

Een benauwde situatie

BVN Herfst-meeting
Cases of the year

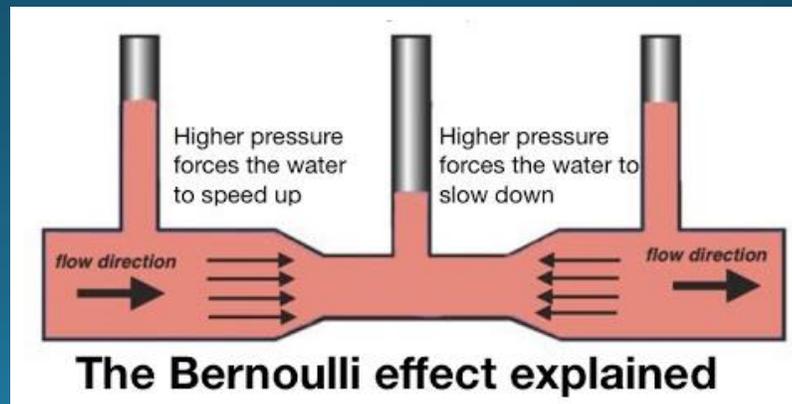
Dr. Dries Ruttens

ASO kindergeneeskunde

AZ Sint-Jan Brugge

Stridor

- Abnormal, high-pitched monophonic sound < **obstruction of the large airways** (larynx (supraglottis, glottis, subglottis), trachea)
- Inspiratory and/or expiratory
- Bernoulli's principle: *'as the speed of a moving fluid increases, the pressure within the fluid decreases'*
- Obstruction > low pressure distal to narrowing > airway collapse/vibration



Case

- Pregnancy
 - G₁ A₀ P₀ M₀
 - Spontaneous pregnancy
 - Uncomplicated course

Casus

- Birth
 - PNA 40 6/7 w
 - Cesarean < non progressing labor (epidural anesthesia)
 - Umbilicale pH's: arterial 7,26 - venous 7,3
 - Birthweight: 3060g
 - Apgar: 1-5-7
 - Insufflations, ventilation
 - Recovers, but persistent oxygen need
 - Admission in neonatology ward with 30% oxygen in incubator
 - X-ray: RDS grade II

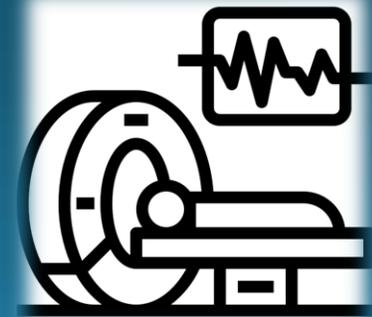
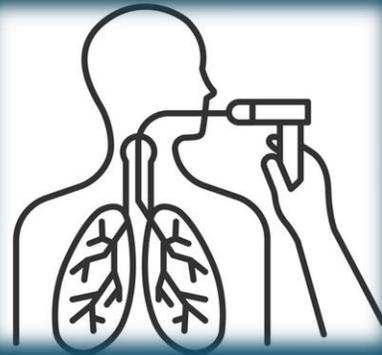
Casus

