Practice ACCNS-AG Exam Questions
Adult-Gerontology

Adult-Gerontology
Clinical Nurse Specialist Certification
(Wellness Through Acute Care)

AACN
CERTIFICATION CORPORATION
Certification Organization for the American Association of Critical-Care Nurses
MISSION

AACN Certification Corporation contributes to consumer health and safety through comprehensive credentialing of nurses to ensure their practice is consistent with established standards of excellence in caring for acutely and critically ill patients and their families.

VISION

As the undisputed leader in credentialing nurses, AACN Certification Corporation has demonstrated that certification contributes to achieving optimal outcomes that are consistent with the goals and values of acutely and critically ill patients and their families.

VALUES

As the Corporation works to advance its mission and vision and fulfill its purpose and inherent obligation to ensure the health and well-being of patients experiencing acute and critical illness, the Corporation is guided by a set of deeply rooted values.

- Providing leadership to bring all stakeholders together to create and foster cultures of excellence and innovation.
- Acting with integrity and upholding ethical values and principles in all relationships and in the provision of sound, fair and defensible credentialing programs.
- Committing to excellence in credentialing programs by striving to exceed industry standards and expectations.
- Promoting leading edge, research-based credentialing programs that reach diverse certificants.
- Demonstrating stewardship through fair and responsible management of resources and cost-effective business processes.

ETHICS

AACN and AACN Certification Corporation consider the American Nurses Association (ANA) Code of Ethics for Nurses foundational for nursing practice, providing a framework for making ethical decisions and fulfilling responsibilities to the public, colleagues and the profession. AACN Certification Corporation’s mission of public protection supports a standard of excellence that certified nurses have a responsibility to read, understand and act in a manner congruent with the ANA Code of Ethics for Nurses.

The following AACN Certification Corporation programs have been accredited by the National Commission for Certifying Agencies (NCCA), the accreditation arm of the Institute for Credentialing Excellence (ICE):

- CCRN® (Adult)
- CCRN® (Pediatric)
- CCRN® (Neonatal)
- CCRN-E™ (Adult)
- PCCN®
- CMC®
- CSC®
- ACNPC-AG®
- ACCNS-AG®
- ACCNS-P®
- ACCNS-N®

Our advanced practice certification programs, ACCNS-AG, ACCNS-P, ACCNS-N and ACNPC-AG, meet the National Council of State Boards of Nursing (NCSBN) criteria for APRN certification programs.
Acknowledgement

Thanks to:

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Patricia Sheehan, RN, CNS
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INTRODUCTION

This first edition of Practice ACCNS-AG Exam Questions provides a general familiarity with the style of items on the ACCNS-AG® exam for candidates seeking Adult-Gerontology Clinical Nurse Specialist (wellness through acute care) certification. Answer rationales are included for each item. The actual ACCNS-AG exam is a three-and-one-half-hour test consisting of 175 multiple-choice questions.

The advanced practice certification exam for ACCNS-AG is based on the results of a national study of practice, otherwise known as a job analysis. The most recent study, completed in 2011, identified the actual tasks, knowledge and experiences required of adult-gerontology clinical nurse specialists. The ACCNS-AG exam is designed to test the common body of advanced practice nursing knowledge needed as an entry level adult-gerontology clinical nurse specialist.

The major content categories and specific patient problems that are tested, as well as their distribution on the test, are in the ACCNS-AG Exam Handbook. Exam items are written at various cognitive levels, based on a condensed version of Bloom’s Taxonomy. The majority of the items are written at the application/analysis levels.

The ACCNS-AG exam focuses on the adult-gerontology patient population, which includes young adults, older adults and the frail elderly. Sixty-one (61%) of the exam focuses on clinical judgment and is age-specific for the adult-gerontology patient. The remaining 39% covers professional caring and ethical practice, including advocacy/moral agency, caring practices, collaboration, systems thinking, response to diversity, clinical inquiry and facilitation of learning. Professional caring and ethical practice items may be asked across the life span (may be neonatal- or Pediatric-focused), while clinical judgment items are restricted to adult-gerontology patients.

This practice questions booklet is a study tool that contains a compilation of questions to help you prepare for the ACCNS-AG exam. It is not a psychometrically valid exam and cannot be used to accurately predict or guarantee performance on an actual certification exam; however, the questions are representative of the type and format of items that one would see on the ACCNS-AG exam.

AACN Certification Corporation
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I. CLINICAL JUDGMENT (61%)

A. Cardiovascular (13%)
1. Acute coronary syndromes
2. Acute inflammatory disease e.g., myocarditis, endocarditis, pericarditis
3. Cardiac trauma (blunt and penetrating)
4. Cardiac surgery
5. Cardiac tamponade
6. Cardiogenic shock
7. Cardiomyopathies (e.g., hypertrophic, dilated, restrictive, idiopathic)
8. Decompensated heart failure
9. Dyslipidemia
10. Dysrhythmias
11. Heart failure
12. Hypertension
13. Hypertensive crisis
14. Peripheral vascular insufficiency (e.g., acute, arterial occlusion, carotid artery stenosis)
15. Pulmonary edema
16. Ruptured and dissecting aneurysm
17. Structural heart defects and diseases (acquired and congenital)

B. Pulmonary (11%)
1. Acute pulmonary embolus
2. Acute respiratory failure
3. Air-leak syndromes (e.g., pneumothorax, pulmonary interstitial emphysema [PIE], pneumopericardium)
4. Acute respiratory distress syndrome (ARDS, to include acute lung injury or ALI)
5. Aspirations
6. Asthma and reactive airway disease
7. Chronic lung disease
8. Exacerbation of chronic lung disease
9. Obstructive sleep apnea
10. Pulmonary hypertension
11. Pulmonary infections
12. Thoracic surgery (e.g., lung contusions, fractured ribs, hemothorax, lung reduction surgery, pneumonectomy, lobectomy, tracheal surgery)
13. Thoracic and pulmonary trauma
14. Upper airway obstruction

C. Endocrine (3%)
1. Diabetes insipidus
2. Diabetic ketoacidosis/hyperglycemic hyperosmolar nonketotic coma (HHNK)
3. Diabetes mellitus
4. Hyperglycemia
5. Hypoglycemia
6. Syndrome of inappropriate secretion of antidiuretic hormone (SIADH)
7. Thyroid disorders

D. Musculoskeletal (2%)
1. Functional issues (e.g., immobility, debility, falls, gait disorders)
2. Infections
3. Traumatic fractures

E. Hematology/Immunology/Oncology (3%)
1. Anemia
2. Autoimmune diseases
3. Coagulopathies (e.g., thrombocytopenia)

F. Neurology (7%)
1. Encephalopathy
2. Head and brain trauma
3. Increased intracranial pressure
4. Intracranial and intraventricular hemorrhage
5. Neurologic infectious diseases
6. Neuromuscular disorders
7. Seizure disorders
8. Space-occupying lesions
9. Spinal cord injury
10. Stroke
11. Vascular malformation
G. Gastrointestinal (5%)
   1. Abdominal trauma
   2. Acute Gl hemorrhage
   3. Bowel infarction, obstruction, perforation
   4. Gallbladder disease
   5. Gastroesophageal reflux
   6. Gastrointestinal infectious diseases
   7. GI motility disorders
   8. GI surgeries
   9. Hepatic failure and coma
  10. Hepatitis
  11. Malnutrition
  12. Nausea and vomiting
  13. Pancreatitis

H. Renal/Genitourinary (5%)
   1. Acute renal failure
   2. Chronic renal failure
   3. Electrolyte imbalances
   4. Fluid volume imbalances
   5. Incontinence
   6. Infections (e.g., UTI, PID, STDs)

I. Integumentary (2%)
   1. Pressure ulcers
   2. Wounds (surgical and nonsurgical)

J. Multisystem (7%)
   1. Compartment syndrome
   2. Distributive shock (e.g., anaphylaxis, neurogenic)
   3. End-of-life issues
   4. Hypovolemic shock
   5. Hypoxic ischemic encephalopathy
   6. Infectious diseases (e.g., congenital, viral, bacterial, hospital-acquired)
   7. Multisystem trauma
   8. Pain (e.g., pharmacologic/therapeutic interventions)
   9. Palliative care issues (e.g., symptom management)
  10. Patient safety issues (physiologic)
  11. Sensory impairment (e.g., hearing loss)
  12. Systemic inflammatory response syndrome (SIRS)/sepsis/septic shock/multiple organ dysfunction syndrome (MODS)
  13. Toxic ingestions and inhalations

K. Psychosocial/Behavioral/Cognitive Health (3%)
   1. Age-related developmental issues
   2. Aggression
   3. Anxiety disorders (e.g., PTSD, OCD, fears, phobias)
   4. Delirium
   5. Dementia
   6. Failure to thrive
   7. Maltreatment (abuse/neglect)
   8. Medical nonadherence
   9. Mood disorders (e.g., depression)
  10. Risk-taking behaviors (e.g., tobacco, unprotected sex)
  11. Substance abuse
  12. Suicidal behavior

II. PROFESSIONAL CARING AND ETHICAL PRACTICE
   A. Advocacy/Moral Agency (5%)
   B. Caring Practices (7%)
   C. Collaboration (5%)
   D. Systems Thinking (7%)
   E. Response to Diversity (3%)
   F. Clinical Inquiry (7%)
   G. Facilitation of Learning (6%)

The sum of these percentages is not 100 due to rounding.
Order of content does not necessarily reflect importance.
ACCNS-AG TEST PLAN
ADULT-GERONTOLOGY CNS (WELLNESS THROUGH ACUTE CARE)
SKILLS AND PROCEDURES

In addition to classifying exam items according to the specified patient care problems and identifying related underlying competencies on the following pages, items may require an understanding of skills and procedures pertinent to the adult-gerontology CNS. If applicable to assessment of knowledge of the patient care problem, the following skills and procedures may be incorporated within items.

**Cardiovascular**
- Interpret ECG rhythms
- Interpret 12-lead ECGs
- Determine lead selection for ECGs
- Interpret hemodynamic values
- Interpret noninvasive hemodynamic values
- Manage transcutaneous (external) pacemakers
- Manage temporary transvenous pacemakers
- Manage permanent transvenous pacemakers
- Manage epicardial pacemakers
- Manage implantable cardioverter defibrillators (ICDs)
- Manage cardiac assist devices (e.g., RVAD, BVAD, LVAD, ECMO)
- Direct cardiopulmonary resuscitation
- Insert pulmonary artery pressure catheters
- Adjust pulmonary artery pressure catheters
- Perform elective cardioversion
- Disconnect pacer wire

**Pulmonary**
- Order nasal/facial CPAP/BiPAP
- Initiate mechanical ventilation
- Manage mechanical ventilation
- Wean mechanical ventilation
- Interpret pulmonary function tests
- Disconnect chest tube

**Gastrointestinal**
- Remove PEG/JT/drainage catheters*

**Renal/Genitourinary**
- Initiate renal replacement therapies*

**Integumentary**
- Provide wound care

**Multisystem**
- Interpret diagnostic imaging
- Provide nonpharmacologic interventions for pain
- Manage (i.e., recommend/prescribe) pharmaceutical interventions
- Prescribe durable medical equipment

Skills and procedures noted with an asterisk (*) may not be widely performed but are a significant part of practice for those who perform them. As such, if these skills or procedures are incorporated in an item, knowledge about the skill or procedure would be limited to its purpose and would not require in-depth knowledge of the performance of the skill or procedure.
Clinical Judgment

- Conduct comprehensive, holistic wellness/illness assessments
- Obtain data necessary to formulate differential diagnoses/plans of care and evaluate outcomes
- Use evidence base to guide clinical practice
- Synthesize data/advanced knowledge/experience using critical thinking to formulate differential diagnoses
- Determine diagnoses considering:
  - physiologic/pathophysiologic changes
  - morbidities/comorbidities
  - events across the life span
  - patient’s pharmacologic history with particular attention to issues of polypharmacy
- Use reliable and valid age-appropriate assessment instruments to assess acute and chronic health concerns, including but not limited to mental status, delirium, dementia and pain
- Assess for manifestation of health disorders/disruptions, such as infection, adverse drug effect, dehydration, ischemia and geriatric syndromes
- Evaluate for mental health disorders, such as depression, dementia, anxiety or substance-related disorders
- Conduct pharmacologic assessment, including polypharmacy, drug interactions, over-the-counter and herbal product use, and the ability to safely and correctly store and self-administer medications
- Interpret values/results of lab/diagnostic tests with consideration of age, ethnicity and health status
- Assess patient/caregiver/family ability to implement complex plans of care
- Assess patient/caregiver/family preferences in relation to cultural/spiritual/quality of life/lifestyle choices
- Prioritize differential diagnoses
- Design strategies to meet multifaceted needs of complex patients/groups of patients
- According to legal restrictions in the state, recommend/prescribe:
  - pharmacologic interventions
  - non-pharmacologic interventions
  - diagnostic measures
  - equipment
  - procedures
  - treatments
- Provide direct care to selected patients based on needs of patient and CNS’s specialty knowledge and skills
- Evaluate nursing practice that considers safety, timeliness, effectiveness, efficiency, efficacy and patient/family centered care
- Determine when evidence-based guidelines/policies/procedures/plans of care need to be tailored to the individual
- Manage or refer patient with signs/symptoms of physical/mental health disorders across the adult life span, including geriatric syndromes
- Intervene to prevent/minimize iatrogenesis
- Differentiate between outcomes that require care process modification at the patient vs. system level
- Lead development of evidence-based plans for meeting individual, family, community and population needs
- Provide leadership for collaborative, evidence-based plans for meeting individual, family, community and population needs

continued
Clinical Judgment (cont’d)

- Provide consultation to interdisciplinary colleagues
- Provide consultation to the interdisciplinary team regarding the patient’s mental status, home environment, mobility, functional status, self-care and caregiver’s abilities
- Coordinate care with other healthcare providers and community resources, with special attention to the needs of the non-verbal, developmentally and cognitively impaired patient and frail older adult
- Initiate consultation to obtain resources to facilitate progress toward achieving identified outcomes
- Design a comprehensive, individualized, age- and disease-appropriate plan for health promotion
- Develop age-specific, individualized treatment plans and interventions with consideration of cognitive status, sensory function, perception and the environment

