Faced with the sudden knowledge that the life they had expected will be suddenly cut short, some women find hope and existential meaning in trying for a child that that will be theirs for their remaining time, and carry their legacy when they are gone. Diana Mwango reports from Kenya on what that choice can mean for patients and their cancer management.

On December 12, 2024, Grace Atieno held her newborn baby in her arms – a moment that, in many settings, would have been nothing out of the ordinary. But Grace's pregnancy was anything but routine; it was a defiant act of hope.

Grace became pregnant while on treatment for advanced HER2+ breast cancer, which had been diagnosed when she was only 23. The oncologist advised termination of the pregnancy, citing two critical risks: the progression of her cancer if she paused treatment and the risk that the anti-cancer treatments posed to the developing foetus.

But Grace, still only 26 years old, wanted that pregnancy. Indeed, she had planned for it, despite the doctors advising her not to. For two years, while still taking her cancer treatment pills daily, she says, "I prayed, fasted and cried to God to enable me to get pregnant." She would break her fast in the evenings, she recalls, only to swallow her pills.

Grace decided to stop her cancer treatment to safeguard her pregnancy, and she does not regret the decision. Now seven weeks old, she says her baby is a bundle of joy that outweighs the burden of the progression of the disease.

Before pausing her treatment, the metastases had been confined to her lung. "Now I have resumed, but the doctor says the cancer has spread to the brain, there is also a new tumour in the other breast. I also recently developed tinnitus. My ears ache but the doctors are optimistic that I shall be okay. I pray that God adds me many years to see my child grow," she says.

Her story is not isolated; it highlights a profound dilemma faced increasingly by oncologists and obstetricians, particularly in Africa, where cultural, religious, and societal expectations around motherhood often clash with medical advice, and where – due in large part to a younger demographic profile – the average age of breast cancer diagnosis is markedly lower than in Western settings.

Managing pregnancy in women with advanced breast cancer

Evidence regarding the risks involved in pregnancy in cancer patients is largely limited to women undergoing treatment for early-stage disease, where treatments are administered for a set period of time.

Matteo Lambertini, an oncology consultant at IRCCS Policlinico San Martino Hospital, in Genova, Italy, who specialises in managing fertility and pregnancy-related issues in women with breast cancer, advises that only patients who have gone through optimal treatment should try for a baby, with the pregnancy being planned in consultation with the doctor.

"I don't advise getting pregnant before completion of treatment, but if one does, oncologists must discuss the risk of stopping the treatment based on risk of recurrence and age of the patient. In some cases, the patient can continue with the pregnancy and stop the treatment. In other cases, the risk of recurrence is very high, so I will definitely advise stopping the pregnancy. It is a very delicate decision to make," Lambertini says.

> “Most of the treatments we use in metastatic patients cannot be given during pregnancy”

Advanced breast cancer (also known as stage 4 or metastatic breast cancer) is different, however, says Lambertini, because the disease has become incurable, and optimal management requires being on treatment permanently. Currently there is little evidence about risk of progression from pausing treatment, and what is known about the risk to the unborn from continuing treatment is not encouraging, he says. “So far there is no safety data for pregnant patients with Stage 4 disease. So, we don’t know if it’s safe to stop the treatment in a metastatic patient, and most of the treatments we use in metastatic patients cannot be given during pregnancy.”

Different types of cancer treatment pose different risks to different stages of foetal development. Most chemotherapies, for example, are contraindicated only in the first 12–14 weeks of the pregnancy due to the high risk of foetal malformations. However, they can be administered safely after that time.

“Anthracyclines and taxanes, which are the two most used chemotherapy agents, are safe in the second and third trimester,” says Lambertini. Trastuzumab, by contrast – a monoclonal antibody used to treat HER2+ breast cancer, which is what Grace has – cannot be given in the second and third trimester, but it can be given in the first trimester, “It is the opposite of how chemotherapy works. Trastuzumab has big molecules; it cannot cross and reach the foetus until week 12 or 14 of gestation,” says Lambertini. While trastuzumab is considered non-toxic to the ovaries, it must be discontinued during pregnancy to avoid complications like reduced amniotic fluid levels, which can jeopardise foetal development.

