



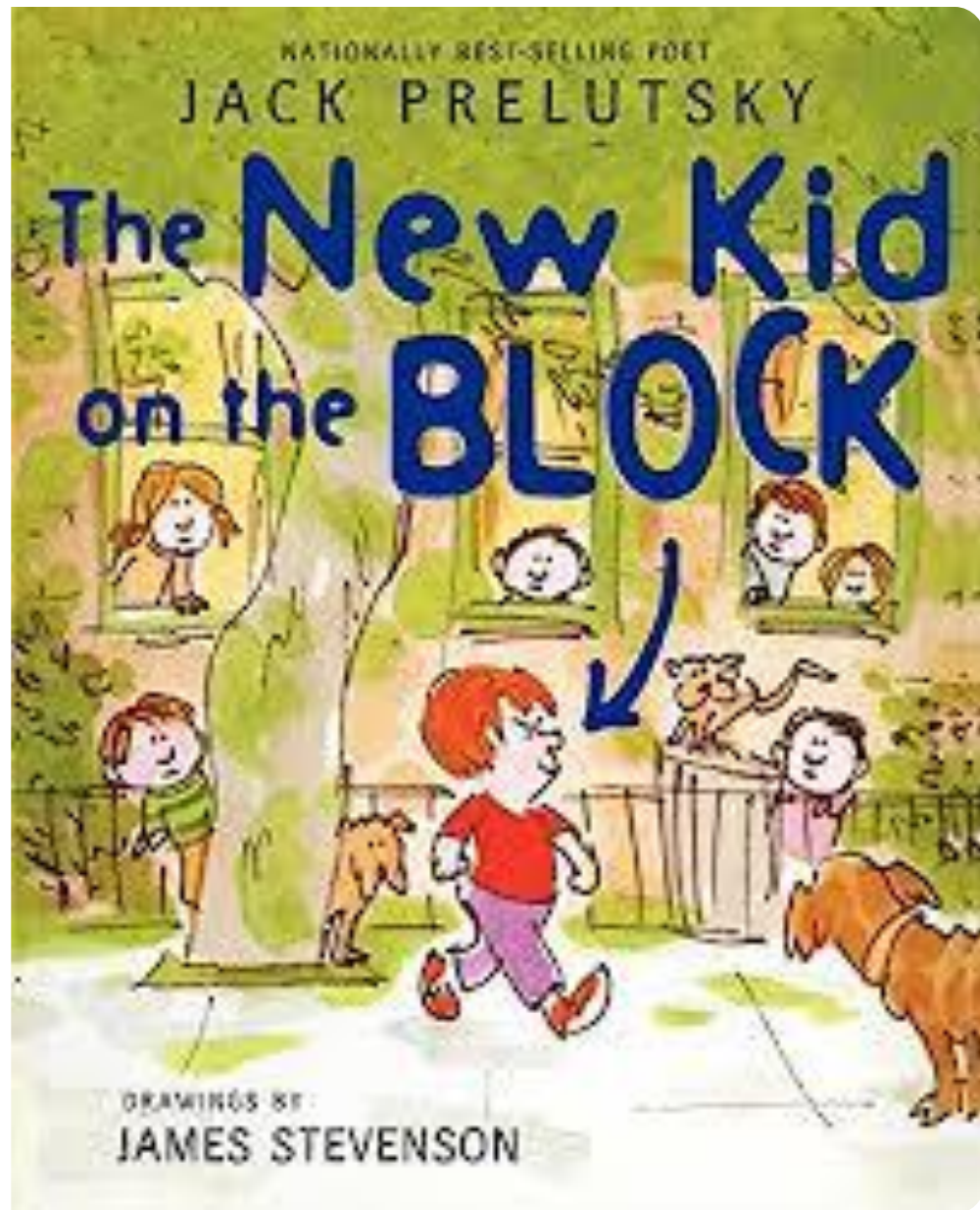
**What's
New?**

6 month male

- Bronchiolitis
- RR 60
- SpO2 88% room air
- WOB moderate to severe with head bobbing
- Irritable and agitated







HHHFNC
Heated Humidified
High Flow Nasal Cannulae





High Flow

- Non Invasive respiratory support
- Defined by Flow rate $> 2-3 \text{ L /min}$
- Usually $2-3\text{L/Kg/min}$ up to max of 60L/Min
- Humidified and Heated
- % inspired oxygen via blender
- Small binasal prongs 50% of nares

Fisher & Paykel
'Optiflow Junior'