Advocacy/Moral Agency

- Coach patients and families to help them navigate the healthcare system
- Use coaching and advanced communication skills to facilitate the development of effective clinical teams
- Foster professional accountability in self and others
- Promote a practice climate conducive to providing ethical care
- Facilitate interdisciplinary teams to address ethical concerns, risks or considerations, benefits and outcomes of patient care
- Promote the role and scope of practice of the CNS to legislators, regulators, other healthcare providers and the public
- Communicate information that promotes nursing, the role of the CNS and outcomes of nursing and CNS practice through the use of the media, advanced technologies and community networks
- Facilitate patient/family understanding of risks/benefits/outcomes of proposed healthcare regimens to promote informed decision making
- Facilitate decision making regarding treatment options with the patient/family/caregivers/healthcare proxy
- Advocate for equitable patient care by:
  - participating in organizational, local, state, national or international level of policy-making activities for issues related to CNS’s expertise
  - evaluating the impact of legislative and regulatory policies as they apply to nursing practice and patient or population outcomes
- Facilitate resolution of ethical conflicts by:
  - identifying ethical implications of complex care situations
  - considering the impact of scientific advances/cost/clinical effectiveness/patient and family values and preferences/other external influences
  - applying ethical principles to resolve concerns
- Advocate for access to hospice and palliative care services for patients across the adult age spectrum

Caring Practices

- Use advanced communication skills to improve patient outcomes
- Assess the effects of interactions among individual/family/community/social systems
- Identify potential risks to patient safety/autonomy and quality of care based on assessments across all spheres of influence
- Determine nursing practice and system interventions that promote patient/family/community safety

continued
Caring Practices (cont’d)

- Select interventions that may include but are not limited to:
  - application of advanced nursing therapies
  - initiation of interdisciplinary team meetings/consults/other communications to benefit patient care
  - management of pain medications/clinical procedures/other interventions
  - psychosocial support, including patient counseling and spiritual interventions
- Create therapeutic health-promoting, aging-friendly environments
- Provide leadership to address threats to healthcare safety/quality in the adult/older adult population
- Use behavioral, communication and environmental-modification strategies with individuals who have cognitive/psychiatric impairments

Collaboration

- Communicate consultation findings as appropriate
- Facilitate the provision of clinically competent care through education, role modeling, team building and quality monitoring
- Provide leadership in promoting interdisciplinary collaboration to implement outcome-focused patient care programs
- Use leadership, team building, negotiation and conflict resolution skills to build partnerships within and across systems, including communities
- Establish collaborative relationships within and across departments that promote patient safety, culturally competent care and clinical excellence
- Provide leadership for establishing, improving and sustaining collaborative relationships
- Practice collegially with members of the healthcare team
- Facilitate intra-agency and interagency communication
- Foster an interdisciplinary approach to quality improvement, evidence-based practice, research and translation of research into practice

Systems Thinking

- Perform system-level assessments to identify variables that influence nursing practice and outcomes, including but not limited to:
  - population variables (age distribution, health status, income distribution, culture)
  - environment (schools, community support services, housing availability, employment opportunities)
  - system of healthcare delivery
  - regulatory requirements
  - internal and external political influences/stability
  - healthcare financing
  - recurring practices that enhance or compromise patient or system outcomes
- Use effective strategies for changing clinician and team behavior to encourage adoption of evidence-based practices and innovations in care delivery
- Provide leadership in maintaining a supportive and healthy work environment
- Evaluate use of products and services for appropriateness and cost/benefit in meeting care needs
- Conduct cost/benefit analysis of new clinical technologies
- Evaluate impact of introduction or withdrawal of products, services and technologies
- Assess the impact of environmental/system factors on care
- Coordinate the care of patients with use of system and community resources to ensure successful health/illness/wellness transition, enhance delivery of care and achieve optimal patient outcomes
Systems Thinking (cont’d)

- Manage patient’s transition of care in collaboration with individual/family/caregivers/interdisciplinary team members, including:
  - analyzing the readiness of the patient and family to transition
  - determining the appropriate level and/or setting of care
  - coordinating implementation of transition

- Provide leadership in conflict management/negotiation to address problems in the healthcare system

- Lead system change to improve health outcomes through evidence-based practice by:
  - specifying expected clinical and system-level outcomes
  - designing programs to improve clinical and system-level processes and outcomes
  - facilitating the adoption of practice change

- Evaluate impact of CNS and other nursing practice on systems of care using nurse-sensitive outcomes

- Assess system barriers and facilitators to adoption of evidence-based practices

- Promote healthcare policy and system changes that facilitate access to care and address biases (e.g., socioeconomic, ethnic, ageism, sexism, cultural, mental health stigma)

- Disseminate outcomes of system-level change internally and externally

- Integrate information technology into systems of care to enhance safety and monitor health outcomes

Clinical Inquiry

- Assess the quality and effectiveness of interdisciplinary, intra-agency and interagency communication and collaboration

- Contribute to the advancement of the profession by disseminating outcomes of CNS practice

- Analyze research findings and other evidence for potential application to clinical practice

- Integrate evidence into the health, illness and wellness management of patients, families, communities and groups

- Apply principles of evidence-based practice and quality improvement to all patient care

- Design programs for effective implementation of research findings and other evidence in clinical practice

- Develop evidence-based clinical interventions to achieve defined patient and system outcomes

- Assist staff in the development of innovative, cost-effective programs or protocols of care

- Cultivate a climate of clinical inquiry across spheres of influence by:
  - evaluating the need for improvement or redesign of care delivery processes to improve safety, efficiency, reliability and quality
  - disseminating expert knowledge

- Participate in establishing quality improvement agenda for unit, department, program, system or population

- Provide leadership in planning data collection and quality monitoring

Response to Diversity

- Develop age-specific clinical standards, policies and procedures

- Promote systemwide policies and protocols that address cultural, ethnic, spiritual and intergenerational/age differences among patients, healthcare providers and caregivers
Clinical Inquiry (cont’d)

- Use data to assess the quality and effectiveness of clinical programs in meeting outcomes
- Develop quality improvement initiatives based on assessments
- Provide leadership in the design, integration and evaluation of process improvement initiatives
- Provide leadership in the systemwide integration of quality improvement and innovation
- Engage in a formal self-evaluation process, seeking feedback regarding own practice from patients, peers, professional colleagues and others
- Analyze data from consultations to implement practice improvements
- Participate in conduct/implementation of research by:
  - identifying questions for clinical inquiry
  - critiquing literature during literature reviews
  - synthesizing literature during literature reviews
  - designing and implementing studies
  - collecting data
  - analyzing data
  - disseminating findings
- Apply ethical principles in safeguarding the confidentiality, dignity and safety of all adult/older adult research participants, including the vulnerable and those with impaired decision-making capacity

Facilitation of Learning

- Design health information and patient education appropriate to the patient’s developmental level, health literacy level, learning needs, readiness to learn and cultural values and beliefs
- Provide education to individuals, families, groups and communities to promote knowledge, understanding and optimal functioning across the wellness-illness continuum
- Mentor staff nurses, graduate students and others to acquire new knowledge and skills, and develop their careers
- Mentor health professionals in applying the principles of evidence-based care
- Coordinate formal and informal education for healthcare providers to improve adult/older adult healthcare outcomes
- Advise patients/families/caregivers on how to address sensitive issues, such as STDs, suicide prevention, substance use, driving, independent living, potential for abuse, end-of-life concerns, advance care planning and finances
- Participate in pre-professional, graduate and continuing education of nurses and other healthcare providers by:
  - completing a needs assessment, as appropriate, to guide interventions with staff
  - promoting professional development of staff nurses and continuing education activities
  - implementing staff development and continuing education activities
  - mentoring others to use research findings in practice
- Modify health information, patient education programs and interventions for patients with sensory, perceptual, cognitive, and physical and mental illness limitations
The ACCNS-AG certification program is based on the AACN Synergy Model for Patient Care. The basic tenet of the Synergy Model is that optimal patient outcomes can be produced through the synergistic interaction between the needs of the patient and the competencies of the nurse. AACN Certification Corporation is committed to ensuring that certified nursing practice is based on the needs of patients. Integration of the AACN Synergy Model for Patient Care into AACN Certification Corporation’s certification programs puts emphasis on the patient and says to the world that patients come first.

The Synergy Model creates a comprehensive look at the patient. It puts the patient in the center of nursing practice. The model identifies nursing’s unique contributions to patient care and uses language to describe the professional nurse’s role. It provides nursing with a venue that clearly states what we do for patients and allows us to start linking ourselves to, and defining ourselves within, the context of the patient and patient outcomes.

**Patient Characteristics**

The Synergy Model encourages nurses to view patients in a holistic manner rather than the “body systems” medical model. Each patient and family is unique, with a varying capacity for health and vulnerability to illness. Each patient, regardless of the clinical setting, brings a set of unique characteristics to the care situation. Depending on where they are on the healthcare continuum, patients may display varying levels of the following characteristics:

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Resiliency</td>
<td>Capacity to return to a restorative level of functioning using compensatory/coping mechanisms; the ability to bounce back quickly after an insult.</td>
</tr>
<tr>
<td>Vulnerability</td>
<td>Susceptibility to actual or potential stressors that may adversely affect patient outcomes.</td>
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<tr>
<td>Stability</td>
<td>Ability to maintain a steady-state equilibrium.</td>
</tr>
<tr>
<td>Complexity</td>
<td>Intricate entanglement of two or more systems (e.g., body, family, therapies).</td>
</tr>
<tr>
<td>Resource Availability</td>
<td>Extent of resources (e.g., technical, fiscal, personal, psychological and social) the patient/family/community bring to the situation.</td>
</tr>
<tr>
<td>Participation in Care</td>
<td>Extent to which patient/family engages in aspects of care.</td>
</tr>
<tr>
<td>Participation in Decision Making</td>
<td>Extent to which patient/family engages in decision making.</td>
</tr>
<tr>
<td>Predictability</td>
<td>A characteristic that allows one to expect a certain course of events or course of illness.</td>
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</tbody>
</table>

**FOR EXAMPLE:**

A healthy, uninsured, 40-year-old woman undergoing a pre-employment physical could be described as an individual who is (a) stable (b) not complex (c) very predictable (d) resilient (e) not vulnerable (f) able to participate in decision making and care, but (g) has inadequate resource availability.

On the other hand: a critically ill, insured infant with multisystem organ failure can be described as an individual who is (a) unstable (b) highly complex (c) unpredictable (d) highly resilient (e) vulnerable (f) unable to become involved in decision making and care, but (g) has adequate resource availability.

continued
Nurse Characteristics

Nursing care reflects an integration of knowledge, skills, abilities and experience necessary to meet the needs of patients and families. Thus, nurse characteristics are derived from patient needs and include:

<table>
<thead>
<tr>
<th><strong>Clinical Judgment</strong></th>
<th>Clinical reasoning, which includes clinical decision making, critical thinking and a global grasp of the situation, coupled with APRN skills acquired through a process of integrating formal and informal experiential knowledge and evidence-based guidelines.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advocacy/Moral Agency</strong></td>
<td>Working on another's behalf and representing the concerns of the patient/family and nursing staff; serving as a moral agent in identifying and helping to resolve ethical and clinical concerns within and outside the clinical setting.</td>
</tr>
<tr>
<td><strong>Caring Practices</strong></td>
<td>APRN activities that create a compassionate, supportive and therapeutic environment for patients and staff, with the aim of promoting comfort and healing and preventing unnecessary suffering. Includes but is not limited to vigilance, engagement and responsiveness of caregivers, including family and healthcare personnel. Content in this category includes pain management, infection control, risk assessment and the nurse practitioner/patient relationship.</td>
</tr>
<tr>
<td><strong>Collaboration</strong></td>
<td>Working with others (e.g., patients, families, healthcare providers) in a way that promotes/encourages each person's contributions toward achieving optimal/realistic patient/family goals. Includes initiating referrals, providing consultation and the coordination of inter- and intradisciplinary teams to develop or revise plans of care focused on patient and/or family concerns.</td>
</tr>
<tr>
<td><strong>Systems Thinking</strong></td>
<td>Body of knowledge and tools that allow the APRN to manage whatever environmental and system resources exist for the patient/family and staff, within or across healthcare and non-healthcare systems. Includes analysis and promotion of cost-effective resource utilization that results in optimal patient outcomes.</td>
</tr>
<tr>
<td><strong>Response to Diversity</strong></td>
<td>The sensitivity to recognize, appreciate and incorporate differences into the provision of care. Differences may include, but are not limited to, cultural differences, spiritual beliefs, gender, race, ethnicity, lifestyle, socioeconomic status, age and values.</td>
</tr>
<tr>
<td><strong>Facilitation of Learning</strong></td>
<td>The ability to facilitate learning for patients/families, nursing staff, other members of the healthcare team and community. Includes both formal and informal facilitation of learning.</td>
</tr>
<tr>
<td><strong>Clinical Inquiry</strong></td>
<td>The ongoing process of questioning and evaluating practice and providing informed practice. Creating practice changes through research utilization and experiential learning.</td>
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</tbody>
</table>

Nurses become competent within each continuum at a level that best meets the fluctuating needs of their population of patients. More compromised patients have more severe or complex needs, requiring nurses to have advanced knowledge and skills in an associated continuum.

**FOR EXAMPLE:**
If the gestalt of a patient were stable but unpredictable, minimally resilient and vulnerable, primary competencies of the nurse would be centered on clinical judgment and caring practices (which includes vigilance). If the gestalt of a patient were vulnerable, unable to participate in decision making and care, and inadequate resource availability, the primary competencies of the nurse would focus on advocacy and moral agency, collaboration and systems thinking.

Although all eight competencies are essential for contemporary nursing practice, each assumes more or less importance depending on a patient’s characteristics. **Synergy results when a patient’s needs and characteristics are matched with the nurse’s competencies.**

The certification program is also based on the three spheres of influence in which CNSs operate: Patient, Nurses/Nursing Practice and Organizations/Systems. A sphere of influence identifies the focus of practice activities and target outcomes associated with the area. The certification exam is based on the activities performed by CNSs in connection with the eight nurse characteristics in the context of the three spheres of influence.

Based on the most recent AACN Certification Corporation job analysis completed in 2011, the test plans for AACN certification exams reflect the Synergy Model as well as findings related to nursing care of the patient population studied, e.g., CNS practice in the care of adult-gerontology patients, covering the spectrum of wellness through acute care.
1. During rounds, the CNS checks in with a new graduate nurse who is caring for a patient admitted with an ascending aortic aneurysm. The nurse tells the CNS the patient has reported stabbing chest pain that is radiating to the back. Upon examination, the CNS hears a new high-pitched diastolic murmur and witnesses the patient having a syncopal event. Which of the following should the CNS do first?
   A. Obtain a 12-lead EKG.
   B. Advise the nurse to give a dose of intravenous morphine.
   C. Administer a 500 mL crystalloid fluid bolus.
   D. Notify the surgeon.

2. Shortly after admission, a patient with acute coronary syndrome involving the inferior wall develops complete heart block with a ventricular escape rhythm at a rate of 32 beats per minute. Upon examination, the patient complains of dizziness and chest pain and has a BP of 77/58 mm Hg. Which of the following should the CNS do first?
   A. Administer atropine intravenously.
   B. Prepare for synchronized cardioversion.
   C. Initiate transcutaneous pacing.
   D. Obtain a 12-lead ECG.

