

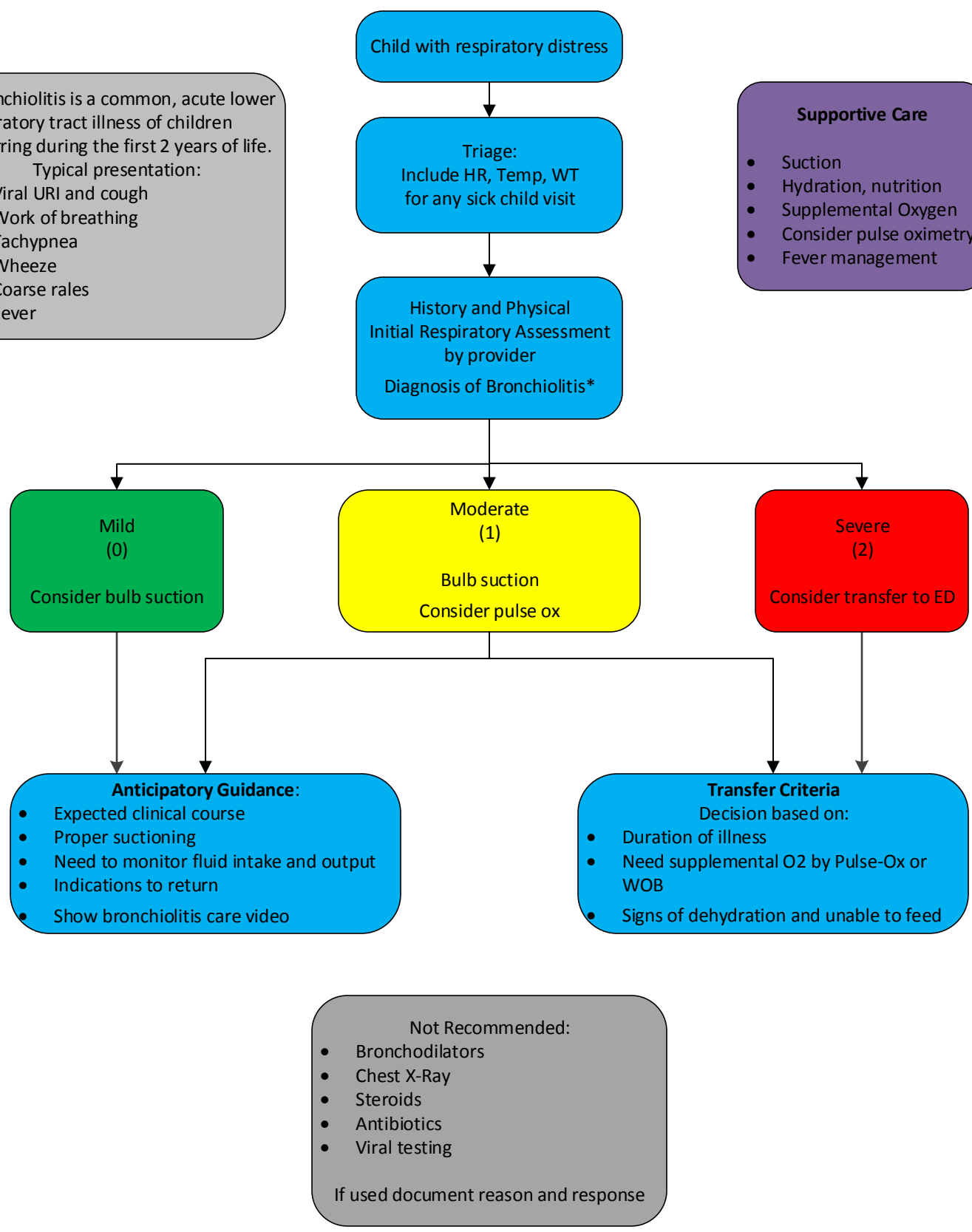
Bronchiolitis- Outpatient Phase

*Bronchiolitis is a common, acute lower respiratory tract illness of children occurring during the first 2 years of life.
 Typical presentation:

- Viral URI and cough
- Work of breathing
- Tachypnea
- Wheeze
- Coarse rales
- Fever

