History, physical, and respiratory assessment – Diagnosis of bronchiolitis

- Discharge home from ER
  - Manage without medications
- Toxic, severe respiratory distress, and/or inadequate hydration?

- Admit (Floor vs. PICU)
- Initiate supportive care
  * Suction with feeds and prn; generally Acorn adequate
  * Assess respiratory status
  * Start O₂ if SaO₂ ≤ 90%
  * Ensure adequate hydration

- Discharge home from ER
  - Manage without medications
- Risk Factors for Deterioration
  - Tachypnea (RR >60)
  - Hypoxemia (SaO₂ ≤ 90%)
  - Difficulty feeding/Dehydration
  - Age < 3 months
  - Co-morbid BPD, CF, CHD
  - Prematurity < 36 weeks
  - Apnea at presentation

- Discharge home from ER
  - Manage without medications
- Improvement?
  [Decrease in CINCI score by ≥2]
- Evidence does not show benefit of corticosteroids, but if there is a suggestive Modified Asthma Predictive Index (mAPI; see back), may consider adding prednisolone or methylprednisolone, especially if a favorable response to albuterol is observed in these select patients
- Discharge Criteria
  - PO tolerance with adequate intake
  - SaO₂ > 90% on RA
  - Resolution of respiratory distress
  - Stable clinical status
  - Manageable suction requirements
  - Adequate parental/home capabilities

- Discharge with parent education
  - Home nebulizer/MDI or suction machine as needed
  - Establish F/U with PCP in 1-2 days

END
Summary of Cincinnati Scoring System (CINCI) in Bronchiolitis

1. Scoring is assessed by RCPs post-suction
2. Five elements in the score, 8 points total:
   * Respiratory rate (0-1)
   * Accessory muscles/ retractions (0-2)
   * Air Exchange (0-2)
   * Wheezes (0-2)
   * I:E Ratio (0-1)
   Consider nebs if score of ≥ 3
3. A decrease in score of ≥2 is considered significant improvement, suggestive of continuing 3% saline treatments (task-force consensus). If change <2, stop nebs.

Diagnostic Work-up Issues

1) Viral testing is of limited value: if patient has clinical bronchiolitis, the viral testing rarely influences therapeutic decisions, and these patients should be on appropriate isolation regardless of testing.

2) Routine chest x-rays in clinical bronchiolitis are of limited value, as findings unexpected or "inconsistent" with the clinical picture are noted <1% of the time, and antibiotic usage (unnecessary in most cases; see EBM Notes) increases from 2% to 15%.

References

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