Go To Clinical Case

While caring for this client, be sure to review the concept maps in chapters 3 and 4.

Case 1: Impaired Coronary Perfusion and Chest Pain

Related Concepts: Comfort, Adaptation: Coping & Stress
Threaded Topics: Health Promotion & Teaching, Clinical Calculations, Legal Issues, Communication

Kandice Sheridan is a 49-year-old female in the emergency department for "achiness" in the elbows that is atypical and worsening over the last three days. She states that the feeling awakens her at night. Ms. Sheridan has felt more short of breath with activity lately and has been under a lot of stress at work. She is planning a trip overseas in a few days and wants to confirm there is nothing significantly wrong before leaving the country.

1. The nurse is beginning the initial assessment. In what priority order should these actions be performed?

Answers: ____, ____, ____, ____, ____.

1. PQRST pain assessment.
2. Vital sign assessment.
3. Health history and medication use.
4. Place in a hospital gown.
5. Assessment of contributing symptoms.

Clinical Hint:
P - Provocation/Palliation
Q - Quality
R - Radiation/Relief
S - Severity/Symptoms
T - Timing

Clinical Hint: Mean Arterial Pressure (MAP) is a calculation that measures the blood perfusion to organs. A MAP < 65 mmHg indicates that there is inadequate perfusion. Ex: 145/88 (107). The MAP is 107.

Nursing | Flow Sheets | Provider | Labs & Diagnostics | MAR | Collaborative Care | Other

Nurse Think HEALTHCARE SYSTEM

Name: Kandice Sheridan
Health Care Provider: M. Dixon M.D.
Code Status: Full Code
Age: 49 years
Allergies: NKDA

NURSING NOTE

June 1 0730	49-year-old female admitted with atypical pain in the elbows. Afebrile, RR 18, HR 88, BP 145/88 (107), sats 97% on room air (RA). Denies chest pain and shortness of breath at this time. Says her arms feel "heavy" and elbows feel "achy." Describes achiness as "less than during the night last night." Denies nausea or other discomforts. Skin moist to touch. History includes iron deficiency anemia, C-sections x 2, and appendectomy. Family history consists of a father with an acute myocardial infarction (AMI) at age 56.

Online Videos, Downloads, and Answers—Visit NurseThink.com/casestudy-book

2. **NurseThink® Prioritization Power!**
Evaluate the information within the Nursing Notes from the emergency department and pick the **Top 3 Priority** assessment findings.

1. _____
2. _____
3. _____

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Nurse Think HEALTHCARE SYSTEM

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Code Status: Full Code

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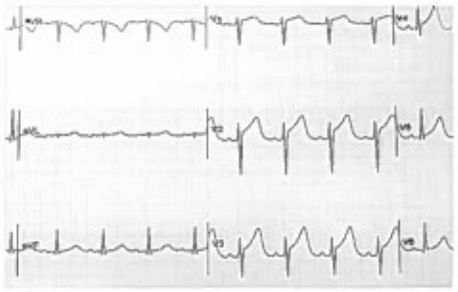
HEALTH CARE PROVIDER PRESCRIPTIONS

June 1 0900	1. Serum labs: complete blood cell count (CBC), comprehensive metabolic panel (CMP), prothrombin time (PT) and international normalized ratio (INR), partial thromboplastin time (PTT), lipid panel, troponin, myoglobin, creatine kinase-muscle/brain (CK-MB) 2. 12-lead electrocardiogram (EKG), Chest x-ray ASAP 3. IV capped line 4. Oxygen 2 L/NC for sats < 95%

3. **After reviewing the orders, which action should the nurse take first?**
   1. Request serum lab draw.
   2. Obtain 12-lead EKG.
   3. Place IV capped line.
   4. Apply O_2 at 2 L/nasal cannula.

4. **In preparation for the IV insertion, the nurse should place a _____ gauge capped IV line.**

5. **Which observation(s) should the nurse make in the review of the 12-lead EKG? Select all that apply.**
   1. The client has tachycardia.
   2. There is ST segment elevation in V leads.
   3. The client has premature ventricular contractions (PVCs).
   4. There is artifact on the tracing.
   5. The tracing is normal.



