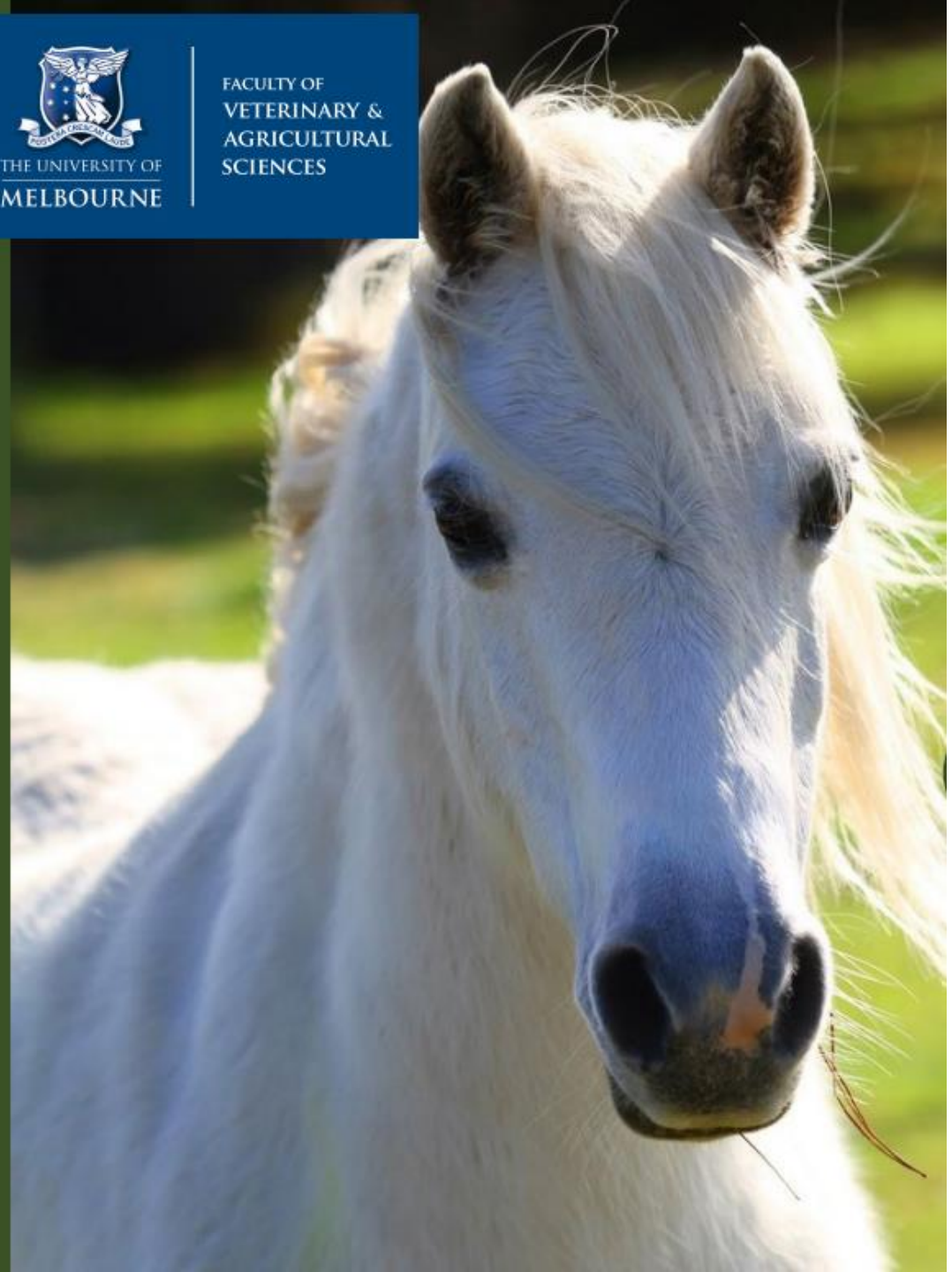


Misty the Pony

Case Study 1
Wrap-Up Session
March 23 & 30, 2023

Intended Learning Outcomes

Is it just because she's so old?!

