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Cord Blood: Best Practices in Counseling, Collection, and Banking (expired)

Narrator:

Welcome to CME on ReachMD. This segment: Cord Blood: Best Practices in Counseling, Collection and Banking, is sponsored by Omnia Education. Your host is Dr. Karen Taylor who welcomes Dr. Glen Silas, obstetrician and gynecologist at Capital Women's Care and Associate Clinical Professor at the Medical College of Virginia and at the George Washington University Medical Center, and Inova Fairfax Hospital in Fairfax, Virginia. Dr. Taylor receives consulting fees from Cord Blood Registry, and Dr. Silas receives consulting fees from Natera.

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Dr. Taylor:

This is CME on ReachMD, and I am Dr. Karen Taylor. With me today is Dr. Glen Silas who joins our program to help identify and address some of the key issues that obstetrical providers face when discussing cord blood banking with their patients and reasons why cord blood banking should be discussed routinely in obstetrical practice.

Dr. Glen Silas, welcome to ReachMD.

Dr. Silas:

Dr. Taylor, thanks so much for inviting me. Glad to be here.

Dr. Taylor:

It's nice to have you. Dr. Silas, to begin our discussion, I think it is important that we spend a few minutes just reviewing the current uses of cord blood stem cells.

Dr. Silas:

So, I think that is really important because a lot of the misperceptions that are amongst our patients really revolve around the fact that there "aren't any approved uses" and I think that's where we fall short. To date, there are over eighty indicated uses for stem cell transplants ranging from replacement for bone marrow type transplants to the current experimental therapies for regenerative medicine.

It is quite an expansive list of subjects for which we can use stem cells.

Dr. Taylor:

I think sometimes because some of them seem to be esoteric diseases, that it's good for us to have a few in mind to go over with our patients. The next thing I wanted to go over with you, Dr. Silas, is, in light of the current transplant indications and also looking at potential future benefits that we have attributed to cord blood, things that we like to label, as you said, as regenerative medicine, let's talk about some of the issues and misperceptions that both clinicians and patients face. How aware are OB providers and their patients as to why they should consider cord blood banking?

Dr. Silas:

I am going to break that down, if it's okay, into two different components. First, a few minutes on the misperceptions, and then talking a little bit more about our colleagues and the difficulties that we might face in terms of our own experience and education about cord blood. Misperceptions amongst our patients, again, are quite expansive, but the most common, I think, are A) the process is very expensive which I think is something that has changed dramatically over time and is clearly not the case, B) I think that many of them see it as not useful because they are not so familiar with the current approved uses, and C) a lot of them report that, "well, there is no family history, so I don't need this." In actuality, those are a lot of the myths and misconceptions that we have to address when we are educating our patients and, of course, that educational process becomes a lot easier if we, ourselves as the providers, are comfortable and feel educated about the subject. I think there was a survey not that long ago that revealed that less than half of OB providers actually bring up the subject with their patients and, half of them assumed that only certain patients can afford it. So, we are fighting a bit of an uphill battle in the educational process to our patients, but also amongst the providers to make sure that everybody is aware that, it should be brought up to every patient and that many patients can actually afford it. And we want to bypass the, "Well, I think I have read about it; I think I've heard about it." We want to take that and say, "I learned about it from my physician or I learned about it from my nurse practitioner or my midwife." And really make it a more proactive discussion.

Dr. Taylor:

Exactly, and address it with everybody. On a similar note, what factors, whether it's your patients own medical history or her family's medical history, help you identify those patients where you are not just going to touch on the subject and educate her about the current uses but also go into a more in depth discussion about cord blood banking?

Dr. Silas:

I appreciate that you asked the question in that fashion because you alluded to what we should be doing which is educating every patient about cord blood banking and their options, certainly, in situations where the patient has a personal or a family history of any of the over eighty diseases that have so far been treated with stem cells, that would definitely warrant an in depth discussion. Ironically, I find that often after the discussion, that the patient will actually recall some family history related to one of the diseases and really feeling grateful that the conversation took place, that by talking to every patient we can actually elicit some history that we may not have gotten otherwise because the patient didn't really realize that that may have had some impact on a choice for them throughout the pregnancy. Lymphomas, leukemias, sickle cell disease, some of the early childhood cancers, those are things absolutely that we want to make sure that we are addressing with those patients, but again, if we talk about it with everybody, we might find things that we didn't otherwise know about.

Dr. Taylor:

I think we are an important touchstone for finding those answers. There is a lot of confusion in the community concerning the types of cord blood banks that are available to store these collected samples. Can you please compare and contrast for us the two available options, one being the private banking that some refer to as family banking and the second one, of course, being public banking that some people also refer to as donor or unrelated banking?

Dr. Silas:

I feel very fortunate that at the primary institution where I deliver obstetrical care, we have access to the community or public bank, as referred to here as the donor unrelated banking side. Of course, any patient in any community setting has access to the private banks. So, really, what is the difference? If you want to break it down into its most simplistic terms, by banking in a private or familial bank, we are asking our patients and encouraging our patients to purchase a form of insurance for themselves and their families to reserve and preserve the stem cells found in cord blood for usage by and for their own family or relatives at their discretion. In other words, the patient, the patient's family, they are the ones in control of the specimen at all times and they make all decisions regarding that specimen. When a patient chooses to donate to the public bank, it is an amazingly beneficial service to others. The biggest difference being that the patient yields any control over that specimen and once the specimen is in the system it can be utilized for research purposes; it can be utilized in transplant situations and, if that patient needs it and it were still available, it could be made available for them. Public banking comes at little or no cost to the patients. At our institution it is free of charge because we have a collection site on site. Patients do have access to some of the public banks where they can arrange to have a kit shipped to them, data processing and so forth, and get it sent off. Again, a much more cumbersome process that, I think, nationally is underutilized versus the private banking which is a much more streamlined process.