Supportive Care

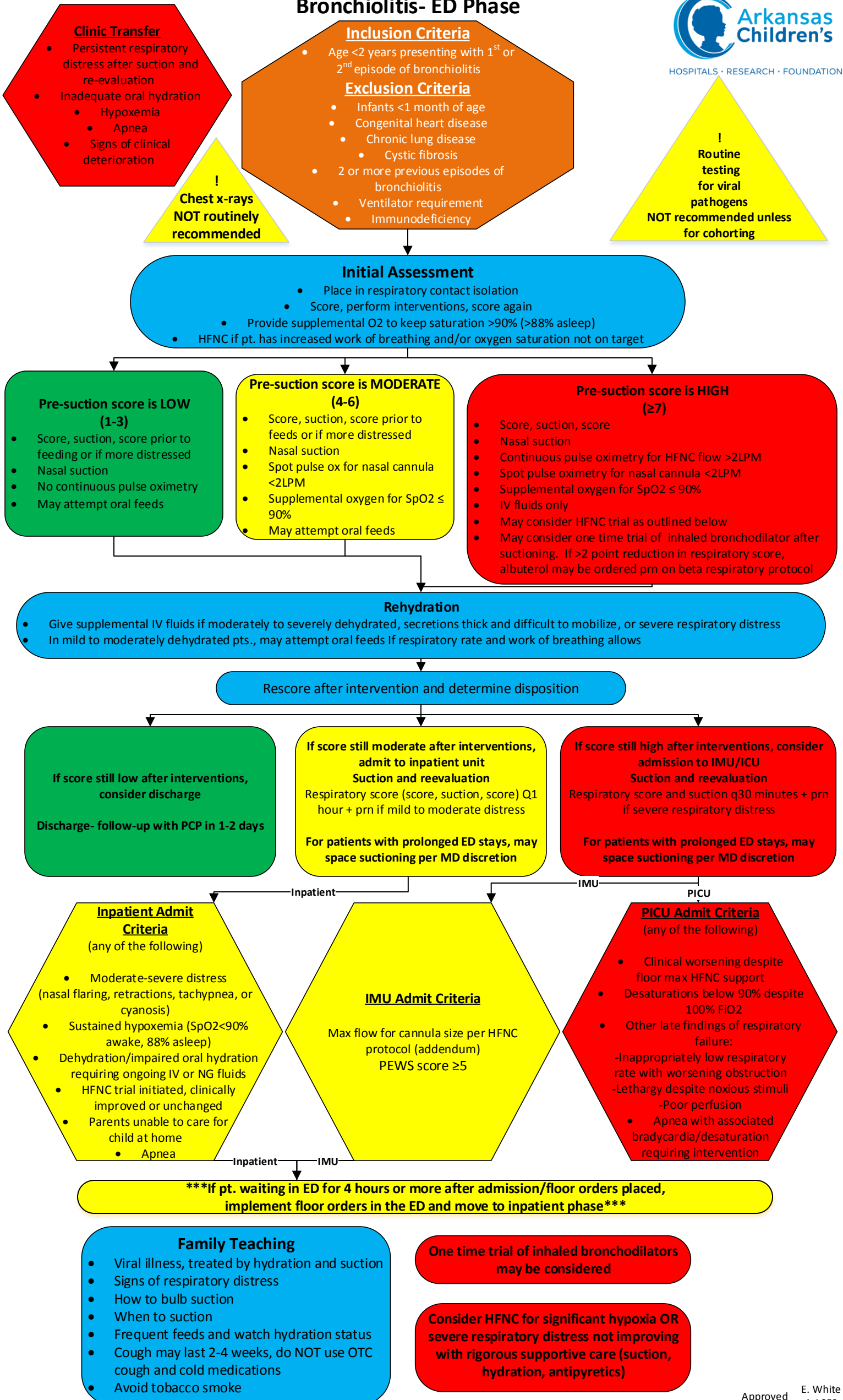
- Suction
- Hydration, nutrition
- Supplemental Oxygen
- Consider pulse oximetry
- Fever management



