

Alternative Birth Practices – What the Pediatrician Should Know - Pediatric Grand Rounds-5-30-2025- Meeting Recording

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50m 31s

● **Kamat, Deepak M** started transcription



Bierwirth, Noah Christian 0:31

Doctor Kamal, would you like for me to introduce Doctor King or wait a few minutes before?



Kamat, Deepak M 0:33

Yeah, just let let me start it and then you can decor.

Good morning and welcome to pediatric grand rounds.

Again, this will be the graduating fellows presenting so today it will be Doctor Jordan Kang, who is the neonatal perinatal fellow graduating this year, and doctor Noah Bierwath, who is Associate Fellowship program director for neonatal pain in fellowship, will be introducing her doctor Bierwirth.



Bierwirth, Noah Christian 0:52

Can you?



Kamat, Deepak M 1:02

Go ahead and introduce Doctor, Doctor. Ken.



Bierwirth, Noah Christian 1:05

Thank you Doctor Kamat.

I'm very pleased to be introducing Dr. Kang for pediatric grand rounds today.

She is a pediatrician and a neonatal perinatal medicine fellow, graduating this year from our fellowship program, and she'll be presenting today on alternative birth practices.

What the pediatrician should know.

While she's currently practicing here in San Antonio, her hometown is an Amarillo,

TX.

But she's been all around Texas during her medical training from Baylor for her undergraduate education to Fort Worth for medical school at Tcom and then to Lubbock for her pediatric residency before finding finally joining us here in San Antonio for her NIU fellowship. After her fellowship, she'll be.

Returning to Lubbock to work in the NICU associated with the pediatric residency program.

And her past, Nikki.

Includes spending time with family and friends, watching historical documentaries and trying to convince her two poodles, pepper and jet, to get along.

Doctor Kang, take it away.

We're excited to hear from you. Thank you.



Kang, Jordan Rose 2:08

Thank you so much, Doctor Bearworth and Dr. Kamat. So like as I said, my name is Jordan, one of the graduating and 3rd year Nikki Fellows.

And my two poodles are currently having to share a room in the other part of my apartment.

So hopefully they'll behave for today's presentation.

But I just to kind of start off, I chose this topic.

Hopefully it was an eye-catching enough headline and this is something that I've come across, some interesting scenarios being in deliveries and just kind of wanted to know a little bit more about some of these things that parents and ob's were asking me and so.

Can I looked more into the literature about this and so hopefully you guys will find it as interesting as I did, but please, if there's at any point anyone has any questions or comments, please feel free to chime in.

But with that, we will go ahead and get started.

As far as disclosure and I have nothing to disclose, I do have a few cute little comics that I've kind of interspersed here, but this one I thought was really cute, something that we and the Nikki really enjoy seeing when we go to deliveries. As far as things. That babies do when they're born.

We really like it when they do breathe and and cry for us, so I thought this was a little cute, but nothing to disclose.

So there is a lot of things that can be talked about with this topic. And so I tried to

pick some of the ones that I've either come across or kind of had questions about. Some interesting things, and I think you can kind of go into the weeds a little bit here on some of these, but I tried to just do a very kind of brief overview or at least highlights kind of some of the most important things for each of these.

Topics you know hopefully interesting.

Like I said, not just for those of us in the NICU seeing these babies at deliveries and and possibly managing them in the the NEO ICU, but even for our pediatric colleagues that either work in the nursery or in the outpatient clinic setting just some important things to.

Know should any of their patients have had these practices happen?

Or if parents bring up these questions, hopefully some good things I can share with you guys about each of these topics.

And again, kind of the reason why I looked into this alternative birth practices as a whole have really increased in recent years.

I think there's a lot of.

Movement in kind of the mom and baby world as far as trying to, you know, see what is out there. As far as say, for for you know, delivery processes and for babies. And I think the science.

This is slowly starting to catch up and I think a lot of these, unfortunately there's not a lot of great evidence based literature, but we'll kind of get into that more in each particular topic.

But definitely myself as Nikki fellow, even in residency, I came across situations where I was asked questions about some of these recommendations or practices or kind of what I thought about them and then being involved in the care and evaluation of these infants.

Just some things I wish I had known or had to go and look up kind of after the fact so I could be better informed and so.

Just wanted to highlight, you know, at least a cursory.

Knowledge of some of the risks and benefits of some of these practices are important for those of us taking care of these patients and counseling these families. So I did use a few resources and when I looked into this, there's a really great clinical report from the AP back in January of 2022 that kind of looks more at the infectious concerns for some of these practices.

So it's a really good article.

Not too long of a read, so definitely recommend it for anybody that's interested to to

look into things a little bit more.

Has some good references as well.

And then this was another article I really enjoyed from the Journal of Pediatrics in October of 2023.

So definitely kind of use these very heavily for kind of looking at.

The the literature kind of the response from some organizational bodies for some of these recommendations, but without further ado, going into our first topic is water immersion for labor and or delivery.

