

Knowledge List Large Animal Internal Medicine

General System

1. Toxemia
 - a. Antigenic toxins
 - i. Exotoxins
 - ii. Endotoxins
 - b. Metabolic toxins
2. Hypothermia
 - a. Thermoregulation (neonatal)
 - i. Septic shock
 - ii. Acid-base imbalances
 - iii. Hypoglycemia
 - b. Hypothermia i.e. recently sheared animals
3. Hyperthermia (Heat stroke)
 - a. Dehydration
 - b. Malignant hypothermia
4. Pain
 - a. Cutaneous
 - b. Visceral
 - c. Musculoskeletal
5. Sudden or unexpected death
 - a. Spontaneous internal hemorrhage
 - i. Carotid artery aneurysm in horses
 - ii. Rupture of the middle uterine artery – Cattle & equine
 - b. Trauma – all species
 - c. GI Conditions
 - i. Bloat
 - ii. Lightning strike or electrocution
 - iii. Poisons
 - iv. Anaphylaxis
6. Disturbances of body fluids
 - a. Dehydration
 - b. Water intoxication
 - c. Electrolyte imbalances
 - i. Hyponatremia
 - ii. Hypernatremia
 - iii. Hypochloremia
 - iv. Hypokalemia
 - v. Hyperkalemia
 - vi. Hypocalcemia
 - vii. Hypophosphatemia
 - d. Acid-Base imbalance
 - i. Acidosis
 1. Metabolic
 2. Respiratory
 - ii. Alkalosis
 1. Metabolic

7. Nutritional status
 - a. Failure to gain, ill thrift
8. Immune deficiency disorders
 - a. Primary
 - i. Combined immunodeficiency
 - ii. Agammaglobulinemia
 - iii. Chediak-Higashi syndrome
 - b. Secondary
 - i. Failure of passive transfer
 - ii. Atrophy of lymphoid tissue

Diseases of the newborn

1. Perinatal disease
 - a. Diseases of the fetus
 - b. Intra-uterine infections
 - c. Abortion
 - d. Fetal death
 - e. Goiter
 - f. Dystocia
 - g. Neonatal metabolic disorders
 - h. Septicemia
 - i. Uroperitoneum
 - j. Ileus
 - k. Necrotizing enterocolitis
 - l. Hypoxic Ischemic Encephalopathy
2. Congenital defects
 - a. Structural
 - i. Intestinal atresia: Lethal white or Intestinal Aganglionosis
 - b. Functional
 - i. Glycogen Branching Enzyme Deficiency
 - ii. Hyperkalemic Periodic Paralysis
3. Neonatal infection
 - a. Environmental organisms
4. Critical care of the newborn
 - a. Omphalitis (Navel –ill)
 - b. Patent urachus
 - c. Passive transfer
 - d. Nutrition
 - e. Sepsis score – Foals

Gastrointestinal System

1. Diseases of the buccal cavity and associated organs
 - a. Stomatitis
 - b. ORF – contagious ecthyma
 - c. Foot and mouth

2. Disease of the pharynx and esophagus
 - a. IBR
 - b. Diphtheria
 - c. Megaesophagus
 - d. Choke
 - e. Guttural pouch mycosis
 - f. Guttural pouch tympany
 - g. Guttural pouch empyema/chondroids
3. Disease of the non-ruminant stomach & intestines
 - a. Colic
 - i. Obstructive
 - ii. Strangulating
 - iii. Non-strangulating infarctive
 - iv. Inflammatory
 - b. Ileus
 - c. Ischemia
 - d. Endotoxemia
 - e. Gastric dilatation
 - f. Gastric impaction
 - g. Gastric ulcers
 - h. Anterior enteritis
 - i. Cecal impaction
 - j. Intussusception
 - k. Torsion
 - l. Perforation
 - m. Displacement
 - n. Volvulus
 - o. Enteroliths and fecaliths
 - p. Intestinal Tympany (in pigs)
 - q. Intestinal hypermotility
 - r. Diarrhea
 - s. Ulcers
 - t. Rectal stricture
4. Disease of the rumen, reticulum, and omasum
 - a. Foreign body
 - b. Rumen atony
 - c. Simple indigestion
 - d. Carbohydrate engorgement
 - e. Rumen tympany
 - f. Traumatic reticuloperitonitis
 - i. Traumatic pericarditis
 - g. Vagal indigestion
 - h. Diaphragmatic hernia – displaced reticulum

