

## “Vomiting in the NICU” Dr. Burdo-Hartman – Q&A

- 1) **What do you think about using wedges to elevate and Tucker slings for positioning for home use?**

I have never seen the Tucker sling so cannot comment on its use. Because of Safe Sleep Policy I do not recommend any thing in the crib for babies at home.

- 2) **I understand the dynamic between carbs and carbon dioxide, but what impact does that have on feeding? Isn't that more of an effect on mechanical ventilation needs?**

I was thinking of thickening in infants where we are mainly using infant cereal as the thickener. This is absorbed and affects the carbon dioxide load.

- 3) **Have you noticed decreased reflux with a slower flow nipple or a vacuum free system? Especially for those eager infants that eat very fast.**

Certainly decreasing the resistance has been very helpful. I do not usually use nipple flow to decrease vomiting.

- 4) **Do you find that a premature baby who is refluxing demonstrates poor state control? I have seen a few over the last few weeks that show increased stress signals with any stimuli, decrease po intake, and have some vomiting.**

Sometimes it is hard to know if it is the vomiting that is causing the poor state control or if there is some other stress factor that is causing the poor state control and leading to the vomiting. Such as if the premature infant has lung disease and they need more respiratory support. They may present with increased vomiting. There are some infants though who seem to be having distress related to feeding and if that is reduced they are happier, sleep better and are able to tolerate therapies better.

- 5) **Our RDs say that sim spit up is not a good formula for "preemies" due to the nutrition.**

That is one of the big concerns about using these formulas in premature infants. However, if it helps with their feeding and lessens the vomiting then they may actually have better growth. We may need to supplement with other nutritional additives.

- 6) **How can I help these preemies directly in our level 2 NICU without any of the assessments you've mentioned- ph impedance, etc.**

Working closely with your team you decide which interaction to try first. You may first make adjustments in positioning and slowing the feedings down, pacing with feedings, etc. Then possibly looking into a formula change with the dietitian. Lastly, if things are not getting better looking into medication.

- 7) **What is the concern regarding with when thickening the carbohydrates provided to infants with chronic lung disease?**

One of the things that happens with your lungs is that you blow off Carbon dioxide. If we have an excess load of carbohydrates then those infants don't always get rid of that, and they can have a buildup of Carbon Dioxide in their system and they already tend to have high carbon dioxide.

- 8) **What are your thoughts on using gabapentin for GI hypersensitivity?**

First, we work through everything else looking at any other reasons that might be going on with a child having that discomfort. If we have looked at everything else and it really seems to be a

hypersensitivity or visceral hyperalgesia, I will use gabapentin starting at pretty low doses, 5 mg/kg/day. Then I usually like to wait at least a week before I try increasing because I think it takes a little time for the receptors to get mediated, but we do sometimes use gabapentin.

**9) Is true that pre-thickened formulas do not work if the patient is on reflux meds because there is no stomach acid to mix with?**

That is theoretically true. Sometimes though we have noticed particularly if we are concentrating the formula the kids to sometimes get some benefit from those formulas. Depending on the dose of proton pump inhibitors, there maybe be some stomach acid present to activate the formula

**10) What formulas are you referring to?**

The 2 big ones in the US are Enfamil AR and Similac Spit up. Where it's part of the formulation that those formulas when they get into the stomach will become thicker and some of the studies show that because it didn't rely on humans to mix the formula and then add the cereal or whatever, they are a little more stable when it comes to what the nutrients are and the caloric density, etc.

**11) Are there any age restricts to use of pre thickened formula?**

There are not. The big thing is that for the preemie infant if they are requiring a lot of extra calories it's hard to get that sometimes with those formulas. You are only supposed to increase caloric density up to 24 cal/oz but if you are working with term infants they can have those formulas right away

**12) Do you have any references you can share regarding the use of Erythromycin in premature infants?**

Here is the link to one of the references. <https://www.ncbi.nlm.nih.gov/pubmed/19218823>