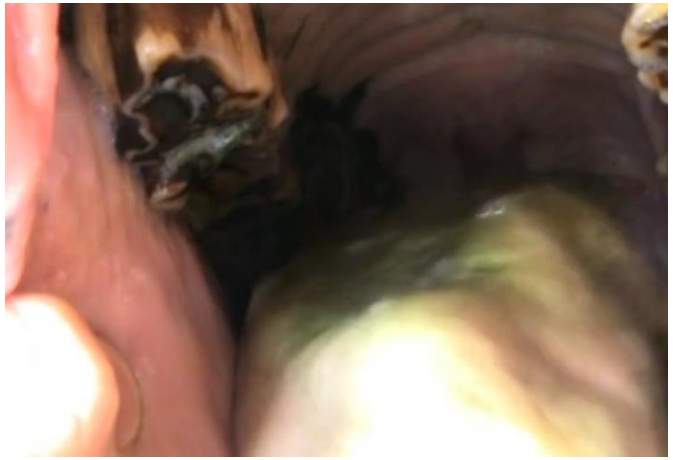
This case study is designed to enhance your understanding of:

- The role of the incisors and molars of the horse in prehension and mastication of food
- The importance of appropriate mechanical digestion of food in the mouth in achieving adequate nutrient absorption
- The effects of ageing and wear on dentition in the horse
- The secretory output of the salivary glands in a horse
- The consequences of acute obstruction of the oesophagus
- Factors to consider in the management of the elderly horse

Initial presentation

- Weight loss
  - Insufficient intake
  - Failure to absorb nutrients
  - Poor nutrient quality
  - Increased energy demand (illness, neoplasia)
  - Parasite burden
- TPR WNL
- Worn incisors – dental examination

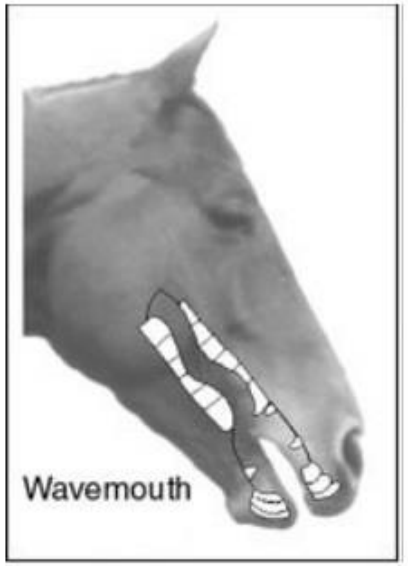
Misty dental examination



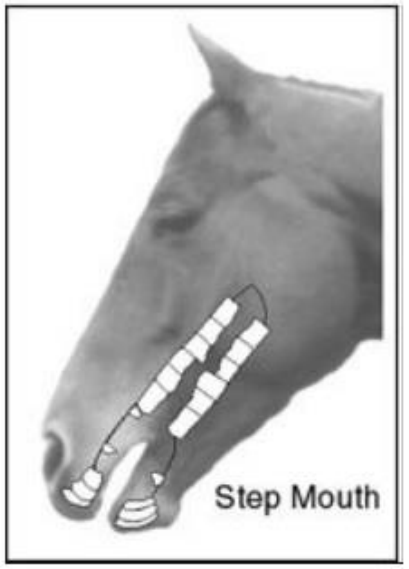
Dental “wear and tear”

Other images were provided for reference:

- ‘Wave mouth’
- Missing teeth
- ‘Step mouth’



Gradual undulation in level of cheeck teeth



Sudden change in level of cheek teeth, associated with missing teeth or uneven wear on opposing cheek teeth

