Comfort First: Analgesia and Palliative Strategies for the Aging Equine

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As the equine population ages, practitioners face growing challenges in managing chronic pain, mobility issues, and quality of life in geriatric horses.

This session offers a comfort-first approach to analgesia and palliative care.

Learning Objectives:

- Develop multimodal analgesic plans for aging horses with chronic pain.
- Assess quality of life and define appropriate goals of care in geriatric equine patients.
- Discuss palliative care options and end-of-life planning with owners.

Why This Matters

- Geriatric population increasing
- Better nutrition & dentistry → longer lifespans
- Owners more bonded than ever
- Economic polarization: elite retirees vs backyard companions
- Chronic pain cases now “routine” field calls

What Does “Comfort First” Mean?

- Shift from **performance-first → welfare-first**
- Realistic goals over heroic interventions
- Managing decline vs curing disease
- Veterinary role: clinician + translator + ethical compass

Quality of life

- Welfare
- Physical health
- Psychological state

- Requires more than a thorough clinical examination

The Aging Horse: What Changes?

- Sarcopenia
- Reduced hepatic/renal reserve
- Altered drug metabolism
- PPID & EMS prevalence
- Decreased resilience to stressors

Clinical implication:

Same drug ≠ same patient at 10 vs 28 years old

Owners' perceptions of quality of life in geriatric horses: a cross-sectional study

Published online by Cambridge University Press: **01 January 2023**

JL Ireland, PD Clegg, CM McGowan, JS Duncan, S McCall, L Platt and GL Pinchbeck Show author details

- Most owners report good–excellent QoL in geriatric horses, yet advancing age is associated with declining mobility, pain-limited activity, and difficulty lying down, rising, and eating.
- Owners view QoL as multidimensional—comfort, nutrition, and companionship matter alongside health.
- In major decisions, expected post-treatment QoL outweighs age or cost.
- A structured, practical QoL tool would support earlier intervention and clearer, welfare-focused euthanasia discussions.
- Most common reasons for euthanasia were colic (20%), lameness (20%) and chronic disease (19.2%).

Common Chronic Pain Sources

- OA (distal hock, fetlock, stifle, cervical facets)
- Chronic laminitis
- DSLD / suspensory degeneration
- Kissing spines
- Dental pain
- Neoplasia
- Chronic uveitis

Common Causes of Lameness in Aging Horses

Multifactorial contributors to mobility issues in geriatric equine.

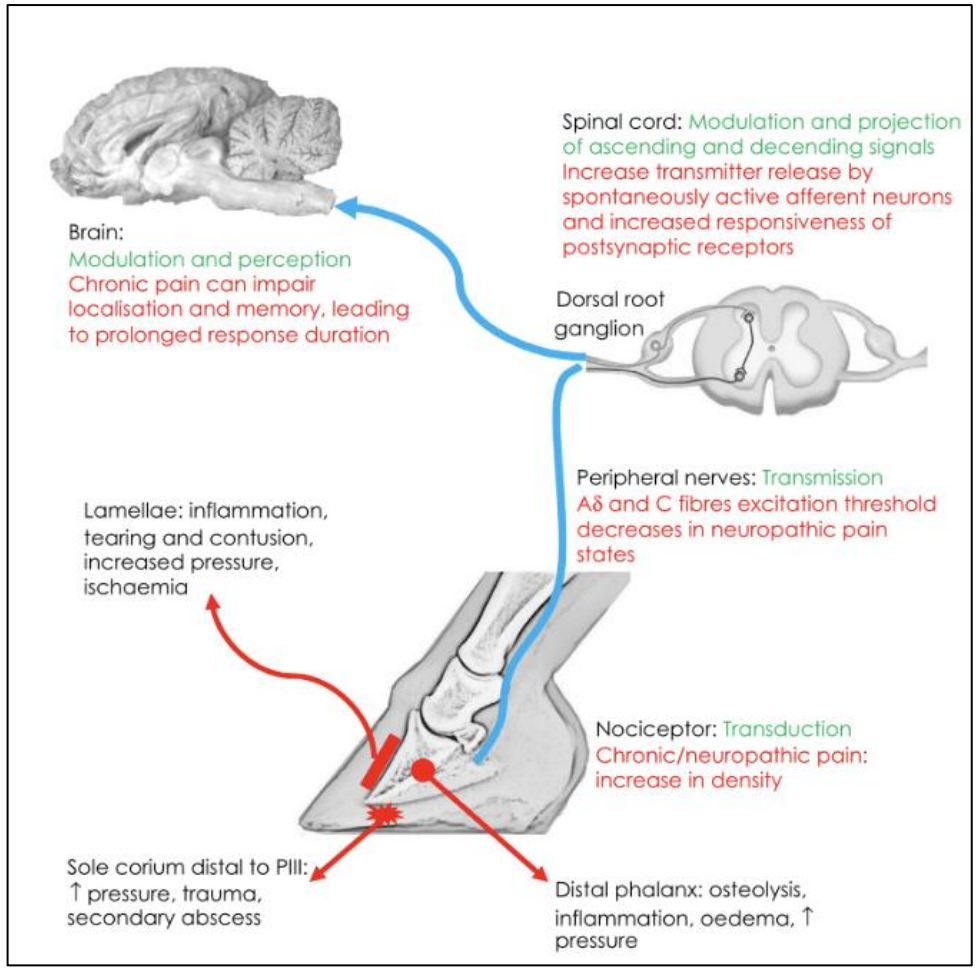
- **Osteoarthritis (OA)**
  Degeneration of joint cartilage, commonly impacting lower limb and spinal joints.
- **Degenerative Suspensory Ligament Desmitis (DSLD) / Chronic Laminitis**
  DSLD affects the suspensory apparatus, while chronic laminitis leads to hoof abnormalities and pain.
- **Chronic Soft Tissue Injuries**
  Degenerative changes in previously injured tendons and ligaments with impaired healing.
- **Navicular Syndrome**
  Degeneration within the hoof's podotrochlear apparatus, worsened by conformation and age.
- **Spinal Issues**
  Degenerative joint disease or disc disease in the vertebrae, potentially causing pain or neurological signs.
- **Muscle Atrophy and Weakness**
  Secondary to pain, disuse, or illness, leading to postural instability and gait
- **Other Contributing Factors**

Geriatric horses often present with multifocal disease, have a reduced ability to compensate for pain, and require a thorough diagnostic workup.

