

Kidz First: **Bronchiolitis**

Please refer to the Starship Guideline for Bronchiolitis <https://www.starship.org.nz/for-health-professionals/starship-clinical-guidelines/b/bronchiolitis/>

The following are general principles for management of infants who present to Kidz First, Middlemore Hospital, with Bronchiolitis

1 Fluids

- i Fluids should be prescribed at 100% maintenance, although lower volumes (down to 70%) can be accepted if required for discharge or to avoid NG tube. Infants can breast or bottle fed - feeds may need to be given more frequently for a shorter duration.
- ii Fluids should be formula or breast milk (either breast fed or expressed).
- iii If an infant is unable to drink $\geq 50\%$ **maintenance** a nasogastric tube should be inserted and fluids given in 2-3 hourly boluses. These infants will require inpatient admission.
- iv If there is severe work of breathing, or the infant deteriorates with bolus feeds, fluids should be given by continuous nasogastric tube, or intravenously if enteral fluids are not tolerated. Baseline electrolytes should be obtained on IV insertion as hyponatremia due to SIADH can occur.
- v If there is shock or severe dehydration, fluid volume should be restored with IV isotonic fluid bolus in 20 ml/kg increments. Deficit due to mild to moderate dehydration does not require replacement.
- vi Infants with respiratory illness should not be given "rapid NG rehydration" (100 ml/kg over 4 hours) as this is likely to lead to respiratory compromise.

2 Oxygen (refer to the Kidz First guideline "[Oxygen therapy – Paediatric Inpatient Guideline](#)")

- i Supplemental oxygen should be commenced when there is **sustained hypoxia <90%**.
- ii Use wall oxygen up to 2 litres/minute delivered by intermediate/infant nasal prongs.
- iii If a higher FiO₂ is required or the PEWS score is not improving, consider changing to high flow nasal cannula oxygen therapy using the Airvo2.
 - Flow rate is 2 litres/kg/minute to maximum 25 litres/minute.
 - If SaO₂ is $\geq 85\%$, commence on FiO₂ 21% and increase FiO₂ slowly as required to SaO₂ >90%.
 - If SaO₂ <85% commence oxygen, once FiO₂ increases to >90%, wean FiO₂ as able.
- iv Weaning high flow oxygen:
 - When SaO₂ consistently >90%, wean FiO₂ slowly until AirVo2 display reads 21%. Then gradually reduce wall oxygen until turned off. If SaO₂ >90% is sustained for next 4 hours, remove infant from the AirVo2.
 - If the infant develops sustained hypoxia, replace HFNC and commence again on 2 litres/kg/minute on room air.
- v A nasogastric tube is essential for regular gastric decompression for all infants on high flow oxygen therapy even if not required for feeding.

3 Follow-up

If the infant is discharged there should be a low threshold for referral to the Kidz First Community nursing team for review the following day.

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