

Modification history

Release	Comments
Release 1	This version released with ACM Animal Care and Management Training Package Version 5.0.

ACMEQD5X3	Perform equine dental treatment and oral care using appropriate instrumentation
Application	<p>This unit of competency describes the skills and knowledge required to perform planned dental treatment and oral care using manual and motorised instrumentation post-assessment.</p> <p>The unit applies to individuals, working as equine dental technicians, who use practical skills and knowledge to perform equine dental treatment and oral care across a range of industry sectors involving equines. They work autonomously and apply in depth, technical knowledge and skills to provide and communicate solutions for predictable and unpredictable problems.</p> <p>The equine dentistry industry expects oral care and dental treatments are undertaken according to current industry practices. The Companion Volume: User Guide: Equine Allied Health provides delivery and assessment information tailored for equine dental technicians and detailed guidelines relating to anatomical requirements and industry expectations.</p> <p>Commonwealth and state/territory health and safety, and animal welfare legislation, regulations and codes of practice relevant to interacting with horses apply to workers in this industry. Requirements vary between industry sectors and jurisdictions.</p> <p>State/territory veterinary practice legislation, restricted acts of veterinary science and pharmacy, controlled drugs and prohibited substance legislation apply to the scope of work of equine dental technicians. These vary according to jurisdictions.</p>
Prerequisite Unit	Nil
Unit Sector	Equine Dentistry (EQD)

Elements	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 and appraise instruments used in equine dentistry	1.1 Assess manual and motorised dental instruments to determine whether appropriate for intended use and requirements for cleaning and disinfection 1.2 Assess speculum types and demonstrate fitting techniques according to health and safety and animal welfare considerations 1.3 Assess safety features and horse welfare issues associated with use of manual and motorised instruments 1.4 Demonstrate safe and effective use of manual and motorised dental instruments
2. Prepare for use of equine dental instruments	2.1 Assess potential risks and safety considerations for equines and handlers in performing dental treatment and apply safety procedures and risk controls 2.2 Refer to treatment plan and oral inspection reports before commencing dental treatment 2.3 Implement appropriate infection control procedures 2.4 Select appropriate dental instruments for the nominated task 2.5 Position or restrain equine using safe handling techniques and instruct carer/handler on their role in controlling the equine

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
3. Prepare to perform dental treatment in line with treatment plan	<p>3.1 Reassess potential risks and safety considerations for equine, carer/handler and technician</p> <p>3.2 Carry out hygiene and infection controls in preparation for the treatment</p> <p>3.3 Determine need for sedation to carry out a thorough and complete dental treatment considering health and safety requirements and equine welfare and comfort</p> <p>3.4 Follow required protocols and relevant state/territory legislation relating to sedation and advise client to contact their registered veterinarian, if sedation is assessed as necessary</p> <p>3.5 Position, secure and support equine as required</p> <p>3.6 Provide assistance to attending veterinarian, where required</p> <p>3.7 Fit and remove a speculum according to health, safety and animal welfare considerations and treatment plan</p> <p>3.8 Carry out initial rinse of mouth</p>
4. Perform planned dental treatment	<p>4.1 Use appropriate technique and instruments for treatment, minimising generation of heat from motorised handpieces if used</p> <p>4.2 Address incisor length and angle to prevent interference with the lateral excursion or rostral-caudal movement of the mandible and ensure physiological integrity and functional anatomy of the teeth</p> <p>4.3 Rinse the oral cavity with water to conduct visual and manual examination using appropriate focal light source and dental mirrors</p> <p>4.4 Address canine teeth and minimally buff or round as required conserving physiological integrity and functional anatomy of the teeth</p> <p>4.5 Remove supragingival calculus (tartar) from teeth as necessary</p> <p>4.6 Assess dentition for presence of digitally loose, retained deciduous or senile teeth and treat</p> <p>4.7 Assess dentition for presence of wolf teeth (first premolars) and refer to veterinarian for removal unless digitally loose</p> <p>4.8 Address cheek teeth and remove sharp points without compromising functional occlusal surface and conserving the physiological integrity and functional anatomy of the teeth</p> <p>4.9 Profile rostral aspect of the #6 cheek teeth (second premolars) removing minimal occlusal surface and conserving the physiological integrity and functional anatomy of the teeth</p> <p>4.10 Inspect the oral cavity for evidence of injury caused during treatment and if present, evaluate, document and refer for treatment as required</p>
5. Reassess equine masticatory and oral function	5.1 Evaluate dental treatment to confirm comfort and masticatory function by identifying rostral-caudal and lateral movement of mandible and function of dental arcades
6. Provide post-dental treatment care	<p>6.1 Clean and disinfect work area, instruments and other equipment according to infection control procedures</p> <p>6.2 Check instruments and equipment for wear and damage and implement workplace maintenance or repair procedures</p> <p>6.3 Update records including dental charts and photographs, according to workplace requirements</p> <p>6.4 Inform owner or carer about the scope of treatment provided and provide advice about immediate post-treatment care, need for follow-up treatment, or referral to a registered veterinarian or other appropriate service provider</p> <p>6.5 Monitor equine behaviour and immediate environment for safe post procedure recovery</p>