Pain in the Stoic Species

- Prey animal masking
- Behavioral changes > overt lameness
- Subtle indicators:
  - Reduced interaction
  - Reluctance to lie down
  - Delayed rising
  - Irritability during grooming

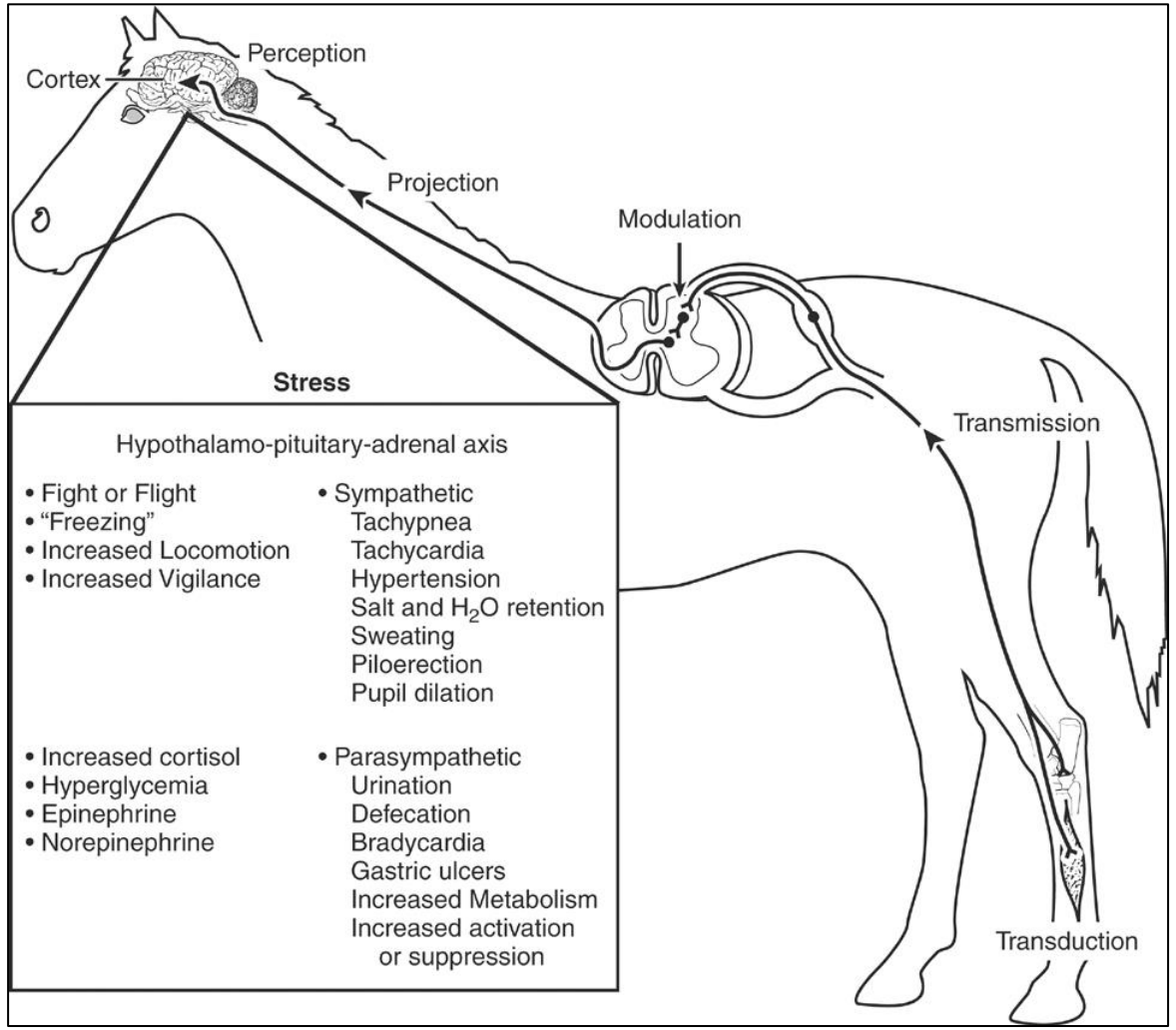
Nociception



Pain management for laminitis in the horse

*K. Hopster and A. W. van Eps**

Department of Clinical Studies, New Bolton Center, School of Veterinary Medicine, University of Pennsylvania, Kennett Square, Pennsylvania, USA
**Corresponding author email: vaneps@upenn.edu*



