MEDICAL MANAGEMENT OF CANINE CHIARI-LIKE MALFORMATION ASSOCIATED PAIN (CM-P) / SYMPTOMATIC SYRINGOMYELIA (SM-S)

**CM-P**
- NSAIDs
  - CONTINUING PAIN
    - Add / Switch to GABAPENTIN
    - PREGABALIN (Switch from gabapentin)
    - Alter polypharmacy / add additional drug (aim for as few drugs as possible)

**SM-S associated PHANTOM SCRATCHING**
- GABAPENTIN
  - CONTINUING Phantom Scratching
    - CONTINUING PAIN
      - PREGABALIN (Switch from gabapentin)
      - REFERRAL for more medical options and / or SURGICAL MANAGEMENT

**SM-S associated GAIT ABNORMALITIES**
- Weakness & postural deficits
  - PHYSIOTHERAPY e.g. HYDROTHERAPY
    - CONSIDER REFERRAL / SURGICAL MANAGEMENT
      - (POSSIBLE) CSF REDUCING DRUGS
        - • Cimetidine or
        - • Omeprazole or
        - • Acetazolamide

**CONTINUING GAIT ABNORMALITIES**
- Weakness & postural deficits
  - CONSIDER REFERRAL / SURGICAL MANAGEMENT
  - CORTICOSTEROIDS (Considered last resort)

**COMPLEMENTARY THERAPY e.g. ACUPUNCTURE**
- PARACETAMOL For “top-up” medication during break through pain

**Clinical signs**
- CM-P - vocalization, head scratching/rubbing, reduced activity, reduced stairs / jumping ability, spinal pain, altered emotional state (behavioural change to more timid, anxious or aggressive), sleep disturbance and touch aversion
- SM-S - phantom scratching, gait abnormalities (weakness and postural deficits or reduced ability to know where limb is in space) and scoliosis (no medical options for scoliosis)

**Drug dosages**
- **Acetazolamide** see formulary for full details and contraindications; short term use only
- **Amantadine** 3-5mg/kg PO SID
- **Amitriptyline** – see formulary for details and contraindications
- **Cimetidine** 5-7mg/kg PO TID
- **Corticosteroids** - Prednisolone / methylprednisolone 0.5mg/kg PO SID then decrease to lowest possible ideally alternate day dose that controls signs
- **Gabapentin** 10mg/kg PO BID (can increase up to 20mg/kg TID)
- **Memantine** see formulary for full details and contraindications
- **NSAIDs** (non-steroidal anti-inflammatory drugs) – see compendium or formulary
- **Omeprazole** 0.5-1.5mg/kg PO SID
- **Paracetamol** 10mg/kg on as per needed basis up to three times daily
- **Pregabalin** 5mg/kg PO BID / TID
- **Topiramate** 10mg/kg TID

**Other Points to consider**
- None of drugs listed are licensed for veterinary medicine (with exception of NSAIDs and cimetidine). No drug is licensed with a specific indication for CM-P or SM-S. For more information regarding this read here.
- The effect of omeprazole and cimetidine on cerebrospinal fluid production is unproven, the benefit anecdotal and recently disputed by scientific articles.
- Haematology & biochemistry should be monitored at least every 12 months if receiving long-term medication.
- Drugs are given a 2-4 week trial to assess effectiveness except Amantadine / Memantine and Amitriptyline which may require longer.
- All drugs should only be prescribed by a veterinary surgeon who should refer to a formulary for drug adverse effects / drug interactions / titration and tapering details.