



Australian Government

Department of Education, Employment and Workplace Relations

HLTDA411D Prepare to expose a prescribed dental radiographic image

Release: 1

HLTDA411D Prepare to expose a prescribed dental radiographic image

Modification History

HLT07 Version 4	HLT07 Version 5	Comments
HLTDA411C Prepare to expose a prescribed dental radiographic image	HLTDA411D Prepare to expose a prescribed dental radiographic image	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 interpret a prescribed request for a dental radiographic image. It also includes the preparation of the client for dental radiography and the selection of equipment requirements

All procedures are carried out in accordance with work health and safety (WHS) policies and procedures, current infection control guidelines, Australian and New Zealand Standards for maintaining infection control and the policies and procedures of the dental practice or organisation

All tasks are carried out in accordance with state or territory legislative requirements

Application of the Unit

Application

This unit applies to dental assisting work

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
- HLTIN302C Process reusable instruments and equipment in health work
- HLTWHS300A Contribute to WHS 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

1. Interpret the request for the prescribed dental radiographic image

1.1 *Interpret the request* accurately using appropriate dental terminology

1.2 Assess the request for sufficient information to produce the radiographic image and obtain additional information when necessary

1.3 Determine the *appropriate technique* from the request

1.4 Select and use *appropriate technical variables* in accordance with manufacturer specifications and client requirements

ELEMENT**PERFORMANCE CRITERIA**

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| 2. Refer to previous dental radiographic imaging | 2.1 Review previous dental radiographic images for technical quality |
| | 2.2 Refer to <i>previous dental radiographic images and dental records</i> for evidence of pre-existing conditions diagnosed by dentist or dental specialist |
| | 2.3 Obtain <i>additional information and advice</i> from the dentist or dental specialist when necessary |
| 3. Assess and determine the procedure prior to exposing a dental radiographic image | 3.1 Determine the client's ability to comply with instructions |
| | 3.2 Review <i>modifications to the standard procedure</i> with the operator prior to implementation |
| | 3.3 Obtain additional information and advice from the dentist or dental specialist prior to proceeding with the procedure if required |
| | 3.4 <i>Explain the procedure and necessary requirements</i> clearly to the client prior to commencement |
| | 3.5 <i>Prepare client</i> prior to producing a dental radiographic image |
| | 3.6 <i>Confirm client identity</i> and match to the request |
| | 3.7 <i>Obtain consent</i> from the client /carer |
| 4. Select and prepare dental radiographic imaging equipment and accessories appropriate to the procedure | 4.1 Select <i>appropriate dental radiographic imaging equipment</i> for the procedure and identify client requirements |
| | 4.2 Select and use correctly <i>appropriate accessories</i> for dental radiographic imaging |
| | 4.3 Select appropriate <i>technical variables</i> of the dental radiographic imaging equipment |

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:

- Correctly applied dental terminology
- Features, characteristics and movements of a range of dental radiographic equipment
- Legal and ethical responsibilities for the safe use of radiation in dentistry
- Radiographic appearance of anatomic landmarks, normal dentition and associated bony structures for dental radiograph images
- Radiographic appearance of dental anomalies and common oral pathological conditions
- Range of dental radiographic imaging techniques and the reasons for selection of each technique
- Reasons for processing and technique inaccuracies and methods to minimise errors
- Relevant legislation and statutory requirements of consent

Essential skills:

It is critical that the candidate demonstrate the ability to

- Consistently prepare different clients across a range of procedures
- Correctly operate a range of radiographic imaging equipment across a range of procedures
- Consistent apply code of practice for the safe use of radiation in dentistry

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 prepare a diverse range of clients for a range of dental radiographic procedures
- Consistently use appropriate dental terminology
- Consistently use safe work practices to minimise the risk of transmission of infection
- Consistently select appropriate film variables including:
 - film speed
 - film size
 - intensifying screens
- Consistently select correctly radiographic techniques including:
 - bisecting angle
 - paralleling
- Consistently deal with conflict

- Consistently demonstrate communication skills as required in fulfilling the job role as specified by the dental practice/organisation including negotiation, asking questions, active listening, asking for clarification from client and/or carer, acknowledging and responding to a range of views
- Consistently demonstrate interpersonal skills when relating to people from a range of social, cultural and religious backgrounds and physical and mental abilities
- Consistently work with others and display empathy with client and relatives
- Consistently use problem solving skills required including:
 - using available resources
 - selecting and preparing instruments, equipment and materials as directed by the operator
- Consistently use problem solving skills required including:
 - using available resources
 - prioritising tasks
 - selecting and preparing instruments and equipment as directed by the operator
- Minimise technical inaccuracies in dental radiographic images
- Select and apply procedures to perform a range of tasks specific to the dental assistant's job role
- Use literacy skills to read and follow directions, policies and procedures including:
 - infection control policies, guidelines and procedures
 - WHS policies and procedures
 - other dental practice/organisation policies and procedures
- Use literacy skills required to:
 - select and apply the procedures to perform a range of tasks
 - follow sequenced written instructions
 - record accurately and legibly client details