3. Upon evaluating an ICU’s most recent data, the CNS notes an increase in the number of mechanically ventilated patients experiencing aspiration pneumonia. Which of the following should the CNS include in a policy to help prevent future occurrences of aspiration?
   A. Hold tube feedings for all gastric residual volumes greater than 50 mL.
   B. Obtain a swallowing evaluation for patients intubated longer than 14 days.
   C. Maintain endotracheal tube cuff pressures between 15 and 20 cm H₂O.
   D. Administer all tube feedings via a bolus method every 4 hours.

4. A patient with a history of COPD is admitted with worsening dyspnea on exertion and recurrent syncope. The two-dimensional echocardiography demonstrates right ventricular failure and pulmonary hypertension with a mean pulmonary artery pressure of 40 mm Hg. Which of the following medications is indicated for this patient at this time?
   A. warfarin (Coumadin)
   B. metoprolol (Lopressor)
   C. nifedipine (Procardia)
   D. amiodarone (Cordarone)

5. A patient involved in a motor vehicle collision sustains multiple injuries and undergoes an open reduction and internal fixation of a fractured right tibia. The next day, the nurse tells the CNS the patient is complaining of burning pain in the right leg. Upon examination, the patient’s right calf is firm, and the foot is cool with faint pulses. Upon slight dorsiflexion of the right foot, the patient complains of extreme pain. Which of the following should the CNS do first?
   A. Place the patient in a high-Fowler’s position.
   B. Elevate the right leg on 2 pillows.
   C. Position the right leg at the level of the heart.
   D. Place ice bags on the patient’s right leg.

6. Thirty minutes after a diprivan (Propofol) infusion is started for a patient with a closed head injury and intracranial hypertension, the patient’s BP is 92/58 mm Hg and the ICP is 14 mm Hg. What should the CNS do first?
   A. Change the patient’s sedation to lorazepam (Ativan).
   B. Start a phenylephrine (Neosynephrine) infusion.
   C. Order a CT scan of the head without contrast.
   D. Lower the head of the bed to 0 degree.
7. After undergoing evacuation of a subdural hematoma, a patient with a history of chronic alcoholism remains comatose. Which of the following should the CNS do before initiating nutritional support for this patient?
   A. Arrange for placement of a central venous catheter for parenteral nutrition.
   B. Consult a speech pathologist for a swallowing evaluation.
   C. Check the patient’s serum electrolytes.
   D. Obtain the patient’s glycosylated hemoglobin (HbA1c) level.

8. While evaluating the unit’s catheter-associated urinary tract infection (CAUTI) rate, the CNS notices it is significantly higher than the national average. Which of the following interventions might be most effective in reducing the unit’s CAUTI rate?
   A. Develop a policy for removal of urinary catheters at the end of 1 week after insertion.
   B. Implement a nurse-driven urinary catheter removal protocol.
   C. Distribute a flyer to the nursing staff that describes the unit’s CAUTI rate.
   D. Revise the procedure for urinary catheter care to include daily cleansing of the urethral meatus with betadine.

9. A patient is readmitted with acute exacerbation of end-stage heart failure. Even though the patient has been following all of the heart failure instructions, the patient’s spouse states it is getting more difficult for the patient to breathe while performing simple activities, such as getting dressed. Which of the following is the best action for the CNS to take at this time?
   A. Obtain a palliative care consult.
   B. Ask someone from the spiritual care department to check in with the patient’s spouse.
   C. Reassure the patient’s spouse that the symptoms are reversible.
   D. Consult the hospital ethics committee.

10. An 80-kg patient with severe sepsis and multisystem organ dysfunction syndrome has a BP of 85/42 mm Hg and a HR of 128. A broad-spectrum antibiotic and a 2500 mL normal saline bolus are administered. Which of the following parameters best indicates organ perfusion has been restored?
    A. serum lactate 5 mmol/L
    B. ScvO₂ 65%
    C. BP 101/42 mm Hg
    D. urine output 160 mL/4 hours

11. The director of the blood bank decides to revamp the consent form used at all 3 campuses of a health system. The changes are made without any involvement of 1 campus that is staffed with a mix of community and university physicians. Which of the following should the CNS do?
    A. Contact the medical and nursing directors of the affected hospital to notify them about the change in the consent form.
    B. Contact CNS colleagues to alert them the form has been removed from the computer and provide the new form number.
    C. Notify the educators of the surgical units to let them know the old form will have to be removed from the preoperative packets.
    D. Participate in a conference call with the blood bank director, medical director and nursing director about the problems this change has caused on the affected campus.

12. An elderly patient exhibits signs of inattention, anxiety, nighttime wakefulness and excessive daytime sleepiness. Which of the following suggestions might be most helpful for this patient?
    A. Instruct the staff nurse to assess the patient at more frequent intervals.
    B. Reschedule medications so that the patient has uninterrupted sleep periods at night.
    C. Advise the nurse to give the patient temazepam (Restoril) in the evening.
    D. Encourage the patient’s family to stay at the bedside all night.
13. The CNS wants to develop a mobility program for mechanically ventilated patients. Which of the following is a crucial first step the CNS should take?

A. Inventory the equipment required for mobilizing mechanically ventilated patients.
B. Gather an interdisciplinary team to develop a protocol.
C. Define the responsibilities of each team member.
D. Provide an in-service for the nursing staff on safe patient handling.

14. The CNS notices the department’s central line-associated bloodstream infection (CLABSI) rate has increased significantly over the past quarter. Which of the following should the CNS do first?

A. Collaborate with the director of purchasing to obtain new central line dressings.
B. Revise the central line insertion protocol.
C. Launch a new staff education initiative on CLABSI prevention.
D. Perform a retrospective chart review of the patients who developed a CLABSI.

15. Upon initial assessment of a patient who underwent a vascular clipping after a subarachnoid hemorrhage 7 days ago, the CNS notes symptoms of visual disturbances that are new in onset. What should the CNS recommend?

A. Initiate vasopressors to maintain adequate blood pressure.
B. Restrict fluid intake to prevent hypervolemia.
C. Request an ophthalmology consult.
D. Prepare for an intraventricular device insertion.

16. You are evaluating the care plan for a patient who has just been admitted for treatment following a traumatic spinal cord injury at the C-5 level. Which intervention is most essential to include on the order set?

A. fluid restriction to prevent bladder distention
B. developing a rehabilitation plan
C. a bowel regimen to prevent constipation
D. initiation of continuous enteral nutrition

17. Nurses have reported moral distress about the treatment plan for a patient with a poor prognosis. They report the family’s lack of understanding of the severity of the illness and a care plan that seems discordant with the patient’s trajectory. The nurses also perceive the patient is frequently in great pain during procedures despite comfort measures being administered. They have informed the healthcare team about the family’s lack of understanding and the patient’s pain on numerous occasions, but no action has been taken. How should the CNS assist with this situation?

A. Inform the patient’s healthcare team about the family’s lack of understanding.
B. Recommend an adjustment in the pain medication regimen.
C. Discuss the patient’s prognosis with the family in order to ensure their understanding.
D. Educate the patient’s care team about the benefits of palliative care.

18. A patient with newly diagnosed systolic heart failure tells the CNS she is worried about how she will take care of herself once she is discharged. Which of the following should the CNS do first?

A. Explain to the patient she will get an implantable cardioverter defibrillator that will save her life if dysrhythmias develop.
B. Collaborate with the social worker to obtain a referral to a heart failure clinic close to the patient’s home.
C. Ask the patient if she learns best by reading or watching videos.
D. Enroll the patient in a cardiac rehabilitation program.

19. Which of the following is the best initial intervention for the management of a patient with NSTEMI that started 30 minutes earlier?

A. performance of a 12-lead ECG
B. administration of morphine sulfate 2-4 mg IV
C. measurement of total creatinine kinase
D. encouraging the patient to chew aspirin (ASA) 162-325 mg
20. A patient with type I diabetes mellitus is readmitted with diabetic ketoacidosis (DKA) for the third time in the past 2 months. Which of the following should the CNS do first to help prevent future DKA readmissions for this patient?

A. Provide the patient with printed material on diabetes management.
B. Ask the patient to describe how diabetes mellitus is managed at home.
C. Refer the patient to an outpatient diabetes management clinic.
D. Teach a trusted family member to provide the patient with insulin injections.

21. An 80-year-old patient with pneumonia was intubated and placed on mechanical ventilation 5 days ago. The CNS notes increasing agitation and combativeness since the beginning of the shift. The patient is no longer following commands. The nurse caring for the patient states the patient has not been responding to the same doses of PRN lorazepam (Ativan), and does not know what else to do except apply restraints to keep the patient calm. Which of the following should the CNS recommend?

A. changing the PRN lorazepam dosing regimen to a continuous IV infusion
B. a change in medication from lorazepam to haloperidol (Haldol)
C. collaboration with physical therapy to attempt increased mobilization
D. assessment for hypervolemia as a causative factor for the patient’s symptoms

22. Which of the following approaches is best for the CNS to establish a unit-based journal club for the nursing staff?

A. Identify a respected staff nurse to lead and run the journal club for the staff nurses.
B. Educate staff, assist with initiating and then act as coach and facilitator for staff-led journal club activities.
C. Give staff members all required information about how they can begin a journal club.
D. Research current literature on a pertinent topic, synthesize the information and present it to journal club members.

23. The CNS is performing an initial assessment on a patient with no known health problems who now reports malaise, weakness, rapid weight loss, nausea and a decreased appetite associated with a recent gastrointestinal illness. Increased thirst and urination and consumption of large quantities of soda and juice are also reported. The patient has dry skin and mucous membranes, labored respirations and a fruity breath odor. The CNS assesses and obtains the following:

<table>
<thead>
<tr>
<th>Vital Signs</th>
<th>ABG</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP</td>
<td>98/47</td>
</tr>
<tr>
<td>pH</td>
<td>7.15</td>
</tr>
<tr>
<td>pCO₂</td>
<td>32 mm Hg</td>
</tr>
<tr>
<td>HR</td>
<td>118</td>
</tr>
<tr>
<td>RR</td>
<td>28</td>
</tr>
<tr>
<td>T</td>
<td>96.8°F (36.0°C)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Serum</th>
<th>Urine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glucose</td>
<td>541 mg/dL</td>
</tr>
<tr>
<td>Na⁺</td>
<td>130 mEq/L</td>
</tr>
<tr>
<td>K⁺</td>
<td>5.9 mEq/L</td>
</tr>
<tr>
<td>Glucose positive</td>
<td>Ketones positive</td>
</tr>
</tbody>
</table>

Which of the following should the CNS recommend?

A. aggressive fluid resuscitation
B. administration of sodium polystyrene sulfonate (Kayexalate)
C. administration of anti-nausea medications
D. normalization of blood glucose levels over the next 3-4 hours

24. Which of the following is typically associated with diastolic dysfunction?

A. poor ventricular contractility
B. stiff, noncompliant ventricles
C. ejection fraction <40%
D. increased preload

25. A patient with a history of cirrhosis is admitted with encephalopathy and hematemesis. Venous patterns are noted in the flank area. Which of the following diagnostic tests should the CNS anticipate being performed?

A. computed tomography
B. magnetic resonance angiography
C. upper endoscopy
D. colonoscopy
26. A CNS is developing a pressure ulcer prevention protocol for the hospital. Which of the following elements should be included?

A. Use foam rings or donuts to reduce pressure while the patient is in a sitting position.
B. Maintain the HOB at > 45 degrees to improve tissue oxygenation.
C. Reposition chair-bound patients at least every hour.
D. Avoid lift sheets to reduce the risk of friction injury.

27. The CNS is required to administer a critical care test to a newly hired nurse on your unit. In addition to informing the nurse of the test date and topics to be covered on the competency exam, which approach is best for the CNS to use?

A. Allow the nurse to select and locate desired study materials.
B. Determine how the nurse learns best, and identify barriers to learning.
C. Administer the test before allowing the nurse to prepare, to determine her baseline knowledge.
D. Provide coaching with appropriate study materials as needed.

28. When caring for a patient diagnosed with intermittent asthma, which of the following is the best information the CNS should include in patient teaching?

A. types of different asthma support groups
B. instructions about the use of a low-dose inhaled corticosteroid medication
C. specific results of spirometry tests
D. instructions about the use of a short-acting beta-agonist medication

29. You are assessing a mechanically ventilated patient on the unit who has recently been diagnosed with acute respiratory distress syndrome (ARDS). Which of the following values is most consistent with that diagnosis?

A. PAOP > 18 mm Hg
B. PaO₂ to FiO₂ ratio ≤ 200
C. narrowed alveolar-arterial gradient
D. absence of polymorphonucleocytes on bronchoalveolar lavage

30. A nurse is teaching a patient of Asian descent and the family. The nurse notices that neither the patient nor any of the family members is making eye contact during any of the teaching. The CNS is consulted to help determine the nurse’s next steps and should recommend which of the following?

A. Terminate the teaching session at this time, and attempt teaching another time.
B. Document in the education section of the medical record that the patient and family were not receptive to teaching at this time.
C. Upon completion of the teaching session, validate that learning has taken place.
D. Respectfully request that the patient and family make eye contact while the teaching is taking place.

31. The CNS is asked to review and update an existing clinical protocol for the hospital. Which approach would be best for the CNS to use for this project?

A. In order to best utilize time, review the existing protocol for errors and change the dates.
B. Call neighboring hospitals to determine what they do, and modify the your hospital’s policy accordingly.
C. Collaborate with a multidisciplinary team and lead an analysis of current literature and best practices.
D. Assign a work group of nurses to review and revise the protocol and provide them with feedback.

32. You were asked to develop an in-service for the nursing staff on the different handling methods for various infectious diseases. Which of the following management strategies should the CNS include in the presentation?

A. airborne precautions for a patient with fungal meningitis
B. droplet precautions for a patient with disseminated Herpes zoster (shingles)
C. standard precautions for a patient with gas gangrene
D. contact precautions for a patient with Creutzfeldt-Jakob disease (CJD)
33. A patient is receiving a continuous intravenous infusion of sodium nitroprusside (Nipride) to treat an acute episode of hypertensive crisis. The CNS should monitor which of the following parameters during the infusion?
A. arterial oxygen saturation
B. venous oxygenation
C. serum potassium
D. serum sodium

34. A patient is recovering after coronary artery bypass graft (CABG) surgery. Upon examination, the nurse notes new-onset hypotension with a narrow pulse pressure, jugular vein distension, muffled heart sounds and somnolence. The CNS should anticipate which test to best aid in diagnosis?
A. ECG
B. chest x-ray
C. echocardiography
D. MRI

35. A patient is nearing discharge after treatment of an acute exacerbation of COPD. The prehospital medical regimen included a long-acting anticholinergic and a beta-agonist rescue inhaler. Which of the following additions to the patient’s medication regimen should the CNS anticipate to best reduce COPD exacerbations?
A. prophylactic antibiotics
B. leukotriene antagonists
C. mucolytic agents
D. inhaled glucocorticoids

36. The pressure ulcer rate on a unit where older adults are cared for was well above the NDNQI benchmark. Which of the following interventions should the CNS recommend?
A. Use a donut-type device for pressure redistribution.
B. Place synthetic sheepskin on the bed to help keep the patient dry and comfortable.
C. Use hot water and a product with a mild fragrance after each incontinence episode.
D. Maintain the head of bed no more than 30 degrees when repositioning the patient.