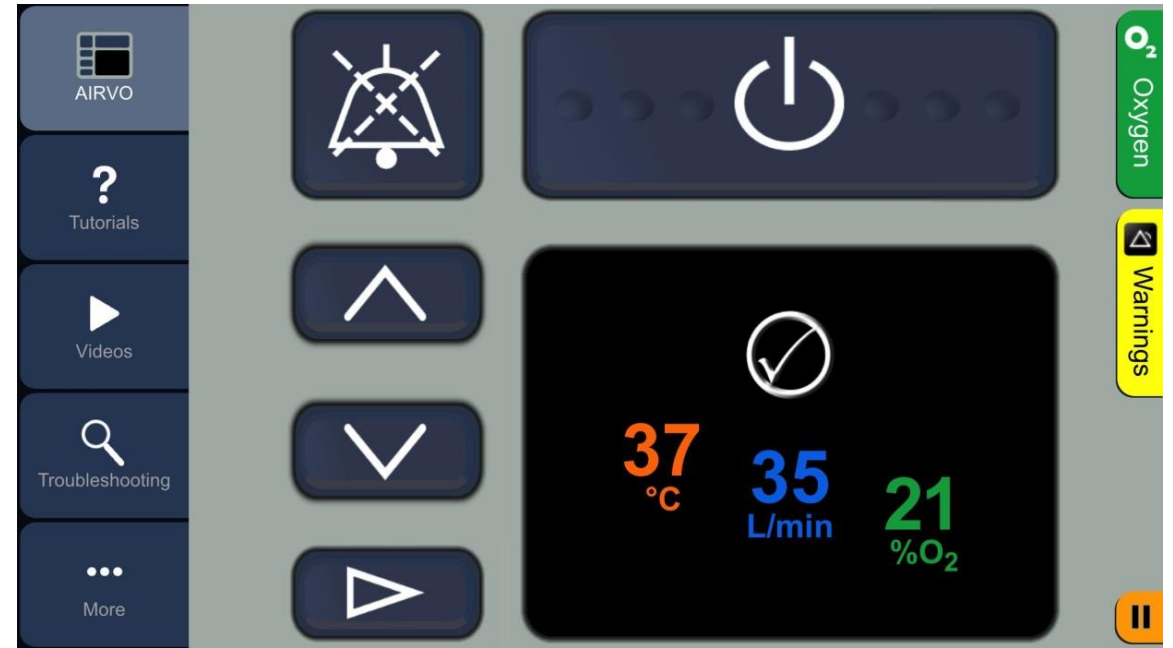


Vapotherm



ComfortFlo





Fisher & Paykel Airvo™

High Flow: How it works

- Aids inspiration: “respiratory unloading”
- Flushes out the anatomical dead space
- Increases FRC and tidal volume- “a little”
- Decreases work of breathing

Saslow et al. *Journal of Perinatology* 2006, de Jongh et al. *Journal of Perinatology* 2014, Trang et al. *Pediatr. Pulmon.* 2014


