Australian Government

Assessment Requirements for HLTANA014 Monitor medications in the anaesthetic environment

Release: 1

Assessment Requirements for HLTANA014 Monitor medications in the anaesthetic environment

Modification History

Supersedes and is not equivalent to HLTANA007 Monitor medications in the anaesthetic environment.

Performance Evidence

Evidence of the ability to complete tasks outlined in elements and performance criteria of this unit in the context of the job role, and:

- access, prepare and monitor medications, fluids, blood and blood products in accordance with legislation and the organisation's medication and delegation policies and practice under the supervision of a health professional on at least 10 different occasions
- administer crystalloids, colloids, blood and blood products
- program infusion devices at least twice
- set up rapid infusion device at least twice
- prepare drugs for administration via each of the following routes at least twice:
  - inhalational
  - intravenous
  - intramuscular
  - oral
  - subcutaneous
  - topical
- perform the activities outlined in the performance criteria of this unit during a period of at least 360 hours of work related to anaesthetic technology in a clinical workplace environment. These 360 hours may be applied collectively across all units of competency that include the requirement for workplace hours for the purposes of assessment.

Knowledge Evidence

Demonstrated knowledge required to complete the tasks outlined in elements and performance criteria of this unit:

- national, state or territory legal and ethical considerations for the handling and administration of medications, and how these are applied in organisations:
  - approved drug and fluid abbreviations
  - Australian and New Zealand scheduling for drugs and poisons
  - Australian and New Zealand Society of Blood Transfusion guidelines (ANZSBT)
  - codes of practice
  - records management requirements
  - storage

- work role boundaries including responsibilities and limitations
- rights and responsibilities of workers, employers and patients
- work health and safety (WHS)

- pharmacology for drugs commonly used in anaesthesia, including:
  - sources of drugs:
    - natural
    - endorphins
    - synthetic
  - drug nomenclature:
    - chemical
    - generic
    - brand names
  - drug classifications
  - common abbreviations
  - pharmacodynamics including drug receptor interactions, dose-response relationships, therapeutic index
  - pharmacokinetics (ADME) absorption, distribution, metabolism, excretion
  - pharmacotherapeutics
  - adverse drug reactions and interactions
  - toxicity or toxicology
- drug administration routes:
  - enteral medication including endotracheal, sublingual, buccal, rectal, vaginal, urethral
  - parenteral medication including intravenous, intramuscular, intraosseous, intracardiac, intraarticular, intrauterine, intrathecal, subcutaneous, intra-arterial, inhalational
  - topical medication including subcutaneous, trans nasal, transdermal, ocular, inhalational, aural
- formulations, including
  - wafers
  - tablets
  - lozenges
  - capsules
  - elixir
  - suspension
  - solutions
  - creams
  - powders
- major drug groups used in anaesthesia in terms of:
  - presentation
  - formulation
  - indication

  - mode of action
  - system of delivery and administration routes
  - precautions
  - side effects
  - contraindications and adverse reactions
  - storage requirements
- factors influencing drug actions, storage dosage variations for different types of patients for all of the following:
  - inhalational induction agents
  - intravenous induction agents
  - analgesics
  - non-steroidal anti-inflammatory drugs (NSAID)
  - anti-emetics
  - muscle relaxants
  - respiratory medications
  - anticoagulants
  - local anaesthetics including:
    - epidural
    - spinal
    - regional wound catheters
  - antibiotics
  - cardiovascular medication, including diuretics
  - electrolytes
  - sedatives and pre-medication
  - emergency medications
- drugs used in the management of the following conditions which may complicate or co-exist with anaesthesia:
  - adrenal dysfunction
  - anaphylaxis
  - angina
  - bronchospasm
  - cardiac arrest
  - cardiac arrhythmias
  - congestive heart failure
  - coagulopathies
  - deep vein thrombosis
  - endocrine dysfunction
  - hypoglycaemia
  - hypotension
  - hyperglycaemia

    - hypertension
    - pulmonary oedema or embolism
    - raised intracranial or intra-ocular pressure
    - respiratory depression or compromise
    - stroke
    - seizure
    - uterine atony
    - local anaesthetic toxicity
- methods of drug preparation, including:
    - dilutions
    - reconstitutions
- factors to consider when calculating medication dosages including:
    - calculation formulae
    - calculation of dosages of injectable drugs including liquid, solid and unit dosages
    - flow rate drops per minute
    - flow rate millilitres per hour
    - duration of infusion
    - paediatric dosage calculations:
        - body weight
        - surface area
        - age related dose reduction
    - geriatric dosage calculations:
        - body weight
        - surface area
        - age
- methods of storage and handling of medication
- equipment for administration of medications, including:
    - volumetric pumps
    - syringe drivers
    - consumables
- infusion products and equipment:
    - rapid infusers
    - warming devices
    - burettes
    - vaporisers
    - infusion sets and attachments
    - blood and blood products
    - crystalloids
    - colloids
- massive transfusion protocol

- emergency medical management of anaphylaxis and adverse drug or fluid reactions
- biological fluid exposure.

Assessment Conditions

Skills must be demonstrated in the workplace with the addition of simulations and scenarios where the full range of contexts and situations have not been provided in the workplace.

Assessment must ensure access to:

- use of suitable facilities, equipment and resources, including:
  - manufacturer's instructions
  - organisational policies and procedures
  - Monthly Index of Medical Specialities (MIMS)
  - Australian and New Zealand Society of Blood Transfusion (ANZSBT) and Australian and New Zealand College of Anaesthetists (ANZCA) guidelines
  - medications
- modelling of industry operating conditions, including presence of situations requiring problem solving in non-routine situations.

Assessors must satisfy the Standards for Registered Training Organisations' requirements for assessors.

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705