



Australian Government

Department of Education, Employment and Workplace Relations

ACMEQD405A Perform routine dental correction and oral care using manual instruments

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This Unit of Competency covers appraisal and selection of instruments and the required processes, techniques and safety considerations in the provision of routine dental correction and oral care using manual instruments. Whilst the skills described in this Unit may be attempted without sedation of the horse, sedation may be required for OHS reasons and for the animal's welfare, safety and comfort. If this medication is required it must be obtained and administered in accordance with the relevant state or territory legislation.

Application of the Unit

The Unit is applicable to the equine industry where it may be necessary to provide dental care to restore oral function by providing routine dental correction condition using manual instruments. This Unit is aimed at equine dental service providers who are developing their manual instrument techniques as well as their observation and judgement skills in the provision of equine dentistry services. In addition to legal and ethical responsibilities, all Units of Competency in the ACM10 Animal Care and Management Training Package have the requirement for animals to be handled gently and calmly. The individual is required to exhibit appropriate care for animals so that stress and discomfort are minimised.

Licensing/Regulatory Information

Licensing, legislative, regulatory or certification requirements may apply to this Unit. Therefore, it will be necessary to check with the relevant state or territory regulators for current licensing, legislative or regulatory requirements before undertaking this Unit

Pre-Requisites

There are no pre-requisite Units for this competency standard.

Employability Skills Information

This Unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Identify and appraise manual instruments used in equine dentistry	1.1 Materials used in manual dental instruments are evaluated to assess their appropriateness for intended use and for cleaning and disinfection 1.2 Speculum types and fittings are evaluated and fitting techniques demonstrated in accordance with occupational health and safety (OHS) standards and animal welfare considerations 1.3 Manual files (floats) and file (float) blade types are evaluated and techniques for use are demonstrated in accordance with OHS standards and animal welfare considerations 1.4 Other dental equipment is evaluated and techniques for use are demonstrated in accordance with OHS standards and animal welfare considerations
2 Prepare for use of manual instruments	2.1 Treatment plan and oral mouth inspection reports are referred to before commencing dental treatment 2.2 If required, sedation is accessed in accordance with State/Territory legislation requirements 2.3 Appropriate manual instruments are selected for the nominated task and risk assessment is conducted prior to use 2.4 Infection control standard procedures are implemented 2.5 The horse is positioned or restrained and the carer is instructed on their role in controlling the horse
3 Prepare for routine dental correction in line with the treatment plan	3.1 Incisors are assessed in relation to position, number, condition and wear 3.2 Impact of sharp canines on soft tissue is assessed 3.3 Mouth is rinsed and speculum is fitted in line with industry standards and mouth is re-rinsed giving due consideration to the horse's response and the relevant anatomy 3.4 Supragingival calculus ("tartar") is identified and its impact on the horse's health is assessed and its need for referral to veterinarian or other appropriate service provider evaluated 3.5 Supragingival calculus ("tartar") is removed from teeth, as necessary 3.6 Feed impacted in interdental and other periodontal spaces is identified, the cause determined and impact on health and need for referral is recommended 3.7 Impacted feed is removed to enable assessment of cause and referral for treatment is arranged if required 3.8 Position, size and shape of wolf teeth are assessed and need for referral evaluated 3.9 Presence of retained deciduous teeth (caps) and digitally loose teeth is identified, taking into consideration the age of the horse and the requirement for referral is evaluated