37. When managing a patient with nonocclusive acute mesenteric ischemia, in addition to fluid resuscitation, which of the following interventions should the CNS consider?
A. thrombolytic therapy and correction of electrolyte imbalances
B. broad-spectrum antibiotics and thrombectomy
C. correction of electrolyte imbalances and broad-spectrum antibiotics
D. vasoconstrictors and correction of electrolyte imbalances

38. The CNS is assisting a nurse with management of a patient. The patient is lethargic, has peripheral edema, CVP 10 mm Hg and serum sodium of 122 mEq/L. Which of the following sets of lab values best indicates a renal cause for the problem?
A. decreased serum osmolality and elevated urine sodium
B. decreased serum osmolality and decreased urine sodium
C. increased serum osmolality and elevated urine sodium
D. increased serum osmolality and decreased urine sodium

39. The palliative care team has just completed their initial assessment of an elderly patient with end-stage heart failure. The patient has been intubated for 6 days and is receiving continuous renal replacement therapy but has shown no improvement over the last 48 hours. The CNS overhears the nurse saying, “I don’t know why the family insists on keeping him alive. They should just let him go.” Which of the following would be the CNS’s best response to the nurse?
A. “You should bring your concerns to the physician to help formulate a plan of care.”
B. “The patient cannot communicate with us, so it is up to the family to make decisions.”
C. “I will speak to the charge nurse to see if we can get your assignment changed.”
D. “You and I should take some time to discuss your feelings about this situation.”
40. Several nurses have reported to the CNS that an elderly patient with dementia has been receiving multiple phone calls from debt collectors. When the nurses have asked the patient about the calls, the patient responds by saying her adult son must have forgotten to pay the bills. What is the most appropriate action by the CNS?
   A. Consult the hospital’s risk manager.
   B. Notify Adult Protective Services.
   C. Coordinate a family meeting.
   D. Remind the nurses about patient autonomy.

41. The spouse of a patient who is intubated tells the nurse, “I am HIV positive and have not told my spouse about my status. What if my spouse is infected too?” The ethical principle involved in this scenario is
   A. beneficence.
   B. veracity.
   C. fidelity.
   D. justice.

42. A patient with respiratory failure develops ventilator dyssynchrony and is placed on pressure-support ventilation. Which of the following should the CNS recommend the nurse monitor at this time?
   A. escalating levels of auto-positive end-expiratory pressure
   B. increased work of breathing
   C. presence of barotrauma
   D. spontaneous tidal volume

43. The CNS is working with a staff nurse to formulate a plan of care for a patient with multiple complex pressure ulcers. There is no defined protocol for how to manage complex dressing changes at the hospital. What is the best initial course of action for the CNS to assist the staff nurse in developing a plan of care?
   A. Conduct a thorough literature review on management of complex pressure ulcers.
   B. Develop a comprehensive protocol on complex wound management.
   C. Collaborate with the wound ostomy nurse to assist in formulating a plan of care.
   D. Consult with the attending physician to obtain orders for wound care.

44. A CNS is working for a multihospital system and discovers that the length of stay for patients with heart failure is significantly higher than the national average. In order to address this problem, which initial action should the CNS take?
   A. Coordinate an interdisciplinary systemwide collaborative.
   B. Perform chart audits of patients admitted with heart failure.
   C. Attend interdisciplinary rounds on patients with heart failure.
   D. Develop a seminar for nurses that addresses discharge planning.

45. An elderly Vietnamese patient is recovering from a total hip replacement. The patient’s mobility has been slow to progress. The CNS reviewed the chart and noted that pain medication has been withheld. When the CNS asks why, the nurse responds, “The patient does not look like he is in pain.” What is the CNS’s best response to the nurse?
   A. “It is important to understand that different cultures express pain in different ways.”
   B. “Be sure you are using the correct pain scale when you document the patient’s pain.”
   C. “Why didn’t you ask the patient to rate his pain on an established pain scale?”
   D. “Even if the patient looks like he is not in pain, you should treat him for pain.”

46. A mechanically ventilated elderly patient is being treated with intravenous tPA for acute ischemic stroke. Data are as follows:
   BP 190/115
   HR 100
   O₂ Sat 96%
   CVP 10

   The CNS should immediately consult the medical team for which order?
   A. PO metoprolol (Lopressor)
   B. IV furosemide (Lasix)
   C. IV nicardipine (Cardene)
   D. PO verapamil (Calan)
47. A patient experienced a traumatic fall requiring transfer to a higher level of care. The CNS found the nurse who was caring for the patient visibly upset in the break room. The nurse says to the CNS, “It’s my fault. I’m a terrible nurse.” The best responses by the CNS are to
A. console the nurse, inform the unit manager and encourage the nurse to develop an in-service about fall prevention.
B. complete a variance report, inform the risk manager about the fall and provide education about fall prevention.
C. reassure the nurse that we all make mistakes, complete a variance report and encourage the nurse to journal about the experience.
D. validate the nurse’s feelings, provide reassurance and debrief with her about the experience.

48. A patient who has just returned from pacemaker placement has a BP of 212/120 mm Hg. It is noted that the patient had been hypertensive throughout the case. The nurse collaborates with the CNS. The most important intervention is to
A. recheck the blood pressure on the opposite arm and notify the physician.
B. call the physician and request an order for a PRN antihypertensive.
C. medicate the patient for pain, and reduce external stimuli.
D. check the patient’s chart to see if the patient has a significant history of hypertension.

49. A patient is admitted for a urinary tract infection. The physician ordered bladder irrigations with antibiotics every 6 hours. The nurse notes the patient does not have a 3-way urinary catheter in place. The nurse consults with the CNS. Which of the following should the CNS recommend?
A. Review the hospital’s nursing protocol on continuous bladder irrigation with the nurse.
B. Ask the provider order a GU consult for 3-way urinary catheter placement.
C. Disconnect the existing urinary catheter, and irrigate with the solution ordered.
D. Instill the solution via a needleless adaptor, and keep the drainage bag at heart level for the entire dwell time.

50. A patient is admitted 12 hours after hip replacement surgery. Vital signs are:

<table>
<thead>
<tr>
<th>Time</th>
<th>BP</th>
<th>HR</th>
<th>RR</th>
</tr>
</thead>
<tbody>
<tr>
<td>0600</td>
<td>123/76</td>
<td>90</td>
<td>24</td>
</tr>
<tr>
<td>1200</td>
<td>15 µg/L</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1800</td>
<td>33 µg/L</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The patient reports no presence of pain. The lab has called with a troponin of 15 (µg/L). The assigned nurse is confused about a new order for a heparin drip. The patient’s last 3 troponin levels are:

<table>
<thead>
<tr>
<th>Time</th>
<th>Troponin</th>
</tr>
</thead>
<tbody>
<tr>
<td>0600</td>
<td>0.04 µg/L</td>
</tr>
<tr>
<td>1200</td>
<td>15 µg/L</td>
</tr>
<tr>
<td>1800</td>
<td>33 µg/L</td>
</tr>
</tbody>
</table>

The CNS should explain that the elevation of the troponin level is most likely due to
A. hemolysis of the blood specimen.
B. blood loss during the procedure.
C. muscle damage due to surgical equipment that rested on the chest wall.
D. silent ischemia not previously diagnosed.

51. Upon entering a patient’s room, the nurse finds the spouse feeding the patient who has a tracheostomy, despite the patient having failed a swallowing evaluation. The nurse notes the patient is not breathing. Which of the following actions by the CNS is indicated initially?
A. Connect the bag valve to the patient’s tracheostomy, and begin bagging with 100% oxygen.
B. Immediately connect the nasogastric tube to suction to empty the patient’s stomach.
C. Explain to the wife why she cannot feed her husband.
D. Suction the patient’s tracheostomy, and wait for the rapid response team.

52. A patient with gram-negative sepsis and liver failure presents with petechiae, gingival bleeding, dyspnea and crackles. Which of the following laboratory data should the CNS anticipate?

<table>
<thead>
<tr>
<th>Time</th>
<th>PT/PTT</th>
<th>Thrombin Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>0600</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1800</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The patient presents with a BP 123/76, HR 90, RR 24.

A. increased PT/PTT, decreased thrombin time
B. increased platelet count, decreased fibrinogen
C. increased fibrin split products and increased PT/PTT
D. decreased dimer and decreased fibrinogen
53. The CNS is assisting a staff nurse at the bedside and notices signal noise on the ECG tracing at the monitor. When asked, the nurse responds, “The monitor’s been doing that all day.” What key points about ECG monitoring should the CNS provide to the nurse to improve signal quality?

A. Gently cleanse the electrode area with alcohol, and change the ECG electrodes daily and PRN.
B. Wash the electrode area with antiseptic cleanser using gentle strokes, and change ECG electrodes when soiled.
C. Wash the electrode area with soap and water, using a rough washcloth, and change ECG electrodes daily.
D. Gently cleanse the electrode area with a no-rinse cleanser, and change ECG electrodes once per shift.

54. A nurse finds a patient with alcoholic liver disease lying in a puddle of blood. At least 1 L of blood loss is estimated. Data are as follows:

BP  76/40
HR  130
Hct  21%
Hgb  7.1 g/dL

Administration of which of the following should the CNS recommend initially?

A. fresh frozen plasma followed by plasmapheresis
B. normal saline
C. any available vasopressor
D. Monitor for hyperkalemia while correcting the serum sodium.

55. Which of the following is the best strategy for the CNS to consider when providing education to older adult patients?

A. Provide teaching with lighting at lower levels to decrease the presence of glare.
B. Initiate education on the day of discharge, so that the information is fresher in the patients’ mind and they will be less likely to forget.
C. When using print materials for education, ensure there are contrasting colors in the documents.
D. Be sure the patient is using needed devices to adjust for hearing and seeing deficits to ensure the education provided is understood.

56. A patient with a recent head trauma who is experiencing disorientation, nausea and vomiting is admitted. The patient has warm periphery and normal skin turgor. BP is 90/70. Pertinent lab data are as follows:

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Na⁺</td>
<td>115 mEq/L</td>
</tr>
<tr>
<td>K⁺</td>
<td>3.9 mEq/L</td>
</tr>
<tr>
<td>BUN</td>
<td>10</td>
</tr>
<tr>
<td>Cr</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Serum osmolality decreased
Urine osmolality increased

The nurse consults the CNS to help determine treatment priorities. Which of the following should the CNS recommend?

A. Monitor for hyperkalemia while correcting the serum sodium.
B. Begin 3% hypertonic saline to normalize serum sodium within the next 12 hours.
C. Titrate doses of vasopressin to sustain adequate blood pressure.
D. Administer a loop diuretic to increase water excretion.

57. The central line infection rate in the unit was well above target. The unit receives patients from all the other medical/surgical areas. The CNS performs a root cause analysis and notes that regardless of the unit of origin, the hospital policy regarding dressing changes was not being followed and dressings were not assessed upon patient transfer. With whom should the CNS collaborate to best address the problem?

A. the unit’s manager, so that admission assessment of dressings can be enforced
B. the other clinical nurse specialists in the facility, to help increase compliance with the dressing change policy
C. the unit nursing staff, to demonstrate sterile technique while changing central line dressings
D. Infectious Disease, to volunteer the unit to participate in a chlorhexidine bathing trial
58. A patient with a history of schizophrenia is admitted for shortness of breath. The patient is yelling at the nursing staff and presses the call light every 5 minutes. The patient is currently having delusions and hallucinations. Which of the following should the CNS recommend to the nursing staff?

A. Provide care with more lengthy interactions.
B. Provide clear communication of expectations to the patient.
C. Attempt to provide care with a friendly and reassuring approach.
D. Focus, and frequently ask the patient about the delusions.

59. The nurse received an order for end-of-life care for a patient. The physician ordered a sublimaze (Fentanyl) drip to be titrated to maintain the patient’s comfort. The nurse is concerned that increasing the infusion rate will cause the patient’s death. The CNS speaks with the nurse to allow for sharing of feelings and offer support. Which of the following interventions should the CNS recommend?

A. Review the patient’s durable power of health-care with the nurse.
B. Explain to the nurse how dyspnea and air hunger can be relieved by medication, bringing comfort to the patient and family.
C. Suggest that the nurse ask the charge nurse to assign the patient to another nurse.
D. Review that the terminal illness will be the cause of death.

60. A patient has been admitted after a motor vehicle collision. The surgeon explained to the parents that their child has suffered irreversible brain damage and that chances of any significant recovery are minimal. The parents decide to donate the heart, lungs and kidneys. Some nursing staff members are having difficulty with the parents’ decision because of their personal beliefs. The CNS should

A. advocate from the perspective of the patient/family and staff.
B. help the staff and family develop a plan that incorporates the patient’s wishes.
C. assign the staff members with ethical conflicts to other patients.
D. collaborate with the social worker to help support the family during this time.
|   | 1.  | 2.  | 3.  | 4.  | 5.  | 6.  | 7.  | 8.  | 9.  | 10. | 11. | 12. | 13. | 14. | 15. | 16. | 17. | 18. | 19. | 20. | 21. | 22. | 23. | 24. | 25. | 26. | 27. | 28. | 29. | 30. | 31. | 32. | 33. | 34. | 35. | 36. | 37. | 38. | 39. | 40. | 41. | 42. | 43. | 44. | 45. | 46. | 47. | 48. | 49. | 50. | 51. | 52. | 53. | 54. | 55. | 56. | 57. | 58. | 59. | 60. |
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1. During rounds, the CNS checks in with a new graduate nurse who is caring for a patient admitted with an ascending aortic aneurysm. The nurse tells the CNS the patient has reported stabbing chest pain that is radiating to the back. Upon examination, the CNS hears a new high-pitched diastolic murmur and witnesses the patient having a syncopal event. Which of the following should the CNS do first?

A. Obtain a 12-lead EKG.
   (u) Obtaining a 12-lead EKG will delay treatment for a patient exhibiting signs of acute aortic aneurysm dissection and impending cardiac tamponade.

B. Advise the nurse to give a dose of intravenous morphine.
   (a) Although morphine may help the patient’s pain, notification of the surgeon is a higher priority.