Hormonal treatments such as tamoxifen, used to treat hormone-positive breast cancers, cannot be used at any point in the pregnancy, he adds. While the impact of most targeted agents, including PARP inhibitors, used to treat breast cancers in women with a harmful BRCA gene, as well as immunotherapies (including PD-1, PDL-1 and CTLA-4 blockade) remains largely unknown, he says. “We have no accurate data on the effects of immunotherapy and PARP inhibitors on fertility and pregnancy. We have data in mouse models that show immunotherapy and PARP inhibitors can be toxic for the ovaries, but we don’t have data on pregnant women.” says Lambertini.

CDK4/6 inhibitors, used to treat hormone-positive, HER2-negative disease, cannot be used either, because they are prescribed in combination with hormonal therapy. Animal studies have also shown foetal harm following exposure.[18]

Why have a child when your cancer is incurable?

In many African societies, a woman’s worth can be closely tied to her ability to bear children, and women may face strong social and cultural pressures to fulfil their maternal role before they die. But there are often profound personal emotional drivers at work as well, says Philip Odiyo, the founding Chairman of the Psycho-oncology Society of Kenya and the founding Vice President of the Association for Psycho-Oncology Society in Africa.

For some women, especially those with metastatic cancer, having a child becomes a way to leave behind a legacy or find new meaning in life, he says. “It’s about hope, a psychological anchor. A child represents continuity and the will to live,” Odiyo explains. “Through the nine months of pregnancy, it is nine months of expectations, of looking forward to something. The child gives them a

new drive to wake up every day."

> "Africans believe in procreation. If you leave the earth, you must leave your seed behind"

While that feeling is by no means confined to African women, Odiyo believes it may be particularly deeply rooted in this part of the world. "Africans believe in procreation. If you leave the earth, you must leave your seed behind. When they [relatives and friends] see your child, they will remember, oh, this is so and so's son or daughter," he says.

His point is well illustrated by the story of Alice Mwang'angi who, two years ago, was diagnosed with cancer with metastases to the liver. Though she is now 45 years old, and on chemotherapy, she does not want to give up on her dream of having a child, and therefore rejected the advice of her oncologist to have a hysterectomy. "I have fibroids and I bleed heavily. He fears the chemotherapy-induced anaemia may compete with anaemia from the fibroids. But I refused to remove my uterus."

Alice had delayed childbearing, she said, because she had not found "a suitable partner to start a family with," but she longs for a child so she can leave a bit of her behind.

"I am a child magnet. Children constantly knock at my door, yet I don't even know their mothers. I remember when I was hospitalised for a month and came back home on crutches. They ran to help carry my luggage inside the house," she says, "I want a mini-me to run to me when I reach home. I'm very beautiful, I want a baby to inherit my beauty gene."

Ethical issues

At the time of her diagnosis, Alice's oncologist did not raise with her questions about her future plans for children and what options she might have. Alice feels he should have. A different doctor did subsequently suggest she might freeze her eggs. That suggestion, however, is seen as ethically questionable by some in the field, due to the very low likelihood of success, given Alice's age and the extent of her disease.

Fertility treatment works better in younger women. And while it is true that more than 10% of women with advanced breast cancer now live with metastatic disease for 10 years or more, the average life expectancy is between two and three years, even without interruptions to their treatments. When the cancer has spread to the liver, that shortens to an average of less than six months (though Alice has been living with liver mets for two years now).

The authors of a 2023 paper published in Reproduction and Fertility argue that suggesting fertility preservation in settings where patients have a very poor prognosis is – as a general rule – unethical, because it offers unrealistic hope of survival, "and may be interpreted as saying that there is good chance of living to become a parent – because why offer it otherwise?"