- 3.10 Any ***retained deciduous teeth are treated*** appropriately
- 3.11 Any ***digitally loose permanent teeth are treated*** appropriately
- 3.12 Canine teeth are cleaned and modified as required to provide maximum comfort for domestic and performance requirements taking into consideration the age, sex and breed of the horse. If the teeth are reduced, care must be taken not to expose pulp chambers
- 4 Perform routine dental correction in accordance with the treatment plan
 - 4.1 Impact of sharp buccal and lingual points on soft tissues is assessed on both the upper and lower molar arcade
 - 4.2 Teeth are filed (floated) (avoiding close proximity or exposure of any pulp canals) to optimise the health, mastication and comfort of the horse
- 5 Install or restore bit seat for ridden or driven horses
 - 5.1 Prior to installing bit seat arrangements are made to address presence of wolf teeth (PM1) if required
 - 5.2 ***Features of the required 'bit seat'*** are identified in accordance with the treatment plan
 - 5.3 Appropriate bit seats are created on the 2nd premolars (PM2) on both the upper and lower arcades giving due consideration to tooth structure and maintaining optimal occlusion in relation to mastication and avoidance of the pulp canals
- 6 Provide post dental treatment care
 - 6.1 Mouth is rinsed giving due consideration to the response of the horse and the relevant anatomy
 - 6.2 Oral cavity including teeth are inspected for ***evidence of injury caused during dental treatment*** and treatment options are then evaluated and action taken if required
 - 6.3 Dental treatment is evaluated to confirm comfort, and oral functional status to determine if lateral excursion, rostro-caudal movement and occlusion have been achieved at a routine dental correction level
 - 6.4 Work area, instruments and other equipment are cleaned and disinfected, in accordance with infection control standard precautions
 - 6.5 Instruments and equipment are checked for viability and ***maintenance or repair procedures*** are implemented as required
 - 6.6 Records including dental charts are update
 - 6.7 The owner or carer is informed about the scope of the treatment provided and if required advised regarding ***post-treatment care***, the need for follow-up treatment or referral to a veterinarian or other appropriate service provider.

Required Skills and Knowledge

This section describes the skills and knowledge required for this Unit.

Required skills include:

Ability to:

- analyse and solve problems using available information and resources including recording information and prioritising daily tasks
- apply interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities
- assess mastication and oral function status in relation to lateral excursion, rostro-caudal movement and occlusion at a routine dental correction level
- assess the comfort of the horse in relation to the application of the bit
- clean, disinfect and maintain manual instruments used in equine dentistry to ensure efficient and safe working standards
- communicate effectively with others, including questioning, active listening, asking for clarification and consulting with or seeking advice from other appropriate service providers
- comply with animal welfare legislation, animal care guidelines, state and territory veterinary surgeons or practitioners legislation and regulations, relevant equine dental association code of conduct, equine dental service provider accreditation requirements and standards
- employ safe, humane and environmentally responsible organisational systems and procedures when working with and handling horses
- follow industry referral protocols and procedures
- follow sequenced written instructions; record accurately and legibly information collected; and select and apply procedures to a range of defined tasks
- in conjunction with veterinarian, monitor horse vital signs for indicators of impact of sedatives during and after treatment of dental conditions, subject to relevant state/territory regulations
- interpret and respond appropriately to horse behaviour
- maintain equine dental records using appropriate terminology
- maintain the highest standards of hygiene and infection control at all times to reduce the risk of infection and cross-infection; considering zoonotic and exotic disease possibilities (biosecurity)
- numeracy skills to estimate, calculate and record routine and more complex workplace elements
- operate manual instruments effectively and with due consideration to the potential hazards associated with using instruments on horses
- read and follow required policies and procedures, including OHS, infection control and waste management
- recognise equine oral conditions that may impact on speculum use and require referral
- use safe manual handling techniques and equipment

- use safe, hygienic and environmentally friendly waste handling and disposal procedures.

Required knowledge includes:

Knowledge of:

- anatomy and physiology of the equine head and oral structures including features and functions of the equine mouth and teeth including normal and abnormal functions
- appropriate industry and state/territory equine dental codes of conduct and standards of practice
- appropriate terminology used to describe dental conditions, treatment and oral features
- charting systems used to record equine dental information
- clinical signs and effects of the categories of sedative drugs used in the horse
- contagious disease symptoms, prophylaxis and biosecurity protocols
- features of correctly formed, healthy and well-maintained equine dental and oral structures
- features of manual instruments used in equine dental care related to purpose, operation, quality, longevity and cost
- horse ailments and injuries that may impact on dental health
- horse behaviour and other symptoms that may indicate dental problems
- indicators of horse distress, illness and disease
- instrument manufacturers' use and maintenance specifications
- life span and indicators of wear or redundancy of manual equine dental instruments
- normal and abnormal features of equine dental and oral structures including physiology and effect of diet
- parameters of treatment which may require referral to veterinarian or other appropriate service provider
- principles of animal welfare
- post-dental treatment monitoring and care
- protocols, legal and ethical considerations in consulting with veterinarians and other relevant persons
- relevant legislation, regulations and codes of practice, including OHS, animal welfare and ethics, veterinary practice and waste disposal
- relevant state or territory legislation covering the supply, possession and use of restricted and controlled substances
- safe work practices
- standard precautions for the care and treatment of all animals, regardless of their perceived or confirmed infectious status for animal care
- techniques and manual instruments used to provide equine dental care
- techniques used to:
 - remove supra-gingival calculus ("tartar")
 - fit speculum
 - file (float) teeth with manual instruments
 - install bit comfort areas
 - remove impacted feed