C. Administer a 500 mL crystalloid fluid bolus.
   (u) There is no indication for a fluid bolus at this time.

D. Notify the surgeon.
   (c) This patient is exhibiting signs of acute aortic aneurysm dissection and impending cardiac tamponade. The surgeon should be notified immediately.


2. Shortly after admission, a patient with acute coronary syndrome involving the inferior wall develops complete heart block with a ventricular escape rhythm at a rate of 32 beats per minute. Upon examination, the patient complains of dizziness and chest pain and has a BP of 77/58 mm Hg. Which of the following should the CNS do first?

A. Administer atropine intravenously.
   (c) Atropine is recommended for initial treatment of all bradycardias by the American Heart Association. There is no longer a distinction of bradycardias originating above or below the level of the AV node.

B. Prepare for synchronized cardioversion.
   (u) Synchronized cardioversion is indicated for symptomatic tachydysrhythmias.

C. Initiate transcutaneous pacing.
   (a) This patient is experiencing symptomatic complete heart block and may require immediate transcutaneous pacing to restore the cardiac output. Atropine, being more readily available, should be administered first, unless contraindicated.

D. Obtain a 12-lead ECG.
   (u) Obtaining a 12-lead ECG will delay treatment in a patient with symptomatic complete heart block.


3. Upon evaluating an ICU’s most recent data, the CNS notes an increase in the number of mechanically ventilated patients experiencing aspiration pneumonia. Which of the following should the CNS include in a policy to help prevent future occurrences of aspiration?

A. Hold tube feedings for all gastric residual volumes greater than 50 mL.
   (h) Although practices are not consistent, gastric residuals of 200 and 250 mL are frequently cited values that require interventions. Holding tube feedings for gastric residual volumes of 50 mL will put patients at risk for malnutrition.

B. Obtain a swallowing evaluation for patients intubated longer than 14 days.
   (c) Swallowing evaluations should be performed before oral feedings are started for recently extubated patients who have experienced prolonged intubation.

C. Maintain endotracheal tube cuff pressures between 15 and 20 cm H$_2$O.
   (u) Endotracheal tube cuff pressures less than 20 cm H$_2$O predispose patients to aspiration of oropharyngeal secretions and refluxed gastric contents.

D. Administer all tube feedings via a bolus method every 4 hours.
   (u) Bolus tube feedings over a period of a few minutes are more likely to predispose patients to regurgitation of gastric contents than are continuous enteral feedings.

4. A patient with a history of COPD is admitted with worsening dyspnea on exertion and recurrent syncope. The two-dimensional echocardiography demonstrates right ventricular failure and pulmonary hypertension with a mean pulmonary artery pressure of 40 mm Hg. Which of the following medications is indicated for this patient at this time?

A. warfarin (Coumadin)
   (c) Pulmonary hypertension results in a prothrombotic state. Therefore, it is recommended to administer warfarin to achieve an international normalized ratio of 1.5 to 2 times the control value to improve survival rates.

B. metoprolol (Lopressor)
   (h) Beta-blockers are potentially dangerous in the context of pulmonary arterial hypertension. Their negative inotropic and chronotropic effects are poorly tolerated in this condition, where cardiac reserve is compromised by a reduced and fixed stroke volume, and their administration can result in significant cardiopulmonary compromise.

C. nifedipine (Procardia)
   (h) Calcium channel blockers are negative inotropic medications and should not be given to patients with right ventricular failure due to pulmonary hypertension.

D. amiodarone (Cordarone)
   (u) Amiodarone (Cordarone) is indicated for dysrhythmias.


5. A patient involved in a motor vehicle collision sustains multiple injuries and undergoes an open reduction and internal fixation of a fractured right tibia. The next day, the nurse tells the CNS the patient is complaining of burning pain in the right leg. Upon examination, the patient’s right calf is firm, and the foot is cool with faint pulses. Upon slight dorsiflexion of the right foot, the patient complains of extreme pain. Which of the following should the CNS do first?

A. Place the patient in a high-Fowler’s position.
   (h) Placing the leg in a dependent position will elevate pressure within the fascia.

B. Elevate the right leg on 2 pillows.
   (h) Elevating the right leg will reduce blood flow to the muscle and worsen ischemia.

C. Position the right leg at the level of the heart.
   (c) This patient is exhibiting signs and symptoms of compartment syndrome. The affected leg should be positioned at the level of the heart to help maintain perfusion.

D. Place ice bags on the patient’s right leg.
   (h) Ice bags will cause vasoconstriction and worsen ischemia in the leg.


6. Thirty minutes after a diprivan (Propofol) infusion is started for a patient with a closed head injury and intracranial hypertension, the patient’s BP is 92/58 mm Hg and the ICP is 14 mm Hg. What should the CNS do first?

A. Change the patient’s sedation to lorazepam (Ativan).
   (u) Changing the patient’s sedation to lorazepam will not increase cerebral perfusion pressure.

B. Start a phenylephrine (Neosynephrine) infusion.
   (c) This patient’s cerebral perfusion pressure (CPP) is 55 mm Hg. Although the ideal CPP is debatable, a minimum of 60 mm Hg is necessary for adequate cerebral perfusion. A phenylephrine infusion will raise the blood pressure and CPP.

C. Order a CT scan of the head without contrast.
   (u) A CT scan of the head will not improve CPP and will delay treatment.

D. Lower the head of the bed to 0 degree.
   (h) Lowering the head of the bed may contribute to an increase in intracranial pressure.


7. After undergoing evacuation of a subdural hematoma, a patient with a history of chronic alcoholism remains comatose. Which of the following should the CNS do before initiating nutritional support for this patient?

A. Arrange for placement of a central venous catheter for parenteral nutrition.
   (u) This patient does not have a contraindication for enteral nutrition.

B. Consult a speech pathologist for a swallowing evaluation.
   (u) This patient is not alert enough to participate in a swallowing evaluation.

C. Check the patient’s serum electrolytes.
   (c) This patient, due to chronic alcoholism, is at risk for refeeding syndrome, which results in the intracellular movement and extracellular depletion of electrolytes including potassium and phosphorous when nutrition is started for

a malnourished patient. Therefore, serum levels of these electrolytes should be assessed and replaced as necessary when nutritional therapy is begun.

D. **Obtain the patient’s glycosylated hemoglobin (HbA1c) level.**
(u) It is not necessary to check the patient’s glycosylated hemoglobin level at this time as this will not impact the initiation of nutritional support.


8. **While evaluating the unit’s catheter-associated urinary tract infection (CAUTI) rate, the CNS notices it is significantly higher than the national average. Which of the following interventions might be most effective in reducing the unit’s CAUTI rate?**

A. **Develop a policy for removal of urinary catheters at the end of 1 week after insertion.**
(u) A policy that requires removal of urinary catheters at the end of 1 week after insertion does not address the need to remove these devices as soon as they are not medically necessary.

B. **Implement a nurse-driven urinary catheter removal protocol.**
(c) Systems to ensure prompt removal of indwelling urinary catheters will help reduce CAUTI rates.

C. **Distribute a flyer to the nursing staff that describes the unit’s CAUTI rate.**
(u) While sharing the unit’s CAUTI rate with the nursing staff may help raise awareness, it does not address any specific interventions that will help lower the CAUTI rate.

D. **Revise the procedure for urinary catheter care to include daily cleansing of the urethral meatus with betadine.**
(u) Cleansing the urethral meatus with betadine has not been shown to reduce CAUTIs.


9. **A patient is readmitted with acute exacerbation of end-stage heart failure. Even though the patient has been following all of the heart failure instructions, the patient’s spouse states it is getting more difficult for the patient to breathe while performing simple activities, such as getting dressed. Which of the following is the best action for the CNS to take at this time?**

A. **Obtain a palliative care consult.**
(c) The patient’s symptoms are a result of a worsening disease process and are impacting the ability to perform activities of daily living. The CNS should advocate for the patient by obtaining a palliative care consult to help manage the patient’s symptoms.

B. **Ask someone from the spiritual care department to check in with the patient’s spouse.**
(u) Although the patient’s spouse may appreciate spiritual care support, this will not address the primary concern of managing the patient’s symptoms.

C. **Reassure the patient’s spouse that the symptoms are reversible.**
(u) The patient’s symptoms represent the trajectory of a chronic disease process and are not likely to be temporary.

D. **Consult the hospital ethics committee.**
(u) There does not appear to be any moral dilemma that requires an ethics committee consult at this time.

11. The director of the blood bank decides to revamp the consent form used at all 3 campuses of a health system. The changes are made without any involvement of 1 campus that is staffed with a mix of community and university physicians. Which of the following should the CNS do?

A. **Contact the medical and nursing directors of the affected hospital to notify them about the change in the consent form.**
   (c) The change impacts an entire entity of a healthcare system. The medical and nursing directors have the authority to change the process in the affected facility.

B. **Contact CNS colleagues to alert them the form has been removed from the computer and provide the new form number.**
   (u) Contacting the other CNS is one of the interventions, but it doesn’t address the emergency nature of the change in blood consents to the entire hospital.

C. **Notify the educators of the surgical units to let them know the old form will have to be removed from the preoperative packets.**
   (u) This response only addresses the surgical areas and doesn’t address the needs of the entire system to be aware of this unplanned change.

D. **Participate in a conference call with the blood bank director, medical director and nursing director about the problems this change has caused on the affected campus.**
   (u) This option does not promote implementation of the process change for the entire healthcare system.


12. An elderly patient exhibits signs of inattention, anxiety, nighttime wakefulness and excessive daytime sleepiness. Which of the following suggestions might be most helpful for this patient?

A. **Instruct the staff nurse to assess the patient at more frequent intervals.**
   (h) The patient is exhibiting signs of sleep deprivation, so increasing the frequency of assessments may worsen this condition.

B. **Reschedule medications so that the patient has uninterrupted sleep periods at night.**
   (c) The patient is exhibiting signs of sleep deprivation and should be provided with periods of uninterrupted rest at night.

C. **Advise the nurse to give the patient temazepam (Restoril) in the evening.**
   (h) Sleep medications should be used cautiously for elderly patients, as they may contribute to delirium.

D. **Encourage the patient’s family to stay at the bedside all night.**
   (u) Family member presence at night may not necessarily help promote sleep for the patient.


13. The CNS wants to develop a mobility program for mechanically ventilated patients. Which of the following is a crucial **first step** the CNS should take?

A. **Inventory the equipment required for mobilizing mechanically ventilated patients.**
   (u) While it is helpful to inventory required equipment, this is not the most crucial first step.

B. **Gather an interdisciplinary team to develop a protocol.**
   (c) Working with all of the disciplines that will be involved in mobilizing mechanically ventilated patients will improve the likelihood the program will be successful.

C. **Define the responsibilities of each team member.**
   (u) The interdisciplinary team should participate in outlining the responsibilities of each discipline.

D. **Provide an in-service for the nursing staff on safe patient handling.**
   (u) While an in-service on safe patient handling may be required, this is not the first step that should be completed.


14. The CNS notices the department’s central line-associated bloodstream infection (CLABSI) rate has increased significantly over the past quarter. Which of the following should the CNS do first?

A. **Collaborate with the director of purchasing to obtain new central line dressings.**
   (u) There is no evidence that central line dressings are the cause of the increased CLABSI rate.

B. **Revise the central line insertion protocol.**
   (u) Data must be collected about common causes for the CLABSI rate increase prior to revising the central line protocol.
C. Launch a new staff education initiative on CLABSI prevention.  
(u) Although staff education may help improve and standardize nursing practice, there is no evidence that a lack of knowledge on the part of the nursing staff is responsible for the increase in the CLABSI rate.  

D. Perform a retrospective chart review of the patients who developed a CLABSI.  
(c) A retrospective chart review may provide the CNS with insight on the root cause of the increased CLABSI rate and provide the basis for an informed action plan.  


15. Upon initial assessment of a patient who underwent a vascular clipping after a subarachnoid hemorrhage 7 days ago, the CNS notes symptoms of visual disturbances that are new in onset. What should the CNS recommend?  
A. Initiate vasopressors to maintain adequate blood pressure. 
(c) One of the iatrogenic causes that can increase the risk of cerebral vasospasm following subarachnoid hemorrhage is hypotension. While hypertension needs to be gradually controlled, hypotension should be avoided to maintain cerebral blood flow. Theoretically, by increasing blood pressure and volume, the spasm of the vessel can be overcome and cerebral blood flow restored. This practice is widely followed as a standard treatment for vasospasm management, even though its true efficacy remains unclear.  
B. Restrict fluid intake to prevent hypervolemia.  
(h) Standard “Triple H” therapy includes induced hypervolemia through crystalloid infusions in order to overcome the spasm of the vessel with increased blood volume. Therefore, preventing hypervolemia is incorrect and potentially harmful.  
C. Request an ophthalmology consult.  
(u) While not harmful in itself, ordering an ophthalmology consult at this juncture may divert the treatment plan down an incorrect pathway.  
D. Prepare for an intraventricular device insertion.  
(u) The insertion of an intraventricular device is not a standard treatment for vasospasm and may potentially delay other more beneficial vasospasm treatments.  


16. You are evaluating the care plan for a patient who has just been admitted for treatment following a traumatic spinal cord injury at the C-5 level. Which intervention is most essential to include on the order set?  
A. fluid restriction to prevent bladder distention  
(h) Patients with cervical cord injuries are at risk of neurogenic shock, as manifested by hypotension caused by low systemic vascular resistance. Therefore, maintaining adequate hydration (and thus, adequate blood pressure) is an essential preventative measure.  
B. developing a rehabilitation plan  
(u) While rehabilitation is important to consider at this early stage, it does not take precedence over more acute concerns at this point.  
C. a bowel regimen to prevent constipation  
(c) Autonomic dysreflexia (AD) is a complication sometimes seen in traumatic spinal cord injury patients with lesions over the T-5 level. Initially characterized by increased blood pressure (greater than 20-30 mm Hg), tachycardia or bradycardia, flushing and headache, this condition can progress to intracranial hemorrhage, seizures and death if not treated. AD is often triggered by a distended bladder, constipation or pain, and management involves removing the source of discomfort as soon as possible. However, rather than preventing bladder distention by restricting fluid, regular catheterization is recommended; in addition, an aggressive bowel regimen and adequate pain control are essential to prevent this complication.  
D. initiation of continuous enteral nutrition  
(a) Nutritional support is important in the first several days after hospitalization, but the most urgent need is to prevent the potentially lethal complication of AD.  


17. Nurses have reported moral distress about the treatment plan for a patient with a poor prognosis. They report the family’s lack of understanding of the severity of the illness and a care plan that seems discordant with the patient’s trajectory. The nurses also perceive the patient is frequently in great pain during procedures despite comfort measures being administered. They have informed the healthcare team about the family’s lack of understanding and the
patient’s pain on numerous occasions, but no action has been taken. How should the CNS assist with this situation?