6. **After reviewing the EKG, what should be the nurse's next action?**
   1. Apply continuous EKG monitor.
   2. Check to see if the serum lab report is back.
   3. Notify the healthcare provider.
   4. Apply the ordered oxygen.

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Nurse Think HEALTHCARE SYSTEM

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LABORATORY REPORT

Lab	Normal	1000		
WBC	4,000 - 10,000 µL	5,000		
Hemoglobin	12.0 - 17.0 g/dL	**11.1 L**		
Hematocrit	36.0 - 51.0%	39		
RBC	4.2 - 5.9 cells/L	**3.90 L**		
Platelets	150,000 - 350,000 µL	245,000		
Calcium	9 - 10.5 g/dL	9		
Chloride	98 - 106 mEq/L	98		
Magnesium	1.5 - 2.4 mEq/L	2.0		
Phosphorus	3.0 - 4.5 mg/dL	3.1		
Potassium	3.5 - 5.0 mEq/L	**3.3 L**		
Sodium	136 - 145 mEq/L	139		
Glucose	70 - 100 mg/dL	**110 H**		
BUN	8 - 20 mg/dL	20		
Creatinine	0.7 - 1.3 mg/dL	1.0		
Creatine Kinase (CPK)	30 - 170 U/L	**378 H**		
CPK-MB	3 - 5%	**6% H**		
Lactic Dehydrogenase (LDH)	60 - 100 U/L	**150 H**		
Aminotransferase, Aspartate (AST)	0 - 35 U/L	30		
Aminotransferase, Alanine (ALT)	0 - 35 U/L	33		
GGT	9 - 48 U/L	34		
T. Bilirubin	1.2 mg/dL	0.9		
Cholesterol	< 200 mg/dL	**254 H**		
Triglycerides	< 150 mg/dL	**298 H**		
Troponin I	< 0.5ng/mL	**0.10 H**		
Troponin T	< 10 ng/mL	**12 H**		
Myoglobin	< 170 ng/mL	168		
PT	11 - 12.5 seconds	11.5		
INR	0.8 - 1.1	0.8		
aPTT	25 - 35 seconds	32		

7. **NurseThink® Prioritization Power!**
Evaluate the information on the lab report and pick the **Top 3 Priority** lab findings.

1. _____
2. _____
3. _____

8. **THIN Thinking Time!**
Reflect on the events that have occurred since Kandice Sheridan came to the emergency department and apply **THIN Thinking.**

T – _____

H – _____

I – _____

N – _____

T - Top 3
H - Help Quick
I - Identify Risk to Safety
N - Nursing Process

Scan to access the 10-Minute Mentor → on THIN Thinking.

NurseThink.com/THINThinking

9. **The nurse gathers the lab report and begins to prepare an SBAR conversation for the HCP. Complete each section of the communication form.**

S – _____

B – _____

A – _____

R – _____

Clinical Hint:
S - Situation
B - Background
A - Assessment
R - Recommendation

10. **The nurse obtains several STAT verbal prescriptions from the HCP for a client experiencing an acute myocardial infarction. In what order should the nurse complete these actions?**
Answers: ____, ____, ____, ____, ____.

1. Nitroglycerin (NTG) 0.4 mg SL x 3 PRN for pain.
2. Consult Dr. Nemus, Cardiologist.
3. Obtain blood pressure and heart rate.
4. Read back the verbal orders.
5. Morphine 2-4 mg IV PRN for pain unrelieved by NTG.

