# Bronchiolitis EBG Algorithm © – Marc Baskin MD & Nichole Nutting, RN
## Emergency Department Boston Children's Hospital
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**Inclusion criteria:** Age less than 12 months presenting with first or second episode of bronchiolitis with typical clinical presentation and examination. Patients usually have a history of cough, nasal congestion, difficulty breathing or drinking. On examination the patients have signs of lower respiratory tract disease with tachypnea, retractions, wheezing or crackles.

**Exclusion criteria:** Prior diagnosis of asthma, cystic fibrosis, chronic lung disease, hemodynamically significant congenital heart disease (patients who are receiving medication to control CHF, have moderate to severe pulmonary hypertension or have cyanotic heart disease) immunodeficiency, neuromuscular disease, **appears toxic or critically ill.**

**Absolute admission criteria**

- parent or clinician witnessed apnea prior to admission
- GA < 34 weeks and age < 3 months
- age < 1 months
- RA sat persistently <93% (quiet and awake)
- RR >70 persistently
- Severe retractions
- Unable to feed by history and observation

**Relative admission criteria (strongly consider admission if > one criteria):**

- GA<37 weeks
- Age less than 3 months
- Difficulty feeding by history and observation
- RA sat persistently 93-94% awake
- RR persistently > 60
- Moderate retractions (*Definition mild* = takes you a few seconds to decide if really retracting; *moderate* = obvious to all; *severe* = pulling hard, your heart rate is slightly elevated, you are considering moving to room 32

**Discharge criteria:**

- RR < 60
- Oxygen saturations >= 93% awake
- Retractions resolved or mild
- Well hydrated and able to drink well enough to maintain adequate hydration

**Testing:**

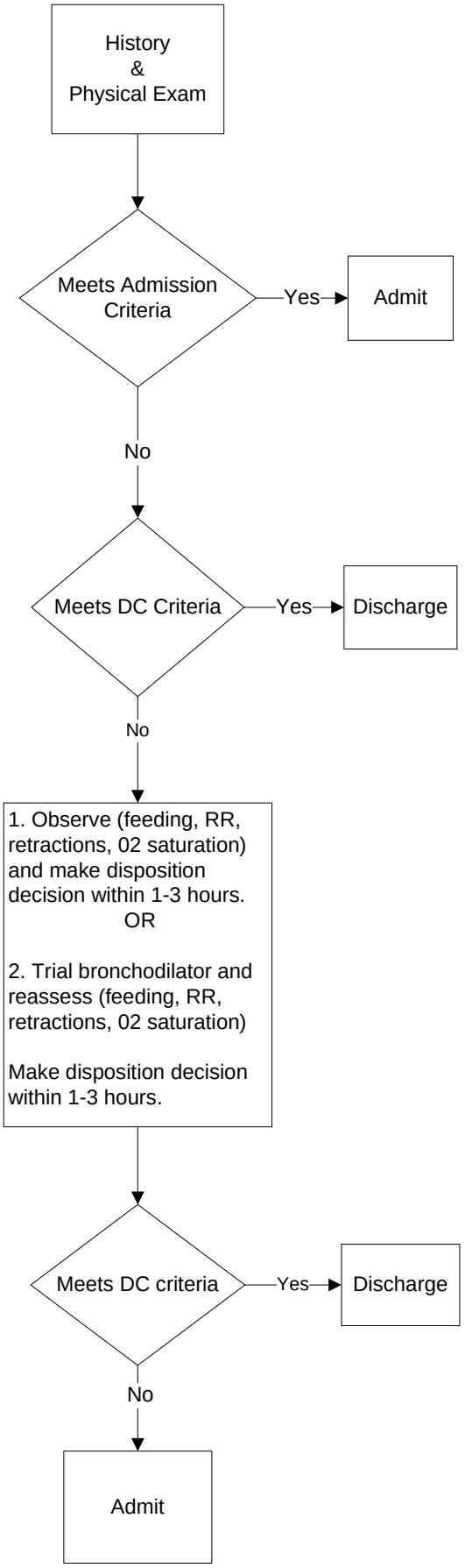
- **Routine use of chest radiographs is not recommended** (consider if severe or very atypical presentation, evidence of congenital or acquired heart disease, e.g. mycocarditis or cardiomyopathy)
- **Routine use of viral testing is not recommended**
- Routine use of CBC, electrolytes, blood gases are not recommended

**Therapies**

- Administer oxygen if oxygen saturations persistently <93% or severe respiratory distress (RR > 70, poor aeration, severe retractions). If oxygen administered, keep sats >95%.
- **Routine use of bronchodilators is not recommended.**
- Optional: Trial use of bronchodilators using objective pre/post assessments. Bronchodilators may have short-term clinical benefits, i.e., 60 minutes. Continue only if there is a documented clinical response to the trial using an objective means of evaluation.
- Nasogastric feeding or IV therapy if patient cannot maintain normal hydration status.

**Not recommended:**

- Systemic corticosteroids
- **Antibiotics**
- Anticholingeric medications
- 3% saline (unless patient is being admitted, since 3% saline has mainly been shown to decrease patient length of hospitalization)
- Cool mist therapy
- Aerosol therapy with normal saline
- Chest physiotherapy




***NOTE:*** *The medication dosing contained within these guidelines is provided for reference only. Please refer to your institutional formulary or ordering guidelines when placing orders for clinical care of patients.*