From: https://veteriankey.com/recognizing-and-treating-pain-in-horses/

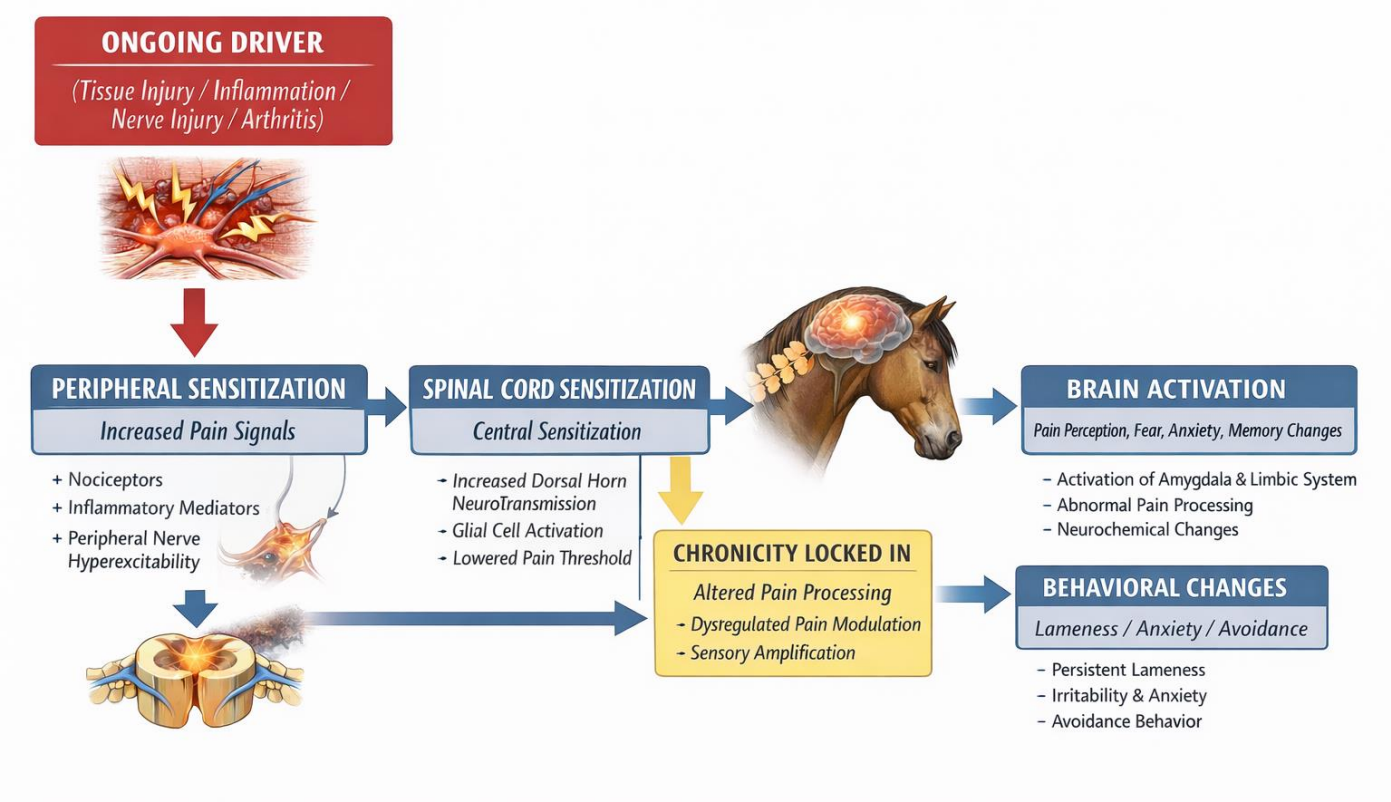
Acute vs. Chronic

Acute Pain Pathway

Transduction, Transmission, Modulation, Perception

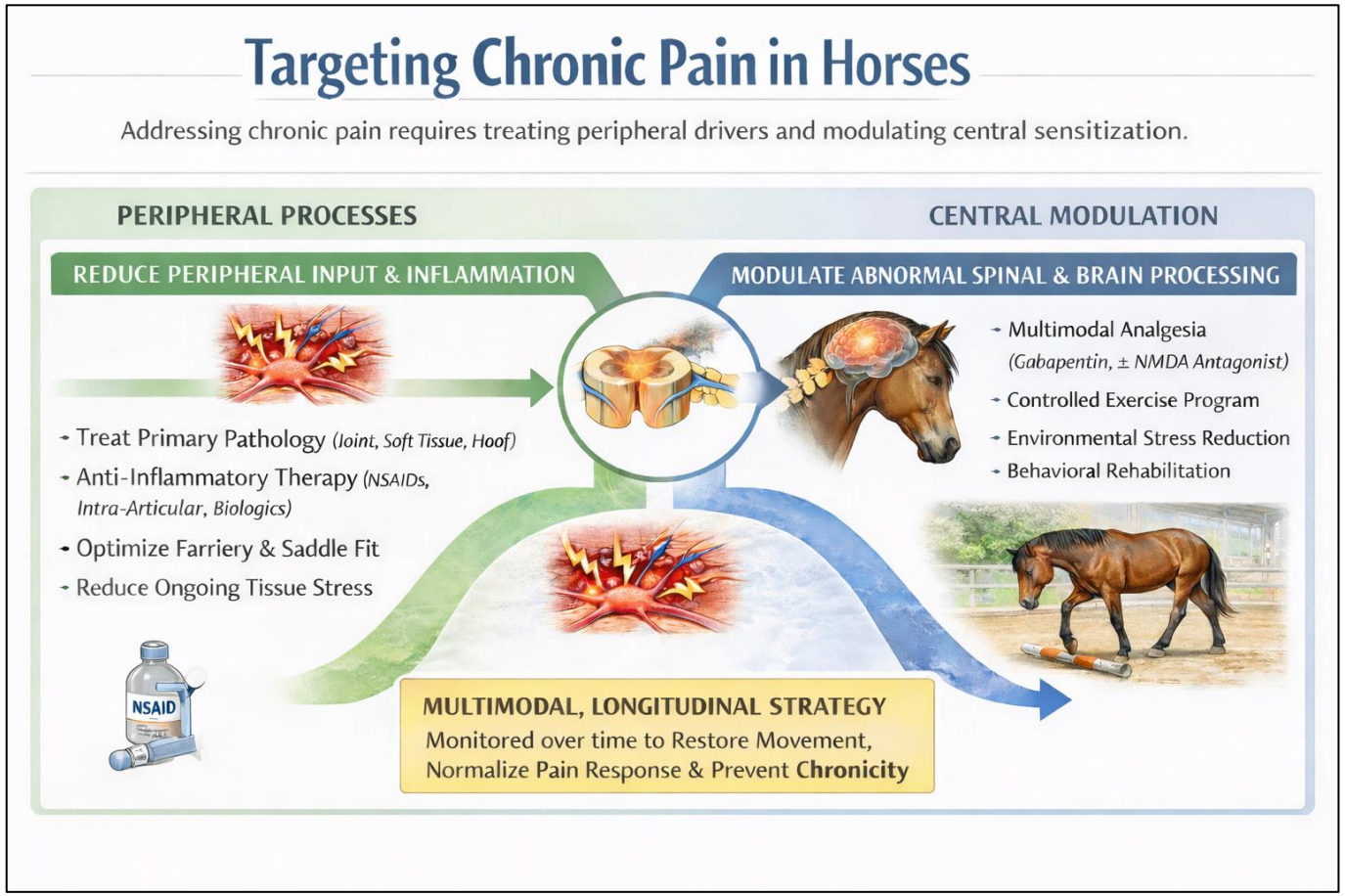
Chronic Pain Shifts

Central Sensitization, Peripheral Sensitization, Neuroplasticity



Principles of Multimodal Analgesia

- Target multiple pathways
- Reduce single-drug toxicity
- Improve functional comfort
- Titrate to effect