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 assistant's specific job role

- Consistency of performance should be demonstrated over the required range of workplace situations

Context of and specific resources for assessment:

- Where, for reasons of safety, access to equipment and resources and space, assessment takes place away from the workplace, simulations should be used to represent workplace conditions as closely as possible
- Resources essential for assessment include:
 - access to dental radiographic imaging units and resources normally used in the workplace
 - radiographic viewing equipment
- Competency in this unit should be assessed using all the relevant resources commonly provided in dental practice. Specific resources may include:
 - relevant dental practice/organisation policy and procedures manuals such as:
 - control guidelines and relevant Australian and New Zealand Standards
 - WHS policy and procedures
 - relevant state and territory legislation
 - manufacturer specifications for dental radiographic units

Method of assessment

- Observation in the work place is essential. Assessment in the workplace must be flexible to allow for client confidentiality and organisation policies
- Evidence of essential knowledge and understanding may be provided by:
 - traditional or online (computer-based) assessment
 - written assignments/projects
- Case study and scenario as a basis for discussion of issues and strategies to contribute to best practice
- Questioning
- Staff and/or client feedback
- Supporting statement of supervisor
- Authenticated evidence of relevant work experience and/or formal/informal learning

- 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 competency units:

- HLTDA410C Apply the principles of radiation biology and protection in dental practice
- HLTDA412C Produce a dental radiographic image

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.

- Interpretation of the request may include but is not limited to:*
- Consultation with dentist or dental specialist for radiographic imaging requirements, techniques and modifications to techniques
 - Assessment that the request has not been duplicated
 - Client/carer interview

- Appropriate techniques may include:*
- The bisected angle technique (intraoral)
 - The paralleling technique(intraoral)
 - Extra oral

- Technical variables may include:*
- Technical variables pre-determined by manufacturer's specifications for the radiographic unit or selected by the dentist or dental specialist prior to the procedure include:
 - milliamperage
 - kilovoltage
 - tube length
 - Technical variables selected and used by the dental assistant may include:
 - horizontal and vertical angulation
 - film selection and placement
 - correct assembly of film locating device
 - positioning of client
 - use of intensifying screens

Previous dental radiographic images and dental records may include but are not limited to:

- Evidence of pre-existing conditions may be provided by records including:
 - dental history, including previous diagnoses
 - dental records
 - location of oral pathology
 - date of previous image
- Evidence of pre-existing conditions may include the radiographic appearance of:
 - dental caries
 - periodontal disease
 - periapical pathology
 - endodontic procedures
 - trauma and pathologic conditions of bone and the dentition
 - dental anomalies

Client's ability to comply with instructions may include consideration of:

- Age
- Disability including mobility and muscle coordination
- Neurological disabilities including:
 - communication and learning difficulties
 - tremor
 - cerebral palsy
- Pregnancy
- Size
- Weight

Additional information and advice sought prior to carrying out procedure may include but is not limited to:

- Advice on modifications to standard procedures due to physical capabilities and age of client which make obtaining cooperation difficult
- Anatomical difficulties:
 - large tongue
 - small mouth
 - tight oral muscles
 - limited neck movement
- Availability of the appropriate equipment, resources and accessories
- Special considerations for pregnant clients

Modifications to the standard procedure may include but is not limited to:

- Assessment of special needs and age of client
- Use of film holders and film locating devices

Explanation of the procedure and necessary requirements may include but is not limited to:

- Actions/movements of a range of dental radiographic equipment
- Client/carer interview
- Parent/guardian interview
- Removal of jewellery, hearing aids and oral appliances
- Safety precautions used to prevent exposure of radiosensitive organs
 - application of lead apron and thyro-cervical collar

- Obtaining consent may include:*
- Allowing sufficient time to discuss risks and benefits with clients and carers
 - Conveying complex information clearly
 - Helping clients understand the effects of treatment or no treatment
 - Involving the client fully in discussions about treatment procedures
 - Knowing the types and essentials of valid consent:
 - written
 - verbal
 - implied
 - Providing full details about the procedures and the risks and benefits

Appropriate accessories may include but are not limited to

- Film locating devices
- Film holders
- Immobilisation equipment
- Intensifying machines
- Modifications to use of film locating devices

Unit Sector(s)

Not Applicable