Paediatric Respiratory Illness Virtual Event
Q&A document

The below questions were put forward by the audience during the event but not picked up on within the live discussions. They have been responded to by two of our panelists:

Dr Matthew Dolman – GP (Axbridge Surgery) and South West Primary Care Network Clinical Lead

Dr Sarah Bridges – Consultant Paediatrician, Musgrove Park Hospital

Please refer to your local ICS guidelines to explore the below questions and answers in your local context.

Diagnosis:

In young children under one on clinical grounds is it possible to distinguish between bronchiolitis and viral induced wheeze?

- If this is the first illness, then it is not possible to easily distinguish. Viral induced wheeze tends to be used in a child over 12 months with recurrent wheezy symptoms that start with the onset of an URTI but who has no interval symptoms. The pathology of viral wheeze is bronchospasm rather than inflammation in bronchiolitis which explains the difference in response to treatment. Bronchiolitis is inflammation in the bronchioles and does not respond to bronchodilators. Distinguishing between bronchiolitis and viral induced wheeze is tricky in those 10-18 months where both can present in a very similar manner. Viral induced wheeze will respond to inhalers whereas bronchiolitis will not. More info here: https://www.rcemlearning.co.uk/foamed/coughing-wheezy-and-stridulous-children/

Does bronchiolitis cause lung scarring?

- No there is no evidence of lung scarring but babies can persist with wheeze and cough for 6-8 weeks. Some of these babies will go onto be happy wheezers, viral induced wheezers or have asthma but there is no evidence that this is caused by initial bronchiolitis.

Treatment:

Are oral steroids ever helpful in treating children with bronchiolitis?

- No, we would not routinely use steroids in a child under 12 months. There are rare exceptions when a child is admitted with a story of recurrent wheeze, atopic family and personal history and seems to have some reversibility when salbutamol trialled. https://www.nice.org.uk/guidance/ng9

Is prednisolone effective for croup, if so, what's the dose?

- There is evidence that prednisolone is non-inferior to dexamethasone. The dose would be 1mg/Kg for 3 days https://bnf.nice.org.uk/treatment-summary/croup.html

Having said that many people are moving the other way and looking to dexamethasone for asthma because of taste, cost and side effects

Would the cut off 10months for bronchodilators trial applicable for pre-term babies?

- We advised that if you are planning transfer to hospital, you may wish to trial bronchodilator whilst awaiting transfer. You will generally have already discussed this with the Paediatric department that you are transferring to. In most cases this would be applicable to preterm babies as well.

Is Ventolin multi dose plan helpful for viral wheeze? Would montelukast be better option?

- Both options could be trialled. Salbutamol regularly is used for acute symptoms if improvement is seen but some clinicians advocate starting montelukast at the start of symptoms and continuing for 2 weeks as some evidence that shortens the length of symptoms.

Is over the counter med Bronchostop junior useful in bronchiolitis?

- This is a herbal medicine and there is no evidence of efficacy. https://www.gov.uk/government/publications/advertising-investigations-november-2020/promotion-of-bronchostop-products-on-retailer-web-pages

Practical tips: how to give 10 puffs salbutamol with spacer?

- This can be tricky, and you need a calm confident parent. Where babies are panicked by having the mask tightly over the face you can turn the Volumatic spacer vertically (mask down) so that the valve falls in the open position and hold close to the face. We would recommend watching videos available on the asthma website and also signposting children to these. https://www.asthma.org.uk/advice/inhaler-videos/facemask-child/ If the child is young, then often you will need 2 adults to effectively deliver the treatment, one to hold the child and one to give the inhaler. With time, most children become very tolerant to inhalers.

Investigations:

Should GPs in primary care out of hours be attempting to take samples for RSV?

- I can't really see the advantages of this as would not change management. Swabs are usually taken in hospital to help with infection prevention and control measures and allow assessment of whether children need to be isolated. Public Health England (PHE) track the results of these swabs to help model and prepare for spikes in RSV. At present, PHE do not require GPs to send swabs for suspected cases, but this may change in the future.

Should we do BM check on baby/ toddler at GP surgery?

- I am assuming by BM the delegate is meaning blood sugar level. This would **not** be a routine investigation that we would recommend for straight forward bronchiolitis

Admission criteria

SO2 < 92% sounds scary. Can we be confident to not send to secondary care if SO2 93-94% if feeding > 50%, PU, alert?

- Yes, that is the opinion of evidence and experts and is described in the new version of bronchiolitis NICE Guidance. To put this into context, in hospital if a baby is over 6 weeks and has no underlying respiratory disease we would be discharging if the saturations are above 90% for a 6-hour period to include sleep, wake and feed. There are of course always social or family reasons why you may need a lower threshold for admission with some babies.

Any tips of using Paediatric pulse oximeter to ensure accurate results?

- This is a notoriously tricky issue. There are a number of things that you can try to make it a little easier – but even in experienced hands can be hard. We are currently looking at making a video for our local primary care colleagues. General advice includes:
    - Use appropriate baby saturation monitor – correct probe and machine
    - Wrap around palm/foot in smaller babies
    - Make sure hand/foot is warm.
    - Consider occluding eternal light with blanket/mitten over hand
    - Occupy baby with feed/sucrose
    - Put monitor on at start whilst you are carrying out rest of examination to allow baby to calm and be distracted by other things.

Do we need to allow any SO2 variance for dark skin?

- There have been concerns about this in adult medicine. It has **not** been raised as in issue in young babies. Saturation alone is not a useful indicator and needs to be used along with all the other parts of history and examination

Information:

Where can I find the Healthier Together Framework?

- https://what0-18.nhs.uk/application/files/2615/1024/6437/CS45385_NHS_Bronchiolitis_Pathway_Primary_and_Community_Care_Nov_17.pdf

Is healthier together available in different languages?

- I assume this question relates to the safety netting document for families. I cannot see that it is yet available in different languages. https://what0-18.nhs.uk/professionals/gp-primary-care-staff/safety-netting-documents-parents/bronchiolitis

The Healthier Together leaflet gives red flag temperature advice for under 3 months old, what would be red flag advice for older babies/children temps please?

- You will find this within NICE fever guidance but as a summary is described as:
    - Babies under 3 months – temp above 38 puts them in high risk
    - Babies 3-6 months – temp above 39 puts them in at least intermediate risk

However do not use temperature alone as an assessment of severity or likely underlying illness *https://www.nice.org.uk/guidance/ng143/resources/fever-in-under-5s-assessment-and-initial-management-pdf-66141778137541*

Infection Control

If seeing F2F are surgeries seeing these children in a Covid zone?

- The majority of GPs we have a spoken to, are seeing their respiratory patients in a dedicated area of their building.

Do we need to rule out covid in these babies and how should we do this please?

- The national guidance is currently that babies with symptoms of bronchiolitis (new onset cough) would be advised to have a covid swab. Of course, this advice is changing all the time so needs to be checked regularly.

What do panel members say to parents about smoking?

- When a baby is admitted to hospital, we will advise parents that smoking increases the risk of upper respiratory tract infections – despite smoking outside, changing clothes, etc. We always advise parents to consider quitting smoking and there is good evidence that it will reduce attendances to a medical professional.

What is the risk of Covid to babies vs RSV?

- Historically we have not seen many babies with COVID, but the first few babies are currently coming through PICU with the delta variant. It is uncertain at present whether this is because the virus has mutated in a way that allows it entry to only hosts now available - children - or whether a result of coinfection with RSV. So, I don't yet know the answer – watch this space.