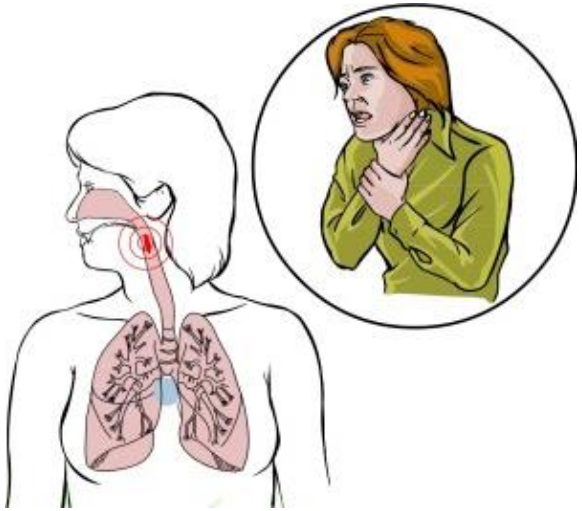
Management of the older horse with poor dentition

- Easy prehension and mastication
  - Fibre length
- Highly digestible
  - Fibre
  - Protein

- What is “quidding”?

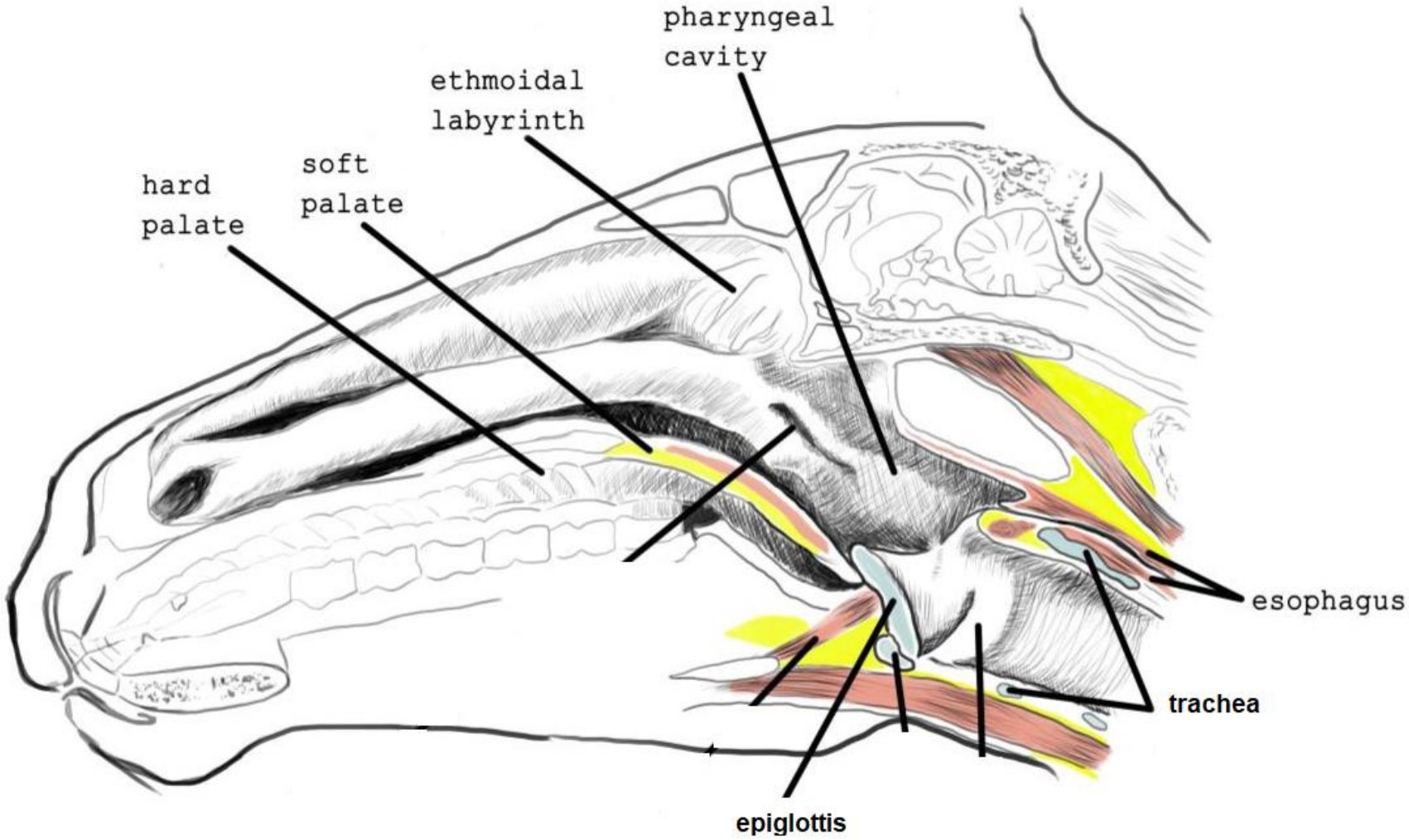
Choke in horses

- What do most people think of when they hear the term “choke”?
    - Tracheal obstruction – immediate life-threatening emergency due to asphyxiation



