



Australian Government

HLTDEN009 Produce a prescribed dental radiographic image

Release: 1

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Modification History

Release	Comments
Release 1	This version was released in <i>HLT Health Training Package release 3.0</i> and meets the requirements of the 2012 Standards for Training Packages. Significant changes to the elements and performance criteria. New evidence requirements for assessment including volume and frequency requirements. Removal of pre-requisites Supersedes HLTDA412D

Application

This unit of competency describes the skills and knowledge required to operate dental radiographic equipment and position the patient correctly to produce an intraoral and extraoral diagnostic radiographic image.

Where work relates to extraoral radiography this includes orthopantomogram and may include lateral cephalograms (for orthodontic radiographic work-ups) and excludes cone beam radiography.

This unit applies to dental assisting work.

The skills in this unit must be applied in accordance with Commonwealth and State/Territory legislation, Australian/New Zealand Standards and industry codes of practice.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

Elements define the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element.

1. Position patient to obtain radiograph

1.1 Implement and maintain radiation safety measures for the patient, operator and others throughout the procedure

1.2 Correctly position patient according to the radiographic detector unit used

1.3 Ensure that communication with patient can be maintained after positioning

ELEMENT**PERFORMANCE CRITERIA**

Elements define the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element.

2. Position dental radiographic detector

2.1 Select the appropriate exposure variables for either an intraoral or extraoral image on the dental radiographic unit according to manufacturers' instructions, procedure and patient requirements

2.2 Select the appropriate radiographic technique for either an intraoral or extraoral image prescribed by dental practitioner for the oral structure under investigation

2.3 Position correctly the appropriate film or film plate or sensor and setting for the prescribed request and patient's requirements

2.4 Select and use locating devices or guides to apply the appropriate horizontal and vertical planes for the radiograph

2.5 Use accessories when appropriate according to manufacturers' instructions

3. Operate radiographic imaging equipment safely to produce intraoral image

3.1 Operate intraoral radiographic equipment according to manufacturers' instructions and legislative requirements for the safe use of radiation

3.2 Ensure the patient remains visible throughout the procedure to observe positioning and safety precautions and expose the X-ray

3.4 Remove the exposed intraoral dental radiographic detector package carefully from the mouth

3.5 Separate the packaging and barrier sleeve when required from the detector and label image correctly prior to processing

ELEMENT**PERFORMANCE CRITERIA**

Elements define the essential outcomes

Performance criteria describe the performance needed to demonstrate achievement of the element.

4. Operate radiographic imaging equipment safely to produce an extraoral radiograph

4.1 Operate extraoral radiographic equipment according to manufacturers' instructions and legislative requirements for the safe use of radiation

4.2 Ensure the patient remains visible throughout the procedure to observe positioning and safety precautions, and expose the X-ray

4.3 Undertake, for wet processing only, removal of the exposed extraoral image from the radiographic unit

4.4 Ensure digital radiograph is downloaded correctly

4.5 Label the radiograph with all necessary details for patient identification and time of procedure

5. Process and provide quality assurance for the exposed dental radiograph

5.1 View or process the radiograph correctly

5.2 Assess visual qualities of the radiograph and refer to dental practitioner

5.3 Identify and correct processing errors or artefacts

5.4 Identify and critique errors in imaging technique to optimise exposure times for each individual patient

5.5 Mount and store radiographs correctly

Foundation Skills

The Foundation Skills describe those required skills (language, literacy, numeracy and employment skills) that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

No Equivalent Unit

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>

Assessment Requirements for HLTDEN009 Produce a prescribed dental radiographic image

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Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, manage tasks and manage contingencies in the context of the job role. There must be evidence that the candidate has:

- produced 30 acceptable dental radiographic images in a simulated environment including:
 - applying safe work practices for dental radiography work including:
 - following standard and additional precautions
 - operating a radiographic unit correctly
 - safely using radiation in dentistry
- produced and critiqued 20 acceptable dental intraoral radiographic images taken on a minimum of 10 different people demonstrating skills in periapical (PA) and bitewings (BW)
- produced and critiqued 10 acceptable dental extraoral radiographic images taken on a minimum of 10 different people.

Knowledge Evidence

The candidate must be able to demonstrate essential knowledge required to effectively complete the tasks outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the work role. This includes knowledge of:

- national and State/Territory legal and ethical requirements and considerations for dental assisting work relevant to radiography, and how these are applied in organisations and in individual practice including:
 - codes of practice and safety guides:

- radiation protection in dentistry
- safe use of radiation
- duty of care
- informed consent and statutory requirements of consent
- practice standards – Dental Board of Australia guidelines on infection control
- privacy, confidentiality and disclosure
- radiation user licence
- records management
- rights and responsibilities of workers, employers and patients
- work role boundaries – responsibilities and limitations
- work health and safety
- dental radiographic imaging techniques and the reasons for selection of each technique
- features, characteristics and range of movements of dental radiographic equipment associated with intraoral and extraoral radiographic images
- radiographic appearance of anatomic landmarks, normal dentition and associated bony structures for intraoral and extra-oral radiographs
- radiographic appearance of dental anomalies and common oral pathological conditions
- sources for processing and technique inaccuracies and methods to minimise errors
- requirements for personal wearable radiation monitoring devices that measures radiation exposure levels including:
 - its significance
 - where on the body the device is to be worn
 - when and where they are required to be worn
 - when they need replacing
- safety requirements of wet film processing
- procedures for labelling and storage of radiographic images in accordance with organisation policies.

Assessment Conditions

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

The requirement in the performance evidence to produce 30 acceptable dental radiographic images in a simulated environment must have been demonstrated using simulation before demonstration in the workplace or with members of the general public.

The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources including:
 - barrier protection materials
 - dental chair and unit
 - radiographic equipment suitable for taking intraoral and extra-oral radiographs

- operator, patient and assistant protective equipment
- processing equipment
- radiographs and/or sensors
- waste disposal equipment
- Dental Board of Australia guidelines on infection control on which the candidate bases the planning process
- modelling of industry operating conditions including access to real people for simulations and scenarios in dental assisting work.

Assessment must involve demonstration of tasks under verbal or written prescription from a dental practitioner.

Assessors must satisfy the Standards for Registered Training Organisations (RTOs) 2015/AQTF mandatory competency requirements for assessors.

In addition, assessors must hold a minimum of 5 years clinical experience in dental assisting work.

Links

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<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=ced1390f-48d9-4ab0-bd50-b015e5485705>