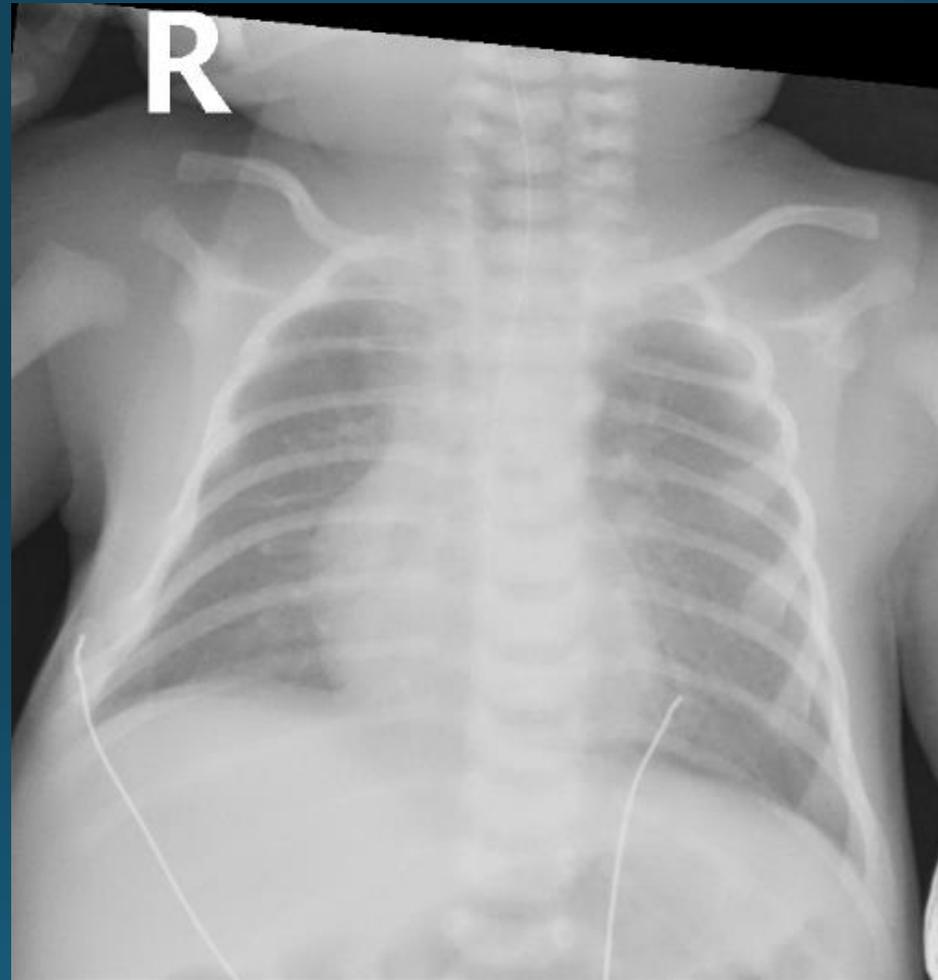
- In the neonatology ward...
 - Stridor on crying/exertion
 - Desaturating
- Referral to NICU AZ Sint-Jan D3

