Margarette Bryan, MD, Melissa McKoy and Adryanna

TO CURE CANCER *during pregnancy*

It takes a lot of strength to fight Hodgkin's disease. But it takes even more to do it when you are pregnant.

By Maryann Brinley

Photos by Andrew Hanenberg

"Everyone has a dark period in his or her life. No matter what the experience may be. It could be a financial setback, maybe an illness, or something else…I look back at 2003," says 35-year-old Melissa McKoy, "and I see steep hills and pure walls all around me. But at least there was a journey forward."

That was the year she spent too much time as a patient at UMDNJ-University Hospital (UH). That was the year her daughter Adryanna was born.

And that was the year she made the decision to go forward with chemotherapy for cancer even though she was more than four months pregnant. This was a frightening journey for both her and her unborn child as well as her obstetrician and the UMDNJ-NJMS oncology team led by Margarette Bryan, MD. The UH counselors told her that her baby could be stillborn or malformed. "But once I made my decision, everyone was so supportive. I couldn't have done it without them."

Being diagnosed with cancer during pregnancy is rare—approximately 1 in 1,000 women—and according to the National Cancer Institute (NCI), in these situations oncologists must face the dilemma of how to provide therapy to the pregnant woman while minimizing the risks to the fetus. In fact, when McKoy's cancer doctor thinks back to this dark period, Bryan recalls, "The entire time was very scary for me, Maria Cunha, APN, and my entire staff."

McKoy was a student at New Jersey Institute of Technology (NJIT) in 2003 as well as a member of the Fifth Battalion of the Army Reserves, Civil Affairs and Psychological Operations (CAPO), based

out of Edison. "The Reserves are like an extended family to me. I joined the military in September of 1996. Their support was enormous throughout the entire experience. You can really identify your friends during bad times. Those are the people right next to you." She had just returned from a tour of duty and was feeling very sick, with more than just the ordinary aches, pains and exhaustion that can come from being pregnant.

"What was wrong with me?" she remembers wondering. She had seen a doctor who could tell her nothing. "Misdiagnosis," she says. Then she went to her obstetrician, Abdulla Al-Khan, MD, who was practicing at UH then. "This was in July." Her breathing was so labored that when she entered the exam room, he could immediately hear her struggle to get air. "I was in such terrible condition that I couldn't lie on my back. Everything was swollen. The veins in my face and neck were popping out. He rushed me directly to the emergency room and I was admitted to the University Hospital directly, that day. After admission, I was transferred straight to the Intensive Care Unit. No one knew what was going on and they were hesitant about doing an X-ray because of my pregnancy."

Bryan, a native of the West Indies whose passion is caring for cancer patients, came to NJMS in 1991 for a fellowship in hematology/oncology and stayed on. On a team of five oncologists, this assistant professor admits, "We meet patients every day with different needs, different diseases. It is a challenge." And Melissa McKoy presented a particularly tough challenge. "She had Hodgkin's disease, a cancer of the lymph nodes, and she had a large mass in her chest which is how many young people present with this disease." The mass was compressing her lungs, robbing her of breath, and engorging the veins in her chest, face and neck. It was going to be dangerous. "There are many side effects with chemotherapy. Aside from the usual nausea and vomiting, chemo can lower blood counts and put patients at risk for infections and bleeding," Bryan explains. "Hodgkin's patients tend to be immune-compromised."

Ordinarily, when a diagnosis of Hodgkin's is made, the disease is staged which involves CT (computed tomography) or PET (positron emission tomography) scans of the chest, abdomen and pelvis, and bone marrow testing. This series determines which areas of the body are affected and the stages are classified from Stage I (a single lymph node) to IV (one or more organs). Not in McKoy's case, however. The team was unable to do any of these procedures which might have damaged the baby. A bone marrow test can also stimulate early labor. "We worried about harming the baby. Organs are still being formed early in pregnancy." A whole host of counselors and daily discussions with the hospital's ethics team "tried to do the right thing by McKoy and her baby," Bryan remembers. "But I was worried the whole time."