Clinical Hint: Remember **MONA?**
M - Morphine
O - Oxygen
N - Nitroglycerin
A - Aspirin

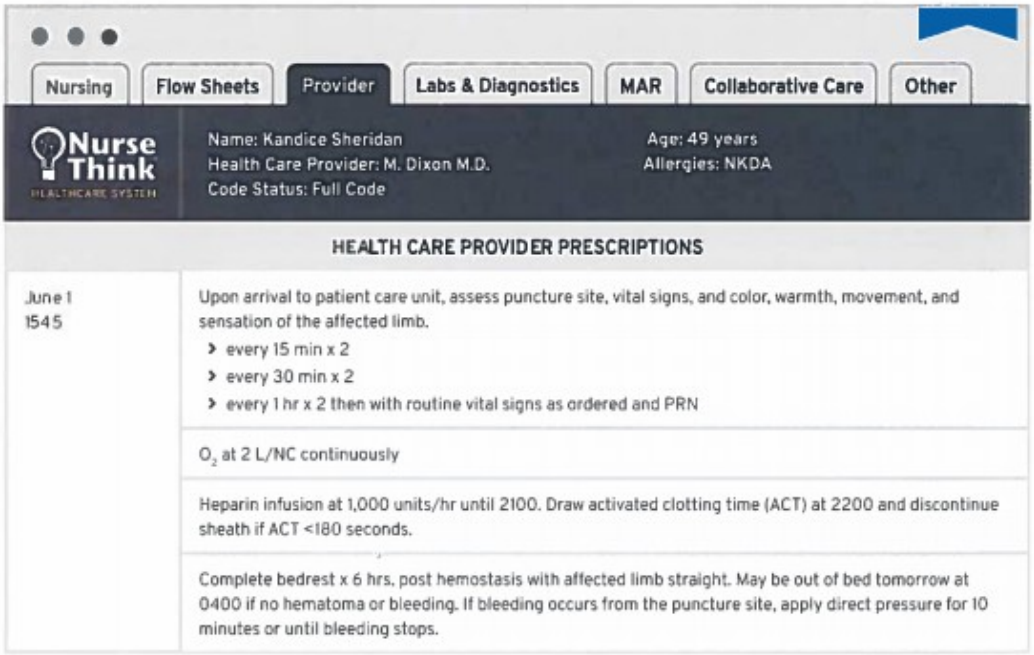
11. **After administering 4 mg of morphine sulfate IV for chest pain, the nurse discovers that the consent for an emergent coronary angiogram was not signed. The assessment shows that the client is alert, oriented and pain-free. What should the nurse do next?**

1. Obtain a signature before the morphine peaks in the bloodstream.
2. Notify the cardiologist and cancel the procedure.
3. Determine if a power of attorney is available.
4. Ask the client's teenage son, who is at the bedside, to sign the consent.

12. **The nurse teaches the client about expectations of the emergent coronary angiogram and reviews what the cardiologist told her about the possibility of open-heart surgery if the stent placement is unsuccessful. The client begins to cry saying that her father died after open-heart surgery. How should the nurse respond?**
    1. "I'm sure you are frightened, this is a scary thing to go through."
    2. "Do you want me to get the cardiologist back in here to answer your questions?"
    3. "It's okay, your cardiologist is excellent; he's one of the best."
    4. "Would you like it if I called the chaplain?"

Hand-Off Report

Kandice Sheridan is a 49-year-old returning from the cardiac cath lab after an anterior wall ST-Elevation Myocardial Infarction (STEMI). The cardiologist was able to place a stent in her proximal left anterior descending (LAD) artery. She also has a 40% lesion in her circumflex and a 30% lesion in her right coronary artery (RCA) which do not require intervention at this time. She has a sheath in her right femoral artery. There is no bleeding at the groin site, and her pedal pulses are 3-4+ bilaterally. Her skin is warm to touch. Her vital signs are stable. The nurses review the prescriptions together.



Nursing | Flow Sheets | Provider | Labs & Diagnostics | MAR | Collaborative Care | Other

Nurse Think HEALTHCARE SYSTEM

Name: Kandice Sheridan
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Code Status: Full Code

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Allergies: NKDA

HEALTH CARE PROVIDER PRESCRIPTIONS

June 1 1545	Upon arrival to patient care unit, assess puncture site, vital signs, and color, warmth, movement, and sensation of the affected limb. › every 15 min x 2 › every 30 min x 2 › every 1 hr x 2 then with routine vital signs as ordered and PRN
	O_2 at 2 L/NC continuously
	Heparin infusion at 1,000 units/hr until 2100. Draw activated clotting time (ACT) at 2200 and discontinue sheath if ACT <180 seconds.
	Complete bedrest x 6 hrs, post hemostasis with affected limb straight. May be out of bed tomorrow at 0400 if no hematoma or bleeding. If bleeding occurs from the puncture site, apply direct pressure for 10 minutes or until bleeding stops.

