



Australian Government

ACMEQD402 Determine equine oral function efficiency

Release: 1

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Modification History

Release	Comments
Release 1	This version released with ACM Animal Care and Management Training Package Version 1.0.

Application

This unit of competency describes the skills and knowledge required to determine equine oral function efficiency. It includes knowledge of the anatomy and physiology of the equine head including oral structures and dentition, and how they relate to general health and in particular, to dental conditions and disease.

The unit applies to individuals who use practical skills and knowledge to provide equine dental care and treatments across various equine industry sectors.

Legislative and regulatory requirements, including work health and safety and animal welfare, apply to the scope of work of equine dental service providers, and vary according to state/territory jurisdictions. Users must check with the relevant regulatory authority before delivery.

NOTE: The terms ‘occupational health and safety’ (OHS) and ‘work health and safety’ (WHS) generally have the same meaning in the workplace. In jurisdictions where the national model WHS legislation has not been implemented, RTOs must contextualise the unit of competency by referring to current OHS legislative requirements.

Pre-requisite Unit

Prerequisite units of competency for this unit are:

- ACMEQU202 Handle horses safely

Note the following chain of prerequisites that also apply to this unit.

Unit of competency	Prerequisite requirement
ACMEQU202 Handle horses safely	ACMEQU205 Apply knowledge of horse behaviour

Unit Sector

Equine Dentistry (EQD)

Elements and Performance Criteria

Element	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify the structures and determine the function of the equine oral cavity	1.1 Define structures within the oral cavity by name and location from embryonic (or foetal) to mature equine 1.2 Describe the functions of oral cavity structures 1.3 Analyse and define structures and body systems that affect growth and health of oral structures and their functions 1.4 Describe and relate the process of prehension and mastication of food to normal oral function including the influence of different food types
2. Relate the prehensile and masticatory function to teeth types	2.1 Identify and classify equine teeth by name and location using established equine dental formulae and terminology 2.2 Identify structures of equine teeth and periodontium by name and location 2.3 Identify and define stages of development and eruption of equine teeth 2.4 Identify normal development and eruption 2.5 Identify abnormalities of development and eruption 2.6 Define the function of individual equine teeth
3. Age the horse by interpreting tooth eruption, dental wear patterns and tooth angles	3.1 Identify and define stages of equine dental eruption and age indicators 3.2 Determine incisor angles in relation to age and define the variables that affect this assessment 3.3 Identify and define occlusal wear and shape of teeth throughout horse life 3.4 Estimate the age of the horse based on presence or absence of deciduous and permanent teeth, wear patterns, tooth form and tooth angles 3.5 Document tooth status and oral conditions using accepted industry notation methods

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Interpret dental information in equine treatment records and veterinary advice
Writing	Record equine dental conditions and treatments accurately using accepted dental encoded systems
Navigate the world of work	Take responsibility for complying with and keeping up to date with regulatory requirements, codes of practice, standards and workplace procedures relating to safety, patient microbiological risk, biosecurity and animal welfare
Get the work done	Plan, sequence and prioritise equine dental activities to achieve outcomes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ACMEQD402 Determine equine oral functional efficiency	ACMEQD402A Determine equine oral functional efficiency	Updated to meet Standards for Training Packages Prerequisite added Work placement requirement included	No equivalent unit

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b75f4b23-54c9-4cc9-a5db-d3502d154103>

Assessment Requirements for ACMEQD402 Determine equine oral function efficiency

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Performance Evidence

An individual demonstrating competency must satisfy all the elements and performance criteria in this unit. There must be evidence that the individual has determined the oral function efficiency for at least six different horses on a variety of diets and of different ages, including:

- locating and describing oral cavity features by name, location and function
- identifying lateral excursion, rostro-caudal movement and occlusion function
- determining the age of horses based on tooth development, wear, shape and incisor angulation
- using dental formulae and established terminology to describe and document tooth status and oral conditions
- performing the activities outlined in the performance criteria of this unit during, and contributing to, an overall period of at least 120 hours of work supervised by supervised by an equine dental service provider who is a dental association member and/or a qualified equine dental service provider and/or is currently commercially active in providing equine dental services.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- principles and practices for determining equine oral function efficiency
- anatomy and physiology of the equine head and oral structures including:
 - detailed features and functions of the equine head, mouth and teeth
 - soft tissues - lips, tongue, gums and cheeks
 - hard palate and palatine artery
 - periodontal structures
 - bone structures of the head
 - normal and abnormal functions
 - equine teeth and tooth types

- incisors
- canines
- premolars (including wolf teeth)
- molars
- stages of tooth development, growth, wear and ageing
- classification of equine tooth types:
 - Triadan system nomenclature
 - anatomical nomenclature
 - type and timing of eruption
 - deciduous
 - permanent
- structures of equine teeth and periodontal structures:
 - apical foramen
 - alveolus (socket) periodontal ligament
 - cementum, dentine and enamel
 - root and crown, infundibulum
 - pulp canals (or chamber) nerves, vessels and structures
- stages of development and eruption of teeth, including:
 - bud, cap and bell stages
 - apposition and calcification of enamel and dentine
 - attrition (wear)
- abnormalities of development and eruption:
 - absence of teeth (oligodontia)
 - supernumerary teeth
 - underdevelopment of cementum or enamel (hypoplasia)
 - overdevelopment of cementum or enamel (hyperplasia, hypercementosis)
 - dentigerous cysts
 - super-eruption (including of unopposed teeth)
 - impaction (failure of tooth to erupt)
 - lack of wear
 - parrotmouth, overbite, overjet (brachygnathism)
 - sow mouth, monkey mouth (maxillary brachygnathism or mesiocclusion)
 - wry mouth (campylorhinus lateralis)
- stages of equine dental eruption and age indicators:
 - presence or absence of deciduous teeth
 - presence or absence of permanent teeth
 - presence or absence of infundibula
 - observation of teeth in wear
- masticatory processes:
 - biomechanics of the mandible and maxilla and the temporomandibular joint (TMJ)

- feed manipulation and formation of food bolus
- masticatory muscles, the tongue and saliva
- rugae
- teeth and their occlusal angles and ridges, the curve of Spee
- process of prehension, mastication and the role of normal oral function
- infectious and/or contagious disease prophylaxis, symptoms, infection control and biosecurity protocols
- animal welfare needs of equines
- relationship between equine dental anatomy and physiology
- legislation, regulations and codes of practice, including work health and safety, animal welfare and ethics, veterinary practices, restricted dental practices, drugs and poisons legislation, and waste disposal
- workplace hygiene standards (including those of biosecurity) including: disinfectants, cleaning agents and techniques, cleaning and appropriate disinfection and/or sterilisation of equipment, materials and personal protective equipment
- safe work practices including safe horse handling techniques and personal protective equipment (PPE).

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - a workplace or simulated environment that accurately reflects performance in a real workplace setting
- resources, equipment and materials:
 - various equines of different ages on different diets assessed as suitable for the skill level of the individual
 - PPE correctly fitted and applicable to activity for the individual
 - appropriate tack, materials and equipment to provide dental care and treatment for horses
- specifications:
 - legislation, regulations, codes of practice and standards relevant to equine dentistry or technology to access them.

Training and assessment strategies must show evidence of the use of guidance provided in the *Companion Volume: User Guide: Safety in Equine Training*.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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