"I am very religious," McKoy explains, "and my first child was a gift from God. So I told them, 'Don't worry about my baby. My baby will be fine. Just give me whatever treatment you can. It was difficult and a kind of spiritual experience for me. You have to dig deep. Believe me, you really go deep to find the extra strength that you didn't know existed for you." Confident that God was taking care of her baby, she was buoyed by the support from everyone in her life. Her mother, Icylin Ellington, and sister, Sheria McKoy, stood by her as well as friends from all over including school counselors and her dean at NJIT. "My former college roommate came to the hospital and washed my feet when I couldn't bend. I had friends stationed in Iraq who were sending me money because I couldn't work. Checks for $500 and $1,000 arrived and packages of new clothes and diapers." This single mother laughs now about being one of the few soldiers for whom care packages were coming from a war zone, not being sent to it.

On Melissa McKoy's healthcare team: (left to right) Bernabe Santos, RN, Maria Cunha, APN, Kelsey Perez Jose, RN, and Carol Sammartine, RN. Not pictured: Esperanza Monsanto, RN

According to Bryan, the best way to achieve a cure for this lymphatic cancer, one of the few which is curable, was to go with standard chemotherapy. So, McKoy began receiving the regimen of ABVD, which entails four drugs—Adriamycin, bleomycin, vinblastine and dacarbazine—every two weeks, a course of therapy that would continue for eight months.

Margarette Bryan, MD

The first time chemo was administered by the nursing staff, her oncology nurse Pearl Casal, RN, asked Maria Cunha, APN, Bryan's office administrative nurse, to sit with her for moral support. "What Melissa didn't realize at the time was that Pearl and I both needed to be there for our own moral support. The entire nursing staff admired her courage and determination but that first time was daunting for us."

While she was pregnant, the drugs were delivered intravenously via a drip. "They couldn't give me a portal because that would entail putting me under general anesthesia and Dr. Bryan didn't want to risk it. After delivery, I got a medi-port and have the scars to show for it," she laughs. The chemo was painful at times. "There would be a burning sensation so the nurses put ice packs over the area on my veins to cool the process."

She was tired, but not too tired to continue on. "You know how pregnancy can be exhausting all by itself. And chemotherapy can be too. For whatever miraculous reason, I found the energy to take each day one at a time," she says. The scariest part was the uncertainty about everything.

Gaining weight was a challenge. "Forget about food," she says. "I couldn't keep it down." The cancer, the treatments, and the pregnancy itself put her in the precarious position of losing, not gaining, weight. "Dr. Bryan would tell me, 'Melissa, you've got to gain weight.'" Al-Khan, her obstetrician, was also worried. After several tries at different medications to help her eat, together they settled on a medicine that was expensive, "like $50 a pill," she recalls, but actually helped her eat and keep food down. "Dr. Al-Khan taught me how to eat one nibble, then wait for 30 minutes before taking another bite. Eventually, my baby started to gain weight."

At the outset of her chemotherapy, Al-Khan felt that all her baby needed to survive outside the womb was 27 weeks of pregnancy. "But when I got to that point, he said, 'Let's shoot for two more weeks. And then it was three more weeks. Even at the 30th week, he asked me to go a little further." Al-Khan also gave McKoy steroids to help her baby's lungs develop faster. He'd tell her, "You don't want to have a baby who needs to go to the neonatal intensive care unit." So working together, she carried her unborn child all the way to her 35th week of pregnancy. The birth day began with a regular pregnancy check-up. Afterward, Al-Khan announced, "It's time to do this. Let's go. Right now."

From the doctor's office, she went straight into the delivery room at UH where she was later induced and delivered by C-section. "I missed my cancer treatment that day so the oncology team came to see me." In fact, there were a lot of people outside the delivery room waiting. "That's why I love that place so much," she says, talking about UH. "This baby was theirs as well as mine."

To the staff's and new mother's relief, a perfectly beautiful daughter, Adryanna, was born on November 22, 2003 ("Veteran's Day!") weighing 5 pounds, 4 ounces and measuring "18 inches long," Melissa says. "She passed her Apgar test with a score of 9. It's just a miracle."

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"We were very happy about this baby," Bryan admits. "This is definitely not a situation we want to face often."

When we caught up with McKoy, she was working in New York City for the New York City Board of Education and Adryanna was a bright, sociable kindergartener.

With her cancer in remission and her life on track, McKoy is unlikely to have a recurrence of Hodgkin's disease but she checks in for regular follow-ups and to catch up with the staff. Now a staff sergeant in the Reserves, McKoy looks back on that birth year in awe. "My military training, my spiritual background, my support teams… all came together to help me survive."