Inflammatory + neuropathic + central sensitization

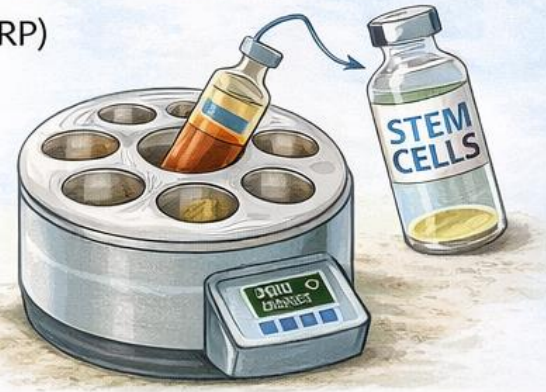
Multimodal Approach

CLASSES OF ANALGESIC DRUGS

- NSAIDs (Non-Steroidal Anti-Inflammatory Drugs)
- Gabapentinoids (Neuropathic Pain *(Gabapentin)*
- NMDA Antagonists *(Ketamine, Amantadine)*
- Alpha-2 Agonists *(Xylazine, Detomidine)*
- Opioids *(Morphine, Butorphanol)*
- Adjunctive Analgesics *(Amitriptyline, Tramadol)*

REGENERATIVE MEDICINE

- Platelet-Rich Plasma (PRP)
- Stem Cell Therapy
- Interleukin-1 Receptor *Antagonist Protein (IRAP)*



PHYSICAL THERAPY & REHABILITATION

- Controlled Exercise Programs
- Muscle Strengthening/Stretching Biometrics
- Manual Therapy

THERAPEUTIC MODALITIES

- Therapeutic Ultrasound: *Deep heating and pain relief:*
- Laser Therapy *(e.g. Class IV Laser):*
  Photobiomodulation to reduce inflarmation and pain, promote healing.
- Shockwave Therapy (ESWT):
  Primarily for trigger points, scar tissue and certain orthopedic conditions.
- Therapeutic Massage
- Relieve muscle tension & improve Tircu

NSAIDs

Inhibition of cyclooxygenase (COX) enzymes

- COX-1: Involved in prostaglandin synthesis for gastric protection, platelet aggregation, and renal blood flow.
- COX-2: Primarily induced during inflammation, mediating pain and fever.

Drug	COX Selectivity	Best Clinical Use	Route(s)	Strengths	Main Risks / Cautions
Phenylbutazone (Bute)	Non-selective	Musculoskeletal pain, lameness, OA	PO, IV	Strong orthopedic analgesia; inexpensive	Gastric ulcers; right dorsal colitis; renal risk (esp. chronic/high dose)
Flunixin Meglumine (Banamine®)	Non-sel				ulceration; renal compromise; may ask surgical colic
Ketoprofen	Non-sel				irritation; renal effects
Meloxicam	Preferential COX-2	Chronic musculoskeletal pain; mild–moderate inflammation	PO (suspension/paste), IV	Potentially improved GI safety for longer-term use	GI risk still present; dose accuracy important
Firocoxib	Selective COX-2	Chronic OA; long-term lameness management	PO (paste/tablet), IV	Once daily dosing; lower GI/renal risk vs non-selective NSAIDs	Renal risk if dehydrated; avoid NSAID stacking

Randomized Controlled Trial > Am J Vet Res. 2012 May;73(5):664-71.

doi: 10.2460/ajvr.73.5.664.

Evaluation of oral administration of firocoxib for the management of musculoskeletal pain and lameness associated with osteoarthritis in horses

James A Orsini [1], William G Ryan, Douglas S Carithers, Raymond C Boston

NSAIDs are crucial for equine pain management, but careful consideration of their mechanisms, specific uses, and potential side effects is essential for safe and effective therapy.

- Intermittent vs continuous dosing
- Lowest effective dose strategy
- Staggering vs combining
- Consider q48h dosing in stable OA
- Monitor creatinine, albumin= Renal compromise considerations

Opioids

- Opioids provide potent analgesia, particularly for severe pain.
- Act on opioid receptors (mu, kappa, delta) in the central and peripheral nervous system.
- Mu-receptor agonists are most potent for analgesia.

Considerations:

- Potential for central nervous system (CNS) side effects: excitement, sedation, dysphoria.
- Gastrointestinal effects: ileus, constipation.
- Tolerance and dependence with prolonged use.

Class	Drug	Key Notes
Full Mu-Agonist	**Morphine**	Effective for somatic & visceral pain; may cause CNS excitement/sedation and GI stasis
Full Mu-Agonist	**Fentanyl**	Very potent, short-acting; used as CRI for severe acute pain/anesthesia; transdermal absorption variable in horses
Partial Mu-Agonist / Kappa Agonist	**Butorphanol**	Visceral analgesia + some somatic; primarily kappa activity in horses; often combined with other analgesics; may cause dysphoria
Full Mu-Agonist	Hydromorphone	Potent analgesic; often less sedation & GI effects than morphine; used for severe pain (colic, lameness)
Full Mu-Agonist	Oxymorphone	Similar to hydromorphone; potent analgesic for severe pain

Alpha-2 Adrenergic Agonists

Xylazine, Detomidine, Romifidine, Dexmedetomidine:

- Primarily used for sedation and analgesia.
- Provide visceral and somatic analgesia. Can cause bradycardia, hypotension, and sedation.
- Often used for short-term procedural pain relief or as part of balanced anesthesia. Their analgesic effects are shorter-lived than their sedative effects.

NMDA Receptor Antagonists

Ketamine

- Blocks N-methyl-D-aspartate (NMDA) receptors, which are involved in central sensitization and wind-up phenomenon.
- Useful for managing neuropathic pain and chronic pain states. Often administered as a CRI (e.g., low-dose continuous infusion) to reduce tolerance and hyperalgesia. Can be given IM at intervals.
- Can cause psychomimetic effects and increase heart rate/blood pressure.

