

Knowledge List Production 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 hyperthermia
4. Pain
 - a. Cutaneous
 - b. Visceral
 - c. Musculoskeletal
5. Sudden or unexpected death
 - a. Spontaneous internal hemorrhage
 - i. Rupture of the middle uterine artery
 - b. Trauma
 - 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
- 2. Congenital defects
 - a. Structural
 - i. Intestinal atresia
 - b. Functional
 - i. ??? for Production Animal???
- 3. Neonatal infection
 - a. Environmental organisms
- 4. Critical care of the newborn
 - a. Omphalitis (Navel –ill)
 - b. Patent urachus
 - c. Passive transfer
 - d. Nutrition

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

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. Duodenal ulcers
- i. Anterior enteritis
- j. Cecal impaction
- k. Intussusception
- l. Torsion
- m. Perforation
- n. Displacement
- o. Volvulus
- p. Enteroliths and fecaliths
- q. Intestinal Tympany (in pigs)
- r. Intestinal hypermotility
- s. Diarrhea
- 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 pseudoruminant 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
 - ii. Abomasal ulcer
 - iii. Ruminitis – grain overload
 - iv. Uterine rupture
 - v. Glasser’s disease
 - vi. Ileitis & perforation
 - vii. Toxemia
 - viii. Septicemia
 - b. Rectal tears
 - i. Iatrogenic
 - 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. Duodenal ulcers
 - f. Cecal dilatation and volvulus in cattle
 - g. Intestinal obstruction/impaction
 - h. Parasites
- 11. Disease of the liver**
 - a. Jaundice
 - b. Hepatic Encephalopathy
 - c. Photosensitization
 - d. Displacement of the liver
 - i. Diaphragmatic hernia
 - e. Torsion
 - f. Rupture
 - g. Toxic hepatitis

- h. Portosystemic shunt
- i. Hepatic lipidosis
- j. Hepatic abscesses
- k. Hepatic neoplasia

12. Disease of the pancreas

- a. Diabetes mellitus

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. Nutritional deficiency
 - iv. Poisoning
 - v. Embolic infarction
 - vi. Tumor
 - vii. Inherited
3. Rupture of the heart and associated vessels
 - a. Foreign body penetration.
4. Rupture of the aortic arch
 - a. Marfan syndrome
5. Cor Pulmonale
 - a. Right heart failure
 - b. High mountain disease
6. Valvular disease/murmurs
 - a. Endocarditis
 - i. Vegetative
 - b. Rupture of the chordae tendineae
 - c. Pulmonary valve stenosis
7. Pericarditis
 - a. Traumatic
8. Congenital defects
 - a. VSD (neonates)
 - b. PDA (neonates)
 - c. Patent foramen ovale
 - d. ASD (Swine)
 - e. Tetralogy of Fallot
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
 - b. Coagulation defects
 - i. Hemophilia
 - ii. Von Willebrand dz
 - iii. Umbilical bleeding
 - iv. Platelet disorders
 - c. DIC
 - d. Hypoproteinemia
- 11. Hemorrhage
 - a. Trauma
 - b. Ulcer
 - c. Vascular rupture
- 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
 - i. Caseous lymphadenitis

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

Urinary System

1. Nephrosis
2. Renal ischemia
3. Glomerulonephritis
4. Pyelonephritis

5. Hydronephritis
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
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
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
 - b. Sebaceous
- 9. Cutaneous neoplasms
 - a. Papilloma
 - b. Squamous cell carcinoma
 - c. Melanoma
 - d. 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