

Annotated bibliography

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Annotated Bibliography Waller-Wise, Rene. ncbi. nlm. nih. gov. Umbilical Cord Blood: Information for Childbirth Educators, Winter 2011. Web. 15 Feb. 2013. The author, a licensed clinical nurse specialist and childbirth educator, was driven to do research and write this article because she only had the basic information for cord blood banking to offer to couples in her classes. She shares that the first recipient of a cord blood transplantation was a 6-year-old boy who was treated for Fanconi's anemia using cord blood collected from his younger's sister's birth. She continues to list the disorders that stem cell transplants can treat. She discusses the advantages of using umbilical cord blood stem cells over bone marrow stem cells. A couple of reasons is that it is easier to collect and process and there is a decreased risk of transmission of infectious disease. One point she mentioned that was interesting and that I was not aware of was that if the pregnant woman had a history of group B streptococcus, active genital herpes, or prolonged rupture of membranes and chorioamnionitis, the umbilical cord is not saved. A disadvantage that the author points out is that cord blood is discarded in about 50% or more cases due to insufficient volume. In addition to discussing private and public cord blood banks, the author brings to light the topic of direct-donation cord blood bank which accept autogenous donations and reserve them for the family whose infant has a sibling with a disorder. In this article, the author also shares professional organizations' s positions. She mentions that ACOG and AAP recommends the collection and banking of private cord blood only if a sibling or a family member has a medical diagnosis for which stem cells are currently being used for treatment.

I found this article very helpful because not only did the author share the

benefits of cord blood stem cell transplantation, she brought to surface many of the limitations. I will particularly use the information about the percentage of cord blood that is discarded due to insufficient volume. Also, I will add the information about the conditions during pregnancy, labor and delivery that can affect the usability of the units. Percer, Beth. " Umbilical Cord Blood Banking - Helping Parents Make Informed Decisions." Nursing for Women's Health (Volume 13, Issue 3): 217-223. Print.

In this article, the author discusses the potential benefits and drawbacks of cord blood transplantation. One of the benefits that she discusses is that there is a reduced risk of acute graft-versus-host reaction. One of the concerns is that a cord blood recipient cannot go back to the same infant donor to receive further cord blood stem cells. Another concern is the odds that children will need to use their own stem cells range from 1 in 400 to 1 in 200, 000. It is because the cord blood stem cells may already have a genetic defect to the disease needing treatment. The author also lists the drawbacks for private versus public banking. The negatives for public banking is that families will not have access to the stem cells in the future as they would have with private banking. This article also shows the different views of multiple respected organizations such as American Academy of Pediatrics (AAP), American College of Obstetricians and Gynecologists (ACOG), and World Marrow Donor Association (WMDA).

I will use the information in this article to discuss key points in my paper regarding benefits and negatives for stem cell transplantation and private versus public banking. In addition, I will include some of the organizations' views in my paper. Journal of Midwifery & Woman's Health. " Share With Women." jmwh. org. Cord Blood Banking -

What's It All About, 24 Dec. 2010. Web. 15 Feb. 2013. This article breaks down exactly what Cord Blood Banking is. It looks specifically at what illnesses can be treated by stem cells, how stem cells are collected, and the reasons for not banking cord blood. It also answers commonly asked questions relating to Cord Blood Banking such as what is the difference between private and public Cord Blood Banks and can a parent donate their own stem cells like donating a liver or kidney. It also lists out some general questions to ask yourself in order to determine if Cord Blood Banking is the right choice for you. The article does a great job of explaining what Cord Blood Banking is in a simple and understandable tone that everyone can understand. The article was direct and gave an abundance of good information without going into a lot of discussion whether Cord Blood Banking is right or wrong. The article stuck to the facts and outlined some key questions to be asked before making a decision on Cord Blood Banking. I will use information from this article to paint a clear picture of what Cord Blood Banking is. American Society for Blood and Marrow Transplantation. "Guidelines, Policy Statements, and Reviews." asbmt.org. Collection and Preservation of Cord Blood for Personal Use, 20 Sept. 2007. Web. 15 Feb. 2013. This article goes into more detail into the technical aspects of storing UCB (Umbilical Cord Blood) and encourages parents to store their newborn's UCB in public blood banks. The article supports storing umbilical cord blood, which the ASBMT states is rich in HSCs (hematopoietic stem cells), but it does not recommend private storage of cord blood only public storage. The reason for the articles position favoring public storage and opposing private storage is because the ASBMT states, " that cord blood in public banks is 100