So this is something where warm water is used for the mother really to benefit pain control or for pain relief during the labor process and or delivery.

The numbers are very hard for this practice and so.

 **pat herndon** 6:08

OK.

 **Kang, Jordan Rose** 6:11

So it's estimated that the is about, you know, less than 1% of the births that are happening in the US are by water birth. And this is really just again an estimate from the number of home births that there are in the US and that's around 1:00.

To 1 1/2% of all births in the US occur outside of the hospital, such as, you know, birthing center at home with the midwifery service or things like that.

So again, hard to get some numbers.

Not too common of a practice as far as the water birth part, but definitely.

The water immersion for labor is becoming more and more.

We even have the option for that in our hospital at university that I'll get into here in a little bit as well. But I did find an estimate of about 10% or just under U.S. hospitals are offering this option for moms and that's specifically the water IMM.

For labor.

And there aren't any hospitals currently offering water birth in house, and we'll get into why that is the case.

I found some other interesting data.

In other countries, we know practices are very different. You know, country to country. But there were some European countries.

I found in the UK and Sweden that immersion rates were as high as 25 to 50%.

This is something that's definitely utilized across the world and I think we're trying to,

you know, get better recommendations for it here in the United States.

So like I said, there are benefits to this and they have been proven in studies as far as during the first stage of Labor working towards cervical dilation.

And so it's been shown to reduce the requirement for regional anesthesia, decrease labour duration and it has been found to not have any increased risk.

Neonate and when it is used for that portion of Labor, however, into the second stage of Labor, that's when your when mom is 10 centimeters and actively pushing. There are some concerns that come into play at that standpoint as far as neonatal infection aspiration. If Baby is born.

In the water, and then even cord avulsion has been reported as well.

So For these reasons, ACOG and AAP recommend against the use of water immersion beyond the first stage of Labor.

And really.

For those that they recommend this practice for, if moms are interested, they really try and limit it to those very low risks. If Alec pregnancies just to try and make sure that there aren't any other risk factors to be concerned about.

There haven't been any increase in adverse events noted in clinical trials. The AEP reports do comment that these are, you know, quote, low quality, but there are case reports of some, you know, complications and deaths. So that's why the recommendations have been to only allow it during the.

First stage of Labor and the infectious concerns really come from waterborne organisms.

It can be very hard to manage or, you know, clean the the tub or the equipment and things like that, or you have to be very specific in how you go about that process and their recommendations.

For that, but specifically Legionella and P.

Pudmonas are two of the biggest ones from that standpoint, and there was a case scenario if you have the history of having an infant being born by water birth and they're, you know, presenting with respiratory distress, pneumonia, you're having culture negative sepsis.

Just something to keep in the back of your mind if you if you do see an infant like this that hey, they could be at risk for, you know, Legionella acidomonas.

And so like I said, there aren't any universal guidelines for this practice.

But there are some specific state level or public health guidelines and these kind of really came about after some reported cases of complications and unfortunately

there was a case in 2014 in Texas of a of a baby that did pass away from Legionellosis after a water birth.

And it was from a home midwifery service.

And so after that, Texas did create some some guidelines for for home midwives on kind of how they're supposed to clean their equipment.

And prevent this and kind of how to go about it for our best safety for moms and babies. And like I said, as far as our own institution here at university as of May 5th. So the beginning of this month, university is now offering water immersion and I underlined during the first stage of Labor only and eligible mothers.

And so we actually have two rooms in Ind that have this capability that have a tub in the room and there is a very extensive list of requirements and conditions and I didn't want to include all that because it's it's multiple pages and so essentially just really trying.

Limit it to this very low risk mothers, and again, just for the first age of Labor, for for pain relief and some of those other benefits that we talked about.

So the next topic I wanted to bring to you all is attention is called vaginal seeding and this is one I had heard about.

Haven't been asked about necessarily, but I found it pretty interesting.

So this is something where, you know, there's a lot of, you know, conversation that babies microbiome is influenced by the exposure to maternal bacteria in vaginal canal during delivery. We know that that's a very positive occurrence for for babies and their influence of their microbiome.

So vaginal seeding is a process for these babies.

That are born by C-section to actually be inoculated with vaginal fluid from the mother.

And there's various ways of doing this.

I kind of saw that kind of most common is using either a cotton gauze or swab to kind of collect the sample from mom and then kind of covering the infants nose, mouth and her skin to provide that bacterial exposure to the baby and so.

Acog and AAP don't actually recommend this practice outside of research setting just because data is still very limited.

As far as the risks and benefits and benefits.

And it's really only recommended to be studied in term infants.

They really don't recommend this for premature infants just because of their impaired immune function. And so really outside the research setting and things like

that, this is not something that is recommended.

And the reason for that is that there is concern for infectious risk of exposure to vertically transmitted pathogens and things like GPS, HIV, herpes, syphilis.

And so if any of these risk factors are present in the mother, there are very strong recommendations against this practice and the thought behind it is there's, like I said, there's a lack of literature as far as our preventative strategies. If they are effective in this setting, so.

