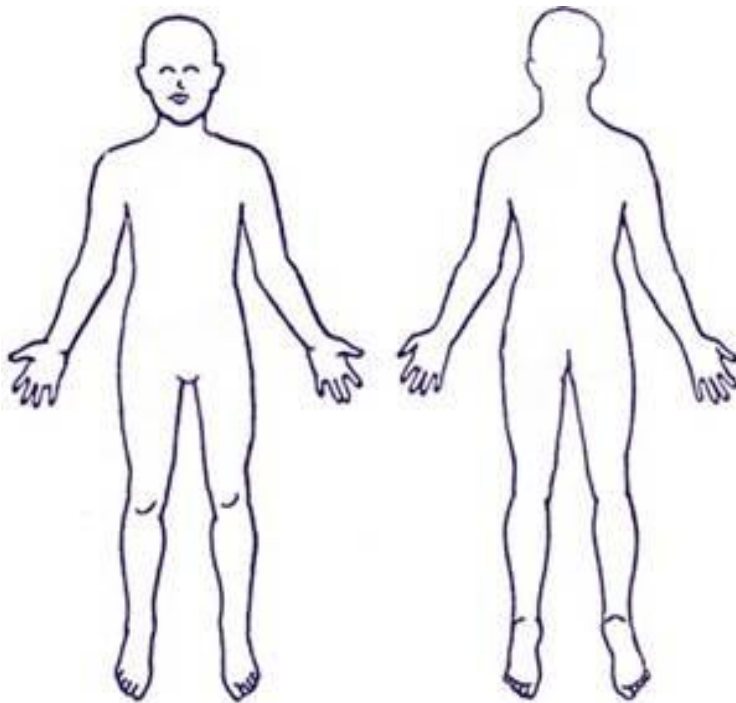


NUR 203
BURNS CASE STUDY
CHAPTER 25
SPRING 2016

You are working in the emergency department (ED) of a community hospital when the ambulance arrives with A.N., a 28-year-old woman who was involved in a house fire. She was sleeping when the fire started and managed to make her way out of the house through thick smoke. The emergency medical system crew initiated humidified oxygen at 15L/min per non-rebreather mask and started a 16-gauge IV with lactated Ringer's solution. On arrival in the ED, her vital signs are 100/66, 125, 34, Spo2 93%. She appears anxious and in pain.

1. Describe the interventions needed to care for A.N. on her arrival in the ED.

2. As you perform your initial assessment, you note burns on A.N.'s right anterior leg, left anterior and posterior leg, and anterior torso. Shade the affected areas, and then, using the rule of nines, calculate the extent of A.N.'s burn injury.



3. You suspect that A.N. has sustained deep partial-thickness burns. Which best describes this type of burn?

- a. The skin is blackened; the charred skin is numb.
- b. The wounds are red, blanch, and have accompanying edema.
- c. The skin is mixed red to waxy white, moist, has blisters and is painful.
- d. The wounds have severe edema, pain may or may not be present, and the color varies.

4. Because you are concerned about possible smoke inhalation, what will you monitor for in A.N.?

Laboratory Test Values

Hgb 20 g/dL
Hct 51%
K 4.9 mEq/dL
Na 133 mEq/dL
Cl 100 mEq/dL
Glu 159 mg/dL
BUN 28 mg/dL
Cre 1.0 mg/dL

5. Interpret A.N.'s laboratory results

6. A.N. is undergoing burn fluid resuscitation using the standard Baxter (Parkland) formula. She was admitted at 0400. She weighs 154 pounds. Calculate her fluid requirements, specify the fluids used in the Baxter (Parkland) formula, specify how much will be given, and indicate what time intervals will be used.

7. A.N. is in severe pain. What is the drug of choice for pain relief after burn injury, and how should it be given?

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A.N. does not exhibit any signs of smoke inhalation injury and is admitted to the medical unit for further treatment. As her nurse, you are concerned about meeting her needs for infection prevention, skin integrity, nutrition, fluids, and psychologic support.

8. Because of her significant burn injury, A.N. is at high risk for infection. What measures will you institute to prevent this?

9. A.N.'s burns are being treated by the open method with topical application of silver sulfadiazine (Silvadene). In caring for A.N., which interventions will you perform? Select all that apply. [Know the rationale(s) for each answer]

- a. Shave all hair within the wound beds
- b. Maintain the room temperature at 85° F (29.4° C)
- c. Use clean technique when changing A.N.'s dressings
- d. Monitor the CBC and WBC with differential frequently
- e. Do not allow her to bathe for the initial 72 hours after injury
- f. Apply a 1/16-inch film of medication, covering entire burn

10. A.N. has one area of circumferential burns on her right lower leg. What complication is she in danger of developing? How will you monitor for it?

11. What interventions will facilitate maintaining A.N.'s peripheral tissue perfusion?

12. A.N. is ordered a special burn diet. She has always gained weight easily and is concerned about the size of the portions. What diet-related teaching will you provide?

13. Describe interventions you can use to assist in meeting A.N.'s nutrition goals.

14. Tissues under and around A.N.'s burns are severely swollen. She looks at you with tears in her eyes and asks, "Will they stay this way?" What is your answer?

15. A.N. is concerned about visible scars. What will you tell her to calm her fears?

Vital Signs

Blood pressure 90/50 mmHg
Heart rate 130 beats/min
Respiratory rate 24 breaths/min
Temperature 99.0°F(37.2°C)

CASE STUDY PROGRESS

Eighteen hours after the injury, the CNA reports these vital signs for A.N. and states that the urine output for the past hour was 20mL.

16. What do you suspect is occurring, and why does this concern you?

17. What treatment do you anticipate?

Laboratory Test Values

Hgb	24 g/dL
Hct	59%
K	5.3 mEq/dL
Na	128 mEq/dL
Cl	92 mEq/dL
Glu	122 mg/dL
BUN	38 mg/dL
Cre	1.9 mg/dL

18. The physician increases A.N.'s IV rate and orders a new set of lab work. Compare A.N.'s current laboratory results with those from admission.

19. By the end of your shift, which of the following assessment findings would best indicate that A.N. is responding to therapy?

- a. Respiratory rate 22; blood pressure 120/74
- b. Heart rate 110; urine output 20mL/hr for past 4 hours
- c. Blood pressure 120/70; urine output 25mL/hr for past 4 hours
- d. Blood pressure 104/64; urine output 40mL/hr for past 4 hours