Gabapentinoids

- **Gabapentin:** An anti-epileptic drug that modulates calcium channels and reduces neurotransmitter release. Effective for neuropathic pain and chronic pain.


Vet Anaesth Analg. 2020 Mar;47(2):259-266. doi: 10.1016/j.vaa.2019.11.003. Epub 2019 Dec 4.

Efficacy of orally administered gabapentin in horses with chronic thoracic limb lameness

Jenna M Young [1], Mike J Schoonover [2], S Logan Kembel [1], Jared D Taylor [3], Anje G Bauck [1], Lyndi L Gilliam [1]


STANDARD ARTICLE | Open Access

Pharmacokinetics and pharmacodynamics of repeat dosing of gabapentin in adult horses

Jenifer R. Gold, Tamara L. Grubb, Sherry Cox, Lais Malavasi, Nicholas L. Villarino

- **Pregabalin:** Similar mechanism to gabapentin with potentially higher bioavailability and efficacy.

- Often require gradual dose titration and may take weeks to reach full effect.

Muscle Relaxants

- **Methocarbamol:** Used to relieve skeletal muscle spasms that can contribute to pain. Often used adjunctively for back pain or colic-related spasm.

Adjunct Pharmacologic Options

- Bisphosphonates (case selection!)
- Corticosteroids (systemic caution in PPID)
- Intra-articular therapy - when is it worth it?
- Tramadol (variable bioavailability, no great analgesia?)
- Amitriptyline (emerging)
- Mesotherapy

JOURNAL OF Veterinary Pharmacology and Therapeutics

SHORT COMMUNICATION | Full Access

Pharmacokinetic study of oral amitriptyline in horses

Lucciana Recchi, Silvana Alvariza, Alejandro Benech, Natalie Ruiz, María José Estradé, Gonzalo Suarez, Nadia Crosignani

First published: 27 April 2020 | https://doi.org/10.1111/jvp.12870 | VIEW METRICS

Bisphosphonates

Tiludronate "Tildren" 500 mg vial of powder

- 1 mg/kg for 500kg horse = 500 mg (1 large vial)
- Reconstitute to 20mg/ml, then dilute for administration in 1L of NaCl
- Give IV slowly over 90 minutes
- Colic signs relatively common, give buscopan if needed

Caution: Nephrotoxic!

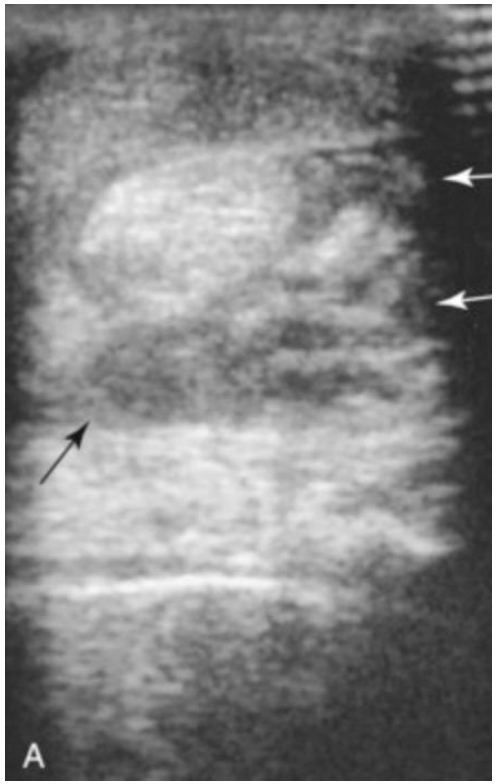
Clodronate "Osphos" 60mg/ml injectable in 15ml vial; **<u>$260/vial @ ENFAH</u>**

- 1.8 mg/kg for 500kg horse = 900mg (3 vials)
- 900mg max dose, IM (divided into 3 sites)
- Peak clinical effect at 2mo, effective up to 6mo for majority of patients
- Redose at 3- 6mo intervals

Coudry, 2007

Orthobiologic Treatments

Leverage horse's own biology to aid in healing.



***Goal*:** Speed and improve healing (regeneration, strength, organization) of tissue that would otherwise scar.

Treatments

1. Draw blood into commercial syringe
2. Process with spinning cycles
3. Obtain concentrated growth factors and anti-inflammatory proteins

- **Platelet rich plasma**
- **Alpha-2-macroglobulin**
- **Stem cells**
- **ProStride** (autologous conditioned protein solution)
- **IRAP** (autologous conditioned plasma)

Cell Signaling!