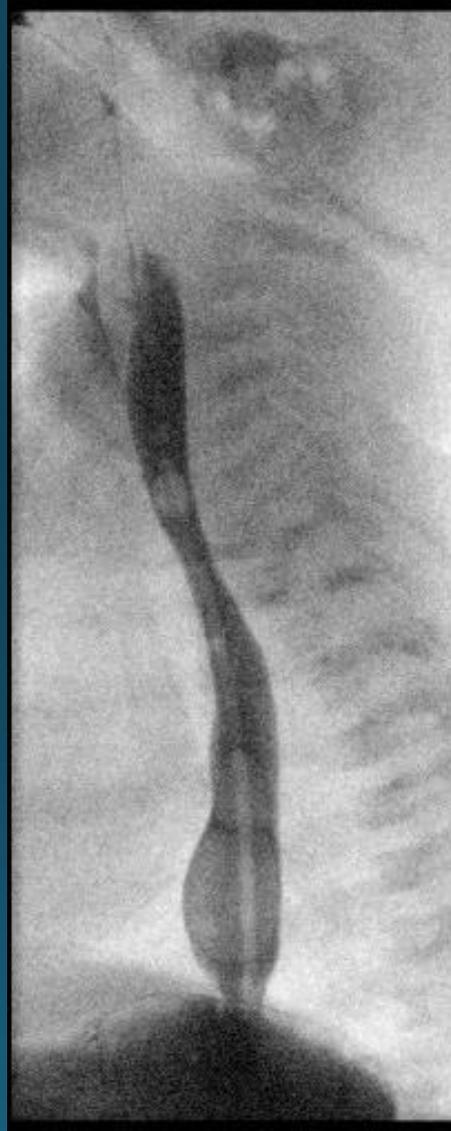
Casus



→ Biphasic

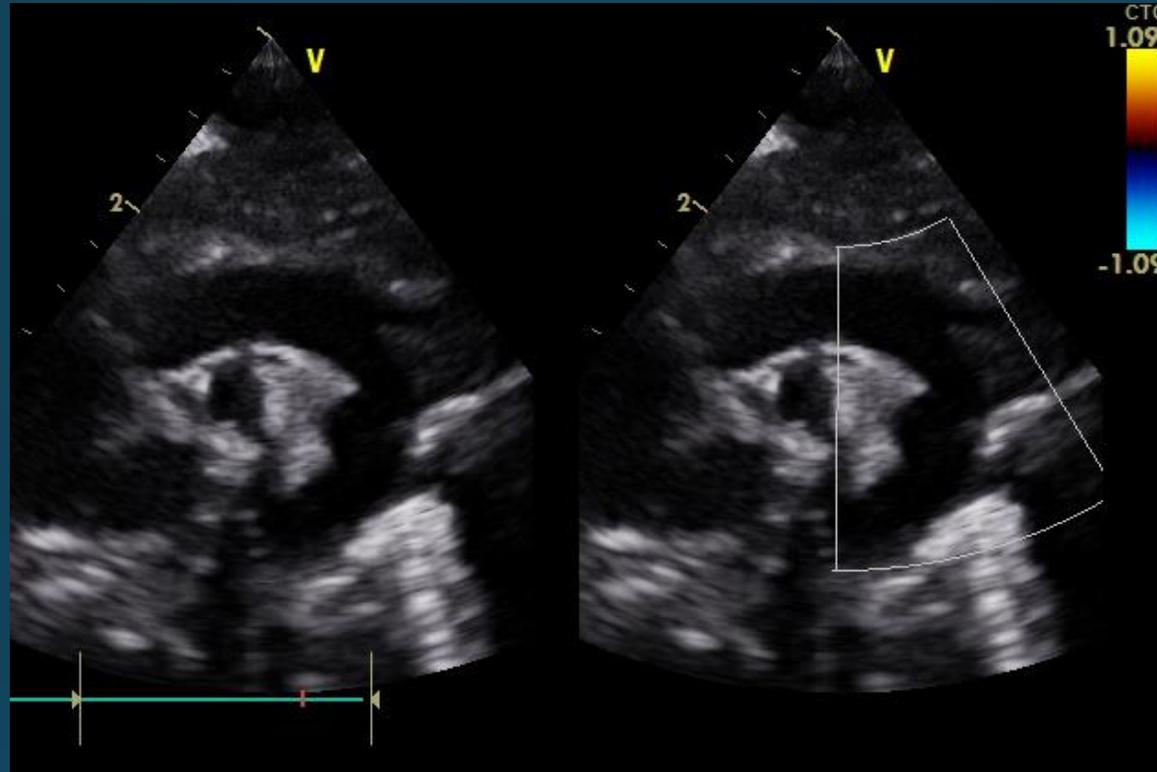






**No indentation of
the esophagus**





Normal (left) aortic arch and branching
→ **No vascular ring/sling**



Laryngoscopy