times more likely to be released for transplant than a unit privately stored." Although the article supports public cord blood banking, it declares that expectant parents should review all information accurately and completely, including contracts and financial responsibilities, in order to make an informed decision. The article was published by the ASBMT (American Society for Blood and Marrow Transplantation), which is an international association that is responsible for the advancement of the field of blood and marrow transplantation. It only makes sense that the article is supportive of the cord blood banking industry but surprisingly the article distinguishes between public and private cord blood banking. Furthermore, the ASBMT's Board of Directors developed a report based on careful review of published studies and interviews that acknowledges the potential for expansion in the future and stating that they will review their position on cord blood banking periodically. I will use information from this article to speak about the differences between public and private cord blood banking and to expound on the positives of public cord banking. March of Dimes Foundation. " Get Ready for Labor." marchofdimes. com. Umbilical cord blood, May 2009. Web. 15 Feb 2013. This article is highly detailed and is more focused on the aspects of Umbilical Cord Blood relating to the actual stem cells. It defines stem cells as unspecialized cells that produce all blood cells including platelets for blood clotting, red blood cells which transports oxygen, and white blood cells which help in fighting diseases. The article goes on to explain how stem cells are used to treat diseases such as leukemia, other cancers, and serious blood disorders like anemia. After chemotherapy the radiation destroys a lot of the patient's stem cells so after treatment many

patients receive a stem cell transplant from either transplanted bone marrow, peripheral blood, and from cord blood. Stem cells from cord blood have advantages over stem cells from bone marrow because it is easier and safer to collect, stem cells from cord blood is more likely to be a match, it's faster, there is a lower risk of infections, and there is a reduced risk of GVHD (graft vs. host disease). GVHD is a condition that occurs when the donor's cells attack the recipient's cells and tissues. The article gives good examples of the advantages of using stem cells from cord blood in treating patients after chemotherapy or patients that need a blood transfusion. The article clearly states that cord blood is more beneficial over using bone marrow or peripheral blood. The article gives real-world examples of why using umbilical cord blood reduces risks of diseases, is significantly faster, and is a lot easier to treat patients. There is one section in the article that speaks to the disadvantages of using cord blood which is that cord blood contains a relatively small volume of blood and consequently a small amount of stem cells. Besides that one argument against using cord blood the article overall is in support of cord blood banking. I will use this article in my discussion of stem cells and to highlight the advantages of stem cells from cord blood over alternative treatments. Agovino, Theresa. CBSNews. com. Banking Umbilical Cord Blood, 11 Feb. 2009. Web. 15 Feb. 2013. This article is more personal and explores the individual's private decision to store umbilical cord blood. It also examines the companies that are responsible for storing cord blood from a business perspective as well as the patient's monetary and financial dilemmas. The article follows actual mother's and doctors on the front lines of the UCB debate. In the article an expecting mother named Marla Dalton

says, " It was really stressful. The marketing makes you feel guilty. There is this feeling that if you don't do it, you are not doing something to save your child's life." The article speaks about how the marketing divisions of these companies try to coerce patients into the service which can range from \$1000 to \$1740 per child. three years ago there were 12 cord blood storage companies and today there are at least 27 such companies. The cord blood banking industry is fairly new and the research is not conclusive yet whether these private companies are even worth the money. Some research actually shows that the overwhelming majority of cord blood stem cell transplants (about 3, 500) have been done from independent donors or from public banks. At the end of the article the author, Theresa Agovino, gives an example of how a mother chose to use a private blood banking company and it was ultimately the right decision because her son was diagnosed with aplastic anemia at the age of two. That son later died of an infection but it was without a doubt the right choice because at the time it gave him the best chance to live. The author is clearly in support of cord blood banking whether it be private or public but she is highly critical of the means in which some of these private companies advertise their services. Instead of pointing to the limitations of blood banking they prey on parent's fear and perpetuate the myth that blood banking as a golden bullet for future diseases. This article was well written and contained a number of personal anecdotes that captures the reader's attention. It was informative regarding the business side of blood banking and gives measurable numbers, percentages, and price points within the industry. I will rely on statistics from this article to go along with a couple of stories to add a personal connection to the paper.

