CCRN REVIEW
Professional Caring and Ethical Practice
20% of exam

Synergy Model

Patient / family characteristics and needs

Nurse Competencies

Improved Outcomes

Synergy results when patient and family needs or characteristics are matched with competencies of the nurse.
### Patient Characteristics

- **Resiliency**: Capacity to return to a restorative level of functioning using coping/compensatory mechanisms
- **Vulnerability**: Susceptibility to stressors that may adversely affect patient outcomes
- **Stability**: Ability to maintain a steady-state equilibrium
- **Complexity**: Intricate entanglement of two or more systems.
- **Predictability**: Characteristics that allows one to expect a certain course of events or course of illness.
- **Resource Availability**: Resources brought to the patient by the patient, family or community.
- **Participation in Care**: Extent to which patient/family are able or willing to participate in care.
- **Participation in Decision Making**: Extent to which patient/family are able or willing participate in decision making.

### Nurse Characteristics

- **Clinical Judgment**
- **Advocacy / Moral Agency**
- **Caring Practices**
- **Collaboration**
- **Systems Thinking**
- **Responses to Diversity**
- **Facilitator of Learning**
- **Clinical Inquiry**
Nursing Competencies

- **Clinical Judgment:** Clinical reasoning, clinical decision making, critical thinking, integration of education, experience and evidence based practice.
- **Advocacy / Moral Agency:** Working on another’s behalf; helping resolve moral/ethical concerns.
- **Caring Practices:** Creating compassionate, supportive, and therapeutic environment with the aim to promote comfort and healing while preventing suffering.
- **Collaboration:** Working with others while promoting each person’s contribution (interdisciplinary / intradisciplinary)

Nursing Competencies

- **Systems Thinking:** Managing environmental and system resources across the healthcare continuum.
- **Responses to Diversity:** Recognize, appreciate and incorporate differences in provision of care.
- **Facilitator of Learning:** Using oneself to facilitate patient/family and staff learning.
- **Clinical Inquiry:** Ongoing process of questioning and evaluating practice and providing informed practice utilizing evidence based practice, research and experiential knowledge
### STABILITY
- **Level 1**: Minimally stable
- **Level 3**: Moderately stable
- **Level 5**: Highly stable
*The ability to maintain a steady-state equilibrium*

### COMPLEXITY
- **Level 1**: Highly complex
- **Level 3**: Moderately complex
- **Level 5**: Minimally complex
*The intricate entanglement of two or more systems (e.g., body, family, therapies)*

### VULNERABILITY
- **Level 1**: Highly vulnerable
- **Level 3**: Moderately vulnerable
- **Level 5**: Minimally vulnerable
*Susceptibility to actual or potential stressors that may adversely affect patient outcomes*

### RESILIENCY
- **Level 1**: Minimally resilient
- **Level 3**: Moderately resilient
- **Level 5**: Highly resilient
*The capacity to return to a restorative level of functioning using compensatory coping mechanisms; the ability to bounce back quickly after an insult*

### PREDICTABILITY
- **Level 1**: Not predictable
- **Level 3**: Moderately predictable
- **Level 5**: Highly predictable
*A summative characteristic that allows one to expect a certain trajectory of illness*

### RESOURCE AVAILABILITY
- **Level 1**: Few resources
- **Level 3**: Moderate resources
- **Level 5**: Many resources
*Extent of resources (e.g., technical, fiscal, personal, psychological, social) which the patient, family, and community brings to the situation*

### PARTICIPATION IN CARE
- **Level 1**: No participation
- **Level 3**: Moderate level of participation
- **Level 5**: Full participation
*Extent to which the patient and family engage in aspects of care*

### PARTICIPATION IN DECISION-MAKING
- **Level 1**: No participation
- **Level 3**: Moderate level of participation
- **Level 5**: Full participation
*Extent to which the patient and family engage in decision-making*

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### CLINICAL JUDGMENT
- **Level 1**: Competent
- **Level 3**: Expert
*Clinical reasoning, which includes clinical decision-making, critical thinking, and a global grasp of the situation, coupled with nursing skills acquired through a process of integrating formal and experiential knowledge*

### ADVOCACY/MORAL AGENCY
- **Level 1**: Competent
- **Level 3**: Expert
*Working on another’s behalf and representing the concerns of the patient, family and community; serving as a moral agent in identifying and helping to resolve ethical and clinical concerns within the clinical setting*

### CARING PRACTICES
- **Level 1**: Competent
- **Level 3**: Expert
*The constellation of nursing activities that are responsive to the uniqueness of the patient and family and that create a compassionate and therapeutic environment, with the aim of promoting comfort and preventing suffering. These caring behaviors include, but are not limited to, vigilance, engagement, and responsiveness*