Normale epiglottis en vocal cords

No laryngomalacia

Narrowing distal to vocal cords



Bronchoscopie

Normale epiglottis en vocal cords

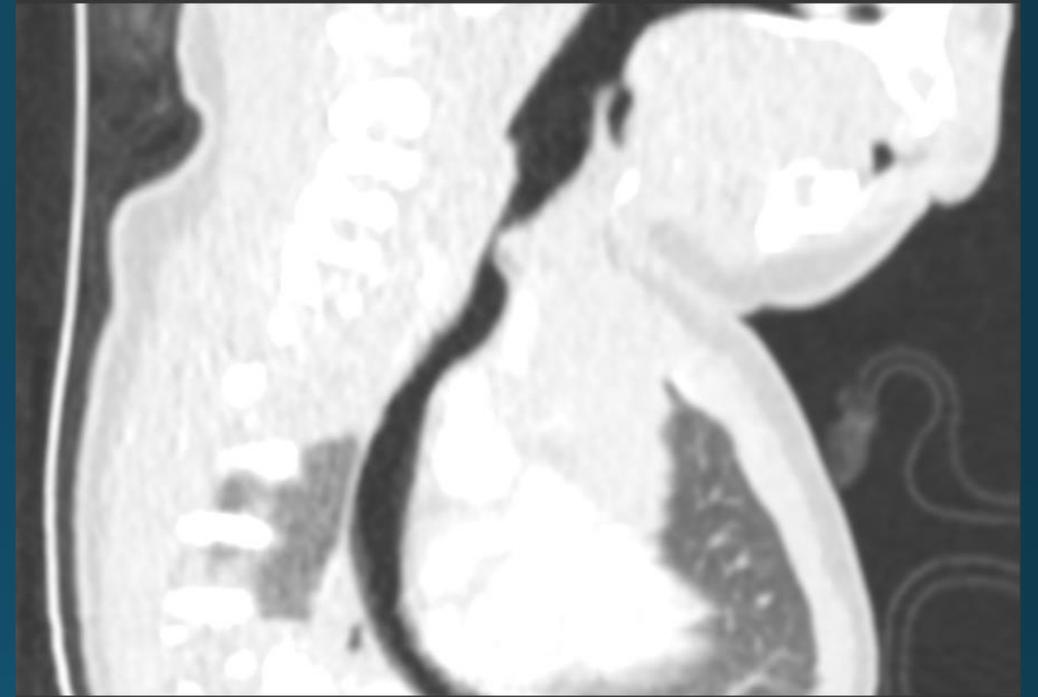
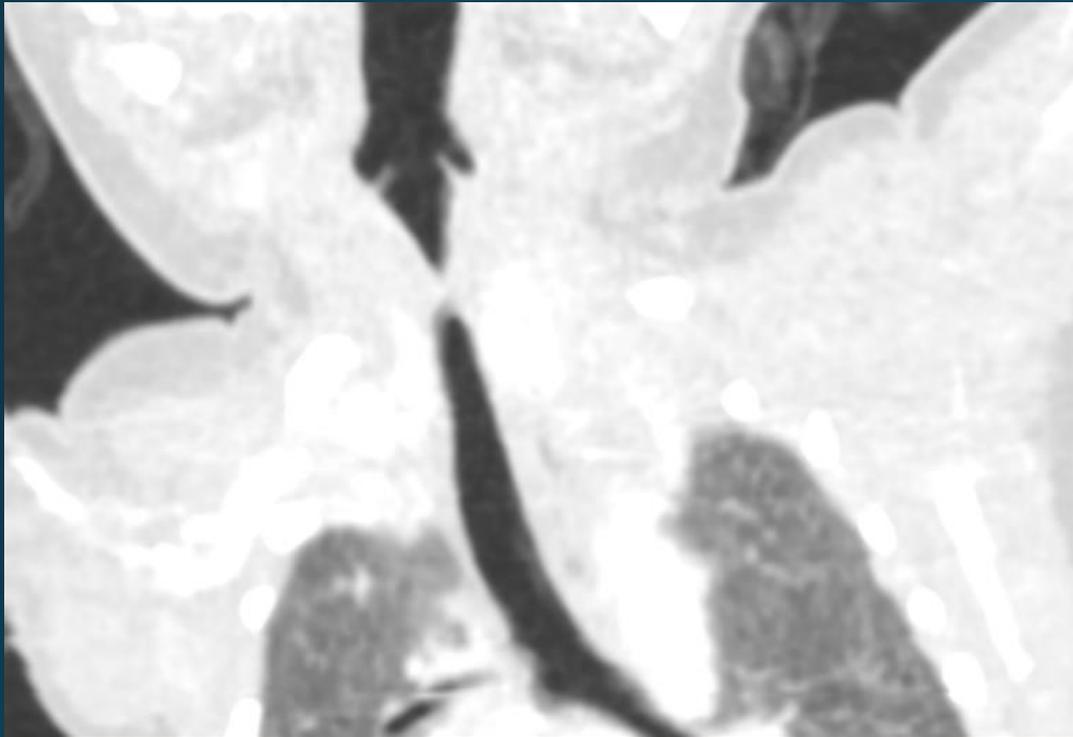
No laryngomalacia