5. Diseases of the abomasum
 - a. Abomasal impaction
 - i. Trichobezoars
 - b. Abomasal emptying defect (sheep)
 - c. Pyloric obstruction
 - d. LDA (cattle)
 - e. RDA (cattle)
 - f. Abomasal torsion
 - g. Abomasal ulcers
 - h. Abomasal bloat (calves/lambs)
6. Diseases of the pseudo-ruminant stomach
 - a. C-1 bloat
 - b. C-1 atony
 - c. C-3 ulcer/perforation
 - d. C-3 obstruction
7. Congenital defects of the alimentary tract
 - a. Harelip
 - b. Cleft palate
 - c. Atresia of the salivary glands
 - d. Choanal atresia
 - e. Intestinal atresia
8. Neoplasia of the alimentary tracts
 - a. Squamous cell carcinoma
9. Diseases of the peritoneum
 - a. Peritonitis
 - i. Traumatic reticuloperitonitis (Cattle)
 - ii. Abomasal ulcer (cattle, goats, sheep)
 - iii. Ruminitis – grain overload
 - iv. Uterine rupture
 - v. Rupture of the cecum or colon (equine)
 - vi. NSAID -> Cecal stasis, dilatation, perforation (eq)
 - vii. Parasite induced gastric ulceration/rupture (eq)
 - viii. Glasser's disease (swine)
 - ix. Ileitis & perforation (swine)
 - x. Toxemia
 - xi. Septicemia
 - b. Rectal tears
 - i. Iatrogenic (eq, bov, camelid)
 1. Grade I-IV
10. Diseases of ruminant intestines
 - a. Torsion of the root of the mesentery
 - b. Atresia coli
 - c. Intussusception
 - d. Enteritis
 - e. Cecal dilatation and volvulus in cattle
 - f. Intestinal obstruction/impaction
 - g. Parasites

11. Disease of the liver
 - a. Jaundice
 - b. Hepatic Encephalopathy
 - c. Photosensitization
 - d. Displacement of the liver
 - i. Diaphragmatic hernia
 - e. Torsion (sows)
 - f. Rupture
 - g. Toxic hepatitis
 - h. Portosystemic shunt (foals & calves)
 - i. Hepatic lipidosis
 - j. Hepatic abscesses
 - k. Hepatic neoplasia
12. Disease of the pancreas
 - a. Diabetes mellitus (cows, horses, donkeys, camelids)
 - b. Pancreatic adenocarcinoma (eq)

Cardiovascular System

1. Arrhythmias
 - a. Sinus arrhythmias
 - b. Arrhythmias with normal, tachy or bradycardia
2. Diseases of the heart
 - a. Myocardial/ Cardiomyopathy disease
 - i. Bacterial myocarditis
 - ii. Viral myocarditis
 - iii. Parasitic Myocarditis (eq)
 - iv. Nutritional deficiency
 - v. Poisoning
 - vi. Venoms (eq)
 - vii. Embolic infarction (bovine)
 - viii. Tumor (cattle)
 - ix. Inherited (swine, cattle, sheep)
3. Rupture of the heart and associated vessels
 - a. Foreign body penetration.
4. Rupture of the aortic arch
 - a. Marfan syndrome (calves)
5. Cor Pulmonale
 - a. Right heart failure
 - b. High mountain disease (cattle)
6. Valvular disease/murmurs
 - a. Endocarditis
 - i. Vegetative (cattle)
 - b. Rupture of the chordae tendineae
 - c. Pulmonary valve stenosis
7. Pericarditis
 - a. Traumatic (Cattle)

