



Australian Government

Department of Education, Employment and Workplace Relations

HLTDP608B Construct and insert an implant retained overdenture

Release: 1

HLTDP608B Construct and insert an implant retained overdenture

Modification History

Not Applicable

Unit Descriptor

Descriptor

This unit of competency describes the skills and knowledge required to construct and place an aesthetic, and functional implant retained overdenture

All procedures are carried out in accordance with occupational health and safety policies and procedures, current infection control guidelines, Australian and New Zealand Standards, State/Territory legislative requirements and organisation policy

Application of the Unit

Application

This unit applies to work in dental prosthetics at advanced diploma level

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Pre-requisite units

This unit must be assessed after successful achievement of pre-requisites:

- HLTIN301C Comply with infection control policies and procedures
- HLTIN302B Process reusable instruments and equipment in health work
- HLTOHS401A Maintain workplace OHS processes

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

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|------------------------------|--|
| 1. Plan treatment | <ul style="list-style-type: none">1.1 Make accessible in the clean zone of the surgery the client's required laboratory work and necessary <i>charts and records</i>1.2 Obtain accurate, complete and legal records of the client's personal, medical and dental history1.3 Interpret prescription where required1.4 Provide full details of the procedure to the client and/or carer1.5 Obtain and document consent following ethical and legal requirements1.6 Implement <i>standard precaution</i> during all procedures1.7 Ensure emergency procedures are in place and ready for use according to relevant guidelines |
| 2. Take a primary impression | <ul style="list-style-type: none">2.1 Select correctly the equipment, instruments and materials for the primary impression2.2 Take primary impressions of the maxilla and/or mandible using an alginate material in stock edentulous trays2.3 Relieve the denture in the area of the abutments2.4 Reline the denture with a tissue conditioning material2.5 Pour alginate impression in dental stone and trim for custom tray fabrication |

ELEMENT**PERFORMANCE CRITERIA****3. Prepare to take a final impression**

- 3.1 Fabricate an open window custom tray to provide an accurate impression of tissue details and the relationship of the abutments to one another and to surrounding oral tissues
- 3.2 Ensure abutment screw tightness
- 3.3 Attach impression copings to the abutments with the proper length guide pins
- 3.4 Try-in the custom tray in the mouth and check for comfort and path of insertion
- 3.5 Mould the borders of the custom tray
- 3.6 Seal the window with baseplate wax and soften in a heated water bath
- 3.7 Insert custom tray over the guide pins and impression copings

4. Take the final impression

- 4.1 Paint the custom tray with an appropriate adhesive for the impression material to be used
- 4.2 Mix the selected impression material according to the manufacturer's specifications
- 4.3 Load the impression material into the tray and syringe and inject around the impression copings
- 4.4 Seat the impression tray using the guide pins and holes in the wax window as a guide for placement
- 4.5 Complete moulding of the borders
- 4.6 Clear excess impression material from guide pins before complete setting
- 4.7 Loosen the guide pins and remove the impression

ELEMENT**PERFORMANCE CRITERIA**

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| 5. Pour master cast and fabricate occlusal rims | 5.1 Screw replicas onto the impression copings with guide pins |
| | 5.2 Bead and box the final impression and cast in diestone |
| | 5.3 Unscrew each guide pin completely before separating the impression from the cast |
| | 5.4 Fabricate <i>attachment and bar extensions</i> according to the prescription |
| | 5.5 Evaluate casting for accuracy of fit on the abutments |
| | 5.6 Fabricate a customized record base incorporating attachments |
| | 5.7 Add occlusal rims to the trimmed and polished base |
| 6. Establish maxillomandibular relations | 6.1 Position the attachment bar in the mouth |
| | 6.2 Place pressure indicator paste on the fitting surface of the base and ensure the base is fully seated in the mouth |
| | 6.3 Check the base for attachment retention and potential pressure areas |
| | 6.4 Record <i>maxillomandibular relationships</i> |
| | 6.5 Establish lip support and phonetics at the correct vertical dimension |
| | 6.6 Select tooth shade and denture tooth mould |
| 7. Try-in of waxed denture in client's mouth and process | 7.1 Evaluate trial denture for tooth arrangement, aesthetics, phonetics and vertical dimension of the occlusion |
| | 7.2 Adjust the trial denture for denture soreness |
| | 7.3 Record another centric relation and process as normal |
| | 7.4 Ensure complete seating of the overdenture into the attachment bar |

ELEMENT**PERFORMANCE CRITERIA**

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|-------------------------------------|---|
| 8. Insert the completed overdenture | 8.1 Snap denture onto the attachment bar |
| | 8.2 Use pressure indicator paste to adjust any potential sore areas |
| | 8.3 Check centric relation and remount denture for final adjustment |
| | 8.4 Provide <i>hygiene and home care instructions</i> |

Required Skills and Knowledge

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:

- Advantages of an implant retained overdenture to the client including:
 - better aesthetics especially when resorption has decreased the size of the alveolar process in the maxilla
 - fewer implants, abutments and prosthetic components
 - less component stress and breakage
 - lower treatment costs compared to fixed prosthetics
 - simplified construction technique
- Applied oral anatomy including:
 - dentition - arrangement of the teeth, naming and coding of teeth
 - structures of the oral cavity - hard and soft palate, lateral and posterior borders of the oral cavity, tongue and floor of the mouth
 - teeth - form and function
- Dental and medical records and charts including:
 - confidentiality of client records
 - FDI notation and Palmer notation systems and charting symbols for tooth surfaces, cavities and other dental problems

