Associated Anesthesiologists, P.C.

Blank Children's Hospital
UnityPoint Health

Pediatric Chest CT Protocol

1. Patient is identified needing a CT scan of the chest.
2. If no contrast is required, place order for **CT scan chest without contrast**. Attempt with Child Life, no sedation, no IV.
    a. Order may be placed with a prn anxiolytic dose to be given by radiology nursing staff on arrival if deemed necessary by Child Life assessment (see "Management of Pediatric Pain/Anxiolysis for Outpatients" for appropriate anxiolytics). Indicate in comments that "Child should be scheduled between 8 am and 3 pm Monday through Friday for Child Life/Nursing assistance in radiology."
    b. An appropriate prn anxiolytic would include oral or intranasal versed. Dosing for oral versed is 0.25-0.5 mg/kg, maximum 20 mg. Dosing for intranasal versed is 0.1-0.4 mg/kg, maximum 10 mg. For intranasal versed, utilize 10 mg/2 mL concentration and administer via atomizer.
    c. If not successful with an anxiolytic and Child Life, place order for **CT scan chest without contrast with consult to pediatric sedation/general anesthesia**. To schedule with either team, child must have an H&P within 30 days of the planned procedure/sedation.
        i. Sedation team will review and determine if child is a candidate for pediatric sedation or will need general anesthesia
3. If contrast is needed, place order for **CT scan chest with contrast**. For IV placement, utilize LMX and Child Life. When placing the order, an order may be placed for a prn anxiolytic to be given by the radiology nursing staff (to aid in IV placement/study). See "Management of Pediatric Pain/Anxiolysis for Outpatients."
    a. Indicate in comments that "Child should be scheduled between 8 am and 3 pm Monday through Friday to ensure that Child Life and radiology nursing staff are available to aid with IV placement/administration of anxiolytic and CT distraction".
    b. An appropriate prn anxiolytic would include oral or intranasal versed. Dosing for oral versed is 0.25-0.5 mg/kg, maximum 20 mg. Dosing for intranasal versed is 0.1-0.4 mg/kg, maximum 10 mg. For intranasal versed, utilize 10 mg/2 mL concentration and administer via atomizer.
    c. If the child fails CT with anxiolytic and Child Life, it is likely that the patient will need to be rescheduled.
        i. Order **CT scan chest with contrast with consult to pediatric sedation/general anesthesia**. To schedule with either team, child must have an H&P within 30 days of the planned procedure/sedation.
        ii. Pediatric Sedation team will review patient's chart & determine if child is appropriate for Pediatric Sedation or if the child should be referred to General Anesthesia.
4. When Pediatric Sedation or General Anesthesia are consulted, CT will coordinate with the appropriate service.

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Pediatric Sedation Versus General Anesthesia

Patients that should be referred to anesthesia (NOT Pediatric Sedation) include but are not limited to:

- ASA ≥ III
- BMI ≥ 30 (>90kg) OR BMI percentile >99th percentile
- Cervical spine instability
- Craniofacial anomalies, impeded jaw opening, conditions affecting the anatomy of the airway
- Increased intracranial pressure
- Known hypotonia, myopathy, mitochondrial or metabolic disorder
- Mass that involves neck or chest with obstruction of the trachea
- Obstructive sleep apnea
- Patients on a PCA pump with a basal rate that are unable to be without the basal rate (must be off PCA for 1 hour prior to procedure and during procedure)
- Patients with a tracheostomy
- Patients with an oxygen requirement (at baseline or because of illness)
- Unrepaired congenital heart disease, cyanotic heart disease, pulmonary hypertension, or vascular disease
- Use of BiPAP or CPAP

Referral to anesthesia will be considered for:

- Acute respiratory illness: asthma, bronchiolitis, pneumonia, cystic fibrosis exacerbation, Sp02<94% RA
- Active vomiting
- Hgb < 7.0
- History of aggressive or violent behavior
- Large pneumothorax
- Large pleural effusions
- Patient unable to lie supine
- Severe scoliosis