



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **HLTSL404D Perform treatment sleep study**

**Release: 1**

## HLTSL404D Perform treatment sleep study

### Modification History

| HLT07 Version 4                               | HLT07 Version 5                                 | Comments                                                                                                                                                                    |
|-----------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HLTSL404C<br>Perform treatment<br>sleep study | HLTSL404D -<br>Perform treatment<br>sleep study | Unit updated in V5.<br>ISC upgrade changes to remove references to old OHS legislation and replace with references to new WHS legislation. No change to competency outcome. |

### Unit Descriptor

#### Descriptor

This unit of competency describes the skills and knowledge required to perform a treatment sleep study

### Application of the Unit

#### Application

Forms of treatment may include the provision of continuous positive airway pressure (CPAP), Bi-level positive airway pressure, oxygen and other forms of assisted ventilation

Work will be performed within a prescribed range of functions involving routine and non-routine methods and procedures which require the exercise of some discretion and judgement

Sleep studies are commonly conducted in hospitals and private clinics

All activities are carried out in accordance with organisation policies, procedures and infection control guidelines

### Licensing/Regulatory Information

Not Applicable

## Pre-Requisites

Not Applicable

## Employability Skills Information

### Employability Skills

This unit contains Employability Skills

## Elements and Performance Criteria Pre-Content

Elements define the essential outcomes of a unit of competency.

The Performance Criteria specify the level of performance required to demonstrate achievement of the Element. Terms in italics are elaborated in the Range Statement.

## Elements and Performance Criteria

### ELEMENT

### PERFORMANCE CRITERIA

- |                                             |                                                                                                                                                                                                                                                              |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Calibrate equipment to the <i>client</i> | 1.1 Check and respond to quality of all signals<br>1.2 Establish client's awake baseline waveforms<br>1.3 Explain the procedure clearly and simply to the client and obtain client consent/agreement as required<br>1.4 Meet the special needs of the client |
| 2. Set up <i>treatment equipment</i>        | 2.1 Check equipment is available and in working order<br>2.2 Check quality of signal and respond as required                                                                                                                                                 |
| 3. Coach client through <i>treatment</i>    | 3.1 Demonstrate use of treatment equipment<br>3.2 Provide client with the opportunity to ask questions<br>3.3 Explain possible side effects of treatment to client<br>3.4 Observe the client trialling the process<br>3.5 Adjust equipment to fit client     |

**ELEMENT****PERFORMANCE CRITERIA**

- |                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4. Titrate treatment levels in response to <i>events</i> | 4.1 Commence treatment process in accordance with organisation policies and procedures<br>4.2 Adjust treatment to achieve desired outcomes<br>4.3 Record and document titration and client's response<br>4.4 Identify and respond to clinical emergencies in accordance with organisation emergency procedures                                                                                                                                                                                                                                                                                            |
| 5. Complete overnight procedure                          | 5.1 Terminate recording<br>5.2 Remove EEG leads and electrodes from client and wash paste/gel off<br>5.3 Provide client with assistance as required, on completion of the procedure<br>5.4 Ascertain and document client's assessment of their sleep quality<br>5.5 Provide reassurance to client<br>5.6 Confirm timely follow up with referring doctor for results<br>5.7 Clean, disinfect and store equipment according to organisation policy and procedure, infection control guidelines and manufacturer's instructions<br>5.8 Re-stock equipment and materials<br>5.9 Clean and restore environment |

## Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit.

### *Essential knowledge:*

The candidate must be able to demonstrate essential knowledge required to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

This includes knowledge of:

- Anatomy and physiology relevant for sleep studies
- Application of supplemental oxygen

- Application of treatment and the contraindications and complications associated with the treatment methods may include CPAP, Bi-Level, auto-titration
- Basic electrical knowledge and electrical safety requirements
- Causes of the common trace interference and the appropriate remedies
- Confidentiality requirements of client information
- Emergency procedures in the event of a clinical emergency relevant in the performance of a diagnostic sleep study
- General knowledge of infection control principles and their application
- Identify artefacts and their source
- Recognise normal waveforms relating to levels of sleep
- Routine maintenance policy and procedures for equipment

#### *Essential skills:*

It is critical that the candidate demonstrate the ability to:

- Apply knowledge of boundaries of responsibilities and ability to refer problems to supervisor or other appropriate health professional
- Communicate effectively with clients/carers in relation to the procedure and manage clients' anxiety level
- Comply with policies and procedures including those of WHS and infection control
- Demonstrate all steps that must be taken to ensure equipment is safe and functioning correctly
- Identify and manage all forms of interference with trace

*continued ...*

#### *Essential skills (contd):*

In addition, the candidate must be able to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

This includes the ability to:

