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To: Local Media
From: Linda Bantell, Health Educator

Please print the attached article in the next edition of your newspaper. If you have any questions or concerns, please email me at linda.bantell@wethersfieldct.com or call me at 860-721-2824. Thank you.

FOR IMMEDIATE RELEASE:

Umbilical Cord Blood Donation Saves Lives

For several years now, researchers have known that stem cells can be used to treat a number of medical conditions. Most of us know that there are adult stem cells and embryonic stem cells, but they are often confused in the ethical debate on their use. Basically, adult stem cells are found in specific tissues or organs whose primary role is to maintain and repair that particular tissue or organ, although recent research indicates adult stem cells may have the ability to become a greater number of cell types than originally thought. Embryonic stem cells are known to become all cell types, having a wider range of uses than adult stem cells. However, the moral debate on the use of embryonic stem cells is far from over. Fortunately, there is a third source of stem cells that are versatile but come from a another source: umbilical cord blood.

The controversy surrounding embryonic stem cells is a result of the fact that these cells are obtained from fetuses that have been miscarried or aborted that are then used for research. (At this time, embryonic stem cells are **not** used to treat humans.) As the name implies, umbilical cord stem cells are located in the umbilical cord of the newborn. After a baby is born and the cord is cut, it is usually disposed of as medical waste. However, the blood in the severed cord can be drawn before it is disposed of. The stem cells found in the cord blood can be used to treat over 75 chronic or life-threatening diseases. Since the first transplant occurred in France in 1988 to cure a six-year old with a blood disorder, over 8000 transplants have been performed to regenerate patients' blood and immune systems after they have been weakened by blood disorders, autoimmune diseases, immunodeficiencies, metabolic disorders, genetic disorders, and various malignancies. In the future, researchers hope cord blood stem cells will be able to treat Alzheimer's disease, diabetes, heart and liver disease, Parkinson's disease, muscular dystrophy, spinal cord injury, and stroke.

Since the cord blood is drawn from the severed umbilical cord after a baby is born, there is no risk to the newborn. It is a completely non-invasive procedure that takes a few minutes in the delivery room immediately after a baby has been delivered. Both the Vatican and the current Presidential administration endorse the collection of cord blood stem cells. Cord blood is preferred over bone marrow transplantation because is it easier to match donors and recipients (only a half-match is required of the immature cord blood cells, while a perfect match is needed for bone marrow transplantation), it is less expensive and less painful to collect, and is less likely to result in rejection.

Nonetheless, a different issue has emerged in relation to cord blood. That is, when a baby is born and the cord blood is collected, should it be stored in private or public banks? Because cord blood stem cells from a

genetically related family member result in double the survival rate than cells from an unrelated donor, many parents opt to bank their child's blood privately, in case they ever need it. Families pay between \$1000 and \$1900 initially in a private bank, with annual storage fees of about \$100-\$125. There are currently about 400,000 units of blood stored for private use. (Figures provided by the Cord Blood Registry.)

However, unless one has a family member with cancer or another specific disorder that can be treated with cord blood, it is unlikely the privately stored blood will ever be used. It is not available for public donation. Yet, every year, over 35,000 American children and adults suffer from life-threatening illnesses and need a transplant. Currently, most of the cord blood from this country's 4 million annual births is thrown away as waste. At this time, there are only about 20 public cord blood banks in the country, holding about 50,000 units of blood.

As a result, legislators around the country have begun introducing cord blood legislation to make it easier for physicians and patients to find, donate, and store cord blood. By establishing a national cord-blood banking system, it is believed about 12,000 deaths can be prevented each year. So far, 11 states have passed legislation to try to increase the information about cord blood choices to expectant parents. Connecticut is not one of the 11.

Expectant parents should consider banking cord blood once their child has arrived. If an older sibling has cancer or certain genetic disorders, private storage may be the best option to be sure the stem cells are available for family members. However, since it is not known how long cord blood remains usable after being stored, if there are no known risks, parents may wish to donate the cord blood to a public bank, at no cost, so others may receive a life-saving transplant.

Learn more about cord blood donation and transplantation during July, Cord Blood Awareness Month, by contacting the Cord Blood Registry at www.cordbloodawareness.org or the American Academy of Pediatrics at www.aap.org (1-847-434-4000). For additional information about this or other public health concerns, contact the Central Connecticut Health District at www.ccthd.org (860-721-2822).