You know, we have, you know, antibiotics for GPS prophylaxis and treatments for these other things.

But there's just a question of is.

The secondary or you know the active inoculating the infant.

With the fluid, is that kind of a heavier dose of potentially those bacterial pathogens? As opposed to the natural vaginal birthing process.

And so there's just not enough literature or data to support that those prevention strategies are safe and effective.

And so definitely something that could be seen in the future.

I didn't really see a very strong negative.

Kind of thought process behind this, but it was more just kind of cautious when I was reading recommendations.

I think more in the mind of more needs to be studied to know that what we're doing is safe and that we're not causing, you know, unexpected harm or potentially increasing risk for some of these things, for our babies. And so outside research setting it is not recom.

And that is something we should discuss with our families.

But I did even find it in one of the maternity books I've been reading, and so it's definitely something that is out there in the the mom and baby blogs and all that kind of thing.

So you may come across it.

So kind of the conversation as far as you know, trying to give baby a positive exposure for their microbiome development. I looked into a few studies that they referenced in these articles and they really talked about, you know, there is a difference in the microbiome based on deli.

For the first few months, I think up to six or seven months or so, but really after that standpoint, those differences don't really persist.

And so other things are kind of seen as more important as factors that are

influencing that infant's microbiome.

And so we know those things.

Gestational age, duration of hospitalization, exposure to other pathogens and most particularly antibiotic exposure is a very big one. We know that.

Definitely alters infant's microbiomes, and then even the the home environment and things that they're exposed to on a daily basis.

So there are some other options if this is something families are interested in doing as far as positively impacting their their babies microbiome. And so breastfeeding is a phenomenal option.

And so we do know that it significantly influences.

The microbiome, and this is, you know, regardless of the mode of delivery.

So whether it's vaginal or C-section, this is something that all moms are able to do if they so desire. And as far as some numbers, a study I looked at found that about 28% of the bacteria of an infant's microbiome actually came specifically from.

The human milk.

So that's a good portion and then you know an additional 10% from the areolar skin.

And so there is a pretty good way you can positive influence that families are interested and so.

Something you know, like breastfeeding?

Skin to skin contact or something that we very routinely recommend and are supported by the AAP as long as there are no other risk factors present.

So something that you can offer as an alternative to families that are bringing up this practice or desire to perform vaginal seeding, you can talk about some other options that are safe and approved for baby.

Should you come across a baby that has had this done? You know if mom and baby are, you know, clinically asymptomatic, really there's not any further evaluation that you have to perform. However, if either mom and or baby become symptomatic and definitely something you know you need to.

Have in the back of your mind evaluating for sepsis and really at that point, even if baby was delivered or excuse me delivered by C-section, really considering them as if they were delivered vaginally.

With the potential for some of those preventative strategies to not have been as effective.

And so just something to highlight there, give or come across a a baby that has undergone this practice.

As far as the next topic is called umbilical Nonseverance or Lotus births, this is something I have been asked about.

I haven't actually had.

Any patients that felt very strongly about this kind of just more questions than anything we have seen this a time or two as far as the conversation coming up.

And so this is where?

They allow or parents desire for the umbilical cord and placenta to remain attached to the infant.

Until spontaneous cord detachment.

And that can be anywhere from three to 10 days of life.

And they do this by using preservatives and salting to assist in the drying process of the cordinate central tissues and kind of the positive thought behind this is it's considered, you know, a nonviolent method of of cord detachment.

So I have the hardest time probably wrapping my mind around this one of some of these practices, but definitely something that I've heard discussed from some of our moms and so.

Surprisingly enough.

There aren't any formal recommendations from any medical organizations.

And there have been no clear evidence based benefits to this practice to date.

However, I did like this comment just to kind of provide some context or understanding for the providers and so one of the articles I looked at did say, you know, providers should appreciate that parents may regard the placenta as a spiritual entity and may not recognize that the.

Tissue is capable of being contaminated with pathogens that would harm their infant.

And so just trying to kind of understand the the parent standpoint.

And when we were counseling them, we're giving recommendations.

And so just having an awareness there I think is important.

So when we have these discussions 'cause, I think for us on the medical side, we can feel very strongly about things that are, you know quote UN quote unsafe or risky, but making sure that we you know take into our counseling with these families, the understanding that they are.

Coming from a place of wanting to do good for their baby.

So obviously you know we have concerns about this practice because when there's an absence of circulation in the placenta after delivery, this leads to necrotic tissue

and.

We all know very well that necrotic tissue is a perfect breeding ground for bacteria. There can be multiple sources for that bacteria. You know the maternal GU tract, the caregiver hands or gloves that handled the placenta after delivery, even the surrounding environment as well.

And then, you know, even the things they're used to, quote UN quote preserve or to dry out the placenta such as, you know, the preservatives, the salt, the cloth wrappings, even those can be contaminated.

As well, and so definitely just something that is.

