BRADFORD VTS TEACHING AIDS July 2026

Bronchiolitis in Babies

A primary-care teaching aid — recognise, act, refer

RECOGNISE ACT REFER ALIGNED TO NICE NG9

THE BIG PICTURE IN ONE LINE

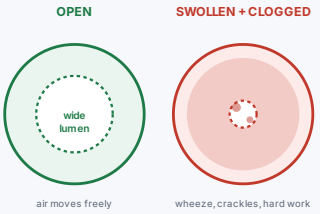
Bronchiolitis is a common **winter viral chest infection of babies**. The tiniest airways swell and clog, so breathing and feeding become hard work. **Almost every baby recovers at home with supportive care.** Your real job is to spot the small number heading for trouble — and to remember that no medicines "treat" it.

1 UNDERSTAND
What is bronchiolitis?

It is a viral infection of the **bronchioles** — the smallest airways deep in the lungs. The lining swells, mucus builds up, and cell debris collects. **Respiratory syncytial virus (RSV)** is the usual cause, but other viruses can do the same.

The swelling and mucus narrow the airways. That single fact explains every sign you will see: the **wheeze** and **crackles**, the **fast, laboured breathing**, the **chest recession**, and why **feeding gets so tiring.**

NORMAL AIRWAY VS BRONCHIOLITIS



MEMORY HOOK — THE SQUEEZED STRAW

Picture breathing through a drinking straw that has been **pinched and half-filled with mucus**. That is a bronchiole in bronchiolitis — which is why a baby can breathe *or* feed, but struggles to do both.

<2 yr	1 in 3	2–3%	Winter	Rare
Affects under-2s; peaks at **3–6 months**	Babies get clinical bronchiolitis in year 1	Of all babies need hospital admission	Seasonal epidemics, roughly **Oct–Mar**	Death is uncommon; most fully recover

Epidemiology and all clinical thresholds in this aid: NICE NG9, Bronchiolitis in children: diagnosis and management (2015, updated 2021), unless otherwise stated.

▲ What's changed from older teaching

- **Age range is under 2 years** (peak 3–6 months), not "under 1".
- **Feeding trigger is 50–75%** of usual intake, not "under 50%".
- **Oxygen thresholds updated (2021):** refer if SpO_2 <92%; admit if <90% (≥6 wks).
- **Prescribe nothing:** no antibiotics, salbutamol, steroids or adrenaline nebs.

2 RECOGNISE

How it presents — the classic pattern

Bronchiolitis follows a recognisable sequence. A cold comes first; the chest signs follow a day or two later.

DAYS 1–3 · CORYZA
Runny nose and mild cough — looks like an ordinary cold.

→

THEN · CHEST
Persistent cough, plus **fast breathing and/or chest recession**, plus **wheeze and/or crackles**.

→

PEAK · DAYS 3–5
Symptoms are at their worst around day 3–5, then ease.

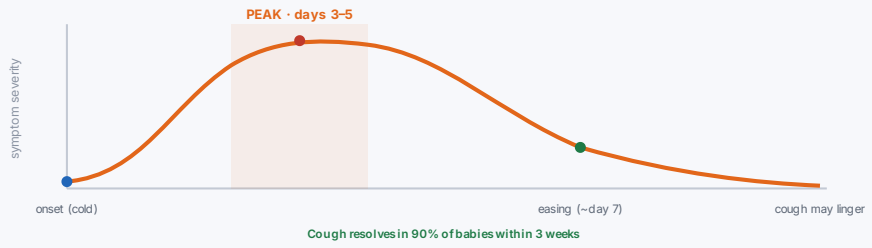
DIAGNOSE BRONCHIOLITIS WHEN

A coryzal prodrome of 1–3 days is **followed by**: persistent cough **—and—** tachypnoea or chest recession (or both) **—and—** wheeze or crackles on auscultation (or both). Low-grade fever (usually below 39°C) occurs in about a third; feeding usually drops off after day 3–5.

▲ The trap you must not miss

A baby under 6 weeks old can present with apnoea alone — pauses in breathing with no other obvious signs. In this age group, take reported or observed apnoea seriously and treat it as a red flag. Do not wait for wheeze or recession to appear.

THE ILLNESS CURVE — WORSE BEFORE BETTER



THINK AGAIN

Look-alikes to rule out

Consider instead	Clue that points away from bronchiolitis
Pneumonia	**High fever above 39°C** and/or **persistently focal crackles** in one area. Think pneumonia rather than bronchiolitis.
Sepsis	A seriously unwell baby — always keep sepsis in mind and assess for it (see NICE NG254, suspected sepsis in under-16s).
Viral-induced wheeze / early asthma	Persistent wheeze **without** crackles, recurrent episodic wheeze, or a personal/family history of atopy. Unusual under 1 year of age.

3 ACT & REFER

How sick is this baby?

Assess breathing, oxygen, feeding and hydration, then place the baby in one of three bands. The traffic light tells you what to do.

999 NOW
Emergency admission

- **Apnoea** (seen or reported)
- **Central cyanosis**
- **Severe respiratory distress** — grunting, marked chest recession, or RR **over 70**/min
- **Looks seriously unwell** to you

REFER TO HOSPITAL
Arrange assessment

- RR **over 60**/min
- Feeding difficulty or intake **50–75%** of usual
- **Clinical dehydration**
- Persistent **SpO_2 below 92%** in air

MANAGE AT HOME
With safety-netting

- Feeding adequately (over 75% of usual)
- No red or amber features
- Reliable carer able to spot red flags
- **Always safety-net** (see page 4)

◎ Oxygen saturation — the numbers that matter

- Measure SpO_2 in **every** suspected case if oximetry is available.
- **Refer** from the community if persistently **<92%** in air.
- **Admit** (secondary care) if **<90%** at age ≥6 weeks, or **<92%** if under 6 weeks or any underlying condition.
- Interpret with care — oximeters can **over-read in babies with dark skin**.