A. Inform the patient’s healthcare team about the family’s lack of understanding.
(u) While direct communication with the rest of the healthcare team is appropriate, they have already been informed by the nursing staff about the family’s lack of understanding.

B. Recommend an adjustment in the pain medication regimen.
(a) A pain medication adjustment, while possibly beneficial, may be only a partial solution for this patient’s issues.

C. Discuss the patient’s prognosis with the family in order to ensure their understanding.
(h) Discussing the patient’s prognosis with the family independent of the rest of the healthcare team may lead to further misunderstanding.

D. Educate the patient’s care team about the benefits of palliative care.
(c) Educating the healthcare team about how the involvement of palliative care can benefit everyone by offering support, assisting with family conferences, initiating discussions about advance directives, redirecting the goals of care and recommending better methods of pain management.


18. A patient with newly diagnosed systolic heart failure tells the CNS she is worried about how she will take care of herself once she is discharged. Which of the following should the CNS do first?

A. Explain to the patient she will get an implantable cardioverter defibrillator that will save her life if dysrhythmias develop.
(u) There is no information to indicate that this patient meets the criteria for receiving an implantable cardioverter defibrillator.

B. Collaborate with the social worker to obtain a referral to a heart failure clinic close to the patient’s home.
(u) Although this patient may benefit from a heart failure clinic referral, heart failure education should begin before discharge, so that the patient can start to manage her disease before the first clinic appointment.

C. Ask the patient if she learns best by reading or watching videos.
(c) The CNS should start by assessing the patient’s learning style.

D. Enroll the patient in a cardiac rehabilitation program.
(u) Although a cardiac rehabilitation program may be helpful for this patient, heart failure education should begin while the patient is still an inpatient.


19. Which of the following is the best initial intervention for the management of a patient with NSTEMI that started 30 minutes earlier?

A. performance of a 12-lead ECG
(u) A 12-lead ECG is recommended within 10 minutes of presentation.

B. administration of morphine sulfate 2-4 mg IV
(u) Intravenous morphine may be administered for pain or anxiety.

C. measurement of total creatinine kinase
(h) The measurement of total creatinine kinase is not advised as a primary test for acute coronary syndrome.

D. encouraging the patient to chew aspirin (ASA) 162-325 mg
(c) Non-enteric-coated ASA 162-325 mg PO should be administered upon presentation and continued until contraindicated.


20. A patient with type I diabetes mellitus is readmitted with diabetic ketoacidosis (DKA) for the third time in the past 2 months. Which of the following should the CNS do first to help prevent future DKA readmissions for this patient?

A. Provide the patient with printed material on diabetes management.
(u) A learning needs assessment should be conducted before providing the patient with printed education material.

B. Ask the patient to describe how diabetes mellitus is managed at home.
(c) The CNS should start by gathering information about the patient’s readiness to learn and what the patient knows about managing this chronic disease before an education program can be developed to meet the patient’s individual needs.

C. Refer the patient to an outpatient diabetes management clinic.
(u) Although referral to an outpatient diabetes clinic may be helpful, an education needs assessment should be performed while the patient is still in the hospital, so that immediate learning needs can be addressed.
D. Teach a trusted family member to provide the patient with insulin injections.
(u) Teaching a family member to provide insulin injections will not necessarily address the root cause of this patient’s repeated admissions.


21. An 80-year-old patient with pneumonia was intubated and placed on mechanical ventilation 5 days ago. The CNS notes increasing agitation and combativeness since the beginning of the shift. The patient is no longer following commands. The nurse caring for the patient states the patient has not been responding to the same doses of PRN lorazepam (Ativan), and does not know what else to do except apply restraints to keep the patient calm. Which of the following should the CNS recommend?

A. changing the PRN lorazepam dosing regimen to a continuous IV infusion
(h) This patient is exhibiting signs of delirium and has a number of possible risk factors for this condition, including pneumonia, ICU admission, advanced age and benzodiazepine use. Therefore, as benzodiazepine use is an independent risk factor for the development of delirium, increasing his dosage would not be recommended.

B. a change in medication from lorazepam to haloperidol (Haldol)
(h) Haloperidol has been associated with an increased risk of mortality in the elderly.

C. collaboration with physical therapy to attempt increased mobilization
(c) Recent studies have reported that early mobility in critically ill patients results not only in improved physical functions, but also improved cognitive function, reducing delirium duration by 2 days.

D. assessment for hypervolemia as a causative factor for the patient’s symptoms
(u) Dehydration, not fluid overload, has been identified as a cause of delirium.


22. Which of the following approaches is best for the CNS to establish a unit-based journal club for the nursing staff?

A. Identify a respected staff nurse to lead and run the journal club for the staff nurses.
(u) Expert coaching, guidance and clinical inquiry are all CNS Core Competencies. As this process may be new to the staff, they will require coaching and guidance from the CNS for the journal club to be successful.

B. Educate staff, assist with initiating and then act as coach and facilitator for staff-led journal club activities.
(c) Through expert coaching, guidance and professional leadership, a CNS can facilitate learning and direct staff toward their own clinical inquiry, while continuing to coach and facilitate the process afterward.

C. Give staff members all required information about how they can begin a journal club.
(u) Staff members who have not participated in a journal club will likely not be successful in starting the process without being mentored throughout the process by the CNS. Providing the staff members with the required information on how to begin is not consistent with mentoring staff through a new process.

D. Research current literature on a pertinent topic, synthesize the information and present it to journal club members.
(u) A primary focus of CNS practice is to advance nursing practice. By the CNS performing the initial steps of the journal club process, staff members are not being mentored in the process.


23. The CNS is performing an initial assessment on a patient with no known health problems who now reports malaise, weakness, rapid weight loss, nausea and a decreased appetite associated with a recent gastrointestinal illness. Increased thirst and urination and consumption of large quantities of soda and juice are also reported. The patient has dry skin and mucous membranes, labored respirations and a fruity breath odor. The CNS assesses and obtains the following:

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<tr>
<td>BP 98/47</td>
<td>pH 7.15</td>
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<tr>
<td>HR 118</td>
<td>pCO₂ 32 mm Hg</td>
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<td>RR 28</td>
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<tr>
<th>Serum</th>
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<tr>
<td>Glucose 541 mg/dL</td>
<td>Glucose positive</td>
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<tr>
<td>Na⁺ 130 mEq/L</td>
<td>Ketones positive</td>
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<td>K⁺ 5.9 mEq/L</td>
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Which of the following should the CNS recommend?

A. **aggressive fluid resuscitation**
   (c) This patient is in diabetic ketoacidosis (DKA), characterized by hyperglycemia, ketoacidosis and ketonuria. DKA is a life-threatening complication of diabetes (usually Type 1) and may be a first symptom of previously undiagnosed diabetes. The main goals of treatment for DKA include fluid resuscitation, correction/reversal of acidosis and ketosis, electrolyte replacement, normalization of blood glucose and determination of its underlying cause.

B. **administration of sodium polystyrene sulfonate (Kayexalate)**
   (h) The patient’s potassium level is in compensation for the acidosis. As soon as the acidosis is corrected, the potassium level will self-correct.

C. **administration of anti-nausea medications**
   (u) While symptom control and nutritional advice may be required, they are not the primary treatment choices for this patient’s condition.

D. **normalization of blood glucose levels over the next 3-4 hours**
   (h) While correction of hyperglycemia is essential, blood sugar should not be corrected more than 50-100 mg/dL per hour. Faster correction can result in cerebral edema.


**24. Which of the following is typically associated with diastolic dysfunction?**

A. **poor ventricular contractility**
   (u) Poor ventricular contractility is associated with systolic dysfunction.

B. **stiff, noncompliant ventricles**
   (c) In diastolic dysfunction, stiff and/or restricted ventricles cannot relax and, therefore, adequately fill.

C. **ejection fraction <40%**
   (u) Decreased ejection fraction is typically found during systolic dysfunction.

D. **increased preload**
   (u) Increased preload is usually associated with systolic dysfunction due to poor contractility.


**25. A patient with a history of cirrhosis is admitted with encephalopathy and hematemesis. Venous patterns are noted in the flank area. Which of the following diagnostic tests should the CNS anticipate being performed?**

A. **computed tomography**
   (u) Computed tomography is used less commonly to diagnose esophageal varices from portal hypertension. It may be indicated if Duplex Doppler ultrasound screens for portal hypertension.

B. **magnetic resonance angiography**
   (u) Magnetic resonance angiography is used less commonly to diagnose esophageal varices from portal hypertension. It may be indicated if Duplex Doppler ultrasound screens for portal hypertension.

C. **upper endoscopy**
   (c) All patients with cirrhosis should undergo diagnostic endoscopy to document the presence of varices and to determine the risk for variceal hemorrhage, which is a concern given the history of cirrhosis and the presence of hematemesis and venous patterns. Upper endoscopy is the most reliable test documenting the presence of esophageal varices.

D. **colonoscopy**
   (u) Colonoscopy is not indicated at this time, as the patient is not manifesting with melena.


**26. A CNS is developing a pressure ulcer prevention protocol for the hospital. Which of the following elements should be included?**

A. Use foam rings or donuts to reduce pressure while the patient is in a sitting position.
   (h) Ring cushions or donut devices have been shown to increase edema and venous congestion.

B. Maintain the HOB at > 45 degrees to improve tissue oxygenation.
   (u) While optimal HOB elevation recommendations vary, maintaining the HOB > 45 degrees is not advocated for pressure ulcer prevention.

C. **Reposition chair-bound patients at least every hour.**
   (c) Evidence for the optimal frequency of repositioning is lacking; however, repositioning chair-bound patients at least every hour is recommended.

D. **Avoid lift sheets to reduce the risk of friction injury.**
   (h) Lift sheets should be used during repositioning to prevent friction injuries.

27. The CNS is required to administer a critical care test to a newly hired nurse on your unit. In addition to informing the nurse of the test date and topics to be covered on the competency exam, which approach is best for the CNS to use?

A. Allow the nurse to select and locate desired study materials.
(u) Mentoring, expert coaching and facilitation of learning are CNS Core Competencies. In this option, the CNS is not demonstrating any of these competencies.

B. Determine how the nurse learns best, and identify barriers to learning.
(a) While the actions in this option are important for the CNS as a facilitator of learning, they do not accomplish the task at hand, which is to administer a competency exam.

C. Administer the test before allowing the nurse to prepare, to determine her baseline knowledge.
(u) An expected CNS behavior is to “mentor staff nurses, graduate students and others to acquire new knowledge and skills and develop their careers.” While establishing baseline knowledge may be helpful, the CNS should be available to mentor the newly hired nurse to develop the competencies required for the position.

D. Provide coaching with appropriate study materials as needed.
(c) Mentoring, expert coaching and facilitation of learning are CNS Core Competencies.


28. When caring for a patient diagnosed with intermittent asthma, which of the following is the best information the CNS should include in patient teaching?

A. types of different asthma support groups
(a) While helpful, this information is not as urgent as instructing the patient on medication use.

B. instructions about the use of a low-dose inhaled corticosteroid medication
(u) Low-dose inhaled corticosteroid medications are not indicated for patients with intermittent asthma.

C. specific results of spirometry tests
(a) Spirometry test results, while helpful in the diagnosis and management of asthma, are not as urgent as instructing the patient on medication use.

D. instructions about the use of a short-acting beta-agonist medication
(c) Short-acting beta-agonist medications (such as albuterol) are the most effective treatment for the symptoms of intermittent asthma.


29. You are assessing a mechanically ventilated patient on the unit who has recently been diagnosed with acute respiratory distress syndrome (ARDS). Which of the following values is most consistent with that diagnosis?

A. PAOP > 18 mm Hg
(u) PAOP ≤ 18 mm Hg is a part of the definition of ARDS.

B. PaO2 to FiO2 ratio ≤ 200
(c) A ratio of PaO2 to FiO2 ≤ 200 (regardless of the level of PEEP) is a part of the definition of ARDS.

C. narrowed alveolar-arterial gradient
(u) A widened alveolar-arterial gradient (as a reflection of hypoxemia) is common in ARDS.

D. absence of polymorphonucleocytes on bronchoalveolar lavage
(u) An increased number of polymorphonucleocytes is the most prominent finding on bronchoalveolar lavage in patients with ARDS.


30. A nurse is teaching a patient of Asian descent and the family. The nurse notices that neither the patient nor any of the family members is making eye contact during any of the teaching. The CNS is consulted to help determine the nurse’s next steps and should recommend which of the following?

A. Terminate the teaching session at this time, and attempt teaching another time.
(u) Many Asians consider it disrespectful to look at someone directly in the eye, especially if that person is in a superior position. By terminating the teaching session without validating whether learning has taken place, the nurse is not demonstrating respect for the culture, and additional time may be used to teach the same content at another time.

B. Document in the education section of the medical record that the patient and family were not receptive to teaching at this time.
(u) The lack of eye contact in this case does not necessarily reflect lack of readiness or ability to learn.
C. **Upon completion of the teaching session, validate that learning has taken place.** (c) An Asian patient or family may avoid eye contact out of respect for the “superior status” of a nurse or physician. Learning is likely taking place despite the lack of eye contact. The nurse should continue and then validate that learning has taken place.

D. Respectfully request that the patient and family make eye contact while the teaching is taking place.

(u or h) By requesting that the patient and family make eye contact during teaching, the nurse is not demonstrating respect for the culture. This could lead to lack of trust of the nurse by the patient or family.


31. **The CNS is asked to review and update an existing clinical protocol for the hospital. Which approach would be best for the CNS to use for this project?**

A. In order to best utilize time, review the existing protocol for errors and change the dates.

(u) “Organization/System” (as represented by this behavior) is one of the 3 spheres of the CNS role. It is an appropriate use of the CNS’s time to revise protocols. Reviewing and revising protocols entails more than checking for errors and putting a rubber stamp on it. It involves searching the evidence and updating the document to reflect the most recent scientific data.

B. Call neighboring hospitals to determine what they do, and modify your hospital’s policy accordingly.

(u) Calling other hospitals for their protocol might be a case of the “blind leading the blind.” The other hospital’s policy may not be based on the most recent scientific evidence available. Optimal patient outcomes will less likely be reached without the use of evidence-based guidelines.

C. **Collaborate with a multidisciplinary team and lead an analysis of current literature and best practices.** (c) “The CNS collaborates at an advanced level by committing to authentic engagement and constructive patient, family, system and population-focused problem solving” (National CNS Competency Task Force, 2010, p. 14). By leading a multidisciplinary team charged with evaluating the current literature, the CNS will be instrumental in optimizing patient outcomes.

D. Assign a work group of nurses to review and revise the protocol and provide them with feedback.

(u) Leadership and collaboration are both CNS Core Competencies. As a clinical leader, the CNS must serve as a mentor for the process of protocol revision, as staff members may not be familiar with this process. Further, delegating the process to others without collaborating will not result in the best product being developed.