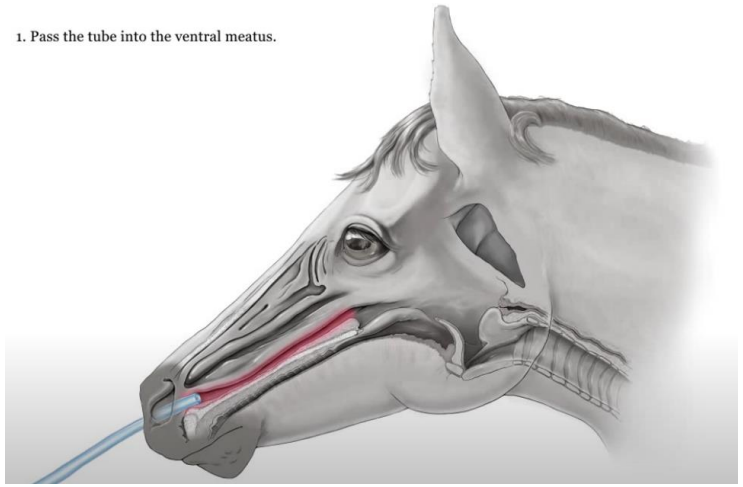
- What does “choke” mean in equine veterinary medicine?
    - Oesophageal obstruction – still a medical emergency, but not immediately life-threatening

Why foamy nasal discharge?

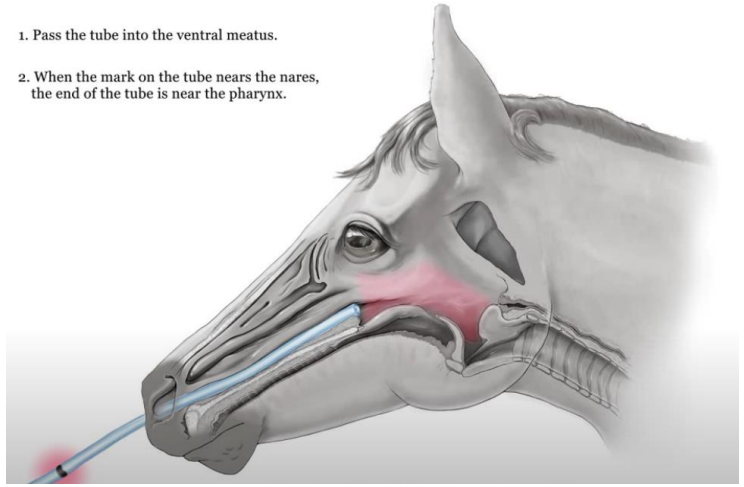


Passing a nasogastric tube in a horse

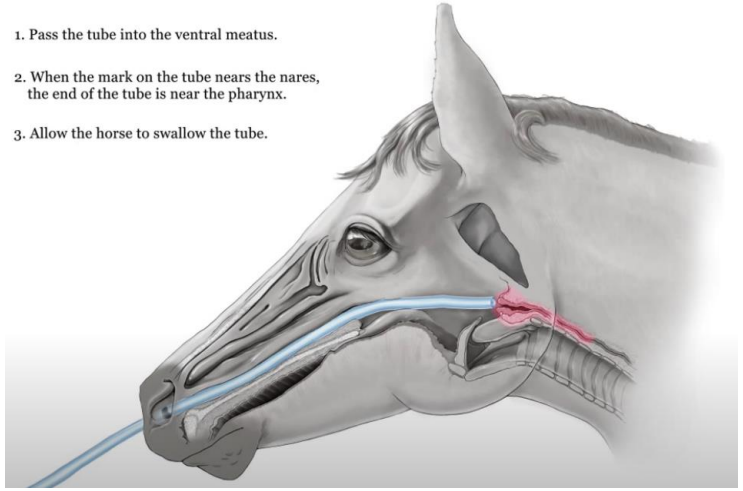
1. Pass the tube into the ventral meatus.