PRP

IRAP

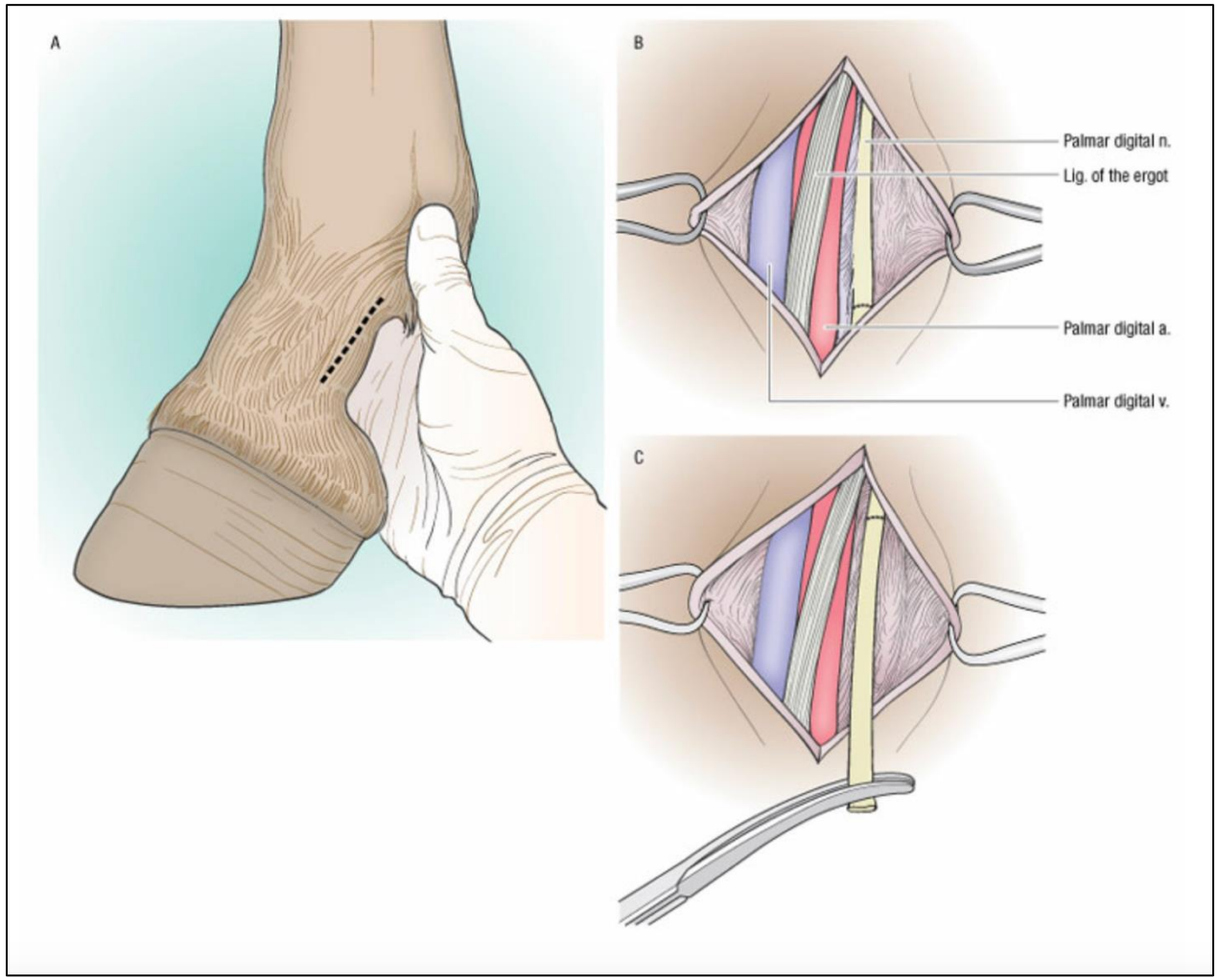
Physical Therapy and Rehabilitation

- **Laser Therapy (e.g., Class IV Laser):** Photobiomodulation to reduce inflammation and pain, promote healing
- **Shockwave Therapy (ESWT):** Primarily for trigger points, scar tissue, and certain orthopedic conditions
- **Therapeutic Massage:** Relieve muscle tension and improve circulation
- **Therapeutic Taping/Kinesiology Taping:** Potential to improve lymphatic drainage, support muscles, and facilitate movement
- **Acupuncture**

Trager *et al*, 2019

Surgical options

- Neurectomy
- Cryoablation in the future?



Supportive Therapies

Physical Therapy and Rehabilitation

Tailored programs including therapeutic exercise, stretching, and modalities like ultrasound, laser, shockwave therapy, massage, and taping to improve strength, flexibility, and reduce pain

Environmental Modifications

Creating a supportive environment with stable, non-slip surfaces, managed turnout, and appropriate dietary management including supplements and weight control

Therapeutic Shoeing/ Foot Care

Corrective trimming and shoeing to balance limb and joint forces, crucial for managing chronic pain

Dietary Management

Balanced Nutrition
Joint Supplements
Weight Management

Beyond medication, supportive care is fundamental to managing chronic pain and improving quality of life.

Palliative Care and Quality of Life Assessment

Shifting focus from cure to comfort and quality of life is essential for aging horses.

Defining Quality of Life (QoL):

- Subjective and objective assessment of the horse's well-being.

Goals of Care:

- Collaborative discussion with owners to establish realistic expectations.
- Focus on: Alleviating pain, maintaining mobility, ensuring comfort, preventing suffering.
- Moving away from 'cure' to 'care'

Palliative Care Strategies:

- Continuous assessment and management of pain.
- Nutritional support.
- Environmental enrichment.
- Minimizing stress.
- Focus on "good days" vs. "bad days."

DEFINING QUALITY OF LIFE

What Is Quality of Life in a Horse?

- Mobility
- Social engagement
- Appetite
- Ability to lie down & rise
- Freedom from distress
- Contrast: Performance capacity ≠ QOL

Tools for Assessment

✅ Use **pain scales** for objective assessment

✅ Integrate **owner-reported QoL questionnaires** for longitudinal insight

✅ Combine **objective metrics + clinical judgment- Veterinary assessment**

✅ Track longitudinal trends — *QoL is a process, not a single snapshot*

Objective composite pain scoring tool validated for acute colic and other acute pain states: EQUUS-COMPASS and EQUUS-FAP Pain Scales *(van Loon 2015)*