8. Congenital defects
 - a. VSD (neonates)
 - b. PDA (neonates)
 - c. Patent foramen ovale
 - d. ASD (Swine)
 - e. Tetralogy of Fallot (equine)
9. Diseases of the blood vessels
 - a. Parasites
 - b. Viral arteritis
 - c. Bacterial arteritis
 - d. Vasoconstrictive agents
 - i. Ergot or fescue poisoning
 - e. Pulmonary embolism
 - f. Phlebitis
 - g. Thrombosis
10. Disease of the blood and blood-forming organs
 - a. Hemorrhagic disease
 - i. Vasculitis
 - ii. Purpura hemorrhagica (eq)
 - b. Coagulation defects
 - i. Hemophilia
 - ii. Von Willebrand disease
 - iii. Umbilical bleeding in neonatal piglets
 - iv. Platelet disorders
 - c. DIC
 - d. Hypoproteinemia
11. Hemorrhage
 - a. Trauma
 - b. Ulcer
 - c. Vascular rupture
 - d. Ethmoid hematoma (eq)
 - e. EIPH
12. Peripheral Circulation Failure and Shock
 - a. Water intoxication
 - b. Edema
 - c. Anemia
 - d. Leukemia
13. Diseases of the spleen, lymphadenopathy and thymic disease
 - a. Lymphadenopathy
 - a. Caseous lymphadenitis (sheep, goats, camelids)
 - b. Strangles (eq)

Respiratory System

1. Hypoxia
2. Hypercapnia
3. Epistaxis
4. Pulmonary congestion

5. Atelectasis
6. Pneumonia
7. Aspiration pneumonia
8. Neoplasm
9. Pneumothorax
10. Diaphragmatic hernia
11. Pleuritis
12. Rhinitis
13. Obstruction
14. Guttural pouch mycosis (eq)

Urinary System

1. Nephrosis
2. Renal ischemia
3. Glomerulonephritis
4. Pyelonephritis
5. Hydronephrosis
6. Cystitis
7. Bladder rupture
8. Urethral rupture
9. Urolithiasis
10. Patent urachus
11. Polycystic kidneys
12. Hypospadias
13. Ectopic Ureter

Nervous System

1. Hydrocephalus
2. Encephalitis
3. Trauma
4. Tumors
5. Meningitis
6. Epilepsy

Musculoskeletal system

1. Metabolic
 - a. Hypocalcemia
 - b. Hypokalemia
 - c. Hypoglycemia
 - d. Hypomagnesemia
 - e. Exertional Myopathy
 - f. Equine Polysaccharide Storage Disease
2. Toxins
 - a. Plant toxins
3. Myopathy
 - a. Nutritional
 - b. Ischemic

4. Myositis
 - a. Clostridial
 - b. Eosinophilic
 - c. Fibrotic
5. Osteodystrophy
 - a. Nutritional
 - b. Chemical
 - c. Inherited
 - d. Congenital
 - e. Environmental
 - f. Physical
6. OCD (swine & horses)
7. Arthritis
8. Synovitis
9. Congenital defects
 - a. Arthrogryposis
 - b. Contracted tendons
 - c. Lupin ingestion
 - d. Locoweed ingestion

Integumentary System

1. Dermatitis
2. Photosensitization
3. Alopecia
4. Seborrhea
5. Folliculitis
6. Subcutaneous emphysema
7. Panniculitis
8. Cutaneous cyst
 - a. Wattle cysts (goats)
 - b. Sebaceous
9. Cutaneous neoplasms
 - a. Sarcoidosis
 - b. Papilloma
 - c. Squamous cell carcinoma
 - d. Melanoma
 - e. Mast cell tumor
10. Lipoma
11. Bacterial
12. Fungal
13. Parasitic

Reproductive System

1. Dystocia
2. Mastitis
3. Pyometra, metritis
4. Uterine prolapse

Infectious diseases

1. Bacterial
2. Viral
3. Rickettsial
4. Fungal/algae
5. Protozoan
6. Parasitic – helminth
7. Parasitic – arthropod
8. Prion

Metabolic

1. Hypocalcemia
2. Hypokalemia
3. Hypoglycemia
4. Hypomagnesemia

Nutritional

1. Deficiencies of mineral nutrients
2. Deficiencies of fat soluble vitamins
3. Deficiencies of water soluble vitamins

Toxic Diseases

1. Phytotoxins
2. Mycotoxins
3. Zootoxins
 - a. Snakebite
 - b. Bee stings
 - c. Ant bites
 - d. Tick paralysis
 - e. Cantharidin poisoning (Blister beetle)

Allergy

1. NI
2. Purpura Hemorrhagica
3. COPD