Foundation Skills	
<i>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.</i>	
Skill	Description
Reading	<ul style="list-style-type: none"> Interpret and consolidate key information in equine charts, reports and records
Writing	<ul style="list-style-type: none"> Enter data and observations into print-based or electronic record keeping systems accurately using industry terminology and dental encoded systems in English
Numeracy	<ul style="list-style-type: none"> Calculate ratios and volume relevant to mixing liquids and chemicals Estimate, calculate and record routine measures relating to equine oral care and dental treatments
Oral communication	<ul style="list-style-type: none"> Use listening and questioning techniques to convey and confirm information in English Use terminology and concepts appropriate for the audience

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
ACMEQD5X3 Perform equine dental treatment and oral care using appropriate instrumentation	ACMEQD405 Perform routine dental correction and oral care using manual instruments	Title changed Code updated to reflect work requirements and AQF level Prerequisite removed and horse safety embedded in unit Elements and performance criteria updated for clarity and industry currency Foundation skills table and assessment requirements updated	Not equivalent

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b75f4b23-54c9-4cc9-a5db-d3502d154103
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TITLE	Assessment requirements for ACMEQD5X3 Perform equine dental treatment and oral care using appropriate instrumentation
Performance Evidence	
<p>An individual demonstrating competency must satisfy all the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has:</p> <ul style="list-style-type: none"> • performed the following dental treatments and oral care on at least two occasions each, using appropriate manual and motorised instrumentation, over a total of at least 12 different equines: <ul style="list-style-type: none"> • addressed incisor malocclusions • removed supragingival calculus (tartar) from teeth • buffed or rounded canine teeth • removed digitally loose retained deciduous teeth • removed digitally loose wolf teeth (first premolars) or referred to a registered veterinarian • addressed malocclusions in the cheek teeth arcades and removed sharp points • profiled rostral aspect of #6 cheek teeth (second premolars). • assessed functionality of the masticatory system post treatment ensuring: <ul style="list-style-type: none"> • all corrections made to the teeth were done conserving the physiological integrity, anatomy and functionality of the teeth, including vital tooth has not been exposed and secondary dentin should maintain some brown coloration and not be taken so far that white dentine is visible • functional equilibration has been achieved and distribution of pressure and wear of mastication onto as many viable teeth as possible in order to maximise the longevity and integrity of the equine dentition has been achieved. • severe single tooth primary strikes are not present • secondary tooth strikes have been re assessed • transitions between protuberant and compromised teeth have been blended to allow for rostral/caudal movement of the mandible during mastication. <p>In completing dental treatments and oral care above, the individual must have (for each equine):</p> <ul style="list-style-type: none"> • assessed risks and prepared a safe environment for dental treatment • implemented infection control and hygiene procedures • determined need for sedation, and if required, advised owner to organise sedation, strictly according to relevant state/territory legislation • safely handled, positioned and supported equine, particularly if horse is sedated • used appropriate techniques with manual and motorised instrumentation to maintain and/or restore function to the dental arcades to an acceptable condition, considering masticatory function - noting that procedures undertaken on a sedated equine are under the responsibility of the registered veterinarian • explained treatment and post-treatment management to at least three owners or carers • updated dental and relevant records for each equine and client. 	
Knowledge Evidence	
<p>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:</p> <ul style="list-style-type: none"> • principles and practices for performing dental treatment and oral care, including: <ul style="list-style-type: none"> • use of manual and motorised instrumentation • current industry terminology used to describe dental conditions, treatment, and oral features • charting systems used to record equine dental information • anatomy and physiology of equine head and oral structures, including: <ul style="list-style-type: none"> • function and structures of equine mouth • normal and abnormal features • industry accepted anatomical guidelines for equine dental treatment • key requirements of relevant legislation, regulations and codes of practice for: <ul style="list-style-type: none"> • veterinary practice and restricted dental practices • treatments requiring referral to a registered veterinarian or other appropriate service provider 	