Data	Categories	Score
Physiological data Heart rate	24–44 beats/min 45–52 beats/min 53–60 beats/min >60 beats/min	0 1 2 3
Respiratory rate	8–13 breaths/min 14–16 breaths/min 17–18 breaths/min >18 breaths/min	0 1 2 3
Rectal temperature	36.9 °C–38.5 °C 36.4 °C–36.9 °C or 38.5 °C–39.0 °C 35.9 °C–36.4 °C or 39.0 °C–39.5 °C 35.4 °C–35.9 °C or 39.5 °C–40.0 °C	0 1 2 3
Digestive sounds	Normal motility Decreased motility No motility Hypermotility or steel band	0 1 2 3
Behaviour Posture	Quietly standing and/or one hind leg resting, explores environment Slightly tucked up abdomen, still explores environment (with possible unrest) Extremely tucked up abdomen, hunched back and/or stretching of body/limbs Does not stand or for short amounts of time (<1 min), sits on hindquarters	0 1 2 3
Laying down, rolling	Does not lie down or rests lying down Lies down in normal posture, rolls or tries to roll (once or twice/5 min) Alternates lying down and standing, rolls or tries to roll (more than twice/5 min) Constantly lies in an abnormal position: on its side with stretched limbs, on its back, or does not stop rolling	0 1 2 3
Sweating	No signs of sweating Warm or damp to touch, no sweat or wet spots visible Wet spots visible, no droplets or streams Excessive sweating, may include streams or droplets	0 1 2 3
Tail flicking (excluding flicking to chase off insects)	No tail flicking Occasional tail flicking (once or twice/5 min) and/or holds tail away from body Frequent tail flicking (three to four times/5 min), may hold tail away from body Excessive tail flicking (more than five times/5 min)	0 1 2 3
Kicking at abdomen	Quietly standing, no kicking Occasional kicking at abdomen (once or twice/5 min) Frequent kicking at abdomen (three to four times/5 min) Excessive kicking at abdomen (more than five times/5 min)	0 1 2 3
Pawing at floor (number of episodes)	Quietly standing, does not paw at floor Occasional pawing at floor (once or twice times/5 min) Frequent pawing at floor (three to four times/5 min) Excessive pawing at floor (more than five times/5 min)	0 1 2 3
Head movements	No fast movements, head mostly at same height/in same direction Occasional head movements laterally/vertically, looking at flank (once or twice/5 min) Frequent/fast head movements laterally/vertically, looking at flank (three to four times/5 min) Excessive head movements, excessive looking at flank (more than five times/5 min), biting at flank (more than once/5 min)	0 1 2 3
Pain sounds	No audible signs of pain Occasional teeth grinding or moaning (once or twice/5 min) Frequent teeth grinding or moaning (three to four times/5 min) Excessive teeth grinding or moaning (more than five times/5 min)	0 1 2 3
Overall appearance, reaction to observer(s)	Quiet but alert, approaches/turns to observer Alert, no reluctance to move, obvious reaction to sounds and/or movements Restless, constantly moving, exaggerated reaction to sounds and/or movements Stupor: the horse is not moving, head is lowered, reluctance to move	0 1 2 3
Reaction to palpation of painful area in the flank	No reaction to palpation Mild reaction to palpation Resistance to palpation Violent reaction to (attempt to) palpation	0 1 2 3

Article

Objective Assessment of Chronic Pain in Horses Using the Horse Chronic Pain Scale (HCPS): A Scale-Construction Study

Johannes P. A. M. van Loon [1,*] and Lucia Macri [2]

Table 2. Horse Chronic Pain CPS (Composite Pain Scale).

1. General appearance	**Score**	**8. Body Condition Score (BCS, scale 1–5, derived from Brooke Hospital)**	
Alert and/or is interacting with mate/group	0	Normal BCS (3/5)	0
Mildly depressed and/or restless and/or decreased interaction with group mate/group	1	Increased or decreased BCS (2/5 or 4/5)	1
Moderately depressed and/or aggressive or no reaction mate/group	2		
Severely depressed (not responding to very clear and obvious signals like movement or sound)	3	Severely increased or decreased BCS (1/5 or 5/5)	3
2. Body posture	**Score**	**9. Muscles (epaxial, gluteal, hamstring and cervical muscles)**	**Score**
Quietly standing and/or one hind leg resting	0	Symmetric muscles, no muscle loss	0
Slightly tucked up abdomen	1	Mild muscle loss	1
Extremely tucked up abdomen and/or hunched back and/or stretching limbs/body and/or mild muscle tremors	2	Moderate muscle loss	2
Extremely tucked up abdomen and/or hunched back and/or stretching limbs/body and extreme muscle tremors	3	Obvious (a)symmetric muscle loss	3
3. Weight distribution	**Score**	**10. Reaction to observer(s)**	**Score**
Normal weight distribution (including resting a hindlimb)	0	Reaction to observer(s) and ear movements towards observer	0
Less weight on one leg and/or body displaced slightly backwards	1	Mild decreased reaction or ear movements to observer(s)	1
Less weight on one leg, with only the tip on the ground	2	Moderate decreased reaction or ear movements to observer(s)	2
One leg obviously lifted and/or body obviously displaced backwards	3	No reaction or ear movements to observer(s)	3
4. Weight shifting of front and hind limbs	**Score**	**11. Pressure sores on skin**	**Score**
Not seen	0	No pressure sores on skin	0
Mild weight shifting,	1	Mild pressure sores on skin	1
Moderate weight shifting	2	Moderate pressure sores on skin	2
Severe weight shifting	3	Severe pressure sores on skin	3
		to bite)	
6. Eating (present food)	**Score**	**13. Pain reaction to standardised flexion of front and hind limbs** (performed by picking up the limb and bringing it gently to flexion of fetlock, carpal/tarsal joints and knee or shoulder/elbow joints.)	**Score**
Interested and eats normally or fast	0	No reaction to standardised flexion of limbs	0
Reluctant to take food, but eats normally	1	Mild reaction to standardised flexion of limbs	1
Reluctant to take food and drops the food	2	Moderate reaction to standardised flexion of limbs	2
Not interested in food	3	Severe reaction to standardised flexion of limbs	3
7. Changes in behaviour to partner/group	**Score**	**14. Carrot/apple test**	**Score**
Horse is in the group	0	Normal biting and eating of carrot/apple	0
Horse is not in the group, but with his/her mate	1		
		Reluctant to or difficulties with eating carrot/apple	2
Partner/group leaves or has left patient (excluding herd behaviour)	3	Does not want to eat the carrot/apple	3
		15. Movement	**Score**
		No reluctance to move and normal gait	0
		Mildly abnormal gait (1 or 2 out of 5 lameness AAEP scale *) and/or stiff walk, not reluctant	1
		Reluctance to walk when motivated and/or severely abnormal gait (3 to 5 out of 5 lameness AAEP scale)	2
		Does not want to walk or is lying down	3
	Total Composite Pain Score		**/45**

Create your own for your clients

Equine Quality of Life (QoL) Scoring Sheet

Score each category from 0–3. 0 = Normal/Good, 1 = Mild concern, 2 = Moderate concern, 3 = Severe concern. Track trends over time (weekly/monthly).

Category	0	1	2	3	Notes
Pain (HGS or Composite Scale)					
Mobility (Rise/Ambulate Safely)					
Body Condition / Weight Trend					
Appetite & Hydration					
Social Interaction / Interest					
Response to Analgesia					
Overall Trend (Improving/Stable/Declining)					

Interpretation Guide:
0–5: Good QoL
6–12: Monitor closely; adjust management
13+: Significant welfare concern; reassess treatment goals and discuss humane options

Clinical Tip: Single scores are less informative than trends. Reassess regularly and document changes to support objective decision-making.