▲ Impending respiratory failure

Escalate urgently for possible intensive care if you see:

- **Exhaustion** — listlessness or falling respiratory effort
- **Recurrent apnoea**
- **Cannot keep SpO_2 up** despite oxygen

◉ Lower your threshold — risk factors for severe disease

- Age **under 3 months**
- **Premature** birth, especially under 32 weeks
- **Chronic lung disease** (including bronchopulmonary dysplasia)
- **Haemodynamically significant congenital heart disease**
- **Neuromuscular disorders**
- **Immunodeficiency**

ALSO WEIGH THE FAMILY, NOT JUST THE BABY

Before sending any baby home, judge the carer's **confidence to spot red flags**, their **social circumstances**, and the **distance to help** overnight. A borderline baby with an anxious first-time parent far from hospital is a different decision from the same baby with an experienced carer next door.

◉ Cot-side assessment — keep it simple

- Count the **respiratory rate over a full minute** when the baby is settled.
- Look for **recession, nasal flaring and grunting** — the signs of hard work.
- Ask feeding as a **% of normal** over the last 24 hours.
- Check hydration — **wet nappies**, mouth, and skin.

4 MANAGE

What helps — and what to avoid

✓ Supportive care IS the treatment

- **Keep them hydrated** — small, frequent feeds. If not feeding, fluids by NG/OG tube; IV isotonic fluids if the tube is not tolerated or failure is impending.
- **Clear the nose** only if secretions cause distress or block feeding — nasal saline or gentle suction. Do **not** suction routinely.
- **Give oxygen** if SpO_2 is persistently low (thresholds on page 3).
- Reassure: most babies **improve within a week**.

■ Do NOT prescribe — none of these work

- **Antibiotics**
- **Salbutamol** and **ipratropium bromide**
- **Systemic or inhaled corticosteroids**
- **Nebulised adrenaline** (and the steroid + adrenaline combination)
- **Montelukast**
- **Nebulised hypertonic saline**

This is the single most important prescribing message in bronchiolitis.

◎ Investigations — keep it clinical

- Do **not** routinely do **blood tests**.
- Do **not** routinely do a **chest X-ray** — changes mimic pneumonia and lead to needless antibiotics.
- Do **not** do **chest physiotherapy** unless a specific comorbidity (e.g. spinal muscular atrophy, severe tracheomalacia).
- Diagnosis is **clinical** — history and examination.

◆ SAFETY-NET

Every baby sent home needs this

Give parents clear, written "red flag" advice and tell them exactly how to get urgent help. This is not optional — it is the safety mechanism that makes home care safe.

▲ Tell parents to seek urgent help if the baby has

- **Harder work to breathe** — grunting, nasal flaring, marked chest recession
- **Pauses in breathing (apnoea)** or **going blue (cyanosis)**
- **Feeds under 50–75%** of normal, or **no wet nappy for 12 hours**
- **Exhaustion** — not responding normally, wakes only with lots of stimulation

◉ And complete the safety-net

- **No smoking** in the baby's home — it makes bronchiolitis worse.
- Make sure the carer knows **how and where** to get immediate help day or night.
- Arrange **follow-up** if needed, and re-assess readily if they return.

◎ Complications to watch for

- **Dehydration** from poor feeding
- **Exhaustion** from the increased work of breathing
- **Apnoea**, especially in the very young
- **Secondary bacterial infection** (e.g. pneumonia)

5 PREVENT — NEW SINCE OLDER NOTES

The RSV immunisation programme

The UK now actively prevents RSV bronchiolitis — genuinely new since older teaching notes. Two complementary approaches protect babies.

Maternal vaccine — protects most babies

Abrysvo (RSVpreF), a single dose offered **from 28 weeks in every pregnancy**. The mother's antibodies cross the placenta and protect the newborn for around the first 6 months.

Offered routinely in England since September 2024. Source: UKHSA / GOV.UK Green Book; NHS England.

Nirsevimab — protects high-risk babies

A **long-acting monoclonal antibody** giving ~6 months' protection in one dose. For babies born **very preterm (under 32 weeks)** who miss maternal protection, and infants with serious heart, lung or immune conditions.

From September 2025; replaces monthly palivizumab. Source: NHS England / UKHSA.

WHY THIS MATTERS IN YOUR CONSULTATIONS

Prevention is now part of the bronchiolitis story — flag eligible pregnant women and high-risk infants for immunisation, not just manage the illness once it arrives.

RECAP

The whole aid on one screen

Bronchiolitis in eight lines

- **What:** common winter viral chest infection of under-2s (peak 3–6 months); RSV is the usual cause.
- **Recognise:** cold for 1–3 days → then cough + fast/laboured breathing + wheeze or crackles.
- **Course:** worse before better — peaks day 3–5; cough clears in 90% within 3 weeks.
- **999 now:** apnoea, cyanosis, RR >70 / grunting / marked recession, or looks seriously unwell.
- **Refer:** RR >60, feeds 50–75%, dehydration, or SpO_2 <92% in air.
- **Lower threshold:** under 3 months, preterm, heart/lung disease, immunodeficiency.
- **Treat:** supportive care only — **no** antibiotics, salbutamol, steroids or adrenaline nebs.
- **Then:** safety-net every baby sent home; prevention now exists (maternal vaccine + nirsevimab).

Acknowledgements & disclaimer

Rebuilt and clinically updated for Bradford VTS from an earlier teaching note (original author H. Faries). Clinical content aligned to **NICE NG9** (2015, updated 2021); prevention section from **UKHSA/GOV.UK Green Book** and **NHS England** (2024–2025).