



HEOC 372 - Intravenous Therapy Course Outline

Approval Date: 12/13/2018

Effective Date: 08/12/2019

SECTION A

Unique ID Number CCC000215552

Discipline(s) Health Care Ancillaries

Division Health Occupations

Subject Area Health Occupations

Subject Code HEOC

Course Number 372

Course Title Intravenous Therapy

TOP Code/SAM Code 1260.00 - Health/Medical Preparatory Programs, Other* /
C - Occupational

Rationale for adding this course to the curriculum Revise course co-requisites because two (2) current co-requisites are being archived.

Units 1.5

Cross List N/A

Typical Course Weeks 18

Total Instructional Hours

Contact Hours

Lecture 24.00

Lab 8.00

Activity 0.00

Work Experience 0.00

Outside of Class Hours 48.00

Total Contact Hours 32

Total Student Hours 80

Open Entry/Open Exit No

Maximum Enrollment 50

Grading Option Letter Grade Only

Distance Education Mode of Instruction On-Campus
Hybrid

SECTION B

General Education Information:

SECTION C

Course Description

Repeatability May be repeated 0 times

Catalog Description This course is designed to prepare students to administer intravenous fluids using the fundamental principles and competencies required to begin, maintain, and discontinue intravenous therapy.

Schedule Description

SECTION D

Condition on Enrollment

1a. **Prerequisite(s):** *None*

1b. **Corequisite(s)**

- NURS 233 or
- NURS 153
- NURS 154 or
- current California LVN or
- RN license

1c. **Recommended:** *None*

1d. **Limitation on Enrollment:** *None*

SECTION E

Course Outline Information

1. Student Learning Outcomes:

A. Demonstrate understanding of fundamental principles of safely starting, maintaining, and discontinuing intravenous therapy.

2. Course Objectives: Upon completion of this course, the student will be able to:

- A. Demonstrate understanding and knowledge of the veni-puncture procedure and intravenous therapy as evidenced by the successful completion of the written objectives for each session.
- B. Demonstrate competency in starting, maintaining, and discontinuing IV therapy as evidenced by three individually supervised successful IV starts on live subjects with demonstrated ability to maintain and discontinue IV therapy utilizing appropriate aseptic technique.

C.

3. Course Content

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- A. Define the terms “intravenous fluids” and “superimpose” as stated under article 8 of the Vocational Nursing Practice Act.
- B. Identify two documents that govern the practice of individual LVN’s regarding IV therapy.
- C. Understand clearly that LVN’s do not give IV meds under any circumstances.
- D. Identify five factors to be considered in selecting appropriate sites for IV catheter placement.
- E. Identify why the lower extremities are not routinely used for IV therapy.
- F. Define “electrolytes” and give four examples.
- G. Identify five signs and symptoms that could indicate fluid/electrolyte imbalance.

- H. Identify three clinical situations where you would suspect a patient may be at risk for fluid/electrolyte imbalance.
- I. Name four methods of transport across the semi-permeable cell membrane.
- J. List five indications for IV therapy.
- K. Identify the differences between isotonic, hypotonic and hypertonic solutions and give two examples each.
- L. Name three ways to identify veins vs. arteries.
- M. Identify three reasons why you might use a butterfly versus an angiocath when starting an IV.
- N. Identify three benefits to using the angiocath.
- O. Identify two reasons you would use an IV pump.
- P. Identify two situations where you would use a microdrip tubing vs. macrodrip. Why?
- Q. Describe infection control guidelines pertaining to IV therapy/venipuncture.
- R. Know your workplace policy regarding IV site care and who may do what with central lines.
- S. Describe the potential clinical findings that could be observed when caring for a patient receiving IV therapy.
- T. List five nursing responsibilities related to the care of the IV system.
- U. Under direct supervision by an instructor, demonstrate appropriate technique for:

- choosing a venipuncture site,

- cleansing the skin,

- choosing an appropriate IV device,

- utilizing a tourniquet,

- inserting the IV device,

- securing the IV device,

- attaching IV tubing/peripheral lock and

- dressing the site.

- 21. Identify the three most frequently used anatomical sites used for venipuncture in the infant.
- 22. Describe the preparation and approach to the pediatric client and parent(s) used prior to venipuncture.
- 23. Describe two considerations to be evaluated prior to starting an IV on the geriatric patient.
- 24. Identify three patient populations that may be anticoagulated. How might this affect the venipuncture procedure?
- 25. Identify three important nursing considerations to remember when administering IV solutions that contain KCl.
- 26. Demonstrate the ability to accurately calculate IV drip rates given a set of hypothetical clinical scenarios.
- 27. Under direct supervision of an RN instructor, demonstrate on live subjects the correct procedure for:

- venipuncture with an angiocath,
- dressing an IV site,
- flushing a peripheral lock,
- hanging IV fluid as ordered and calculating drip rates, and
- discontinuing IV therapy and angiocath.

28. Identify the signs, symptoms and usual treatment of four local complications of venipuncture and IV therapy.

29. Identify the signs, symptoms and usual treatment of four systemic complications of venipuncture and IV therapy.

30. Identify two measures that can be employed to prevent local and/or systemic complications.

31. Discuss the differences between TPN and PPN.

32. Identify three reasons for the use of parenteral nutrition.

33. Explain why parenteral nutrition poses a high risk for infection.

34. Identify four potential symptoms of transfusion reaction.

35. Identify five "rules" to follow for safe blood administration.

4. Methods of Instruction:

Discussion:

Lab:

Lecture:

Other: Methods employed to teach the fundamentals of venipuncture and IV therapy will include lecture, participative discussion, visual aids, written materials and review, as well as clinical laboratory experience using practice, actual equipment/supplies and live subjects.

5. Methods of Evaluation: Describe the general types of evaluations for this course and provide at least two, specific examples.

Typical classroom assessment techniques

Exams/Tests --

Lab Activities --

Letter Grade Only

6. Assignments: State the general types of assignments for this course under the following categories and provide at least two specific examples for each section.

A. Reading Assignments

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B. Writing Assignments

? Weekly reading and written assignments related to lecture/skills.

C. Other Assignments

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7. Required Materials

A. EXAMPLES of typical college-level textbooks (for degree-applicable courses) or other print materials.

B. Other required materials/supplies.

- Instructor generated course outline and course pack specific to intravenous therapy.