Communication and End-of-Life Planning

Navigating sensitive conversations with empathy, clarity, and ethical consideration.

Includes empathy, active listening, honest and clear information, setting realistic expectations, and empowering owners in decision-making.

Defining limits for aggressive treatments, veterinarian's role in preventing suffering, and acknowledging the human-animal bond.

Discussing euthanasia as a humane option, different methods, grief support, and advance care planning.

Considering the horse's quality of life, potential for suffering, and owner's capacity and resources.

Communication and End-of-Life Planning

Address the Three Hidden Drivers

Most euthanasia decisions are influenced by three factors:

1. Suffering

Is the horse in persistent pain or distress?

2. Safety

Is the horse at risk of catastrophic injury (e.g., unstable laminitis, inability to rise)?

3. Sustainability

Can the owner physically, emotionally, and financially maintain care?
It is important to give owners' permission to acknowledge sustainability.

"Loving him doesn't mean you must be able to manage this forever."
This can reduce shame.

When Are We Prolonging Suffering?

- Ethical thresholds
- Persistent recumbency
- Refractory laminitis
- Recurrent colic in frail geriatric
- Uncontrolled neoplastic pain
- Are we treating the owner or the horse?

Communication and End-of-Life Planning

Planning

Normalize the Complexity

Multiple overlapping issues:

- Chronic laminitis
- Severe osteoarthritis
- PPID complications
- Recurrent colic
- Weight loss or muscle wasting

Decline is rarely dramatic — it's incremental. Owners adapt slowly, sometimes without realizing how much the horse's world has shrunk.

"Compared to a year ago, what can he no longer do comfortably?"

This allows owners to recognize change without feeling accused of missing it

Communication and End-of-Life Planning

Avoid the "Too Late" Scenario

Waiting too long can mean:

- A catastrophic laminitic breakdown
- A recumbent horse that cannot rise
- An emergency euthanasia in poor conditions

"*One of the kindest gifts we can give is a controlled, peaceful end, rather than waiting for a crisis.*"

Owners often find relief in hearing that planning can be an act of love.

Communication and End-of-Life Planning

Navigating sensitive conversations with empathy, clarity, and ethical consideration.

How to Start the Conversation

Language examples:

Instead of: “Nothing more we can do”

“We can shift our goal from fixing to keeping her comfortable.”

Framework:

- Acknowledge attachment
- Clarify goals
- Present options
- Discuss financial reality without shame

Setting Expectations

Be explicit about:

- Likely progression
- Warning signs
- Emergency scenarios
- When you’d recommend euthanasia

Prepare Them for the Process

Briefly explain:

Sedation first

Calm, painless procedure

Aftercare options

Removing uncertainty reduces fear

Conclusion: Prioritizing Comfort

A comfort-first approach optimizes the lives of aging equine patients.

Integrated Therapies

Combining pharmacologic, regenerative, supportive, and palliative strategies for holistic management.

Tailored Care Plans

Individualizing treatment based on each horse's specific needs, response, and owner's capabilities.

Empathetic Communication

Building trust with owners through open, honest, and compassionate dialogue.

Ethical Commitment

Upholding the highest standards of animal welfare in all decision-making processes.

Future Research

Advancing research in novel analgesics, regenerative therapies, and improved pain assessment tools.

Owner Education

Expanding resources for owner education and support to enhance care.

Prioritizing comfort through integrated therapies, tailored care, empathetic communication, and ethical commitment optimizes the lives of aging equine patients, supported by ongoing research and owner education.

Take-Home Messages

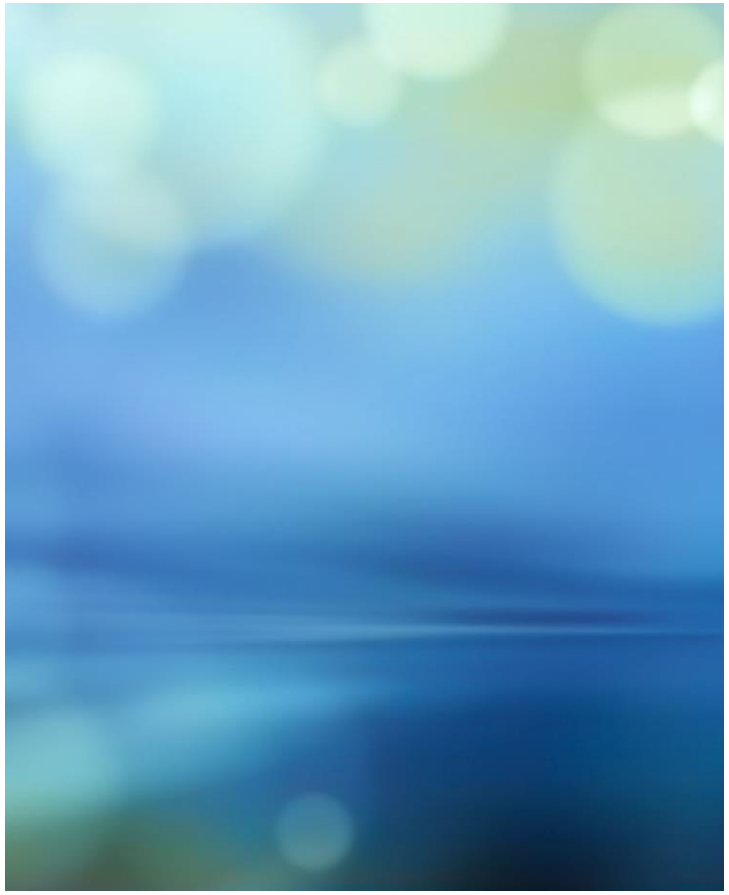
Multimodal analgesia > escalating single drug

Comfort and function define success

Quality-of-life scoring protects everyone

Early palliative conversations prevent crisis decisions

A peaceful end is not a failure



https://blogs.cornell.edu/comparativepain/