Concerning for risk of infection for baby.

There have been some case reports of early onset sepsis, some of the infectious organisms have been from Coag, negative staff.

There were also reports of neonatal endocarditis from another staff species that I will not attempt to pronounce, but you can see there and then even on theitis as well.

And I think just since it's the short nature of how long this remains attached to the baby, there have not initially enough in any case reports of late onset sepsis.

But if you do ever experience an evaluation of patients?

That you know is either still attached to their umbilical cord or, you know, has had this history.

And they are. You know, you're concerned for infection if they do have the placental tissue still available and using that to try and culture to see if you can potentially get an ID on the Organism that could be potentially the culprit of the infection. Some of the other.

Recommendations I saw when treating or evaluating these infants are kind of broadening your typical sepsis antibiotic coverage and to include things like nickel, micein and even anaerobic coverage.

As well, while you're awaiting culture results, just because there could be a whole host of things that could be involved with this.

Another one I have a difficult time understanding, but definitely have heard people practice or have had questions about is placenta, phagey and so this is actually the practice of consuming the placenta for its reported benefits.

You know, there's lots of discussion as far as the benefits.

You know, it does all sorts of things such as, you know, decreasing postpartum depression, increasing mom's milk supply, reducing postpartum pain, Indore bleeding and even increased energy.

I was looking into other things and found that it actually can be traced back to China, even over 2000 years. And the thing that's kind of difficult to stomach and feel part of my wording there, but it can even be, or at least the way that people.

Consume it can be in various different ways and so some people do consume it raw, some do cook it, and like any other food product. But the most common method that is kind of used at least nowadays, is to actually steam it, then dehydrate it and grind it.

Into a powder that they can then encapsulate, and they're actually various companies that will do this for families.


You kind of ship off the placenta.

They do all these things and then send it back to you and so.

There isn't any FDA regulation.

This process, and so a lot of these companies you know you have to kind of take their word for their sterility of their procedures.

And so there's just a very strong concern of risk for bacterial contamination, even in the processing of the placenta and the concerning thing is that there actually have been case reports of a mother who is taking encapsulated placental pills and her infant was having recurrent episodes of G.

 **LISA** 21:30
Yeah.

 **Kang, Jordan Rose** 21:30
Sepsis.

And when they cultured the.

The pill and got the strain from the infant. They actually were the exact same strain, and so they felt that was the the source of babies. Repeated exposures to the to GBS and so definitely something that's interested in just recommendation.

Really against this practice, in the sense that it could increase risk of infectious exposure to to baby.

So now +1 as far as different practices, and thankfully this is something I can go into a little bit more as far as the aspect of delayed bathing.

So this is something where the first bath is not performed for the first several hours after birth.

Our practice at university from the the new OB visit packets that I've seen.

Says that traditionally it's about 8 hours for University Hospital, or at least after that point they will perform the first bath, interestingly enough.

The WHO has a recommendation that bathing can be performed 24 hours after birth, and they've kind of had this in place since early 90s.

They do comment that if there are any other cultural or other limitations, you know, trying to get at least six hours before the 1st bath, they don't have any rationale or summary of evidence behind this recommendation.

And they're, interestingly enough, also the only organization to have recommendations about this practice.

But there are some thoughts as far as the benefits for this practice.

And so we do know that it does increase the rates of breastfeeding.

And and the thought is, you know, you're decreasing that separation time between mom and baby and lower likelihood of hypothermia or influencing factors that support breastfeeding when you don't have that separation.

There is a suggestion that it can preserve the NEU, no skin microbiome and definitely the the presence of vernix can provide some protection against neonatal pathogens, and I looked into some of the studies that they referenced and it was really interesting when they looked at some of the.

Components of vernix.

It has these enzymes lactopherin lysozyme.

And they kind of tested those against various organisms and actually found that they did inhibit the proliferation of of things, you know, like GBS or club ciela or even Listeria.

So it's definitely very interesting and even this is something I've probably seen most commonly that families ask for one of the most common things that families will ask for is for us not to remove the vernix. You know, if Nikki was ever called to evaluate, we usually bring.

The baby over to a warmer, warm, dry stem, and all of that as far as NRP, but I've had some families.

Very specifically request for us not to try and really wipe or remove that.

Cavernix if we can at all help it.

And so I definitely think that's coming from this practice of substantial benefits to to baby.

Obviously, if you do have to do any skin breaking procedures, using aseptic technique should prevent you know transmission of pathogens.

The important thing to note, however, is a lot of these studies that did look at the benefits of delayed bathing.

They really excluded babies with risk factors such as prematurity, just because we know their skin barrier is very different and then also something important to know is they did exclude babies.

That had any no maternal history of blood borne pathogens. This is something that the AP gets very specific on really just for HIV. This is the only explicit recommendation for immediate bathing in the Red book is if there is maternal HIV. We and the API believe that have extended that out to other similar blood borne pathogens listed here. You know hep B, hep C Active, General, HSV and syphilis. And so the recommendation is to bathe, you know, quote as soon as possible. But as far as the ones that say immediate bathing, it's really just maternal HIV.