### COLLABORATION
- **Level 1**: Competent
- **Level 3**: Expert
*Working with others (e.g., patients, families and healthcare providers) in a way that promotes and encourages each person’s contributions toward achieving optimal and realistic patient goals. Collaboration involves intra- and inter-disciplinary work with all colleagues*

### SYSTEMS THINKING
- **Level 1**: Competent
- **Level 3**: Expert
*The body of knowledge and tools that allows the nurse to appreciate the care environment from a perspective that recognizes the holistic interrelationship that exists within and across healthcare systems*

### RESPONSE TO DIVERSITY
- **Level 1**: Competent
- **Level 3**: Expert
*The sensitivity to recognize, appreciate, and incorporate differences into the provision of care. Differences may include, but are not limited to, individuality, cultural differences, spiritual beliefs, gender, race, ethnicity, disability, family configuration, lifestyle, socioeconomic status, age values, ad beliefs surrounding alternative/complimentary medicine involving patients, families, and members of the healthcare team*

### CLINICAL INQUIRY
- **Level 1**: Competent
- **Level 3**: Expert
*The ongoing process of questioning and evaluating practice, providing informed practice and innovating through research and experiential learning. The nurse engages in clinical knowledge development to promote the best patient outcomes*

### FACILITATOR OF LEARNING
- **Level 1**: Competent
- **Level 3**: Expert
*The ability to facilitate patient and family learning*
Synergy Model

Synergy results when patient and family needs or characteristics are matched with competencies of the nurse.

Ethical Principles

- **Beneficence**: Desire to do good. Take positive action to help others.
- **Nonmaleficence**: “Do No Harm”
- **Autonomy**: Patient has the right to make his or her own decision. Self-determination.
- **Justice**: Everyone deserves equal respect. Equal and fair distribution of resources.
- **Veracity**: Truthfulness, honesty.
- **Privacy / Confidentiality**: Respect right to privacy and confidentiality.
- **Fidelity**: Loyalty, fairness, truthfulness, advocacy, and dedication to the patient. Keep promises.
Informed Consent for Clinical Care

- Healthcare professionals have duty to provide facts to a patient so a **competent** patient can make informed healthcare decision.

- Components of informed consent
  - The nature of the decision/procedure
  - Reasonable alternatives to the proposed intervention
  - The relevant risks, benefits, and uncertainties related to each alternative
  - Assessment of patient understanding
  - The acceptance of the intervention by the patient – voluntariness and authorization

Professional Negligence

The doing of something which a reasonably prudent person would not do, or the failure to do something which a reasonably prudent person would do, under similar circumstances. It is the failure to use ordinary or reasonable care.

- There must be a duty owed to someone
- There must be a breach of that duty
- The breach of that duty must result in harm or damage that is proximately caused by that breach.
- **Duty** – a moral or legal obligation; a responsibility.
- **Breach of Duty** – conduct falls short of the standard expected under the circumstances.
- **Proximate Cause** – primary cause of an injury. Proof that the harm caused was directly related to an action or lack of action.
- **Injury** – harm or bad outcome resulting from negligence.
- **Damages** – a remedy in the form of monetary compensation to the harmed party.

**Malpractice**

- A type of negligence, where a licensed professional fails to provide services according to established standards.
- **Professional Standards of Practice in Critical Care**
  - State Authority
    - Professional licensure (legal recognition)
    - Statutory Laws
    - Defined scope of practice
  - Standards of Care – level of performance or degree of excellence of care that has been established
    - National (American Nurses Association)
    - State Board of Nursing
    - National Facility Standards – JCAHO
    - Hospital standards
    - Unit standards
    - Specialty standards
      - AACN has standards of care, standards of practice, policies, procedures, and performance criteria for acute and critical care nurses.
✓ Most common malpractice in critical care:
  ▪ Medication errors – wrong dose, wrong drug, incorrect method of administration, and failure to assess for side effects and toxicity.
  ▪ Failure to properly monitor and assess the patient’s condition and failure to properly supervise a patient resulting in harm.
    ▪ Falls
  ▪ Failure to perform an assessment and notify the treating physician of changes.

PRACTICE SYNERGY QUESTIONS

Patient
&
Family

Communication

Multidisciplinary
Teams

Healthy Work Environment
A 77 y/o critically ill man in your ICU tells you about his estranged sister. He shares with you that if she comes to the unit he does not want her given any information nor does he want to see her. The next day he suffers a cardiac arrest, becomes non responsive and is placed on ventilator. His sister arrives in a panic as she learned on Facebook that her brother is dying. She is asking you for information and is requesting to see him one more time before he dies so she can tell him she is sorry. What should you do?