- Generation of variable distending pressure





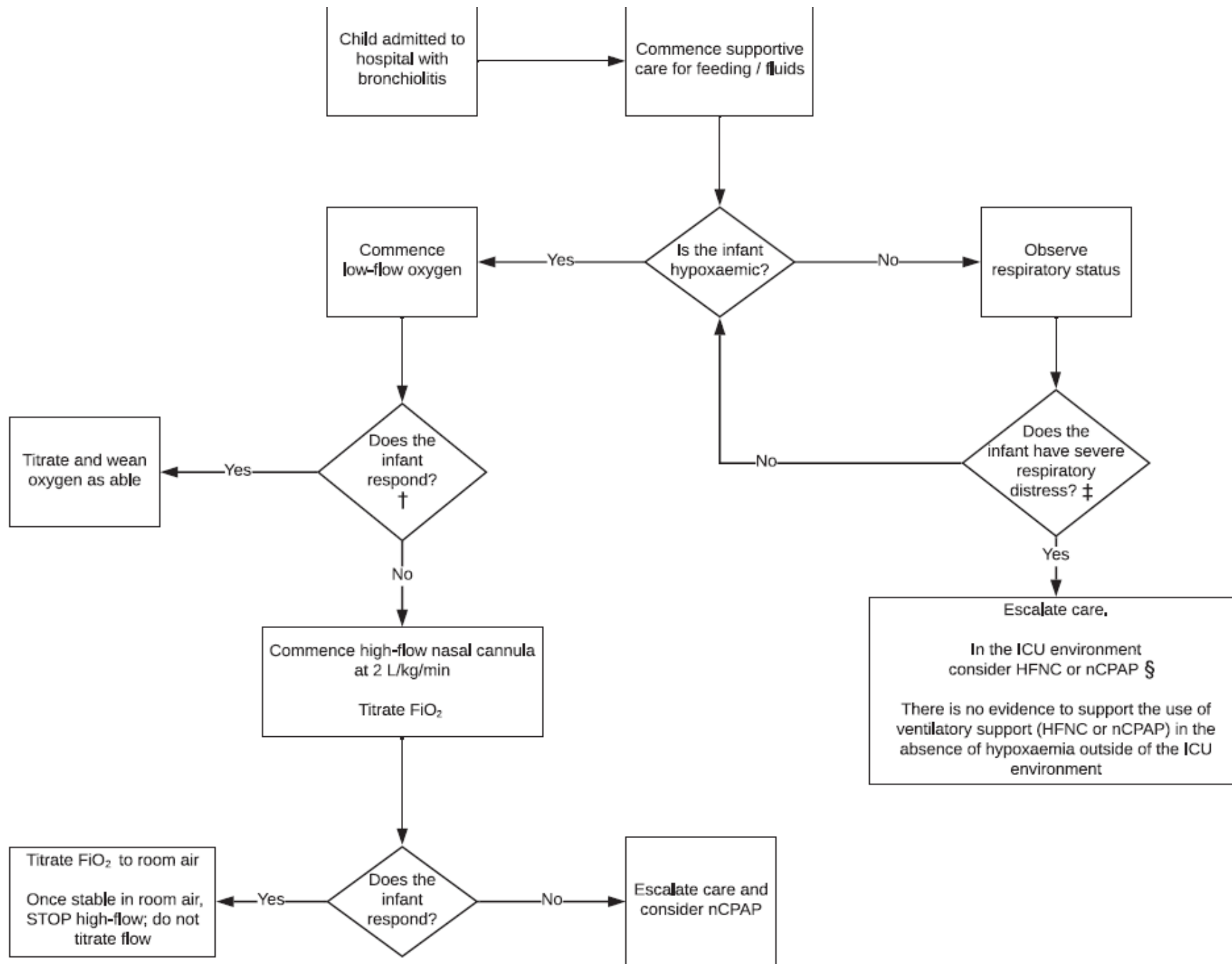
POSITION PAPER

**‘Rational use of high-flow therapy in infants with bronchiolitis.
What do the latest trials tell us?’ A Paediatric Research in
Emergency Departments International Collaborative perspective**

Sharon O’Brien,^{1,2} Simon Craig,^{3,4} Franz E Babl ,^{5,6,7} Meredith L Borland,^{1,8} Ed Oakley^{5,6,7,9}
and Stuart R Dalziel,^{10,11,12} on behalf of the Paediatric Research in Emergency Departments International
Collaborative (PREDICT) Network, Australasia

Summarises and critiques the 4 RCTs using High Flow in bronchiolitis

Author Date	Setting	Age	Intervention and comparison	Number	Primary Outcome
Campana 2014	Spain 2 hospitals (ward)	≤ 6 mths	6-8L/min F and P Vs 3L	75	Change score
Kepreotes 2017	Australia 1 hospital	< 24 mths	1L/kg HF Vs Nasal Canulae	202	Duration of Oxygenation
Franklin 2018	17 tertiary and regional Australia Hospitals	< 12 mths	2L/kg HF Vs Nasal Canulae	1472	Treatment failure
Milesi 2017	5 Tertiary hospitals France	≤ 6 mths	2L/kg HF vs 7 cm CPAP	142	Treatment failure within 24 hours