So I thought that was kind of interesting, but I have seen that in our practice as well as far as those babies that get baths a bit sooner than others.

So to carry on, the next topic is planned home birth.

And so first to talk about home birth in general and then we'll get to the planned home birth portion.

But as far as home birth, again, the numbers for this are very difficult. Just because the process in most states or the process between states can be very different as far as how they're documenting the birth location, some of the states don't have a spot to place you.

Know where infant was born and where infant was the plan for infant to be born.

Was at and so the numbers are estimated to be about 1 to 1.5% of all births in the US are born at. Those infants are born at home.

And the trend in the past few years and this is definitely increasing among white, non Hispanic women.

That's definitely something that we have seen.

Home birth in general and this is not this is including all those you know, planned and unplanned. And so just important caveat for these next two bullet points here.

But home birth is associated with a two to three fold increased risk.

Mortality and the number they give is about one death per 1000 non anomalous live births.

So pretty high and in my opinion, and then there's an increased risk of low Apgar scores and Nino seizures.

But again, the caveat that this does include those home births where they were not planned or not prepared adequately for. From the other standpoint as far as some numbers on really the planned home birth side, Canada actually has done a good job kind of looking at this and.

So.

In the province of British Columbia.

In Canada, they did a study from 2000 to 2004 and they had just under 3000 babies and they actually showed no increase in neonatal mortality.

But again, this was in all those planned home births with midwife service and so potentially some positive data there for this practice.

But as far as you know, policy statements, AAP put out one in 2013. That said that they agreed with ACOG statement that really affirmed.

That hospitals and birthing centers are the safest settings for birth in the US.

And that AAP also agree with ACOG, you know really don't support the provision of care by lay midwives or any who are not certified by the American Midwifery Certification Board.

And really just trying to highlight that as far as who you have and where you have delivery, just making sure you have the best qualified personnel and and location and resources available to you should anything happen.

I like this charts that I found from one of the articles.

It was. This is what is kind of used from that British Columbia study that they kind of referenced.

And so these are some of the recommendations for families that are considering planned home births.

They have different kind of qualifying features there and so interesting enough for the for acogs. This is in the US.

They actually, if Mom has had a previous C-section, that is an automatic contraindication for for planned home births. They don't list that here, but that's something that is different in the US compared to Canada.

But some of the other things are are are very similar as far as you know, Mom has to have a very low risk pregnancy.

So no preexisting disease, no disease during the pregnancy. Having, you know one baby cephalic presentation 37 to less than 41 weeks.

And then as far as the systems needed to support the planned home birth, this is something that is kind of really highlighted in a lot of these articles that I looked at.

And so having you know, that certified, you know, nurse, midwife, midwife or physician available for care.

Of the infant.

And specifically, if this is something things are considering very, very strong recommendations that they have at least one person there who is primarily responsible for the care of the infant, not necessarily having one person there for mom and baby.

It's just safe as having one baby there or one person there just for for baby, just because you never know what can happen.

Mom, baby might both need care at the same time.

Also recommending that there is ready access to consultation and that there should any problems arise. You have the ability to.

Provide safe and timely transport to a nearby hospital.

And so I think all very good recommendations, definitely practice. That makes me nervous to consider.

And so I think just having good understanding of of things as far as what's safe versus what's not and kind of things like that. But AAP again does recommend hospitals or birthing centers to be the safest place for birth. If a baby is born at home, there is.

Some sessment care that AAP recommends, and this is really adherent to what we do in the the nursery as far as the trad.

Newborn care. And so I've listed out those things here. You know that really good transitional care in the first 48 hours doing a good exam.

Making sure baby is tolerating that transition to life.

Well, you know, monitoring if there's any GBS disease doing glucose screening, doing eyes and thighs assessing how they're eating, looking at their bilirubin levels and getting their newborn screen hearing screen and making sure all of this newborn care is is documented well and can be transitioned onto the.

Provider that will be taking care of the infants moving forward.

And so definitely something that takes a lot of planning. And again I think there are very strict requirements on who would be eligible for this practice, but just things to be aware of if this ever does come up in discussion.

So as far as I have three more topics to go and I think we're doing OK on time. And so the next ones are something that I think we see probably most commonly. And so this is kind of refusal or deferral of some of the things we do.

After Baby's born and so the first one that we're going to talk about is the non medical deferral of the hep B vaccine.

And so we do know that a single dose of hep B given within 24 hours of birth is 75 to 90%.

5% effective at preventing vertical transmission and as far as the numbers in the US, There's an estimated 1000 new cases every year of PERINATALLY acquired Hep B.

So it's definitely something that can happen and does happen.

And then as far as the risks for based on what moms serologies are for, for baby, if Mom's surface antigen is positive but her envelope antigen is negative baby or there's a, you know, 5 to 20% risk of transmission to the infant.