Knowledge Evidence

- supply, possession and use of restricted and controlled substances - Poisons Acts
- administration of sedatives to animals
- indicators of general equine health and signs of dental conditions, including:
 - common illness or injuries that may impact dental health
 - equine behavioural signs that may indicate dental problems
 - signs of infectious disease
- techniques used to restrain equines for dental treatment, including:
 - physical restrains
 - chemical restraints
- equine sedation (chemical restraint), including:
 - state/territory legislative requirements relating to acquiring sedatives and administering sedation to equines
 - role and responsibilities of registered veterinarians, clients and equine dental technicians relating to sedation of equines
 - general principles, indications, advantages and disadvantages, and side effects of sedation in equines for dental examination and treatment
 - clinical signs, lag phase and duration of effects relative to route of administration; side-effects of sedative drugs
 - consideration of equine patient status – breed, age, condition, pain, pregnancy, stallions
 - impact of adrenalin on sedation and contraindication to use of sedation when elevated significantly
 - time for sedatives to take effect and duration period
 - equine behaviour and responses to sedation and recovery
 - sedation reversal and risks to equine and handlers
 - identification where referral to a veterinarian is required for specialised sedation and analgesia; continuous rate infusion; local anaesthetic and/or regional nerve blocks
- use and requirements relating to local anaesthetic and nerve blocks
- techniques to safely assist attending veterinarians and others during sedation administration, dental diagnostic imaging or dental surgeries
- manual and motorised equine dental instrumentation, including:
 - purpose, operation, quality, longevity, and cost
 - usefulness, life span, maintenance and indicators of wear or redundancy
 - importance of adherence to instrument manufacturer instructions and maintenance specifications
 - techniques for safe use
 - technique used to minimise generation of heat from motorised instruments
- range of diagnostic, manual and motorised instrumentation and materials used in equine dentistry, including:
 - suspension/supporting systems
 - flushing and irrigation systems
 - speculums
 - mirrors, head lamps, cameras and associated equipment
 - manual instruments, including files, explorers, probes, picks, scalers, elevators, forceps, spreaders, extractors, floats and float inserts
 - motorised instruments, including GFI (ground fault interrupters) motors (240v and battery), drive shafts and sheaths, clutches, handpieces, burs, discs, drills, adaptors, water-cooled instrumentation, vacuum systems
 - dental restoration and emergency materials, oral washes, impression materials, packing materials
- post-dental treatment monitoring, management, and care
- potential complications due to iatrogenic effects, including:
 - unskilled assessment, techniques and treatments
 - trauma, including thermal trauma to dentition
- techniques used to:
 - rinse oral cavity to remove feed
 - examine oral cavity visually and manually
 - address incisors
 - address canines if present

Knowledge Evidence

- remove supragingival calculus (tartar) from teeth as necessary
- fit **and remove** dental speculum
- assess and remove digitally loose retained teeth and treat
- assess and remove wolf teeth (first premolars) and treat.
- address cheek teeth
- profile the rostral aspect of the #6 cheek teeth (second premolars)
- inspect oral cavity for evidence of injury caused during treatment
- determine rostral-caudal movement, lateral excursion and occlusion in relation to masticatory function
- key requirements of health and safety regulations and guidelines relating to:
 - risk assessment and control
 - safe handling techniques for catching, handling, controlling and restraining equines
 - safe work practices including manual handling and use of personal protective equipment (PPE)
 - storage of chemicals and medicines
- key requirements of hygiene and biosecurity procedures, relevant to:
 - personal hygiene and PPE
 - cleaning, disinfection or sterilisation of instruments, equipment and materials
 - safe biological and general waste disposal
 - equine infectious disease, notifiable diseases and quarantine procedures
 - zoonotic diseases **including Hendra**
- key animal welfare requirements relevant to safe, humane, and ethical care of horses or other equines.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - an equine workplace or an environment that accurately reflects performance in a real workplace setting
- resources, equipment and materials:
 - various live equines with a range of dental conditions and oral care needs specified in the performance evidence and assessed for suitability for skill level being assessed and safety of handler and equine - **noting that where equines need to be sedated, sedation must be administered by a registered veterinarian who has responsibility for the equine under sedation**
 - appropriate gear and equipment for handling and securing equines
 - manual and motorised dental instruments required to perform treatment and oral care
 - PPE correctly fitted and applicable for tasks
- relationships:
 - owners or carers of horses or other equines
 - registered veterinarians **for sedation of equines, as required.**

Two Companion Volumes are available:

- *Companion Volume: User Guide: Equine Allied Health* provides delivery and assessment information tailored for equine dental technicians and detailed guidelines relating to anatomical requirements and industry expectations.
- *Companion Volume: User Guide: Safety in Equine Training* provides advice and sample templates to assist assessors with the risk assessments that should be undertaken to help ensure the safety of all involved in the assessment.

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

Links

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