High Flow in Bronchiolitis

Supportive treatment

- Low flow oxygen
- Suction
- Feeds/fluids

If no response* and oxygen required
give High Flow

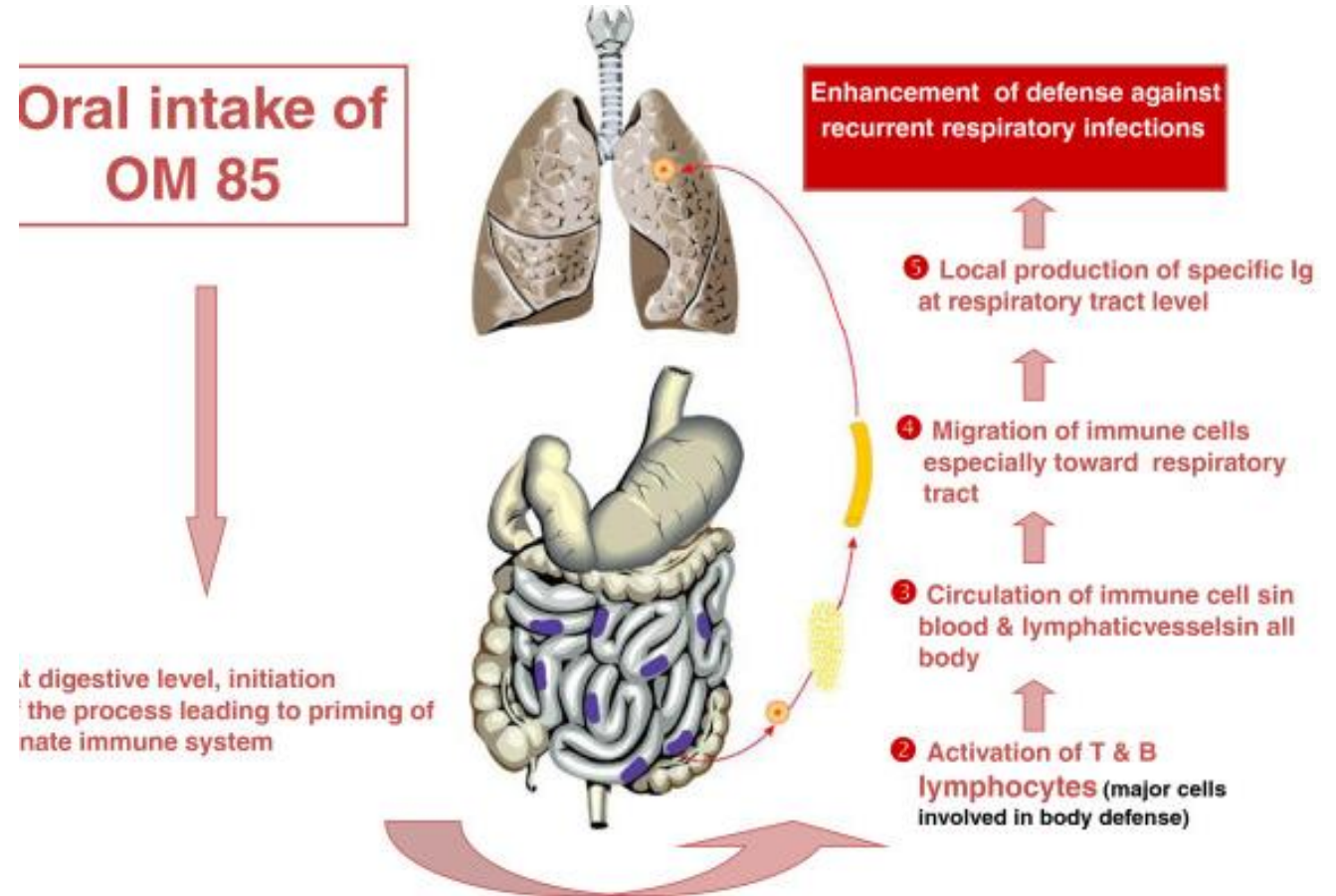
- *Response to therapy is defined as:
- Reduction in RR or HR or Early Warning System **within 4 hours of commencing treatment.**



**What's
New?**

OM – 85 For Preschool Wheeze

- Orally administered bacterial lysate stimulates immune system rebalances Th1 / Th2 systems
- Few days each month, capsule
- Used in Europe for 30 years
- Trials suggest can reduce respiratory tract infections by up to 40%
- One small study on recurrent wheeze in children 1-6 showed a benefit



OM-85 for preschool wheeze



- P In preschool aged children
- I Does OM-85
- C Compared with placebo
- O Reduce hospital admissions



Session 2 – The Vicki Burneikis Memorial Session

Wheeze in Children

Relevant HealthPathways

- Central Coast HealthPathways website –
<https://centralcoast.communityhealthpathways.org/>
Username: centralcoast Password: 1connect
- [Asthma in Children](#) section
 - [Acute Asthma in Children](#) pathway
 - [Non-acute Asthma in Children](#) pathway
 - [Inhalers and Techniques](#) pathway
- [Wheeze in Children Aged 1 to 5 Years](#) pathway
- [Bronchiolitis](#) pathway
- [Cough in Children](#) pathway
- Allergic Rhinitis and Nasal Obstruction in Children pathway
- [Urgent Paediatric Assessment](#) referral page
- [Non-urgent Paediatric Assessment](#) referral page
- [Paediatric Medical Advice](#) referral page
- [Non-urgent Immunology and Allergy Assessment](#) referral page