HLTDEN007 Apply the principles of radiation biology and protection in dental practice
Application

This unit of competency describes the skills and knowledge required to minimise the risk of radiation to the patient, the operator and others during the exposure of a prescribed dental radiographic image. It also describes the quality assurance measures necessary to ensure all radiographs are of consistent diagnostic standard.

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

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### ELEMENT

Elements define the essential outcomes

1. Apply the principles of radiation biology to protect patient, operator and others from ionising radiation

#### PERFORMANCE CRITERIA

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

1.1 Implement safe work practices to minimise risks to operator, patient and others of immediate and long-term effects of radiation

1.2 Identify correctly the main components of the X-ray unit to assist the operator taking a dental radiograph

1.3 Identify correctly and select the exposure variables of dental X-ray generating equipment according to manufacturers’ instructions and patient requirements

1.4 Apply the correct units of radiation dose

2. Determine image characteristics of a dental radiographic image to minimise the necessity for re-takes

2.1 Ensure visual qualities of the radiograph are of a diagnostic standard

2.2 Ensure geometric qualities of the radiograph are of a diagnostic standard

3. Minimise radiation by maintaining quality in processing

3.1 Identify the contents of the film package and determine the use of each item

3.2 Maintain quality assurance for processing dental radiographic images

3.3 Follow quality assurance processes for the use of radiographic chemicals in accordance with manufacturers’ instructions

3.4 Maintain appropriate conditions for manual and automatic processing in accordance with manufacturers’ specifications

3.5 Identify a range of processing errors and implement corrective measures to produce a diagnostic radiograph

### 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 -