32. **You were asked to develop an in-service for the nursing staff on the different handling methods for various infectious diseases. Which of the following management strategies should the CNS include in the presentation?**

A. airborne precautions for a patient with fungal meningitis

(u) Standard precautions are recommended for fungal meningitis.

B. droplet precautions for a patient with disseminated Herpes zoster (shingles)

(u) Airborne or contact precautions are recommended for patients with shingles, depending on whether or not it is disseminated.

C. standard precautions for a patient with gas gangrene

(u) Standard precautions are recommended for protection against gas gangrene.

D. **contact precautions for a patient with Creutzfeldt-Jakob disease (CJD)**

(c) Standard precautions are recommended for patients with CJD.


33. A patient is receiving a continuous intravenous infusion of sodium nitroprusside (Nipride) to treat an acute episode of hypertensive crisis. The CNS should monitor which of the following parameters during the infusion?

A. arterial oxygen saturation

(a) While arterial blood gases may be monitored for acid-base balance, arterial oxygenation is not a necessary parameter to monitor.

B. venous oxygenation

(c) A potential lethal side effect of sodium nitroprusside infusion is cyanide toxicity. Acid-base balance and venous oxygenation are 2 tests that may indicate cyanide toxicity.
Practice ACCNS-AG Exam Questions

C. serum potassium
(u) Sodium nitroprusside does not affect serum potassium.

D. serum sodium
(u) Sodium nitroprusside does not affect serum sodium.


34. A patient is recovering after coronary artery bypass graft (CABG) surgery. Upon examination, the nurse notes new-onset hypotension with a narrow pulse pressure, jugular vein distension, muffled heart sounds and somnolence. The CNS should anticipate which test to best aid in diagnosis?

A. ECG
(a) ECG may provide additional evidence of pericardial effusion when used with other diagnostic tests.

B. chest x-ray
(u) Chest x-ray is not sensitive or specific for a diagnosis of pericardial effusion.

C. echocardiography
(c) This patient has a risk factor (CABG) and signs and symptoms of cardiac tamponade. Echocardiography is the gold standard, identified by the ACC/AHA guidelines, for a diagnosis of pericardial effusion.

D. MRI
(a) MRI may be beneficial for confirmation of pericardial effusion but is not the best option.


35. A patient is nearing discharge after treatment of an acute exacerbation of COPD. The prehospital medical regimen included a long-acting anticholinergic and a beta-agonist rescue inhaler. Which of the following additions to the patient’s medication regimen should the CNS anticipate to best reduce COPD exacerbations?

A. prophylactic antibiotics
(u) Prophylactic antibiotics are not recommended due to the increase in resistant organisms.

B. leukotriene antagonists
(u) Leukotriene antagonists are indicated for asthma, but not COPD.

C. mucolytic agents
(u) Mucolytics have demonstrated little benefit and are therefore not recommended for chronic therapy of COPD.

D. inhaled glucocorticoids
(c) The addition of an inhaled glucocorticoid reduces inflammation and has been shown to decrease COPD exacerbations.


36. The pressure ulcer rate on a unit where older adults are cared for was well above the NDNQI benchmark. Which of the following interventions should the CNS recommend?

A. Use a donut-type device for pressure redistribution.
(h) A donut-type device is not recommended, as it does not allow for pressure redistribution.

B. Place synthetic sheepskin on the bed to help keep the patient dry and comfortable.
(h) A synthetic sheepskin is not recommended for pressure ulcer prevention as per the evidence-based guidelines.

C. Use hot water and a product with a mild fragrance after each incontinence episode.
(h) Hot water and products with a fragrance should be avoided as they can cause drying of the skin.

D. Maintain the head of bed no more than 30 degrees when repositioning the patient.
(c) Elevation of the head to no more than 30 degrees (or the lowest degree of elevation consistent with the patient’s medical condition) will help minimize friction during repositioning.


37. When managing a patient with nonocclusive acute mesenteric ischemia, in addition to fluid resuscitation, which of the following interventions should the CNS consider?

A. thrombolytic therapy and correction of electrolyte imbalances
(u) The etiology of nonocclusive acute mesenteric ischemia is from nonthrombotic causes; thrombolytic therapy is therefore not indicated.

B. broad-spectrum antibiotics and thrombectomy
(u) The etiology of nonocclusive acute mesenteric ischemia is from nonthrombotic causes such as hypoperfusion or vasospasm. Therefore, thrombectomy is not indicated.

C. correction of electrolyte imbalances and administration of broad-spectrum antibiotics
(c) Correction of electrolyte imbalances and broad-spectrum antibiotics to guard against
translocation of bacteria from the gut to the bloodstream are key components of treatment for this patient.

D. vasoconstrictors and correction of electrolyte imbalances
(h) Vasoconstrictors can worsen ischemia and intensify visceral vasospasm.


38. The CNS is assisting a nurse with management of a patient. The patient is lethargic, has peripheral edema, CVP 10 mm Hg and serum sodium of 122 mEq/L. Which of the following sets of lab values best indicates a renal cause for the problem?

A. decreased serum osmolality and elevated urine sodium
(c) In the setting of hypervolemia, a decreased serum osmolality and elevated urine sodium indicate a renal cause for hyponatremia.

B. decreased serum osmolality and decreased urine sodium
(u) In the setting of hypervolemia, decreased serum osmolality and decreased urine sodium are indicative of heart failure or liver failure.

C. increased serum osmolality and elevated urine sodium
(u) Hyponatremia in the presence of a hyperosmolar state (serum osmolality > 295 mmol/L) should lead the CNS to consider hyperglycemia and hyperosmolar hyperglycemic state (HHS).

D. increased serum osmolality and decreased urine sodium
(u) Hyponatremia in the presence of a hyperosmolar state (serum osmolality > 295 mmol/L) should lead the CNS to think about hyperglycemia and hyperosmolar hyperglycemic state (HHS).


39. The palliative care team has just completed their initial assessment of an elderly patient with end-stage heart failure. The patient has been intubated for 6 days and is receiving continuous renal replacement therapy but has shown no improvement over the last 48 hours. The CNS overhears the nurse saying, “I don’t know why the family insists on keeping him alive. They should just let him go.” Which of the following would be the CNS’s best response to the nurse?

A. “You should bring your concerns to the physician to help formulate a plan of care.”

(u) The plan of care needs to involve the patient and family as well as the healthcare team.

B. “The patient cannot communicate with us, so it is up to the family to make decisions.”
(a) While this statement is correct, it will not help the nurse explore his/her feelings surrounding end-of-life care and does not foster the nurse’s growth.

C. “I will speak to the charge nurse to see if we can get your assignment changed.”
(u) Changing the patient assignment does not acknowledge the frustration the nurse is feeling and does not help resolve the dilemma.

D. “You and I should take some time to discuss your feelings about this situation.”
(c) This response validates the nurse’s feelings and offers him/her the opportunity to discuss and explore attitudes and beliefs about end-of-life care.


40. Several nurses have reported to the CNS that an elderly patient with dementia has been receiving multiple phone calls from debt collectors. When the nurses have asked the patient about the calls, the patient responds by saying her adult son must have forgotten to pay the bills. What is the most appropriate action by the CNS?

Consult the hospital’s risk manager.
A. (u) The main purposes of a hospital risk management program are board, medical and staff support, and a concerted effort to recognize and reduce potentially litigious situations and occurrences. There is no hospital wrong doing in this case. Therefore, consultation with risk management is not indicated..

Notify Adult Protective Services.
B. (c) Notifying Adult Protective Services is the best option to report elder abuse and is mandated by federal and local laws.

Coordinate a family meeting.
C. (u) There is no indication that the family is involved in this situation. Collaboration with the family is not indicated.

Remind the nurses about patient autonomy.
D. (u) While patient autonomy is an important ethical principle and an elderly patient with dementia is vulnerable, there is a duty to report elder abuse to the appropriate authorities.

41. The spouse of a patient who is intubated tells the nurse, “I am HIV positive and have not told my spouse about my status. What if my spouse is infected too?” The ethical principle involved in this scenario is

A. beneficence.

(u) Beneficence is the commitment to the health, welfare and safety of the patient. Patient beneficence is not implicated in this scenario.

B. veracity.

(a) Veracity is the obligation to tell the truth as in informed consent and is not implicated in this scenario.

C. fidelity.

(c) Fidelity is the duty to be faithful to one’s patients through keeping promises and fulfilling contracts. In this scenario, the spouse has divulged information to the CNS that the patient does not have. This ethical dilemma also involves confidentiality of the spouse, which is an aspect of fidelity.

D. justice.

(u) Justice refers to fairness and, in healthcare, is often concerned with allocation of resources. Justice is not implicated in this scenario.


42. A patient with respiratory failure develops ventilator dysynchrony and is placed on pressure-support ventilation. Which of the following should the CNS recommend the nurse monitor at this time?

A. escalating levels of auto-positive end-expiratory pressure

(u) Patients on pressure support ventilation will typically not have increases in auto-PEEP. Increases in auto-PEEP are associated with volume-guaranteed pressure options, which combine pressure ventilation with guaranteed tidal volume.

B. increased work of breathing

(u) Pressure support decreases work of breathing.

C. presence of barotrauma

(u) Patients on pressure support ventilation will typically not develop barotraumas. Increased risk of barotraumas is associated with volume-guaranteed pressure options, which combine pressure ventilation with guaranteed tidal volume.

D. spontaneous tidal volume

(c) The pressure-support mode augments or assists spontaneous breathing efforts. Therefore, patients on pressure support should be evaluated at least hourly for spontaneous tidal volume and respiratory rate.


43. The CNS is working with a staff nurse to formulate a plan of care for a patient with multiple complex pressure ulcers. There is no defined protocol for how to manage complex dressing changes at the hospital. What is the best initial course of action for the CNS to assist the staff nurse in developing a plan of care?

A. Conduct a thorough literature review on management of complex pressure ulcers.

(u) A thorough literature review takes a considerable amount of time. While this is a good first step in developing a protocol, it is not the best option when a care plan needs to be developed immediately.

B. Develop a comprehensive protocol on complex wound management.

(u) As a long-term solution, this is a good option, but not realistic for a patient who needs care now.

C. Collaborate with the wound ostomy nurse to assist in formulating a plan of care.

(c) Collaboration is an essential competency for a CNS. When the scope of care is outside the CNS’s skill set, collaboration should be considered.

D. Consult with the attending physician to obtain orders for wound care.

(u) It is doubtful the attending physician would be an expert on wound management; collaboration and consultation with a wound ostomy nurse is the best option.


44. A CNS is working for a multihospital system and discovers that the length of stay for patients with heart failure is significantly higher than the national average. In order to address this problem, which initial action should the CNS take?

A. Coordinate an interdisciplinary systemwide collaborative.

(c) This is the best approach to tackle a large, systemwide problem. Including interdisciplinary team members from the entire system will aid in uncovering the causes of the longer length of stay and ensure the problem is addressed using a holistic approach.
B. **Perform chart audits of patients admitted with heart failure.**
(a) Performing chart audits may help to uncover opportunities to reduce length of stay, but this problem is systemwide and needs an inter-disciplinary team approach.

C. **Attend interdisciplinary rounds on patients with heart failure.**
(u) Attending rounds may help with length of stay for the unit, but there needs to be a systemwide approach to solve this problem.

D. **Develop a seminar for nurses that addresses discharge planning.**
(u) Education alone is not enough to resolve this issue.


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45. An elderly Vietnamese patient is recovering from a total hip replacement. The patient’s mobility has been slow to progress. The CNS reviewed the chart and noted that pain medication has been withheld. When the CNS asks why, the nurse responds, “The patient does not look like he is in pain.” What is the CNS’s best response to the nurse?

A. **“It is important to understand that different cultures express pain in different ways.”**
(c) It is important for the CNS to reinforce that patients from different cultures will experience pain in different ways. A stoic appearance does not indicate a patient is pain-free. A plausible reason this patient is not progressing with his mobility is the presence of pain.

B. **“Be sure you are using the correct pain scale when you document the patient’s pain.”**
(a) While it is important to document the scale used for pain assessment, this answer does not address the fact that the patient is experiencing pain despite his facial expression.

C. **“Why didn’t you ask the patient to rate his pain on an established pain scale?”**
(u) This answer is accusatory and is not an appropriate response by the CNS.

D. **“Even if the patient looks like he is not in pain, you should treat him for pain.”**
(u) This would not be an appropriate response. The nurse needs to find another way to assess the patient’s pain.


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46. A mechanically ventilated elderly patient is being treated with intravenous tPA for acute ischemic stroke. Data are as follows:

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP</td>
<td>190/115</td>
</tr>
<tr>
<td>HR</td>
<td>100</td>
</tr>
<tr>
<td>O₂ Sat</td>
<td>96%</td>
</tr>
<tr>
<td>CVP</td>
<td>10</td>
</tr>
</tbody>
</table>

The CNS should immediately consult the medical team for which order?

A. **PO metoprolol (Lopressor)**
(h) Oral metoprolol will not act quickly enough to get the blood pressure under control.

B. **IV furosemide (Lasix)**
(u) There is no indication that the patient has fluid overload. Diuretics are not indicated at this time.

C. **IV nicardipine (Cardene)**
(c) IV nicardipine is indicated for rapid control of hypertension with ischemic stroke. The patient is receiving tPA and is very hypertensive (greater than 185/110), which significantly increases the risk for developing hemorrhagic stroke.

D. **PO verapamil (Calan)**
(h) Oral verapamil is not indicated and will not achieve normotension within an appropriate amount of time.


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47. A patient experienced a traumatic fall requiring transfer to a higher level of care. The CNS found the nurse who was caring for the patient visibly upset in the break room. The nurse says to the CNS, “It’s my fault. I’m a terrible nurse.” The best responses by the CNS are to

A. **console the nurse, inform the unit manager and encourage the nurse to develop an in-service about fall prevention.**
(u) Having the nurse develop an in-service for fall prevention does not address the immediate emotional support the nurse needs.

B. **complete a variance report, inform the risk manager about the fall and provide education about fall prevention.**
(u) Providing education to the nurse does not address the nurse’s emotional needs at this time.

C. **reassure the nurse that we all make mistakes, complete a variance report and encourage the nurse to journal about the experience.**
(u) Telling the nurse that we all make mistakes does not validate the nurse’s emotional state. While
journaling is an important tool, speaking with the CNS immediately after the patient fall is a better strategy.

D. validate the nurse’s feelings, provide reassurance and debrief with her about the experience.
(c) Validating the nurse’s feelings is important in building trust. Providing reassurance anytime a nurse makes a mistake is important to shift blame from the individual and helps the nurse to look at the process. Debriefing is an important strategy to guide the nurse through a systematic evaluation of the events.