A. Let the sister in for a quick minute.
B. Call the patients wife and ask her to make the decision.
C. Explain to the sister the reason it is important to honor the patient’s request
D. Call security and have the sister removed from the unit.

A 22–year–old patient with end–stage liver failure secondary to Hepatitis C virus has been declared brain dead. The parents decide to discontinue feedings and donate their daughter’s organs. In response to the parents’ request, the most appropriate action by the nurse would be to:

A. Contact the organ procurement agency.
B. Convene a multidisciplinary care conference.
C. Tell the parents that their daughter’s condition precludes organ donation.
D. Discontinue the tube feedings per the parents request.
A patient’s family expresses anxiety regarding the meaning of numbers on the patient’s monitor, and asks the nurse for clarification. The nurse’s most appropriate response would be:

A. “The numbers indicate when the patient is having a problem.”
B. “The numbers help us determine the best treatment.”
C. “Which numbers on the monitor concern you?”
D. “What don’t you understand about the monitor?”

A teenager post cardiac arrest has a new diagnosis of hypertrophic cardiomyopathy. The parents are concerned about what to do if the patient collapses again. The nurse’s best response would be:

A. “Now that your son has been diagnosed and treated, you need not worry.”
B. “Would teaching you CPR help ease your anxieties?”
C. “Do you know how to access the EMS system?”
D. “I will have your son’s cardiologist talk to you.”
A major trauma victim is transported from a rural hospital. The patient died prior to the wife's arrival to the ICU. The nurse would best prepare to support the wife by:

A. Arrange for a physician to speak with her when she enters the unit.
B. Planning to escort her to the waiting room to await the physician’s arrival
C. Preparing to give her information about the care her husband received prior to his death.
D. Planning to escort her to the morgue to see her husband.

A patient with hepatic failure in the ICU is confused about time, place, and person. For safety, the nurse should initially:

A. Reorient the patient
B. Increase the frequency of patient observation
C. Restrain the patient
D. Administer a mild sedative
The extended family of a critically ill patient wants to stay at his bedside around the clock. Hospital policy limits visiting times and the number of visitors. The best response from the nurse is to:

A. Explain the policy and ask them to leave  
B. Bring in cots and chairs for the family to stay  
C. Find a local hotel for the family  
D. Allow one or two family members to stay

In order to meet the standard of care required during your treatment of a patient, you must:

A. Deliver exceptional care  
B. Use the most up-to-date equipment and treatments  
C. Act as a reasonable and prudent nurse would  
D. Meet all of the patient’s expectations
A new research study shows that an intervention would help your critically ill patient. The best action to take would be:

A. Implement the strategy, even though it is contrary to hospital policy
B. Ask the physician to order the intervention
C. Request a policy change from administration
D. Bring the study results to the attention of the physician and administration

If you feel that one of your hospital’s policies is outdated and ineffective, the best action to take is to:

A. Complain loudly about it
B. Learn how to navigate the system to change it
C. Tell your patients about it
D. Ridicule it publicly on an Internet discussion group
Preparation

- Sign up for exam!
- Assign yourself a preparation period
  - Example: 12 weeks
  - Ideal 5 hours of study time per week
- Identify study resources
  - 2 – 3 different tools is ideal
  - This course is one of those tools
- Get a study partner / accountability partner
Seek to understand rather than memorize
Write to remember
  ◦ Use note cards to rewrite key information
Do practice questions
  ◦ Pick sources that provide you with rationales
Teach someone else challenging concepts
  ◦ The best way to remember something is to teach it to somebody else
Learn generic names of drugs
Be flexible with terminology & thinking
  ◦ There are regional language differences in item writers
  ◦ Don’t be locked into your hospital protocols

Perfection is NOT the goal!

VISUALIZE SUCCESS

Try studying with cinnamon
Exam Day

- Get a good night sleep
- Wear something special – dress for success
- Take cinnamon candy or gum with you
- Clear your brain on scrap paper before you start
  - Write down anything you have memorized before you start
- Read question with answers covered
  - Look at what they are asking you
  - Determine the answer
  - Look for your answer
  - Eliminate the obvious wrongs, then reread what they are asking

Question #1

You are caring for a trauma victim who suffered a closed head injury. The patient's blood pressure is 90/60 mmHg with a MAP of 70 mmHg. The patient scored a 5 on the Glasgow Coma Scale and an intra parenchymal intracranial pressure monitor is inserted at the bedside. The first intracranial pressure reading is 25 mmHg. What is true regarding the cerebral perfusion pressure (CPP)?

