**Infectious laryngotracheitis (ILT)**

**Presentation:**
- ALL chickens > 4 weeks of age
- **Multiple strains** = a range of mild to severe lesions

- **Acute** UPPER respiratory signs
  - Neck extension during inspiration
  - Loud gasping, **coughing**, marked dyspnea
  - **Conjunctivitis, periorbital swelling**
  - Blood-stained mouth, beak (tracheal exudate)
  - **Decreased egg production**

- **Subacute**
  - Nasal and ocular discharge
  - Tracheitis
  - Conjunctivitis
  - Mild rales

**DDX:**
- Adenovirus, aspergillosis, avian influenza, avian pox, infectious bronchitis, Newcastle disease, Fowlpox virus, Turkey rhinotracheitis virus, infectious coryza, mycoplasmosis

**Test(s) of choice:** **Reportable disease**
- **Necropsy**
  - Trachea – blood, mucus, yellow caseous exudates, hollow caseous cast
  - Conjunctivitis
- **Histopathology**
  - Intranuclear inclusion bodies
- **Virus Isolation**
  - Using chick embryos
- **Demonstration of viral antigen**
  - Fluorescent antibody, immunoperoxidase
  - Electron microscopy, DNA hybridization
  - Antigen capture ELISA
  - **PCR**
- **Serology**
  - AGID, serum neutralization, ELISA

Classically, **Coughing, conjunctivitis**, +/- bloodstained beaks, **decreased egg production**

The trachea and larynx are the most common areas to find gross lesions of ILT.

**Top** = milder diffuse inflammation, hemorrhages.

**Middle** = hemorrhagic exudate.

**Bottom** = severe caseous diphtheritic changes

*Images courtesy of Cornell Univ., Atlas of Avian Diseases*
Infectious laryngotracheitis (ILT)  
**Extended Version**

**Rx of choice:**
- **Immediate vaccination of adults during an outbreak**
  - Shortens course of disease
  - Modified live attenuated eye drop vaccine
- **Supportive Care**
  - Decrease stress
  - Lower dust levels
  - Mild expectorants

**Prognosis:** Economically important due to ↓ egg production  
**Good:** Mild forms, high morbidity, low mortality  
**Poor to Grave:** Severe forms with tracheal occlusion

**Prevention:**
- **Vaccination**
  - Endemic areas
  - Farm outbreaks
    - Modified live attenuated vaccine (eye drop) often administered by coarse spray
    - ILT recombinant vaccines – *in ovo*, SQ, wing web
- **Strict biosecurity**
- **Strict sanitation protocols**

**Pearls:**
- Highly contagious
- Alpha herpesvirus (Gallus herpesvirus-1) – double stranded DNA virus
- Transmission by direct contact, fomites
- Clinically **recovered birds (carriers) are most important vector**
- Pheasants and peafowl can get ILT, but less common in them

**Images worth a look**
- Image library for Infectious laryngotracheitis  
  Cornell University Atlas of Avian Diseases  
  **14 key diseases of poultry**, (images) Atlas of Avian diseases, Cornell University, Partners in Health website

- Image of bloody mucus in trachea. National Animal Disease Information Service  
  **Bloody tracheitis**, Merck Manual 10th ed online

- Normal chicken necropsy anatomy, + many poultry disease images, Poster (pdf), Lohman Animal health

**Refs:** Cornell Atlas of Avian Diseases Infectious Laryngotracheitis; and Merck Manual, 10th ed (online): Infectious Laryngotracheitis