However, if that envelope antigen.

Is positive. The risk goes up very high and that increases to to 90%.

And then some of the studies I looked at did say that, you know, if baby does become infected, 90% of those will go on to have chronic infection.

So definitely something you know, if we are able to prevent would be would be ideal.

And then you know, we have the hep B series as part of our routine immunizations.

But really, the birth dose is kind of a separate category really for this, you know, critical safety net and I've.

I've heard a lot of discussion as far as you know, well, moms testing is negative.

Why do we have to give this or different things like that?

And I think there's, you know, reason to have a conversation with families in that scenario.

You know, there are some situations where you know we don't have that maternal testing where it's incomplete or in process or it could be even have entered into the system incorrectly or mom could have been falsely negative if the testing was done, you know, earlier on in pre.

And she subsequently became infected with Hep B and so.

I liked one of the comments that one of the articles had you know.

Low risk is not the same as excuse me.

Yeah, low risk is not the same as no risk.

And so definitely something that.

That is a safely tolerated as hepatitis B vaccine.

That is something we definitely do recommend, even for those you know, situations where we consider a baby to be at low risk of infection.

So I've I have had that conversation with families a few times as far as you know.

Why? Why should we even do this? If you know Mom is negative?

And so on and so forth and so just having that understanding, I think can be helpful.

As far as the eye prophylaxis, I've seen this as well.

As far as families refusing, and this is part of their babies, treatment after birth and so as far as the reason behind our prophylaxis for this and so is really to try and prevent one of the causes of EP thalimia neonatorum.

And so that's defined as conjunctivitis in the first four weeks of life.

It can be caused by multiple ideologies, but we're specifically targeting the ideology of neyseria gonorrhoea, and that is because it can lead to corneal scarring and blindness, and thankfully, the numbers for this are very.

Hello and one of the reports I found had a rate of about .4 cases per 100,000 live births and they said that the rate of this is directly related to the rates of gonorrhoea and sexually active persons.

And that's kind of highest in those under 24.

And so that definitely makes sense as far as when you look at the the numbers for that.

But as far as you know, if Mom is infected and baby doesn't get prophylactically treated or if Mom is infected and she doesn't get adequately treated, the transmission rate for the infant is actually pretty high. If they don't receive that prophylaxis.

And so I found that it can be anywhere from 30 to 50%.

If babies do become infected, a good portion of them will go on to develop corneal involvement.

I saw 20%.

In some articles and then 3% of those will be blind.

So definitely something that even though the numbers are small, something that can be a very significant outcome for something that we could potentially prevent.

And so we do routinely use .5%, erythromycin ointments, and this is recommended by the AAP for prophylaxis due to its effectiveness and lack of what they describe as severe harm.

I didn't actually know this, but I came across this in fellowship 'cause it came one night when I was on call, and so they're actually most of the states in the US do require.

There are this ocular prophylaxis by law.

And so I did look into the Texas law and it's actually interesting enough a Class B

misdemeanor, for failing to apply this prophylaxis within two hours of birth.

But that is unless it's due to an objection from the family.

So if family does object, then as long as you have adequate documentation of that refusal, and then there's, you know, nothing to be concerned about for the law from that standpoint.

But I thought it was interesting just because our practice here is to have families sign. A form, whenever they do refuse.

Ocular prophylaxis. And so something.

I hadn't come across before coming here, and so I think it's because of this legal side of things.

From the other standpoint, there are kind of some more conversations happening as far as his practice.

Is it something that we should be doing routinely on all infants?

And so I looked more into that 'cause. I thought that was kind of an interesting conversation or argument.

And so there's actually the Canadian Pediatric Society does advocate against using routine ocular prophylaxis that's on every baby that is born. And they say that a lot of the recommend.

Ation to do this on every baby is from the pre antibiotic era. Back when they were using.

Silver nitrate.

Obviously, we've gone away from that just because of kind of that chemical irritation or burn that can happen from using that on babies.

But.

They have some other things to support their position here. They say you know that because of our, you know, widespread use of this, there's increasing resistance among neuro, gonorrhea species to erythromycin, which is concerning.

They didn't have any numbers that they were quoting, so I thought that was kind of interesting, but they also talk about how, you know, rythromycons really only affected preventing, you know, neuro Gonococcal conjunctivitis.

It doesn't do really anything for committal conjunctivitis.

They talk about, you know, it can cause some mild eye irritation interrupts the parent infant bonding experience.

And they feel that a better option as opposed to routine ocular prophylaxis would be to really focus on the prenatal side of things and really do effective screening and

treatment.

For moms before they deliver and, they argue, would be the best way to go about that.

And I think those of us that are.

At least from my experience, it can be very difficult for you know, moms that don't have any prenatal care or things like that, but kind of their argument, I believe, is for more targeted treatment as far as to, you know, carte blanche giving it to every baby. They do also say that you know that there have been no reported increases in cases of ophthalmia, neitherum or blindness.

