than 75 years.

3. Currently, it is too expensive to change your treatment.

4. Comparing new results with your prior results gives a more accurate picture.

5. Normal values for laboratory tests differ as one gets older.

15. Mr. Adams is 90 years old. In the last few months he appears unable to comply with the health-care plan developed by the nurse practitioner. The nurse practitioner considers which of the following reasons for noncompliance when updating his home care plan? Select all that apply.

1. Polypharmacy

2. Treatment burden

3. Attending multiple appointments

4. Affording complex drug regimens

5. Cognitive ability only

**Answers**

1. Answer: 1

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|  | Feedback |
| 1. | The clinician must be aware that all the systems interact and, in doing so, can increase the older person’s vulnerability to illness/disease. |
| 2. | The nurse must not attribute symptoms only to the aging process. |
| 3. | There may be comorbidities accompanying this condition. |
| 4. | Assumptions of not reporting properly may not be true. |

2. Answer: 3

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| 1. | A CBC will not evaluate kidney function for a patient with renal disease. |
| 2. | A culture and sensitivity test reflects the presence of an infection and the antibiotic to which the organism is sensitive. |
| 3. | The calculation of creatinine clearance provides an estimation of renal function. |
| 4. | Uric acid level is elevated in the presence of gout. |

3. Answer: 1

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| 1. | The nurse practitioner should have a plan for the use of each test result value obtained. |
| 2. | When considering which laboratory tests to order, it is worth remembering the doctrine *primum no nnocere—*first, do no harm. |
| 3. | Once laboratory tests are available for review, tests results should be discussed with the patient, with abnormal test results interpreted for the aging individual and addressed with the patient and caregivers. |
| 4. | Any risks involved in laboratory testing must be considered concerning the patient’s clinical condition and weighed against the test’s expected benefits. |

4. Answer: 1

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| 1. | Knowledge of the bimodality of age onset of certain disease conditions will aid the advanced practice nurse in avoiding misdiagnosis or delay in diagnosis due to lack of recognition. |
| 2. | Symptoms of rheumatoid arthritis may be different depending on the age of the patient. |
| 3. | Younger patients may not experience constitutional symptoms such as fever, malaise, weight loss, and depression. |
| 4. | In late-onset rheumatoid arthritis, the joint involvement is more often in the larger joints. |

5. Answer: 1

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|  | Feedback |
| 1. | Certain diseases, such as neoplasms and carcinomas, are more common in the elderly, and an understanding of the epidemiology is critical in the interpretation. |
| 2. | Partial seizure is more common in early old age. |
| 3. | Sarcopenia is more common in early old age. |
| 4. | Hirschsprung’s disease is most common in infancy. |

6. Answer: 4

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| 1. | Heart disease is one of the common morbidities. |
| 2. | Cancer is common in the general population; however, specific types are more common in the older patient. |
| 3. | Diabetes is common in patients over 40 years of age. |
| 4. | Heart disease, cancer, and diabetes combined are the most common morbidities in older patients. |

7. Answer: 1

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| 1. | Older patients with late-onset rheumatoid arthritis experience joint involvement more often in the larger joints, such as the shoulder, and they also experience systemic symptoms such as fever, malaise, weight loss, and depression. |
| 2. | Older patients may express symptoms in any other physical systems. |
| 3. | Patients more often experience arthritis in smaller joints. |
| 4. | A thorough examination will detect objective indicators. |

8. Answer: 4

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| 1. | Hirschsprung’s disease is an obstruction of the colon in infancy. |
| 2. | Diarrhea is not associated with pancreatitis. |
| 3. | Appendicitis is more common in younger patients than in older patients. |
| 4. | GIBD is manifested differently in a bimodal pattern. |

9. Answer: 1, 2, 3, 5

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|  | Feedback |
| 1. | A complete assessment will help differentiate signs of aging from disease. |
| 2. | All systems interact and can affect an existing condition. |
| 3. | Identifying underlying conditions will avoid undertreatment. |
| 4. | Attributing symptoms to aging can contribute to depression in an older person. |
| 5. | There are changes in the sympathetic response which contribute to the orthostasis and falls, as well as lack of hypoglycemic response. |

10. Answer:2, 3, 5

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|  | Feedback |
| 1. | Improved nutrition may not be the factor affecting health of elders. |
| 2. | Many factors can influence the health of elders, including lifestyle and medications. |
| 3. | Many factors can influence the health of elders, including changes in the immune system. |
| 4. | Viruses and other infections are not the only considerations for infections. |
| 5. | Biochemical individuality is important in detecting asymptomatic abnormalities in older adults. Significant homeostatic disturbances in the same individual may be detected through serial laboratory tests, even though all individual test results may lie within normal limits of the reference interval for the entire group. |

11. Answer: 2, 3

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|  | Feedback |
| 1. | Biochemical individuality variation is often much smaller than variation within the larger group. |
| 2. | The aging process and decline in organ function may affect the health of elders. |
| 3. | Disease, nutrition, and medications affect the health of elders. |
| 4. | Although abnormal laboratory findings are often attributed to old age, rarely are they true aging changes. |
| 5. | Many factors can influence laboratory value interpretation in the elderly, including the physiological changes with aging, the prevalence of chronic disease, changes in nutritional and fluid intake, lifestyle (including activity), and the medications that are taken. |

12. Answer: 1, 4

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| 1. | Individuals experience smaller variations in laboratory work than from the others in the same age group. |
| 2. | There are wider variations of laboratory results within a group of older people. |
| 3. | Laboratory values are determined by more than age and gender. |
| 4. | Laboratory values may vary as a result of nutrition, activity, and emotional status. |
| 5. | The reference values presented for the older adult cohort are not necessarily correct for the individual due to biochemical individuality. |

13. Answer: 2, 3

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|  | Feedback |
| 1. | Ordering more tests than needed violates the principle of “Do no harm.” |
| 2. | MG is bimodal and can be found in younger women, as well as in both men and women. |
| 3. | Knowledge of the bimodality of age onset of certain disease conditions will aid the nurse practitioner in avoiding misdiagnosis or delay in diagnosis due to lack of recognition. |
| 4. | There should be a need for ordering a test and value attributed to the results. |
| 5. | The manifestations of illness and disease in the elderly can be very different, even if the underlying pathological process is the same as in younger individuals. |

14. Answer: 1, 4, 5

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| 1. | Blood studies are more valuable when assessing for an increase or decrease in values. |
| 2. | It is not helpful to use aging as an explanation for possible abnormal results. |
| 3. | If a change in treatment is appropriate, the least expensive alternative should be sought. |
| 4. | Significant disturbances in the same individual may be detected through serial laboratory tests. |
| 5. | The clinician must determine whether a value obtained reflects a normal aging change, a disease, or the potential for disease. |

15. Answer: 1, 2, 3, 4

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| 1. | As a patient ages, this correlates with more medications having been ordered. |
| 2. | Patients with multimorbidity are known to have a treatment burden in terms of understanding and self-care management of their conditions. |
| 3. | Patients with multimorbidity are known to have a treatment burden in terms of understanding and self-care management of their conditions. |
| 4. | This burden entails affording complex drug regimens. |
| 5. | Though cognitive ability may be a factor, there is much more to consider when noncompliance is an issue. |