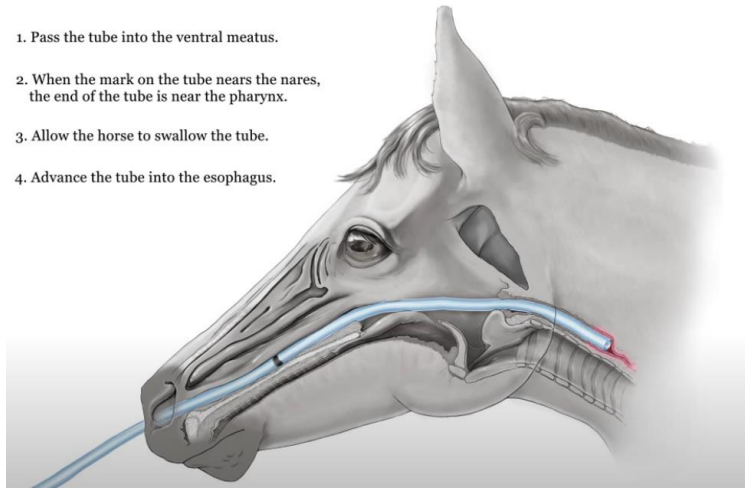
1. Pass the tube into the ventral meatus.
2. When the mark on the tube nears the nares, the end of the tube is near the pharynx.



1. Pass the tube into the ventral meatus.
2. When the mark on the tube nears the nares, the end of the tube is near the pharynx.
3. Allow the horse to swallow the tube.