REQUIRED SKILLS AND KNOWLEDGE

- items that constitute a dental record
- knowledge of correct dental terminology and how it is used in dental charting
- the purpose and requirements for maintaining accurate records of examination, treatments, materials used and drugs/medicaments prescribed
- the purpose of study casts and the materials used in their construction
- the reasons for taking radiographs and photographs
- Dental materials
- Dental practice/organisation policy and procedures
- Disadvantages of implant retained overdentures including the wear of attachments with repeated removal and seating of the overdenture
- Implant attachment options for overdentures including:
 - bar attachment systems
 - unconnected fixture options
- Retracting soft tissues and moisture control
 - methods of retracting and protecting soft tissue
 - methods for providing a clear field of vision
 - methods for controlling moisture
- The importance for clients to follow pre and post operative instructions
- Why medical and dental emergencies occur and the appropriate response

Essential skills:

It is critical that the candidate demonstrate the ability to

- Consistently prepare clients, environments, instruments and materials for insertion of an implant retained overdenture
- Consistently carry out all clinical and related laboratory stages necessary to construct a functional and aesthetic implant retained overdenture
- Consistently comply with occupational health and safety procedures
- Consistently implement standard precautions
- Consistently follow procedures to ensure client safety during prosthetic procedures

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:

- Consistently apply standard and additional precautions during all prosthetic procedures
- Consistently follow sequenced written instructions and manufacturer specifications for the preparation of materials and medicaments
- Consistently demonstrate interpersonal skills when relating to people from a range of

REQUIRED SKILLS AND KNOWLEDGE

social, cultural and religious backgrounds and physical and mental abilities

- Consistently demonstrate communication skills as required in fulfilling the job role as specified by the dental practice/organisation including:
 - acknowledging and responding to a range of views
 - active listening
 - asking for clarification from client and/or carer
 - asking questions
 - negotiation
- Consistently deal with conflict
- Consistently use problem solving skills required including:
 - using available resources
 - selecting and preparing instruments, equipment and materials as required for specific removable dental prosthetic procedures
- Consistently work with others and display empathy with client and relatives
- Recognise, respond to and assist with dental and medical emergencies
- Select and apply procedures to perform a range of tasks specific to the dental prosthetist's job role
- Take into account opportunities to address waste minimisation, environmental responsibility and sustainable practice issues

continued ...

Essential skills (contd):

- Use safe work practices to minimise the risk of transmission of infection including:
 - consistently follow the procedure for washing and drying hands
 - consistently limit contamination
 - consistently maintain clean surfaces and manage blood and body fluid spills
 - consistently protect materials, equipment and instruments from contamination until required for use
 - consistently put into practice clean and sterile techniques
 - consistently use personal protective equipment
- Use literacy skills to read and follow directions, policies and procedures including:
 - infection control policies and procedures
 - occupational health and safety policies and procedures
 - practice policies and procedures

Evidence Guide

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
- Observation of workplace performance is essential for assessment of this unit
- Consistent compliance with infection control guidelines, Australian and New Zealand Standards and legislative requirements as they relate to the dental prosthetist's specific job role
- Consistency of performance should be demonstrated over the required range of workplace situations

Method of assessment

- Evidence of essential knowledge and understanding may be provided by:
 - traditional or online (computer-based) assessment
 - questions during workplace assessment
 - written assignments/projects
- Case study and scenario as a basis for discussion of issues and strategies to contribute to best practice
- Staff and/or client feedback
- Supporting statement of supervisor
- Authenticated evidence of relevant work experience and/or formal/informal learning
- Role play/simulation

EVIDENCE GUIDE

- 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

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.

Charts, records and required laboratory work may include:

- Completed medical questionnaires
- Consent documents obtained for treatment
- Copies of correspondence relating to the client
- Dental charts and dental treatment records
- Diagnostic models
- Notes made by staff following telephone conversations
- Photographs
- Radiographs, tracings and measurements
- Records of financial transactions
- Reports to and from referring dentists and specialists

RANGE STATEMENT

Personal protective equipment may include:

- Examination gloves that comply with AS/NZS 4011 and surgical gloves that comply with AS/NZS 4179
- Footwear to protect from dropped sharps and other contaminated items
- Glasses, goggles or face-shields
- Gowns and waterproof aprons that comply with AS 3789.2 and AS 3789.3
- Guidelines for latex allergic clients and staff
- Surgical face masks that comply with AS 4381

Standard precautions must include:

- Appropriate reprocessing and storage of reusable instruments
- Aseptic technique
- Personal hygiene practices especially washing and drying hands before and after client contact
- Safe disposal of sharps and other clinical waste
- Safe handling of sharps
- Surface cleaning and management of blood and body fluid spills
- Techniques to limit contamination
- Use of personal protective equipment

Attachment and bar extension options may include:

- Bar attachment systems:
 - mechanical - clips, stud, O-rings
 - magnetic
- Unconnected fixture options
 - mechanical - magnetic

Maxillomandibular relationships must include:

- Centric relation records
- Protrusive records
- Facebow registration

RANGE STATEMENT

Hygiene, home care and maintenance instructions may include but are limited to:

- Instructing the client:
 - on the removal of the overdenture
 - on the use of a standard soft toothbrush to brush abutments
 - on the use of dental floss to clean under the bar and around each abutment cylinder
 - on the use of an interdental brush to clean the under surface of the denture and the overdenture framework
 - to attending for review one month after overdenture insertion
- Establishing a recall interval of 3 to 6 months as determined by the client history

Unit Sector(s)

Not Applicable