- remove retained deciduous teeth (caps) and digitally loose molars
- restrain the horse for dental treatment
- workplace hygiene standards (biosecurity) including: disinfectants, cleaning agents and techniques, cleaning and appropriate disinfection or sterilisation of equipment, materials and personal protective equipment (PPE).

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this Unit	The evidence required to demonstrate competence in this Unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this Unit. Assessors should ensure that candidates can: • prepare for treatment and organise sedation, if required, in accordance with the relevant State and Territory legislation, regulations and industry standards • instruct the carer on their role and safety procedures in handling the horse during treatment • use appropriate techniques with manual instruments to restore dental and oral structures to acceptable condition, function and comfort in accordance with the treatment plan and oral inspection report • comply with safety, animal welfare and infection control and hygiene protocols and monitor for update alerts • explain procedures and post treatment care to the owner or carer and others as required • update dental and other relevant records. The skills and knowledge required to perform routine dental correction and oral care using manual instruments must be transferable to a range of work environments and contexts and include the ability to deal with unplanned events.
Context of and specific resources for assessment	Assessment for this Unit is to be practical in nature and will be most appropriately assessed in a workplace where equine dentistry is provided or in a situation that reproduces normal work conditions. There must be access to horses presenting with a range of relevant equine dental conditions, anatomical models and the relevant information, materials and documentation to enable one to demonstrate

	competence.
Method of assessment	To ensure consistency in performance, competency should be demonstrated, to established standards, on more than four occasions over a period of time in order to cover a variety of individual cases, circumstances and disciplines and over a number of assessment activities. The assessment strategy must include assessment of competency in a work environment. Suggested strategies for this Unit are: • written and oral assessment of candidate's required knowledge • observed, documented and first-hand testimonial evidence of candidate's application of practical tasks • simulation exercises that reproduce normal work conditions • case studies • third-party evidence • workplace documentation • portfolio. This Unit may be assessed in a holistic way with other Units of Competency relevant to the industry sector, workplace and job role.
Guidance information for assessment	Assessment methods should reflect workplace demands (e.g. literacy and numeracy demands) and the needs of particular target groups (e.g. people with disabilities, Aboriginal and Torres Strait Islander people, women, people with a language background other than English, youth and people from low socio-economic backgrounds).

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. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

<i>Materials used in manual dental instruments</i> may include:	• aluminium • carbide chip • diamond • ropes • stainless steel • tungsten carbide • various synthetic handle materials.
<i>Speculum types and fittings</i> may include:	• full mouth speculums • wedge gags: • bilateral wedge • unilateral wedge • unsuitable gags such as spool, which are TO BE AVOIDED • speculum accessories: • gum bars • extended gum bars • tooth plates • extended tooth plates.
Speculum <i>fitting techniques</i> may include:	• adjustment for the large or small horse • consideration for the younger horse • modifications to accommodate incisor malocclusions • incremental opening and shutting of the mouth to accustom the horse • slow and confident handling to reassure the horse.
<i>OHS</i> considerations when working with horses may include:	• applying appropriate manual handling techniques when packaging and handling loads, including horses and equipment • being prepared to say no to handling an uneducated, stressed, difficult or sick horse • following safe work method statements for: • cleaning, disinfecting and sharpening instruments • completing dental related tasks