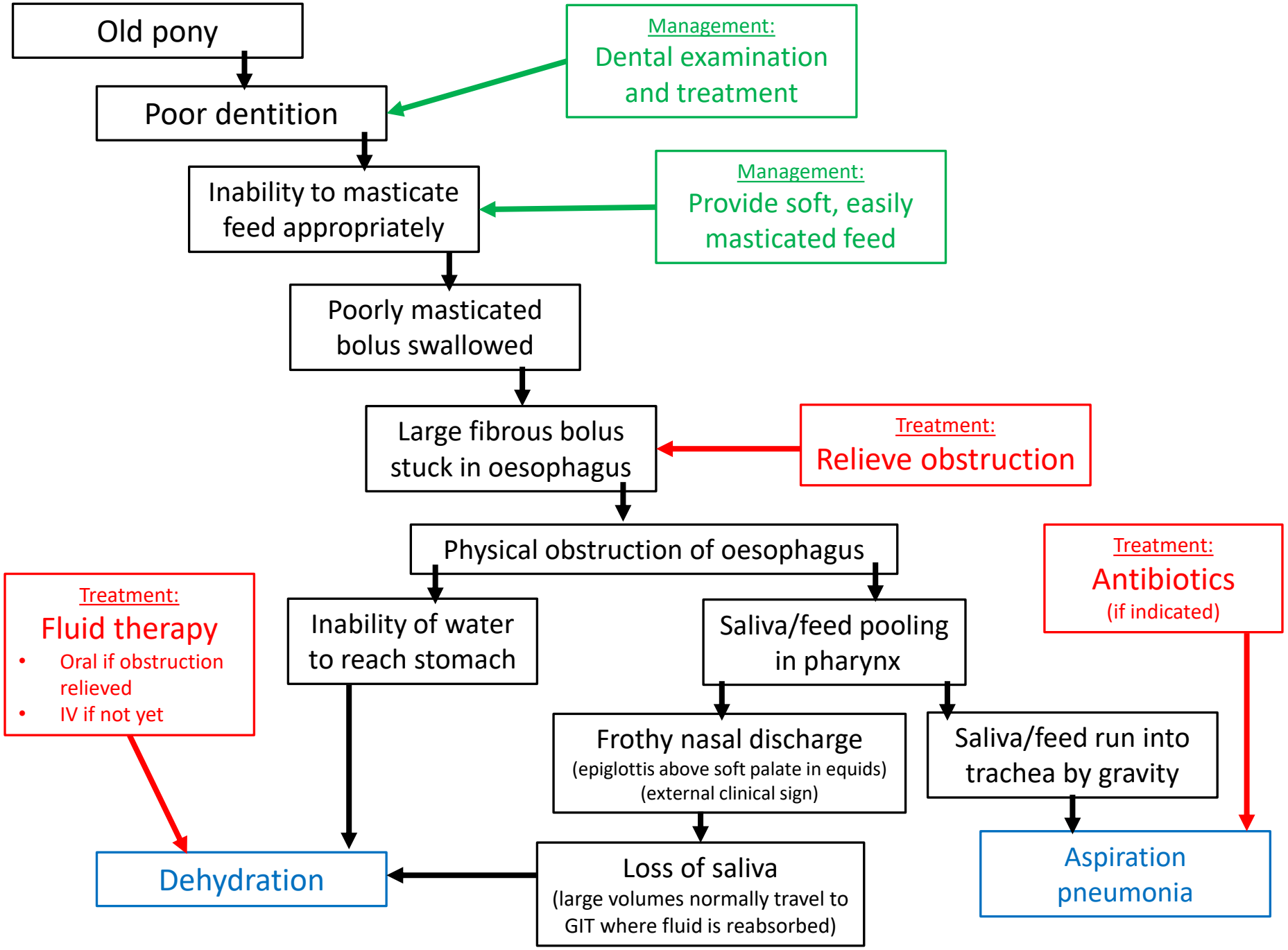


1. Pass the tube into the ventral meatus.
2. When the mark on the tube nears the nares, the end of the tube is near the pharynx.
3. Allow the horse to swallow the tube.
4. Advance the tube into the esophagus.