Narrowing of subglottis

Attempted passage: severe acute respiratory distress





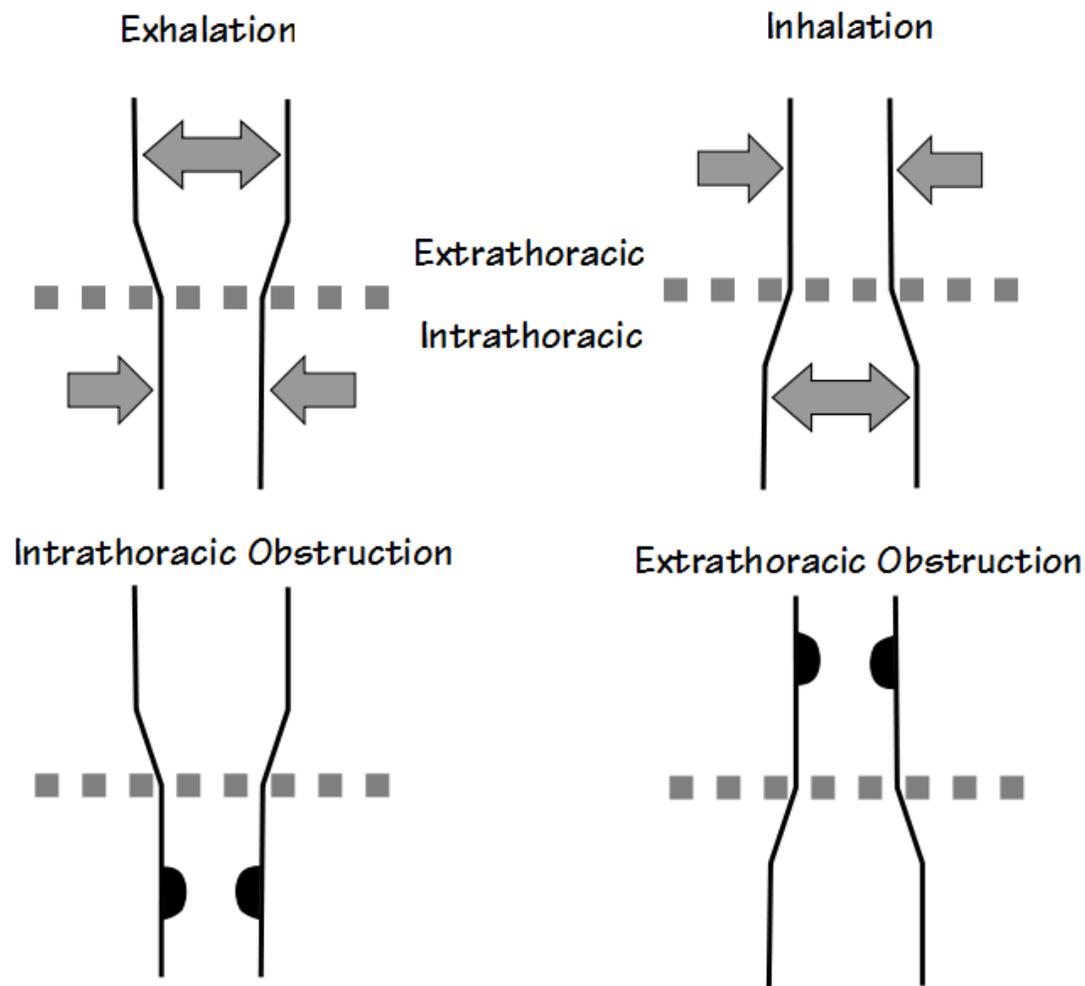
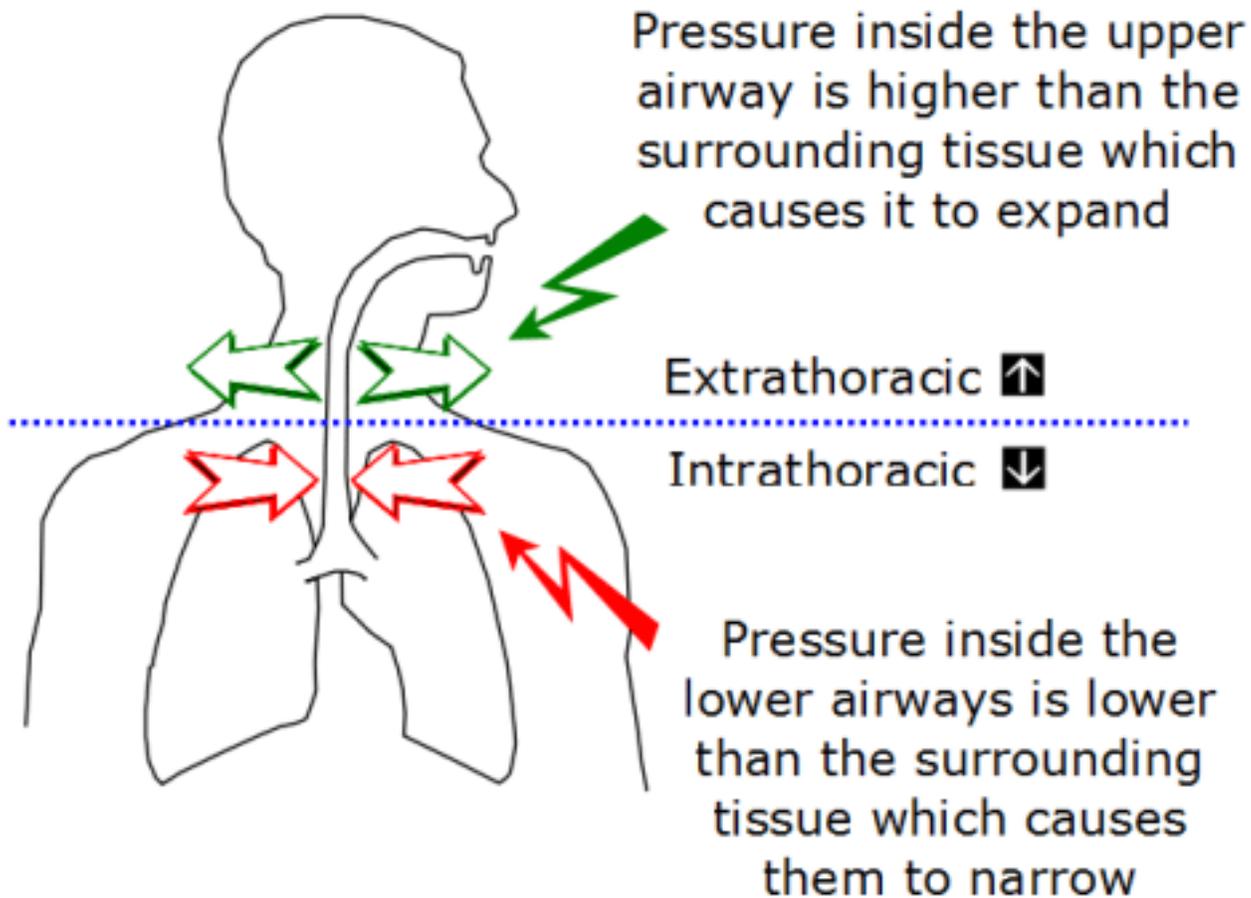