In countries that have eliminated routine prophylaxis, kind of as an argument of, you know, we got rid of this and babies aren't doing any worse.

So maybe it is a good thing.

I think as far as the AAP is concerned, it is still a recommendation and so just wanted to kind of give a different perspective of things that I'd found when I was looking into this.

And so in the case of parental refusal, you know, doing what we always do as far as, you know, good evaluation of risk factors from Mom's side of things.

And then, you know, documenting that maternal testing in the baby's charts and then giving families, you know, really strong return precautions, you know, should the infant go on to develop discharge, conductive discharge or inflammation? And I think all of us do a really good job of giving.

Good return precautions should family families want to diverge from routine medical care.

I believe this is our last topic, so this is deferral of vitamin K prophylaxis.

So again another one that we see fairly commonly is becoming more common in the recent years, but we give vitamin K prophylaxis. It is very essential for optimal activity of some of our clotting factors 279 and 10.

We know that if we don't have sufficient levels of these, we can have issues with cardiopathy and bleeding, and babies are deficient in this because the placenta doesn't do a great job of transferring vitamin K over to the baby.

There's low quantities of it in breast milk as well.

I have had some families ask about oral vitamin K and this is something that's done. I believe a lot in Europe and in some other countries. But when the AAP did look into it, it just appears to be not as efficacious as intramuscular injection. And so it is.

Currently not recommended to give oral Vitamin K from the AAP. The AAP really

recommends just giving the the IM dose at this point.

And the reason we give this obviously is to prevent vitamin K deficiency bleeding. We know that there's early.

And late.

So early is within the first week of life.

Late is between 2:00 and 12:00 weeks of life, and I have some numbers here as far as the incidence of of this, should babies go without prophylaxis? So in the early category kind of a higher risk, you know 2/5 to 1.7% and then for?

The late.

Risk of bleeding without prophylaxis.

That's about 10.5 to 80 per 100,000 births.

And really, as far as the dose, it was a 1940s study.

That looked at giving that 1 milligram of I am vitamin K at delivery and they found that it led to A5 fold reduction of death from hemorrhage and they quote they using this practice.

It had virtually eliminated vitamin K deficiency bleeding, but here in recent years, since there's been more and more of a discussion or more families.

Not wanting to give this either for you know, misinformed reasons of thinking, it is a vaccine or a very common one I hear is that you know, it's a painful procedure.

They don't want their baby to be poked.

There have been increasing conversations or desires from parents to to forgo this practice, and so definitely something that we can hopefully, potentially or positively influence for for patients and families.

This to kind of wrap us up here kind a little fast, but this is a really good table I found and it kind of just really quickly kind of goes over a lot of the things we talked about as far as you know, kind of what the pract.

Is what the risks and benefits are, and then kind of the recommended response.

And so this was something that I kind of took a picture of when I came across it just so I can have something to reference. And I'm having conversations with families.

The only one in this list that we did not have a separate category to talk about.

Today was Lake Quart clamping.

And that's something that we do routinely do.

There can be conversations as far as you know, the length of that.

And different things like that, but kind of wanted to focus more on some of these other ones that we're kind of newer to me or I didn't really know the literature

behind them or if there was any evidence based.

You know recommendations or or things I could give just because I want to be able to, you know, appropriately counsel our families in what is kind of safest for for them and and their child and.

And there's definitely some evolving things and I think, you know, social media and word of mouth goes a long way and influencing things.

And so I think us as medical providers also need to be well informed on on things from our standpoint. So we can appropriately counsel these families.

But that is kind of the overview of all these kind of interesting topics that I wanted to go through and to end us off. I've got kind of a cute little comic here and this is no fence or OB colleagues.

This is All in all in good faith, but.

This, I think is just kind of funny.

We have this joke.

You know OBS do such a good job of.

Assessing the well-being throughout the pregnancy and then as soon as they're born, it's, you know, here you go, Pediatrics.

Here's your baby.

So I thought that was kind of funny, but.

At this time, we are a bit ahead of schedule, so I can open up to any questions or comments.

But thank you all for listening.



Kamat, Deepak M 42:04

Thank you, Doctor Kang, for that wonderful presentation on alternative birthing practices.

There is already comment by Doctor Gong in the chat box.

Remember, Canadians do not have barriers to access to care for prenatal care.

Any other questions, comments or?

Look again.



Kang, Jordan Rose 42:33

And that's a very good point by Doctor Gong.

I think you know the patient population of Canada is very different from the population that we see, especially here in San Antonio.

So I think you know a lot of the recommendations are kind of perfect in the ideal world, but I think definitely practicing to the the patient population where you're at.



Hernandez, Antonio J 42:51

Hello. Hello, Jordan, it's Antonio.

Excellent talk I was.

I was gonna make a similar point.

I think we need to be very cautious about interpreting studies from other countries when it comes to home birth.

The the difference not only in their in their patient care because they have universal health care and the patient populations are generally a tad bit healthier, the midwife training programs are also different.