A. The CPP cannot be calculated in a brain injured patient.
B. The CPP requires knowledge of the central venous pressure in order to be calculated.
C. The CPP is 45 mmHg and this is an inadequate CPP for a brain injured patient.
D. The CPP is 95 mmHg and this is higher than desired for a brain injured patient.

CCP is MAP minus ICP and should be at least 70 mmHg in brain injured patient.
Question #2

Your MI patient turns on his call light and complains of dyspnea and anterior chest pain. His rhythm is sinus tach, BP 96/60. He has crackles half way up bilaterally, neck veins are not elevated, and is acutely SOB. You hear a systolic murmur at the lower left sternal border that was not there on your previous assessment. His ECG is unchanged from the last one obtained earlier this AM. Which of the following do you suspect?

A. Decompensated heart failure
B. Papillary muscle rupture
C. Extension of his MI
D. Acute pericarditis

Question #3

Your patient is a 74 year old man admitted after his son found him confused and obtunded at home. On admission he is barely rousable and unable to communicate. BP is 80/46, sinus tachycardia at 120, respirations 16 and shallow. Lab work shows: ABGs: pH = 7.34, PaCO\textsubscript{2} = 48 mmHg, PaO\textsubscript{2} = 64 mmHg, HCO\textsubscript{3} = 22 mEq/L. Labs: Na\textsuperscript{+} = 148, K\textsuperscript{+} = 3.2, Cl\textsuperscript{-} = 118, glucose = 1150 mg/dL, creatinine = 2.2, serum osmolality = 360 mOsm/kg. Urine ketones = negative, urine glucose 2+. Based on presentation and labs, what is the most likely diagnosis?

A. HHNS (or HHS)
B. DKA
C. SIADH
D. Diabetes insipidus

HHNS occurs in Type II diabetes due to insulin resistance and presents with very high glucose levels (often >1000) but normal or slightly acidic pH and no ketones. DKA occurs in absence of insulin so presents with ketoacidosis, pH <7.3, and glucose usually 500-800.
Question #4
Which of the following patients with ischemic stroke may be a candidate for rtPA?

A. Patient who was normal at 11PM and found by wife obtunded at 6 AM.
B. 45 year old woman with BP 188/112 with signs of stroke.
C. 60 year old man with signs of stroke for last hour with blood glucose of 50 mg/dL.
D. Patient who exhibited unilateral weakness and slurred speech at 4 PM and arrived in ED at 5 PM.

Eligible for fibrinolysis:
- Ischemic stroke (not hemorrhagic), >18 years of age
- Presentation within 3 hours of symptom onset or from last time known to be normal
- BP <185/110 (can be controlled by drugs, maintain at <180/105)
- No seizures at onset of symptoms
- Glucose >60 mg/dL

Question #5
Which of these hormone imbalances most directly impact fluid balance?

A. Cortisol and epinephrine
B. Aldosterone and ADH
C. Thyroxin and ADH
D. Aldosterone and cortisol

Aldosterone is released by the adrenal cortex and regulates extracellular fluid volume by causing Na⁺ and H₂O reabsorption in renal tubules. ADH is secreted from posterior lobe of pituitary and regulates osmotic pressure of extracellular fluid by controlling amount of water reabsorbed in renal tubules. Cortisol and thyroxin regulate metabolism.
Question #6

You receive a 42 year old male patient from the Emergency Department who is being admitted with acute abdominal and back pain, nausea & vomiting. His blood pressure is 92/70, heart rate 100, respiratory rate 16, temperature 37.8 C. Lab work shows hypocalcemia, hypokalemia, hyperglycemia, elevated amylase and lipase. The most likely diagnosis is:

A. GI bleed
B. Pancreatitis
C. DKA
D. Acute liver failure

Pancreatitis presents with acute abdominal pain, nausea, vomiting. Elevated serum amylase and lipase are diagnostic.

Question #7

All of the following are critical elements of care for a patient with pancreatitis EXCEPT:

A. Anticoagulation
B. Pain medication
C. Fluid administration
D. NPO status

Initial priorities are: NPO to decrease the release of pancreatic enzymes, pain management to provide comfort but also enable the patient to participate in deep breathing activities to prevent pulmonary complications often associated with pancreatitis. Fluid resuscitation is needed secondary to third space shifting of fluids and hypovolemia.
Question #8

Your patient was admitted after a syncopal episode. He states he has been having chest pain and increasing SOB in the past few weeks. He has a systolic murmur heard best at the 2nd intercostal space, right sternal border. This most likely represents:

A. Mitral stenosis  
B. Mitral regurgitation  
C. Aortic stenosis  
D. Aortic regurgitation

The classic triad of symptoms in aortic stenosis is: **angina, syncope, heart failure.** Aortic valve sounds are heard best at the 2nd intercostal space right sternal border.