48. A patient who has just returned from pacemaker placement has a BP of 212/120 mm Hg. It is noted that the patient had been hypertensive throughout the case. The nurse collaborates with the CNS. The most important intervention is to

A. recheck the blood pressure on the opposite arm and notify the physician.
(a) This answer is correct but not the most important. Accurate measurement of the blood pressure with verification of the contralateral arm is indicated to have accurate patient data, so that a plan of care can be developed.

B. call the physician and request an order for a PRN antihypertensive.
(c) The continued high pressure puts the patient at risk for stroke and bleeding at the incision site. Blood pressure readings > 140/90 mm Hg while awake and > 120/80 mm Hg while asleep are clinically significant and are predictive of cardiovascular target organ damage.

C. medicate the patient for pain, and reduce external stimuli.
(u) Pain may be contributing to the patient’s elevated blood pressure, but the patient demonstrated high pressures throughout the case despite receiving analgesics and sedation.

D. check the patient’s chart to see if the patient has a significant history of hypertension.
(u) It is important to know the patient’s blood pressure history, but this sustained hypertension is concerning and requires more immediate action by the nurse.


49. A patient is admitted for a urinary tract infection. The physician ordered bladder irrigations with antibiotics every 6 hours. The nurse notes the patient does not have a 3-way urinary catheter in place. The nurse consults with the CNS. Which of the following should the CNS recommend?

A. Review the hospital’s nursing protocol on continuous bladder irrigation with the nurse.
(a) While reviewing the protocol with the nurse is acceptable, it is only part of the solution.

B. Ask the provider to order a GU consult for 3-way urinary catheter placement.
(c) A 3-way urinary catheter is essential in order to maintain a closed system for bladder irrigation.

C. Disconnect the existing urinary catheter, and irrigate with the solution ordered.
(u or h) Evidence-based guidelines suggest maintaining a closed system.

D. Instill the solution via a needleless adaptor, and keep the drainage bag at heart level for the entire dwell time.
(u or h) Evidence-based guidelines suggest maintaining the urinary drainage bag below the level of the bladder.


50. A patient is admitted 12 hours after hip replacement surgery. Vital signs are:

BP 123/76
HR 90
RR 24

The patient reports no presence of pain. The lab has called with a troponin of 15 (µg/L). The assigned nurse is confused about a new order for a heparin drip. The patient’s last 3 troponin levels are:

<table>
<thead>
<tr>
<th>Time</th>
<th>Level (µg/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0600</td>
<td>0.04</td>
</tr>
<tr>
<td>1200</td>
<td>15</td>
</tr>
<tr>
<td>1800</td>
<td>33</td>
</tr>
</tbody>
</table>

The CNS should explain that the elevation of the troponin level is most likely due to

A. hemolysis of the blood specimen.
(u) Troponin levels are not falsely elevated by hemolysis.

B. blood loss during the procedure.
(u) Blood loss during the surgery would affect the hemoglobin and hematocrit values, not the troponin levels.
C. muscle damage due to surgical equipment that rested on the chest wall.
(u) The rods placed on the patient’s chest would not have caused elevation of troponin.

D. silent ischemia not previously diagnosed.
(c) The serial increase in the troponin levels over the ensuing hours indicates myocardial tissue damage.


51. Upon entering a patient’s room, the nurse finds the spouse feeding the patient who has a tracheostomy, despite the patient having failed a swallowing evaluation. The nurse notes the patient is not breathing. Which of the following actions by the CNS is indicated initially?

A. Connect the bag valve to the patient’s tracheostomy, and begin bagging with 100% oxygen.
(c) The patient in this case has likely aspirated and is now apneic. Manually ventilating the patient (rescue breathing) is indicated at this time.

B. Immediately connect the nasogastric tube to suction to empty the patient’s stomach.
(h) The patient is not breathing and requires emergency intervention with bag valve mask ventilation. There is no indication that the patient has a full stomach, requiring stomach emptying. The priority is to ventilate the patient.

C. Explain to the wife why she cannot feed her husband.
(h) While the wife needs to know why she should not to feed her husband, that should have been done much earlier. Emergency lifesaving measures are required at this time. Family teaching can be performed after rescue procedures are completed.

D. Suction the patient’s tracheostomy, and wait for the rapid response team.
(u) While suctioning the patient’s airway is important, delaying manual resuscitation while waiting for the rapid response team in a patient who is apneic will not result in an optimal outcome.


52. A patient with gram-negative sepsis and liver failure presents with petechiae, gingival bleeding, dyspnea and crackles. Which of the following laboratory data should the CNS anticipate?

A. increased PT/PTT, decreased thrombin time
(u) While a patient with DIC would have an increased PT/PTT, the thrombin time would also be increased from the formation of unnecessary clots.

B. increased platelet count, decreased fibrinogen
(u) While patients with DIC would likely have a decreased fibrinogen level, the platelet count would also likely be decreased from the formation of unnecessary clots.

C. increased fibrin split products and increased PT/PTT
(c) Patients with DIC have an increased PT/PTT from the formation of unnecessary clots and increased fibrin split products from the breakdown of these clots by the fibrinolytic system.

D. decreased D-dimer and decreased fibrinogen
(u) While patients with DIC would likely have a decrease in fibrinogen level from the formation of unnecessary clots, they would typically have an increase in D-dimers from the breakdown of unnecessary clots.


53. The CNS is assisting a staff nurse at the bedside and notices signal noise on the ECG tracing at the monitor. When asked, the nurse responds, “The monitor’s been doing that all day.” What key points about ECG monitoring should the CNS provide to the nurse to improve signal quality?

A. Gently cleanse the electrode area with alcohol, and change the ECG electrodes daily and PRN.
(u) Alcohol is drying to the skin and should be avoided as skin preparation.

B. Wash the electrode area with antiseptic cleanser using gentle strokes, and change ECG electrodes when soiled.
(u) Antiseptic cleanser is not necessary to prepare the skin for electrode placement. The ECG electrodes should be changed daily and PRN.

C. Wash the electrode area with soap and water, using a rough washcloth, and change ECG electrodes daily.
(c) Soap and water is gentle to the skin, and the rough wash cloth removes the outer layer of epidermis resulting in better adhesion of the electrode and improved signal quality. ECG electrodes should be changed at least daily and PRN, if soiled.

D. Gently cleanse the electrode area with a no-rinse cleanser, and change ECG electrodes once per shift.
(u) No-rinse cleanser can leave a film on the skin,
which can impede signal quality. Changing the electrodes each shift may be too frequent and can lead to skin irritation.


54. A nurse finds a patient with alcoholic liver disease lying in a puddle of blood. At least 1 L of blood loss is estimated. Data are as follows:

<table>
<thead>
<tr>
<th>BP</th>
<th>HR</th>
<th>Hct</th>
<th>Hgb</th>
</tr>
</thead>
<tbody>
<tr>
<td>76/40</td>
<td>130</td>
<td>21%</td>
<td>7.1 g/dL</td>
</tr>
</tbody>
</table>

Administration of which of the following should the CNS recommend initially?

A. packed red blood cells
(a) The average adult has a total blood volume of approximately 5,000 to 6,000 mL and can usually lose 500 mL of blood without serious or lasting effects. If blood loss reaches 1,000 mL or more, serious acute consequences may result. If more than 30%-40% of blood volume is lost, acute blood loss can lead to shock and even death. The hypovolemia that develops must be treated aggressively with IV fluids or compatible blood. Since the patient is hypotensive and blood is typically not readily available, it is not the most appropriate initial intervention.

B. fresh frozen plasma followed by plasmapheresis
(u) Fresh frozen plasma replacement following plasmapheresis is the preferred treatment for thrombotic thrombocytopenic purpura and hemolytic-uremic syndrome. It is not appropriate for acute hemorrhage anemia.

C. normal saline
(c) While this patient has anemia, since blood is not readily available, initial resuscitation with normal saline until packed red blood cells are available is indicated at this time. Crystalloids are the initial fluid of choice.

D. any available vasopressor
(u or h) Vasopressors are relatively contraindicated in the treatment of hypovolemic shock.


55. Which of the following is the best strategy for the CNS to consider when providing education to older adult patients?

A. Provide teaching with lighting at lower levels to decrease the presence of glare.
(u) Due to decreased rod and cone function associated with aging, there are associated decreases in visual acuity, visual fields and light/dark adaptation. Making sure there is adequate lighting without glare is essential to help compensate for these changes, so that learning can be facilitated.

B. Initiate education on the day of discharge, so that the information is fresher in the patients’ mind and they will be less likely to forget.
(u) Processing speed is defined as a resource that integrates many cognitive functions to complete tasks in a timed manner. The theory of processing speed states that most of the age-related differences in the performance of cognitive tasks are due to slower completion of mental tasks by older adults. Processing speed is a sensitive index of the age-related changes in the brain structure that affect cognition. Nurses need to recognize the impact that processing speed has on healthcare education. On the basis of this recognition, nurses need to find creative ways to allow older patients to have time to process information. Providing education on day of discharge does not allow time for the older patient to process the needed information.

C. When using print materials for education, ensure there are contrasting colors in the documents.
(c) Age-related sensory changes include decreased rod and cone function. This results in decreased visual acuity, visual fields and light/dark adaption. As it relates to patient teaching, using materials that have contrasting colors will help with these age-related changes.

D. Be sure the patient is using needed devices to adjust for hearing and seeing deficits to ensure the education provided is understood.
(u) Correcting sensory function through the use of adaptive aids such as glasses or hearing aids still does not explain why some patients continue to have problems with understanding information (perception). In other words, perceiving or understanding information is more than just having the ability to hear or see what is being presented. The nurse cannot assume that perception is intact just because deficits in hearing and seeing are eliminated. Perception is affected by the connection from the brain stem into the cortex, and in older adults this connection may be less than optimal.

56. A patient with a recent head trauma who is experiencing disorientation, nausea and vomiting is admitted. The patient has warm periphery and normal skin turgor. BP is 90/70. Pertinent lab data are as follows:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Na⁺</td>
<td>115 mEq/L</td>
</tr>
<tr>
<td>K⁺</td>
<td>3.9 mEq/L</td>
</tr>
<tr>
<td>BUN</td>
<td>10</td>
</tr>
<tr>
<td>Cr</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Serum osmolality decreased
Urine osmolality increased

The nurse consults the CNS to help determine treatment priorities. Which of the following should the CNS recommend?

A. Monitor for hyperkalemia while correcting the serum sodium.
   (u) Patients with SIADH have hyponatremia. Once correction of the serum sodium begins, patients are at risk to develop hypokalemia (not hyperkalemia).

B. Begin 3% hypertonic saline to normalize serum sodium within the next 12 hours.
   (h) While patients with SIADH require administration of 3% hypertonic saline, correction of serum sodium should not exceed 0.5-1 mEq/hour and no more than 10-12 mEq in the first 24 hours. Rapid correction of serum sodium can lead to central pontine myelinolysis with permanent neurologic deficit.

C. Titratedoses of vasopressin to sustain adequate blood pressure.
   (h) Patients with SIADH require a vasopressin-2 receptor antagonist to increase water excretion.

D. Administer a loop diuretic to increase water excretion.
   (c) Patients with SIADH have water intoxication. In conjunction with giving saline to correct the hyponatremia, administration of a loop diuretic is recommended to increase water excretion.


57. The central line infection rate in the unit was well above target. The unit receives patients from all the other medical/surgical areas. The CNS performs a root cause analysis and notes that regardless of the unit of origin, the hospital policy regarding dressing changes was not being followed and dressings were not assessed upon patient transfer. With whom should the CNS collaborate to best address the problem?

A. the unit’s manager, so that admission assessment of dressings can be enforced
(u) This response addresses only part of the problem by increasing awareness.

B. the other clinical nurse specialists in the facility, to help increase compliance with the dressing change policy

C. If the CNSs in the covering units where staff are not adhering to the policy are made aware of the issue, they can work to determine the cause(s) and hold staff accountable for adhering to the policy.

D. the unit nursing staff, to demonstrate sterile technique while changing central line dressings
   (u) This response addresses only 1 component of the global problem.


58. A patient with a history of schizophrenia is admitted for shortness of breath. The patient is yelling at the nursing staff and presses the call light every 5 minutes. The patient is currently having delusions and hallucinations. Which of the following should the CNS recommend to the nursing staff?

A. Provide care with more lengthy interactions.
   (u) Lengthy interactions with the patient should be avoided.

B. Provide clear communication of expectations to the patient.
   (c) Clear communication of expectations using a kind, firm, matter-of-fact approach will help the patient to set the pace for development of a relationship and can help establish trust.

C. Attempt to provide care with a friendly and reassuring approach.
   (u) Being too friendly or too reassuring should be avoided, because the patient may perceive closeness as very threatening.

D. Focus, and frequently ask the patient about the delusions.
   (u) After initial assessment, frequently focusing and asking the patient questions about delusions should be avoided.

59. The nurse received an order for end-of-life care for a patient. The physician ordered a sublimaze (Fentanyl) drip to be titrated to maintain the patient’s comfort. The nurse is concerned that increasing the infusion rate will cause the patient’s death. The CNS speaks with the nurse to allow for sharing of feelings and offer support. Which of the following interventions should the CNS recommend?

A. **Review the patient’s durable power of healthcare with the nurse.**
   (u) This response may be helpful to clarify the patient’s wishes but doesn’t address the nurse’s concerns about causing the patient’s death when she increased the dosage of the drip.

B. **Explain to the nurse how dyspnea and air hunger can be relieved by medication, bringing comfort to the patient and family.**
   (u) This response may help the nurse reassess her feelings, but it doesn’t allay the fears of causing the death.

C. **Suggest that the nurse ask the charge nurse to assign the patient to another nurse.**
   (u) Changing the nurse’s assignment does not allow her the opportunity to work through feeling responsible for the patient’s death.

D. **Review that the terminal illness will be the cause of death.**
   (c) This response addresses the nurse’s concern and puts the focus back on the disease process that will ultimately cause the patient’s death.


60. A patient has been admitted after a motor vehicle collision. The surgeon explained to the parents that their child has suffered irreversible brain damage and that chances of any significant recovery are minimal. The parents decide to donate the heart, lungs and kidneys. Some nursing staff members are having difficulty with the parents’ decision because of their personal beliefs. The CNS should

A. **advocate from the perspective of the patient/family and staff.**
   (u) This response doesn’t address the moral dilemma the staff members are feeling.

B. **help the staff and family develop a plan that incorporates the patient’s wishes.**
   (u) This response doesn’t address the staff members’ concerns.

C. **assign the staff members with ethical conflicts to other patients.**
   (c) This response allows both the nurses’ beliefs to be respected and honors the family’s decision.

D. **collaborate with the social worker to help support the family during this time.**
   (u) This response is part of the complete intervention but is missing the component of supporting the staff members’ concern.


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