Pharmacology - DC

Presentation guide

DC = Statement of the competence for a particular domain
E = Elements of the competence for a specific statement of competence
P = Performance criteria for competency; associated with a specific element of the competence

Domain of Competence DC.9

Administer pharmaceutical substances for specific applications on patients in a clinical setting

E9.1 Assess need for medication

P9.1.1 Compare different forms of medications utilized in respiratory care
P9.1.2 Distinguish medications necessary for varying clinical cases

E9.2 Select administrative method (e.g., inhalation, intravenous, instillation, intramuscular)

P9.2.1 Recognize the clinical situation with regards to the administration of a particular drug
P9.2.2 Compare the administrative methods commonly utilized in respiratory care and anesthesia
P9.2.3 Associate the administrative method per clinical situation

E9.3 Calculate drug dosages within metric system

P9.3.1 Demonstrate calculations using the metric system
P9.3.2 Calculate dosage for different forms of medication including diluents
P9.3.3 Demonstrate drug preparations
P9.3.4 Label syringes and vials according to local standards in a clinical setting
P9.3.5 Prepare drug dosage

E9.4 Verify medical prescription

P9.4.1 Identify the essential elements and distinct forms of a prescription
P9.4.2 Assess prescription for respiratory care and confirm its appropriateness in a clinical setting
E9.5  **Assess and recognize efficacy and side effects of medication**

P9.5.1 Assess the efficacy of a medication relative to desired effects per prescription and clinical situation
P9.5.2 Assess presence of side effects
P9.5.3 Recommend course of action

E9.6  **Titrate dose of medication**

P9.6.1 Describe the consequences of administering a particular medication
P9.6.2 Ascertain indications and contra-indications of a medication dose per clinical situation
P9.6.3 Apply protocol specific for the administration and adjustment of a medication in a clinical setting

E9.7  **Provide oxygen therapy using appropriate method**

P9.7.1 Describe the methods of storage, distribution, transportation and safety standards for oxygen
P9.7.2 Determine the indications for oxygen therapy
P9.7.3 Explain the physiological complications and side effects of oxygen therapy
P9.7.4 Explain the acute and chronic indications for hyperbaric therapy
P9.7.5 Describe the contraindications to hyperbaric therapy
P9.7.6 Describe the hazards and complications of hyperbaric therapy
P9.7.7 Describe the basic principles of operation of a hyperbaric chamber
P9.7.8 Assess the need for oxygen therapy in a clinical setting
P9.7.9 Select correct administration system and patient interface for oxygen therapy
P9.7.10 Administer oxygen therapy in a clinical setting
P9.7.11 Monitor, assess and document effectiveness of oxygen therapy in a clinical setting
P9.7.12 Modify therapy as required and wean when indicated in a clinical setting

E9.8  **Administer substances (e.g., drugs, fluids) by inhalation**

P9.8.1 Assess prescription for appropriateness
P9.8.2 Demonstrate precise calculation and safe preparation for substances administered by inhalation
P9.8.3 Differentiate between types of aerosol generators based on principle of operation
P9.8.4 Compare different formats and procedures for the administration of substances by inhalation
P9.8.5 Explain the factors known to influence the administration of a substance by inhalation with respect to penetration, deposition and clearance
P9.8.6 Describe potential complications associated with the administration of substances by inhalation
P9.8.7 Administer substances by inhalation per prescription in a clinical setting
P9.8.8 Monitor and document treatment and patient response
E9.9 Administer substances (e.g., drugs, fluids) by injections

P9.9.1 Assess prescription for appropriateness
P9.9.2 Demonstrate precise calculation and safe preparation for substances to be administered by injection
P9.9.3 Compare different formats and procedures of injection for the administration of substances
P9.9.4 Describe potential complications associated with the administration of substances by injection
P9.9.5 Administer substances by injection per prescription in a clinical setting
P9.9.6 Monitor and document procedure and patient response

E9.10 Administer substances (e.g., drugs, fluids) by instillation

P9.10.1 Assess prescription for appropriateness
P9.10.2 Demonstrate calculation and safe preparation for substances administered by instillation
P9.10.3 Compare different formats and procedures for the administration of substances by instillation
P9.10.4 Describe potential complications associated with the administration of substances by instillation including monitoring of patient response
P9.10.5 Administer substances by instillation per prescription in a clinical setting
P9.10.6 Monitor and document procedure and patient response

E9.11 Administer substances (e.g., drugs, fluids) by infusion

P9.11.1 Assess prescription for appropriateness
P9.11.2 Demonstrate calculation and safe preparation for substances administered by infusion
P9.11.3 Compare different formats and procedures for the administration of substances by infusion
P9.11.4 Describe potential complications associated with the administration of substances by infusion
P9.11.5 Administer substances by infusion per prescription in a clinical setting
P9.11.6 Monitor and document procedure and patient response