Dr. Taylor:

An ideal situation would obviously be where patients have both options. So, I think, patients sometimes, worry that the collecting of the cord blood stem cells could in some way disrupt their birthing process, or maybe even interrupt the bonding process that they are looking forward to. Can you please explain why this concern is unfounded?

Dr. Silas:

I literally just about an hour ago had a conversation about this issue with a patient who is in my practice planning on banking privately and about thirty-five weeks pregnant. And what I told her was, that statement couldn't be further from the truth. Because the whole process is performed and carried out by the providers in the room, the patient, her husband, loved one, significant other, family members, they are all able to go about the normal sort of familial bonding process as they would choose to. It begins in earnest once the cord is clamped and cut and the baby is handed to the family. At that point, is when we begin the cord blood collection. So those family members are free to take photos, make phone calls, send out texts, instagram and all the social media things that they choose to do. So, there is absolutely no impact on cord blood banking either private or publicly on the family bonding experience.

Dr. Taylor:

Exactly, they might not even realize that we are providing the service at that time. I think it is also important for our patients to know that this is an elective procedure, so that the health of mom and baby come first and, in some situations, we might not even have the opportunity to do this elective procedure if we need to care for baby and mom first. Just so no one is caught off guard if we are not able to provide the service. So, as OB providers, I think while we are trying to do this cord blood collection for patients, it should be a goal that we collect a usable, high-quality unit that is both as large as possible and sterile. Can you please explain for us how the cord blood is collected in terms of how you actually use the kit and the equipment, and when do you actually do the cord blood collection?

Dr. Silas:

I think that will certainly answer some questions that both our providers and patients have. In general, the kit is shipped to the patient all in sterile packaging and it is usually not opened onto either the Caesarean delivery table or a vaginal delivery tray until the time is imminent for birth and the utilization of that kit would ensue almost immediately. Once the equipment is opened in a sterile fashion onto a sterile field, baby is delivered, the cord is clamped and cut, the umbilical cord is then cleaned with a solution that is provided within the kit and then a large gauge needle is inserted into that umbilical cord and using gravity the blood is allowed to flow and collect into the bag. And then there are a few other tricks that we can do which involve re-puncturing that umbilical cord a second time or using a

chamber on the collection tubing itself to increase flow volume. All of that is designed to maximize the volume of blood available so that the cellularity can be at its greatest. Everything is done in as sterile a fashion as possible.

Dr. Taylor:

You addressed an important part there in terms of when the timing of the collection is done after the cord is clamped and cut, and a hot topic right now that we are revisiting in obstetrics is the topic of delayed cord clamping. So one question I often get is, if my full-term patient is opting for delayed cord clamping and they also want to do private cord blood banking, how will this affect my ability to collect a good sample and are the two procedures mutually exclusive?

Dr. Silas:

So, let me say this, let's put the science first. In this instance, we know, A) that there is no clear consensus regarding the definition of delayed cord clamping. I have read studies that will proffer thirty seconds, some three minutes, some as long as five minutes, but really, there isn't even a standard as to what the definition of delayed cord clamping actually is. Second, there has never been shown to be any clear benefit in the term neonate, which is what you've asked me about, to actually do this delayed clamping. In fact, the benefit that is purported is outweighed by an equal and opposite risk for another finding. So, in my opinion, what I tell my patients is this, they can do both as long as there is no reason why we can't delay cord blood clamping, but that we do need to do further studies to determine if, in fact, volume of stem cells and the volume of cord blood collected are affected by that. It is my belief, just based on my own anecdotal evidence, that it has not made an impact, when I have this conversation with my patients, and I explain to them the actual science behind this, that they find they didn't know why they wanted to delay cord clamping in the first place, but since I am giving them a reason why it may benefit their private cord blood collection in the future, they typically will opt to allow me to clamp the cord right away and maximize the maternal profusion of that placenta to get as much blood into that bag as possible.

Dr. Taylor:

Yes, I agree with that experience. And sometimes, too, if they might want to push for both, an ideal situation would be to maybe not delay it quite as long and give them the opportunity to do thirty seconds minimum and get as much as we can.

Based on everything that we have talked about here today, what are the key points clinicians should be discussing with all of their obstetrical patients about their options for cord blood banking?

Dr. Silas:

So, I think a few things that I really like to stress, with anybody who asks me how I counsel patients, is that really the conversation doesn't have to take that long. Usually you can tell patients most of what they need to in the first ninety seconds and then give them additional referral sources to get more information, and then bring questions back at a subsequent visit. This is not a one and done type conversation. The second thing is, I want them to trust the data. You know there have been well over twelve thousand autologous transplants to date with excellent outcomes. So, the data strongly supports the use of stem cells in this arena, and trust the patients to know their own financial resources. Don't judge it for them. Don't say, "Well, this person looks like they can afford it, so I am going to discuss it, or this person doesn't." That's not for us to judge or choose. Our jobs, as clinicians, is to educate our patients, give them the information, trust in their own intellect, let them make a choice and answer any questions that they may have. Finally, I would like to say that regenerative medicine is definitely the future, and the potential of regenerative medicine is limitless. So, if we are looking at why someone may want to consider this who's on the fence either way, it is that limitless possibilities that really, to me, is the clincher as to why this is a great option for patients.

Dr. Taylor:

Well said. So, Dr. Silas, thank you for joining us today and sharing your insights on best practices in counseling, collection and banking of cord blood. I am Dr. Karen Taylor inviting our audience to access this and other CME expert interviews on ReachMD, where you can be part of the knowledge. Thank you for listening.

Narrator:

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