13. **The client returns from a cardiac catheterization procedure with a right groin sheath in place. What should the nurse include in the priority assessment of this client? Select all that apply.**
    1. Blood pressure.
    2. Temperature.
    3. Right groin assessment.
    4. Lung sounds.
    5. Cardiac monitor.

Clinical Hint: After a procedure that involved the large vessels of the groin, the distal pulse assessment should include the popliteal, dorsalis pedis, and posterior tibialis arteries.

14. **A client has 25,000 units of heparin in 500 mL NS infusing at 1,000 unit per hour via a 20 gauge IV in the left hand. At what rate should the pump be set?**
    1. 10 mL/hr.
    2. 20 mL/hr.
    3. 25 mL/hr.
    4. 50 mL/hr.

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Nurse Think HEALTHCARE SYSTEM

Name: Kandice Sheridan
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VITAL SIGN RECORD

Time	BP (MAP)	HR	RR	Sats
1545	110/64 (79)	88	19	97% 2 L/NC
1601	105/62 (76)	97	20	98% 2 L/NC
1622	100/59 (73)	108	20	98% 2 L/NC

15. **The nurse obtains the first three sets of vital signs. What should the nurse do next?**
    1. Have the unlicensed assistive personal complete the remaining set of vital signs.
    2. Assess for bleeding at the sheath site.
    3. Re-evaluate the vital signs in 15 minutes.
    4. Notify the health care provider of the client's status.

The client is dehydrated and vital signs are stabilized after the intravenous fluid is administered. The sheaths are pulled at 2245 without complications.

16. **While administering the ordered medications, Kandice asks why each of these medications are needed. Describe how the nurse should instruct her for each of these medications.**
    1. Clopidogrel 75 mg daily, by mouth. _____
    2. Aspirin 81 mg daily, by mouth. _____
    3. Metoprolol 50 mg daily, by mouth. _____
    4. Atorvastatin 80 mg daily, by mouth. _____

17. **Kandice asks what she can do to help decrease the risk for having another heart attack in the future. What should the nurse instruct? Select all that apply.**
    1. Eat a diet low in cholesterol and saturated fats.
    2. Minimize carbohydrate intake.
    3. Walk 30 minutes 5 days a week.
    4. Increase dietary intake of fruit.
    5. Monitor serum lipid levels.

18. **As the nurse enters Kandice's room on the morning of discharge, she finds her crying. When asked what is wrong, she states, "I'm so afraid I'll pass my bad genes to my children, and they'll have heart disease also." How should the nurse respond?**
    1. "I don't think that will be an issue since your spouse has a good heart."
    2. "I'm sure you are afraid for them, maybe they'll be luckier than you."
    3. "They can make some lifestyle changes now, so their chances of heart disease are less."
    4. "With proper medication, they will have less chances of heart disease."

19. **NurseThink® Prioritization Power!**
    Evaluate the care of this client and pick the **Top 3 Priority** discharge needs.
    1. _____
    2. _____
    3. _____

20. **Kandice returns to the office two weeks later appearing withdrawn and sad. The nurse asks how things are going and she states, "It's such an adjustment, I don't know if I can do it." What suggestions should the nurse make to the client?**
    1. Request an antidepressant from the cardiologist.
    2. Participate in a cardiac support group.
    3. Encourage her spouse to be more supportive.
    4. Suggest she takes more time off of work.

Clinical Hint: Heart disease demands a lifetime of compliance with lifestyle change. Providing community support and resources for the client after discharge will improve the chances of long-term success.

Because heart disease is often familial it is important for the nurse to address concern for the blood relatives of the client. Prevention education is critical to slowing the cycle of disease and illness.

Next Gen Clinical Judgment: List all possible symptoms that can indicate impaired circulatory event. Consider the cues of each body system when it is experiencing a decrease in perfusion.

_____

_____

_____