Yet should the question of hopes for a baby be entirely off the agenda when discussing options with patients with advanced breast cancer, given that women like Grace may choose to prioritise having a baby, despite knowing that her cancer is not curable, and that pausing treatment risks worsening her prognosis?

> “If the patient says, ‘I want to take the risk’, you tell them ‘fine, just don’t disappear’”

Manel Haj Mansour, a medical oncologist at Aga Khan University Hospital in Nairobi, argues that the relationship between the doctor and the patient has changed in recent years, and that while she would advise women being treated for breast cancer against pregnancy, the decision is theirs.

“We’ve moved past the era where the doctor makes all the decisions, and the patient simply follows… If the patient says, ‘I want to take the risk’, you tell them, ‘fine, just don’t disappear. Come to hospital so we monitor the cancer as the gynaecologist and the neonatologist monitor the mother and baby progress,” she says, adding, “Most times, the ones who refuse to terminate pregnancies are more than those who accept.”

She comments on the increase in the number of younger patients turning up at her clinic. A few years ago it used to be anecdotal to have a breast cancer patient who is perhaps 26 years old, she says, “Now I can recall I’ve had about 10 cancer patients who are between 26 and 29 years old.” Many will be diagnosed at an early stage where the treatment plan aims for a cure, and a long cancer-free life, in which case conversations around family aspirations, and options for fertility preservation are essential. Haj Mansour asks questions such as, “How strong are your feelings of having a baby? Do you have an immediate plan? Do you have a partner? Have you discussed it with him?”

When the diagnosis is of advanced disease, however, questions of future life plans are not so immediate or prominent in consultations. Yet, arguably, women with advanced disease may feel they have less to lose by pausing their treatment, as they have already lost their chance for a cure. And the pressures to get pregnant may be all the greater because they cannot put it off, and because becoming a mother and leaving something of themselves behind after they die can give meaning and hope to the last years of their life.

If oncologists can help their patients achieve this, it can be very satisfying says Haj Mansour, who tells the story of one of her patients who was diagnosed with stage 4 triple-positive breast cancer. The woman stopped attending for treatment for about two years, and then one day she showed up at her clinic and announced she was pregnant. Haj Mansour was delighted the patient had felt able to come back to her. “Can you imagine if she had disappeared out of shame that she got pregnant against the doctors’ advice? Some patients disappear and come back with complications such as liver failure or paralysis. What we learn as oncologists from such scenarios is that you support the patient, irrespective.”

> “I feel like this is not just her baby, it’s our baby. The baby is healthy, and she is physically okay”

As luck (or biology) would have it, her patient did not experience disease progression over those two years, despite being off treatment. Haj Mansour was then able to monitor her patient throughout the pregnancy, and referred her to a gynaecologist skilled in managing high-risk pregnancies, who reported back on her patient’s progress.

Just recently, the patient came to the oncology clinic carrying a six-week-old baby. “I feel like this is not just her baby, it’s our baby, says Haj Mansour. The baby is healthy, and she is physically okay.” Even now, there is little sign of progression – the tumour in the mother’s lymph node is the same size as it was before coming off treatment and before the pregnancy. “I told her ‘you’re defeating science’,” says Haj Mansour.

It would certainly seem that her patient is beating the odds. The experience of Grace, whose cancer, which had already spread to her lungs, progressed further to her brain, affecting her hearing, may be a more common outcome after a treatment break in advanced cancer. And what the impact will be on either of their life expectancies remains unclear. For now, we lack the evidence to throw a light on that side of things. What is clear, however, is that two women facing a terminal breast cancer diagnosis in their mid-twenties are immensely happy with the decisions they made to put their treatment on hold to pursue their dreams of becoming a mother, and grateful to the oncologists who supported them.

The opening image shows Grace Atieno with her seven-week old baby. Photo credit ©Mwamba 2025