	• electrical safety procedures when using water in close vicinity of electrical equipment • following personal and workplace hygiene procedures • hazard identification and risk minimisation: • handling, use, storage, transport and disposal of chemicals • handling and disposal of biological wastes • horse catching, handling, controlling and restraining methods • safe proximity and position of carer in charge of the horse • using machinery and equipment in accordance with manufacturers' instructions • using infection control procedures to minimise risks associated with: • zoonotic diseases • release of infective agents (both animal and human) • chemical spillage • using personal protective equipment (PPE) • clothing of a protective nature including disposable • eye and ear protection • masks for the protection of the respiratory system • gloves • items for sun and other protection • safety footwear and leg protection.
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<i>Animal welfare considerations</i> may include:	• complying with relevant: • industry codes of practice • industry standards and protocols • legislation and regulations concerned with: • animal welfare • the prevention of cruelty to animals • equine dentistry.
<i>Manual files (floats) and file (float) blade types</i> may include:	• manual file (float) types: • incisor • pre-molar • molar • buccal • lingual • manual file (float) design: • straight shaft • curved shaft • angled shaft • flat shaft • round shaft • file (float) blade: • milled tungsten carbide • bonded carbide chip.
<i>Other equipment</i> used in the provision of a <i>dental</i> service may include:	• antiseptics and disinfectants • aprons • buckets and bucket brush • canine tooth buffer • cap extractors • head stand • head lamps and lights • head stall and lead rope • lubrication oil • personal protective equipment and clothing • picks • syringe for mouth wash • various appropriate forceps • worktable.
<i>Infection control standard procedures</i> may include:	• appropriate reprocessing of reusable equipment • aseptic technique • environmental controls (e.g. design and maintenance of premises and cleaning)

	• personal hygiene practices especially washing and drying hands (e.g. before and after animal contact) • safe handling and disposal of sharps and other clinical, related and general waste • surface cleaning and management of blood and bodily fluid spills • techniques to limit contamination • use of personal protective equipment.
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Horse may be restrained for dental treatment by:	- experienced and capable horse handler - established restraint techniques utilised in accordance with relevant State and Territory animal welfare legislation and codes of practice, which may include: - fixed stall ('crush') designed for examination of the horse - mobile stall 'crush' designed for the examination of the horse - halter and lead - sedation, if required, legally accessed and administered.
Retained deciduous teeth treatment may include:	- assessing presentation of deciduous teeth with periodontal attachment and requirement for referral - removing deciduous teeth (caps) ready to be shed and without significant periodontal attachment (able to be moved considerably with a finger) using the hand or an instrument as appropriate - conducting examination for presence of deciduous tooth fragments post-removal - referral if required - discussing post-treatment follow-up with the owner or carer if required.
Digitally loose molar treatment may include:	- assessing digitally loose molars for indicators of periodontal disease and requirement for referral - removing digitally loose molars without significant periodontal attachment (able to be moved considerably with a finger) using the hand or an instrument as appropriate - discussing post-treatment referral for investigation as to the cause and follow-up with the owner or carer.
Features of the required 'bit seat' may include:	- appropriate rostral, buccal and lingual rounding and smoothening of the parts of the upper and lower 2nd premolars - features MUST give consideration to tooth physiological structures and avoid approaching or exposing the pulp canals - features MUST maintain optimal occlusion while addressing pre-existing pathology, mastication and performance requirements.
Evidence of injury caused during dental treatment may include:	fractures of teeth from incorrect instrument or speculum use

	• haemorrhage • iatrogenic injury to soft tissues such as the tongue or oral mucosa • iatrogenic injury to hard tissues, such as bone, TMJ • pulp exposure.
Equipment and instruments <i>maintenance or repair procedures</i> may include:	• cleaning, storing and maintaining in accordance with manufacturer's instructions, such as: • lubricating joints on forceps • lubrication of dose syringe with silicone spray • recharging or replacing batteries • replacing file (float) handles and covers as appropriate • replacing blunt blades • re-sharpening blades if appropriate • routine disinfection of equipment • safe and secure storage of equipment for transport.
<i>Post treatment care</i> may include:	• horse management recommendations to the owner or carer including: • change of feed or husbandry recommendations • modification of work and bit use • exercise or training modifications or considerations • mouth rinses • nil by mouth post sedation • pain management • re-education of the horse • referral to veterinarian or other appropriate service provider.

Unit Sector(s)

Equine dentistry