Question #9

An early sign of heparin induced thrombocytopenia (HIT) is:

A. Excessive bleeding from gums, puncture sites, GI system.  
B. Stroke, MI, or DVT.  
C. Drop in platelet count by ≥50%.  
D. Multiple organ failure

In heparin induced thrombocytopenia, platelet count usually falls by 50% or more from baseline, usually within 4-10 days after heparin is started. Excessive bleeding can occur with any anticoagulant therapy but is not associated with HIT. HIT results in arterial and venous thrombosis that can cause DVT, pulmonary embolism, limb gangrene, stroke, MI and other organ failure – but these events occur after the initial drop in platelet count.
Question #10

Your patient is admitted with head trauma following a motor vehicle crash. His BP is 136/70, sinus rhythm in 70s, RR is 12 and unlabored. Glasgow score is 13, pupils are equal and reactive to light. You know that the most sensitive indicator of increased ICP is:

A. Cheyne-stokes respirations
B. Glasgow score < 8
C. Change in level of consciousness
D. Change in pupil size

A change in level of consciousness is the earliest change when ICP increases. This can include confusion, restlessness, and irritability. Changes in respiratory pattern, pulse pressure, and pupil assessment are all later changes that will follow a change in level of consciousness. A Glasgow score of <8 is seen in comatose patients.

Question #11

A patient is admitted with an overdose of Acetaminophen. You prepare to administer which of the following medications which is an antidote to acetaminophen toxicity:

A. Flumazenil (Romazicon)
B. Naloxone (Narcan)
C. Protamine
D. N Acetylcysteine (Mucomyst, NAC)

NAC is maximally hepatoprotective when administered within 8 hours of an acute acetaminophen ingestion. When indicated, NAC should be administered regardless of the time since the overdose.
Question #12
You are admitting a patient with chest pain. The 12 Lead ECG shows ST elevation in leads II, III, and aVF. The likely diagnosis is:
A. Unstable angina
B. Inferior wall MI
C. Anterior wall MI
D. Lateral wall MI

Question #13
Your patient complains of numbness and tingling in his right foot following a cardiac cath procedure. On assessment you cannot feel pedal pulses, the foot is cool and pale. You get a Doppler and cannot find a pedal pulse. Your next action should be:
A. Put a warm blanket on the right leg and tie it down so the patient can’t move it
B. Give a fluid bolus to help improve cardiac output and peripheral perfusion
C. Start vasopressors to improve BP and peripheral perfusion
D. Notify the MD immediately
Question #14
Your patient develops a new onset SVT with a regular ventricular rate of 180 bpm, BP 84/60, chest pressure, nausea, and dizziness. You had the patient try a Valsalva maneuver with no result. Which of the following do you anticipate next?

A. Urgent cardioversion to terminate the SVT.
B. Administration of IV amiodarone to convert the rhythm.
C. Administration of norepinephrine to increase her BP.
D. Administration of heparin to prevent thrombus formation.

What drug(s) would be appropriate if she had a BP of 124/68 and felt a little dizzy?

Question #15
Your patient’s ABGs are:
- pH       7.30
- PCO₂     50 mmHg
- HCO₃⁻   26 mEq/L
- PaO₂      94 mmHg

Which of these therapies would **not** be helpful?

A. Reversing sedation
B. Increasing tidal volume on a ventilator
C. Increasing FIO₂
D. BiPAP

This ABG represents **respiratory acidosis** (pH is acidic and matches the high pCO₂). The PCO₂ is the ventilation parameter and is high due to hypoventilation. Causes of hypoventilation can include low tidal volume, low respiratory rate, or inadequate inspiratory effort. Oversedation can cause all 3 of those. All of these therapies could improve ventilation except increasing the FIO₂, which improves oxygenation but not ventilation.
Question #16

Your patient was admitted with weakness, confusion and hypotension. Medications include lisinopril, metoprolol, spironolactone, and furosemide. This is the admission ECG:

![ECG Image]

Which of the following therapies do you anticipate?
A. Administration of amiodarone
B. Cardioversion
C. Administration of IV calcium, glucose and insulin
D. Urgent cardiac cath

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Neuro Check

After this program:

A. My brain hurts
B. My butt hurts
C. My C drive is full
D. I want to stay after class and review everything I didn’t get the first time
For more practice questions visit our Certification Preparation Center at www.cardionursing.com where you will find the CCRN prep with 118 practice questions.

Email us and let us know when you pass the test!!!
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