There's certifications are different. The requirements for how they take care of babies are completely different.

And and so I I think whenever we look at those things, they they're very successful in Europe at home, births are very successful in Canada. It's not the same for the US.

Because generally the those patient populations have a trust of the healthcare system and home births in the US come generally from a place of mistrust of the healthcare system.

So it's kind of a different patient populations, but excellent, excellent points that you made.



Gong, Alice K 43:49

And I I wanna add on that, Antonio.

So TMA actually did a deep dive into the types of midwifery practices that are available in text in Texas.

So we have the certified.

Lay the certified midwives that go through a lay training and get a certification which is not a lot of training, but through time. Some of these women do get really good training and then you have the nurse midwives that go through.

A master's level program.

Those are.

Those are actually very good midwives.

But then there's a population of midwives that are not certified.

They didn't go through the certification process. They just tell people their their

midwives and that is the population that is very dangerous. The the group that does things. I'm sure that there are some that because they've had a lot of experience do. Serve purpose but.

I think the issue with midwives in Texas is the way they are.

Oversight. So the certified midwives have oversight with a group.

That is not in the Medical Group because apparently they don't practice medicine.

So for the pediatrician, if a baby is delivered by someone that can't practice medicine.

That means they can't do the medical care that is required for the baby, and they have access to the baby for the first six hours.

So then then needs to be a transfer to someone who can take care of the baby in terms of things like vitamin K newborn screening, cchd screening and all those things.

So they need to have.

Ahead of time told the parent what things that they can and cannot do because they are not licensed to practice medicine and then for the population of midwives that are not under nurse midwives.

Or lay midwives.

Or the lay sodafied midwives.

There is no governance and so it is so if you have a baby that comes to you that had that kind of delivery, you may not be able to know what happened because they may not be able to tell you or they may not tell you so.



Kang, Jordan Rose 46:06

Hmm.



Gong, Alice K 46:21

Then it is very difficult to try to tease through what things need to be done for that baby.

But that document is on the TMA.



Kamat, Deepak M 46:32

There is a question.



Gong, Alice K 46:35

They have that all done.



Kamat, Deepak M 46:40

Thank you.

There is a question. How common are vitamin K problems? If vitamin K is not given at birth?



Kang, Jordan Rose 46:49

That's a great question.

So when I was looking at things, thankfully I wouldn't use the word common for for issues.

The numbers I looked at, it looks like less than 2% chance of early onset.

Vitamin K deficiency bleeding.

And you know less than 1% or even, I think less than .5% for for late onset.

And so I think it's more there have been.

I saw some case reports of intracranial hemorrhage, GI bleeding, bleeding from infallitis.

Things like that.

And so I wouldn't use the word common.

It's just something that.

Is a risk that would remain and that they a lot of the literature I said, if you do give that prophylaxis, there is essentially no risk for for those, I don't think you can say 100% that there is not a chance of any bleeding but it.

Does seem that it they they use that word virtually eliminated the the episodes of that happening.

And so I I wouldn't use the word common, but there's just a a possibility of of risk of of bleeding from various sites if there if you're not given the prophlaxis.



Kamat, Deepak M 47:51

Is a comment by Doctor Jones. Dr. Newton reported to me last week that some of our Vision Department studies have shown an increased rate of phototherapy in term infants with delayed cord clamping.

They don't doubt the benefit in pre term, but question the benefit in full term infants.



Kang, Jordan Rose 48:10

Absolutely. That's something that I found in the literature as well. Just something to know if you do perform delayed cord clamping in term infants, they do have a higher chance of having things like polycythemia or need for phototherapy just because of the extra blood volume load that they are given. Some studies quoted anywhere from 25 to 40% of baby's blood volume could be given with additional one to two minutes of delayed cord clamping and so. Definitely something that you can use to counsel families if they're very adamant about wanting to do that practice. In their term infant that you know they may require phototherapy or might have some more potentially things that need to be treated after the fact. But definitely in preterm infants it is recommended. We routinely do this practice, but I think in term infants you can have that conversation with families that you know if you want to go about this, there are signs that you might need some phototherapy afterwards.



Kamat, Deepak M 49:03

Any other questions or comments or thanks presentation. I think there is a response from Doctor Hernandez. It averages out about one in 10,000 if no vitamin K is received. We are presently 5K deliveries in annually at age. So in the absence of this prevention, we could have one case every two years just at uh with not giving vitamin K prophylaxis at birth.



Kang, Jordan Rose 49:40

Mm hmm.



Kamat, Deepak M 49:48

Any other comments questions. I don't see any doctor can. Thank you very much for that wonderful presentation, alternative birth practices. Thank you all for attending. This morning's grand round will have another presentation by our graduating fellow next Friday.

So you see a call next Friday at 7:30.

AM.

Have a wonderful week.

Thank you all.



Kang, Jordan Rose 50:18

Thank you everyone so much.

I appreciate your time.

● **Kamat, Deepak M** stopped transcription