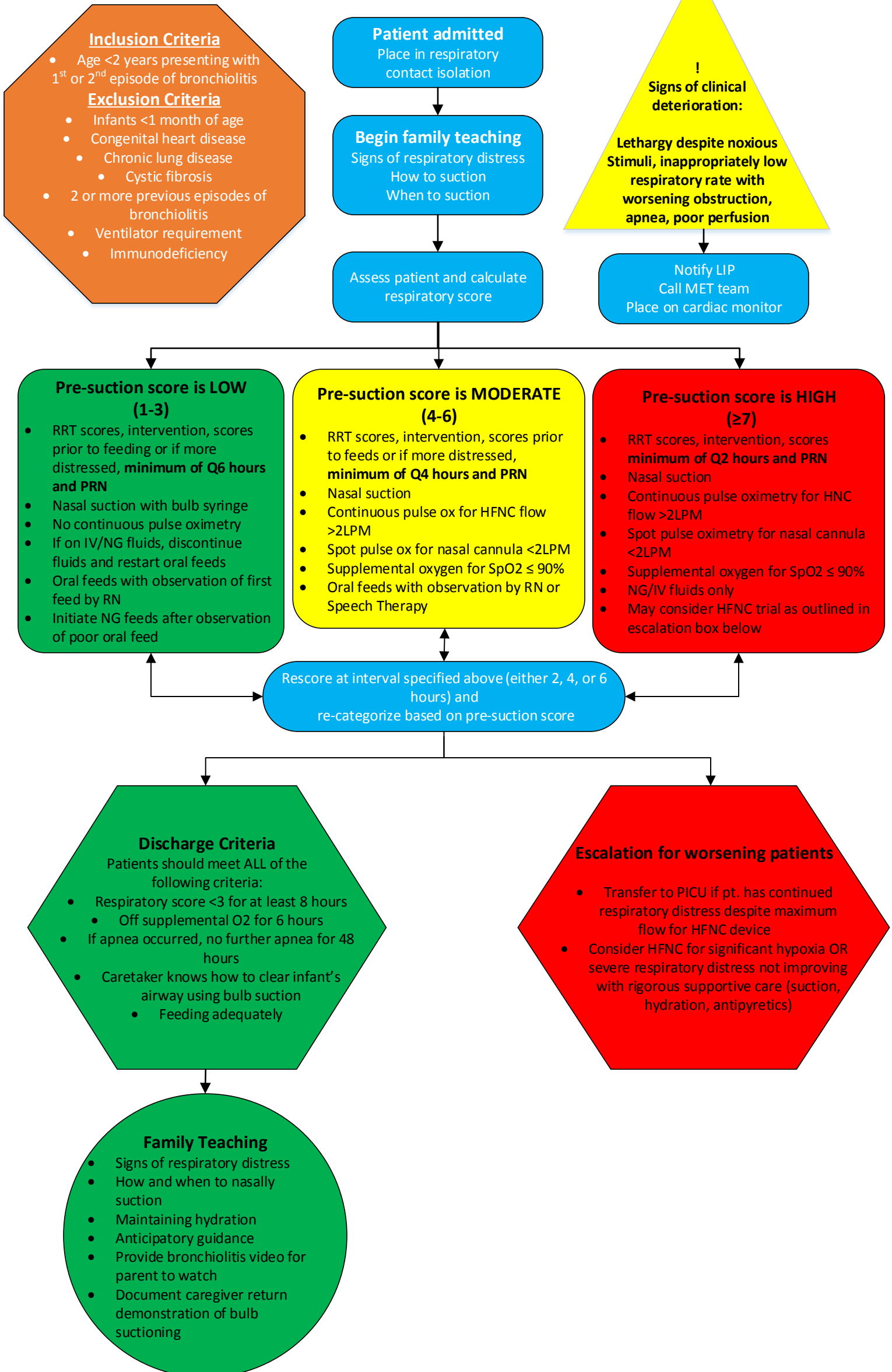
Consider Heart Rate along with assessment criteria

		Mild (0)	Moderate (1)	Severe (2)
RR	<3 Months	30-60	61-80	>80
	3 - <12 Months	25-50	51-70	>70
	1Y – 2Y	20-40	41-60	>60
WOB		None or Mild	Intercostal Retractions	Nasal flaring, grunting, head bobbing
Mental Status		Baseline	Fussy or anxious	Lethargic or inconsolable
Oxygen Requirement		None	< 1.5 liters	>1.5 liters
Suctioning		Bulb	Wall/Bulb	Wall
Breath Sounds		Clear	Crackles, Wheezing	Diminished breath sounds or significant crackles, wheezing
Cough		Absent or mild	Moderate	Severe

Bronchiolitis- ED Phase



Bronchiolitis- Inpatient Phase



Bronchiolitis Pathway Medication Dosing

Medication dosing for one-time trial:

Nebulization solution pre-diluted 2.5mg in 3ml NS (0.83%)

Aerosol inhaler (HFA): 90mcg/actuation 4 actuations/dose

Possible side effects include tachycardia, palpitations, tremor, insomnia, nervousness, nausea, and headache.

Use of tube spacers or chambers may enhance efficacy of metered dose inhalers and have been proven to be just as effective and sometimes safer than nebulizers.

Respiratory Scoring Tool

	0	1	2	3
Respiratory Rate	≤40	41-60	61-80	>80
Retractions	None	Intercostal only	Intercostal + subcostal	Suprasternal or chest/abdomen asynchrony
Wheezing/crackles	None	Expiratory		I/E or diminished aeration

Clinical Definitions

Bronchiolitis is an acute infectious inflammation of the bronchioles resulting in obstructive airway disease.

- Age <2 years (peak 3-6 months)
- Prodromal viral upper respiratory symptoms
- Lower respiratory symptoms follow
 - Small airway edema and epithelial cell sloughing
 - mucous production
 - bronchospasm
 - hyperinflation

Goals

To develop an evidence-based pathway for care of infants with bronchiolitis that standardizes care at Arkansas Children's and limits unnecessary testing and therapies.

Outcome Measures:

1. Patient safety: To reduce the number of bronchiolitis related emergent escalations of care to zero by July 1, 2019.
2. Patient experience: To reduce 7 day readmissions from 1.65% to < 1.5% for the same diagnosis by July 1, 2019 (Solutions for Patient Safety data).

Process Measures:

1. To increase bronchiolitis pathway adherence by 25% by July 1, 2019.
2. To decrease the number of patients treated with ineffective/inappropriate bronchodilator therapy from 54% to <50% by July 1, 2019 (PHIS data).
3. To increase the number of patients placed on the Heated Nasal Cannula (HNC)/High Flow Nasal Cannula (HFNC) pathway who are also on the bronchiolitis pathway from 70% to 90% by July 1, 2019.

Metrics

1. Readmission within 7 days for same diagnosis
2. Bronchodilator utilization
3. Number of emergent escalations of care
4. Length of stay comparable to benchmark

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