American College of Obstetricians and Gynecologists. acog.org. Cord Blood Banking - FAQ172, Aug. 2011. Web. 15 Feb. 2013. This article is by far the most informative of all the articles and is written in a question and answer format which makes it very easy to follow. In the article there are 10 bullet points discussing different topics including: what is cord blood, what are stem cells, how are cord blood stem cells used, what are the limits to stem cell use, how is cord blood stored, how do public cord blood banks operate, how do private cord blood banks operate, how is cord blood collected, what are some situations when it is not possible to collect cord blood, and what should be considered when deciding whether to store cord blood. The author states the facts and gives to the point answers but does not interject any personal opinions. In the last section of the article some of the answers have a slant toward opposing the storage of cord blood. For instance, the article states that currently it is not known how long cord blood can successfully be stored. The article also points out that the chance that cord blood stem cells will be needed to treat your child is very low at 1 in 2700. In my opinion, these ten topics are the most important topics relating to stem cell cord blood banking. The author is especially comprehensive and gives the reader good information and exceptional questions to consider. I will use this article to add to my paper's overall knowledge base of stem cells and cord blood and to point out some excellent questions that should be asked before making a decision on cord blood banking. U. S. Food and Drug Administration. " Vaccines, Blood, & Biologics." fda.gov. Cord Blood Banking - Information for Consumers, 23 July 2012. Web. 15 Feb. 2013. This article focuses on FDA (Food and Drug Administration) regulations relating to Cord

Blood Banking and gives additional information for consumers on where to find additional information. The FDA regulates everything from how cord blood is stored to whether the cord blood can be used for personal use or for family use. All public and private blood banks have to follow the FDA's strict requirements and the FDA will conduct periodic inspections of any blood storage facilities. The article also outlines how cord blood donors are matched so that blood transplant recipients get the right blood type or HLA (Human leukocyte antigen). The article is short but packed with educational information. It is very specific as to the terminology and gives very detailed instructions on what the FDA considers appropriate use of cord blood banking. This article was posted on the FDA website and contains numerous links to other government websites that have supplementary information on cord blood banking such as the HRSA (Health Resources and Services Administration) website. I will use this article as a reference to let the reader know how cord blood banking is regulated by the FDA. I will also use it as a glossary to site definitions of terms and abbreviations such as HPC (hematopoietic progenitor cells), IND (investigational new drug), and BLA (biologics license application). Revelant, Julie. foxnews. com. 7 Things You Should Know about Cord Blood Banking, 04 July 2012. Web. 15 Feb. 2013. This article was written by Julie Revelant and starts out by telling the story of Jamie Page and her husband in Illinois that saved their newborn's cord blood after hearing about cord blood banking from their doctor. Just 4 weeks later the doctor's found a grapefruit sized mass blocking her kidneys. Luckily, because they stored the cord blood they were able use the stem cells to do a complete transplant after chemotherapy which saved her life. The article

seems to begin as an advertisement for cord blood banking with the fortunate story of the Page family but later the article brings up some concerns about cord blood pricing and necessity of it. The article hits on seven topics ranging from it could be life-saving to your doctor could be cashing in, which makes for a lot of contrast in the article. On one extreme the author points out that umbilical cord blood is an extremely rich source of stem cells that are used to treat more than 80 life threatening diseases and disorders including cancer, blood disorders, immune system disorders, and genetic diseases and on the other extreme she says that it is common practice for doctors to receive referrals for discussing the topic of cord blood banking with their patients. I will use this article to compare and contrast all the various points within my paper.