- Communicate with people from diverse cultural and linguistic backgrounds
- Correctly anchor electrodes, sensors and leads
- Correctly operate a sleep study machine
- Correctly prepare skin
- Deal with conflict
- Demonstrate basic cardiopulmonary resuscitation
- Identify a sleep study trace that is unsatisfactory for diagnostic purposes
- Managing the known common interferences in the production of a sleep study trace
- Place and attach electrodes to achieve an EEG recording of diagnostic quality
- Produce a sleep study trace satisfactory for diagnostic purposes
- Solve problems including an ability to use available resources
- Use numeracy skills ranging from the ability to complete basic arithmetic calculations,

- recording stock levels and statistical information
- Use oral communication skills required to fulfil job roles in a safe manner and as specified by the organisation, including skills in:
    - asking questions
    - providing clear information
    - listening to and understanding workplace instructions
    - clarifying workplace instructions when necessary
    - effective verbal and non verbal communication with a range of internal and external persons
    - literacy in English or a community language, depending on client group and organisation requirements
  - Use reading and writing skills required to fulfil job roles in a safe manner and as specified by the organisation at a level of skill that involves reading and documenting clinical information and understanding complex policy and procedure manuals
  - Work with others and display empathy with client and relatives

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

*Critical aspects for assessment and evidence required to demonstrate this competency unit:*

- The individual being assessed must provide evidence of specified essential knowledge as well as skills
- Where, for reasons of safety, space, or access to equipment and resources, assessment takes place away from the workplace, the assessment environment should represent workplace conditions as closely as possible

*Context of and specific resources for assessment:*

- Relevant organisation policy, guidelines, procedures and protocols

*Method of assessment:*

- Clinical skills involving direct client care are to be assessed initially in a simulated clinical setting (laboratory). If successful, a second assessment is to be conducted during workplace application under direct supervision
- Observation of work activities when performing a treatment sleep study
- Observation of simulation and/or role play when performing a treatment sleep study
- Discussion of physical and/or behavioural contingency scenarios involving duty of care
- Authenticated transcripts of relevant education/training courses
- Recognition of relevant life/work experience
- Questioning, written assessments/projects, e-learning can be used to assess knowledge
- Authenticated reports of experience in performing a treatment sleep study (Documentation associated with performance reviews, supervisor/co-ordinator evaluations of work performance)
- Training records associated with First Aid, OH Safety training, Orientation/Induction Training, Safe Manual Handling, Universal infection control procedures
- Case study and scenario as a basis for discussion of issues and strategies to contribute to best practice

*Access and equity considerations:*

- All workers in the health industry should be aware of access and equity issues in relation to their own area of work
- All workers should develop their ability to work in a culturally diverse environment
- In recognition of particular health issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal and Torres Strait Islander people
- Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on health of Aboriginal and/or Torres Strait Islander clients and communities

*Related units:*

This unit should be assessed in conjunction with the following related units:

- HLTSL401D Prepare environment to perform sleep studies
- HLTSL402D Prepare client for sleep study procedure
- HLTSL403D Perform diagnostic sleep study

Holistic assessment practice with other health services units of competency is encouraged

## Range Statement

### RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

*Clients may include:*

- Infants
- Children
- Adolescents
- Adults
- Elderly

## RANGE STATEMENT

*Signals/waveforms may include:*

- Electroencephalography (EEG)
- Electromyography (EMG)
- Electro-oculography (EOG)
- Electrocardiography (ECG)
- Respiratory flow
- Chest/abdominal flow
- Limb movement
- Oximetry
- Position monitors
- Sound monitor
- Video surveillance (in time with recording)

*Response to poor signal quality may include:*

- Check connections of electrodes and cables
- Exchange or replace electrodes
- Change derivation

*Client's special needs may include:*

- Neuromuscular disorders
- Insulin dependent diabetes
- Parkinson's disease
- Alzheimer's disease
- Claustrophobia
- Medical conditions requiring nursing care
- Other conditions requiring additional monitoring

*Treatment may include:*

- Continuous positive airway pressure
- Bi-level positive airway pressure
- Auto-titration

*Treatment equipment may include:*

- Mask
- Mandibular splint
- Supplemental oxygen
- Nasal splint
- Light

**RANGE STATEMENT**

*Events may include:*

- Snoring
- Hypopnoea
- Apnoea
- Periodic breathing (Cheyne stokes ventilation)
- Hypercapnia (increased carbon dioxide)
- Hypoxia (low oxygen saturation)

*Clinical emergencies may include:*

- Severe respiratory distress
- Cardio-respiratory arrest

*Clinical emergencies may include:*

- Severe respiratory distress
- Cardio-respiratory arrest

**Unit Sector(s)**

Not Applicable