Narrowing immediately distal to the true vocal cords
Maximal diameter 1 mm

Urgent tracheostomy



During Exhalation



extrathoracic

intrathoracic

Pharynx &
Supraglottis

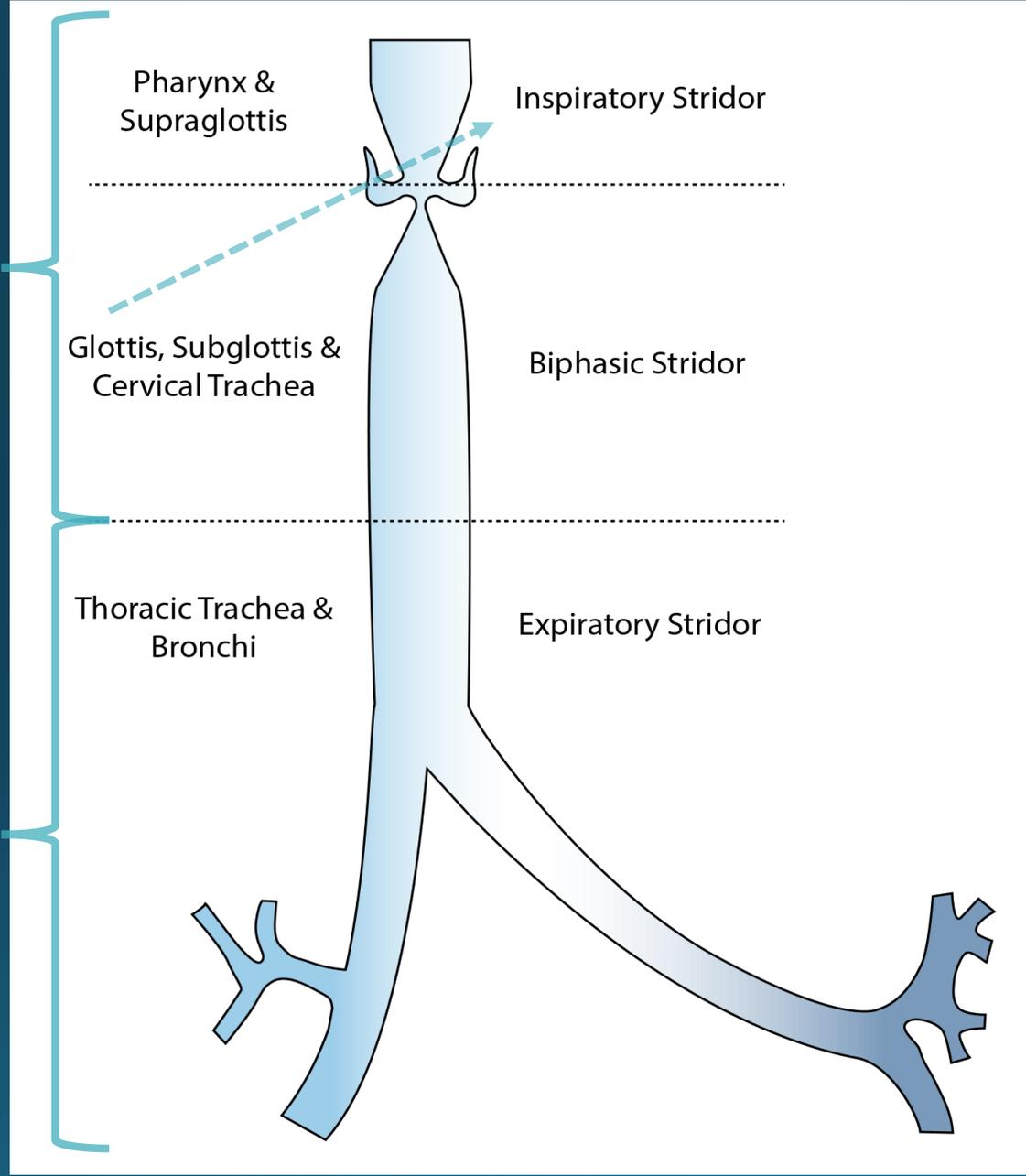
Inspiratory Stridor

Glottis, Subglottis &
Cervical Trachea

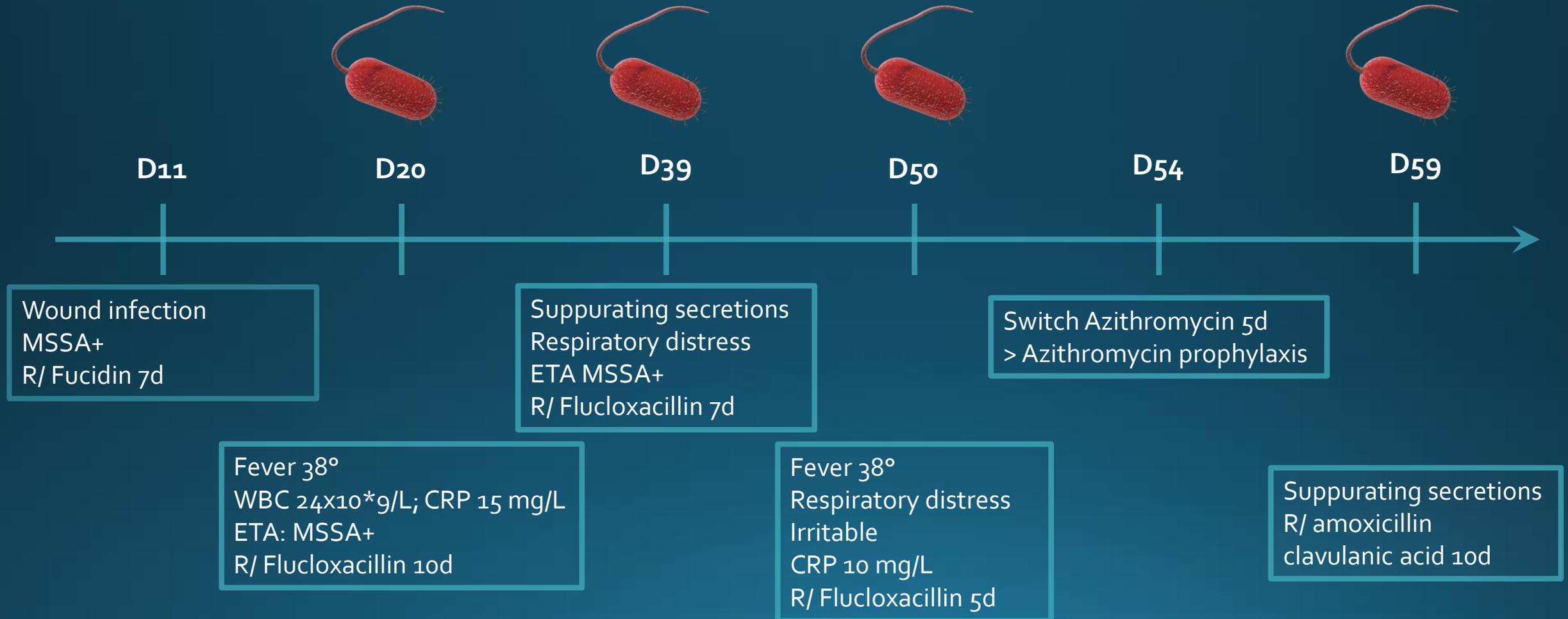
Biphasic Stridor

Thoracic Trachea &
Bronchi

Expiratory Stridor



Further course



Further course

Scopy by ENT

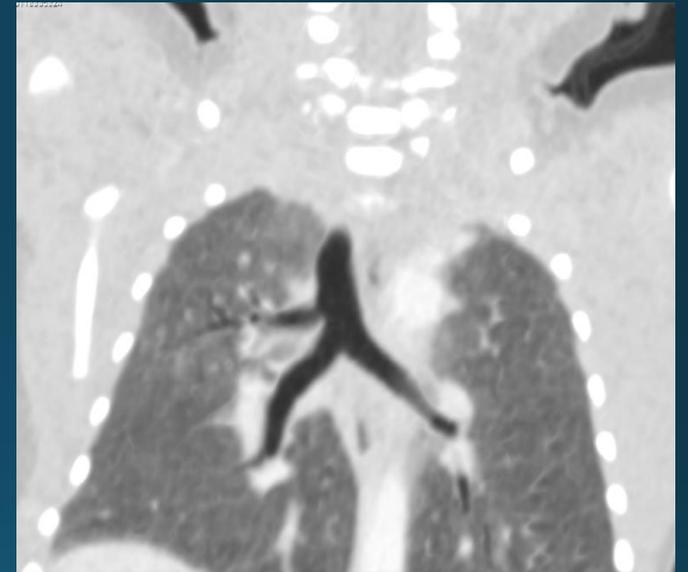
→ Suppurating secretions at right main stem bronchus

Re-evaluation of chest CT

Bronchoscopy

→ Tracheal bronchus, branching proximal to the carina, intermittent collapse

R/ Trimethoprim prophylaxis



Take home messages

- Alarm symptoms:
 - Desaturations
 - Biphasic stridor
 - Respiratory distress
- Loudness of stridor <-> severity
- When alarm symptoms present: consider chest CT before manipulation
- Always look for associated abnormalities

Questions?