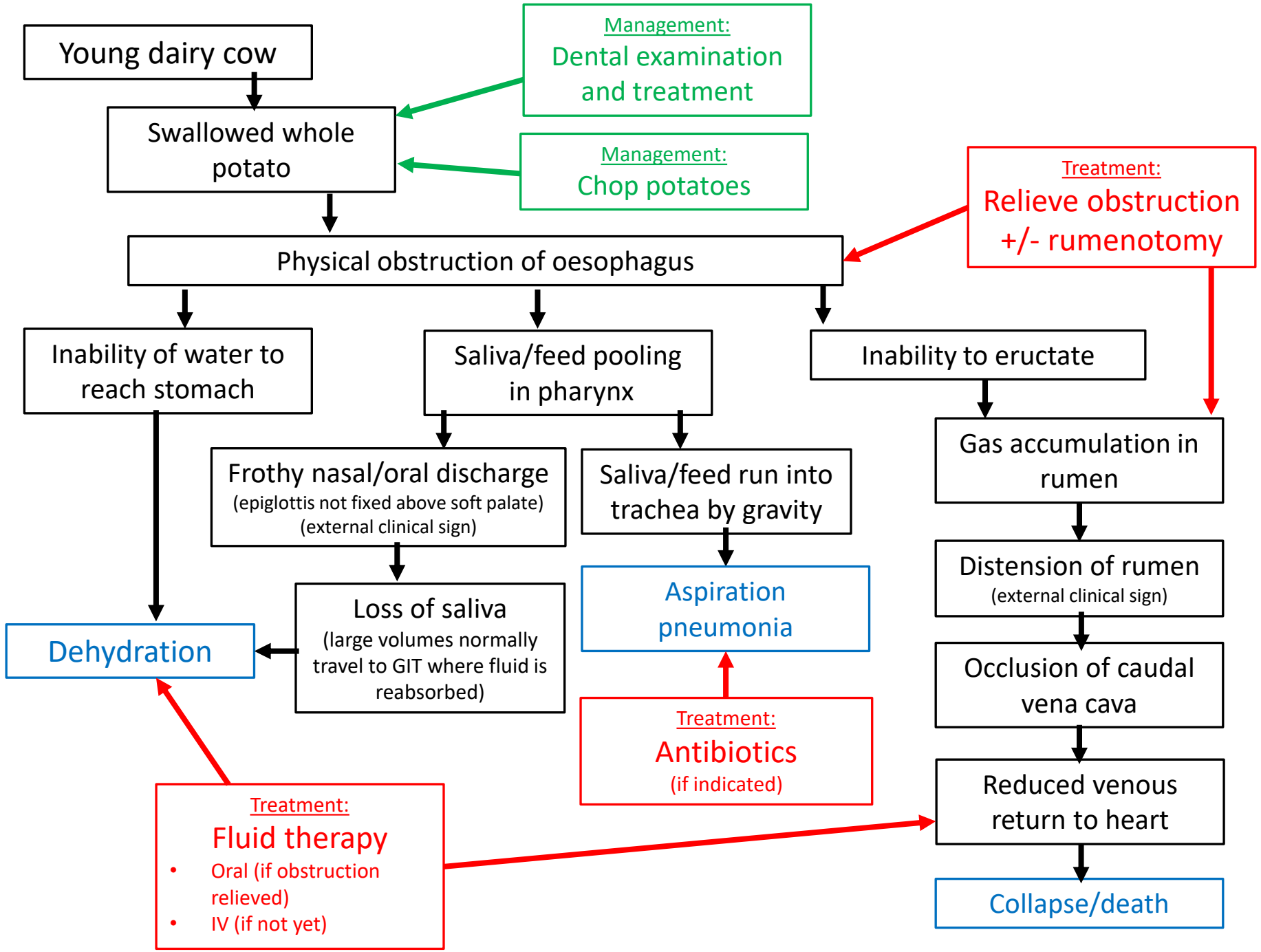
Flow diagrams

- Exercise to demonstrate process/order of events
  - What event occurs first?
  - What are the possible consequences of each event?
  - Why?
    - Apply deep understanding of anatomy, physiology, pharmacology to predict or explain clinical signs


Old pony
Poor dentition
Management:
Dental examination and treatment
Inability to masticate feed appropriately
Management:
Provide soft, easily masticated feed
Poorly masticated bolus swallowed
Large fibrous bolus stuck in oesophagus
Treatment:
Relieve obstruction
Physical obstruction of oesophagus
Treatment:
Antibiotics
(if indicated)
Treatment:
Fluid therapy
Oral if obstruction relieved
IV if not yet
Inability of water to reach stomach
Saliva/feed pooling in pharynx
Frothy nasal discharge
(epiglottis above soft palate in equids)
(external clinical sign)
Saliva/feed run into trachea by gravity
Dehydration
Loss of saliva
(large volumes normally travel to GIT where fluid is reabsorbed)
Aspiration pneumonia

Let’s apply this knowledge in a different context

- What if a young cow developed oesophageal obstruction?
  - For example, swallowed a whole potato that got stuck


Young dairy cow
Swallowed whole potato
Management:
Dental examination and treatment
Management:
Chop potatoes
Physical obstruction of oesophagus
Treatment:
Relieve obstruction +/- rumenotomy
Inability of water to reach stomach
Saliva/feed pooling in pharynx
Inability to eructate
Frothy nasal/oral discharge
(epiglottis not fixed above soft palate)
(external clinical sign)
Saliva/feed run into trachea by gravity
Gas accumulation in rumen
Distension of rumen
(external clinical sign)
Loss of saliva
(large volumes normally travel to GIT where fluid is reabsorbed)
Dehydration
Aspiration pneumonia
Occlusion of caudal vena cava
Treatment:
Antibiotics
(if indicated)
Treatment:
Fluid therapy
Oral (if obstruction relieved)
IV (if not yet)
Reduced venous return to heart
Collapse/death