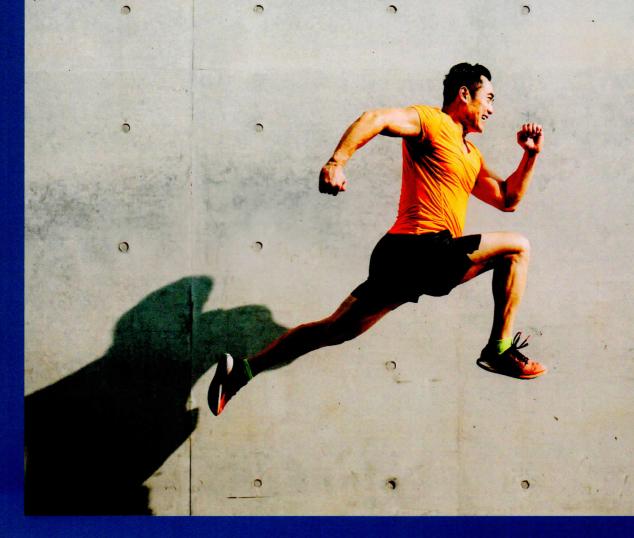
WHAT DRIVES OUR DECISIONS ON CANCER CARE

Patients with cancer often meet challenging decisions that can impact them psychologically, socially and emotionally. However, the different experiences patients have gone through in their personal lives can greatly shape their cancer treatment journey.



This was certainly the case for David Lee. When David was first diagnosed with chronic myeloid leukemia in 2019, it was his previous educational background in 'A' Level Biology that helped him process the information his doctor shared with him about his disease.

"It was a real information overload," says David, who worked at a law firm. "Luckily I had biology classes in the past, if not I would not have understood anything about it at all."

4 common types of leukemia:

- 1. Chronic myeloid leukemia (CML)
- 2. Chronic lymphocytic leukemia (CLL)
- 3. Acute myeloid leukemia (AML)
- 4. Acute lymphoblastic leukemia (ALL)

What is CML?

CML is a cancer of the **bone marrow** and **white blood cells**. It is characterised by:

- An increased growth of myeloid cells in the bone marrow
- The accumulation of these cells in the blood

3 phases of CML

1. Chronic 2. Accelerated 3. Blast crisis

CML typically begins at the DNA level, when the translocation—or 'swapping'—of DNA between chromosomes 9 and 22 causes chromosome 22 to be shorter than normal. This abnormal chromosome is called the Philadelphia chromosome, which is found in the majority of patients with CML, including David.

The swapping of DNA between chromosomes then leads to the formation of a new BCR-ABL oncogene, which produces a protein that causes CML to grow out of control. It is worth noting that a small number of patients have the BCR-ABL oncogene but not the Philadelphia chromosome. In rare cases, patients may have other oncogenes causing the cancer.

Like many cancers, CML may not show symptoms in its early stages. Some tell-tale signs of CML may include bone pain or swelling at the side of the rib cage when the leukemia cells progress and spread.

"Throughout the first half of 2019 I had unexplained ankle pain," shares David. "The first time, I brushed it off as some unexplained incident. Then it came a second time, along with frequent fevers and sore throats that I didn't seem to recover from.

"The third time was when I decided to see my GP about it. But my GP couldn't explain what was wrong. So he sent me to the orthopedic, who recommended a blood test and MRI." It was then that he discovered that his white blood cell count was abnormal—20 times over the normal range of 4,000–11,000 per microlitre of blood.

Fortunately, David was referred to Dr Lee Yuh Shan, Senior Consultant, Haematology at Parkway Cancer Centre for a follow-up within just an hour. There, Dr Lee identified that David had a highly treatable case of CML, which was confirmed subsequently. He then recommended a course of treatment that involved targeted therapy.

"The first thing I did was to call my wife and tell her I had leukemia. There was no crying over the phone because I was reassured by Dr Lee that it was highly treatable.

"After Googling and reading an ebook about it, I began to understand what I had and was further reassured."

"I didn't want to know anything"

For three months, David took targeted therapy pills to control his CML. However, when his ankle pain returned, David found out his CML had transformed from chronic phase to blast crisis.

His newly diagnosed condition was determined to be a form of acute lymphoblastic leukemia (ALL), which is characterised by the rapidly progressive growth and accumulation of immature lymphocytes.

Unlike his first diagnosis, David decided that he preferred to be kept in the shadows about his ALL treatment. According to David, "I was more in shock. I was more worried about other things than what [treatment] I was going to go for.

"Of course, Dr Lee had to tell me the essentials of my treatment plan and the side effects. But I didn't want to know anything and told Dr Lee to decide everything for me.

"The treatment recommendation was very immediate," continues David. "I was immediately admitted to hospital for chemotherapy, and sent some specimens to the sperm bank before that.

"Although I received targeted therapy for CML, I was told that the treatment had not been developed far enough for acute leukemia such as ALL. Because of that, I was recommended a bone marrow transplant as the best treatment course for long-term survival."

Luckily for David, he had a donor with a 9/10 match and he was young and strong enough to withstand the intensity of the treatment.

Problems faced by patients undergoing bone marrow transplant

David's biggest concern when he processed the news was the odds of survival. "At the back of my mind, the only knowledge I have of cancer treatment is nausea and hair loss. 'Will I no longer be a human being?'—that was the image I had. But Dr Lee told me it was humanly doable and humanly survivable."

What is bone marrow transplant?

Also known as stem cell transplant, this treatment involves the transplantation of healthy stem cells from a matching donor to the patient to replace the diseased marrow.

Who is it suitable for?

Because of its rigorous conditioning regimen, risks and intense side effects, a transplant may not be suitable for everyone. Factors that determine eligibility:

- Age
- Availability of matching donors

On how cancer affected his life, David says, "When you get hit by such a diagnosis, your priority changes. There was no thinking of money or work. The decision for treatment is the first decision you make. Any other decisions are influenced by that first decision.

"After survival, money was my next biggest concern," continues David. "I only had private hospital insurance. I didn't have any critical illness insurance, no loss of income insurance, nothing. I didn't know the sums involved, or how payment and insurance claims were made.

"Then there was the loss of income as I had to stop work for at least a year. My wife was in a contract role which was ending, and my parents were not that well off. I didn't even know how much we were spending every month because you just don't focus on these things until they happen."

Thankfully for David, his private hospital insurance took care of the bulk of the bills for his treatment, including his bone marrow transplant. Although he had concerns about the limit of his insurance coverage, as David explains, "Dr Lee managed to immediately give me an estimate of the medical bills and was put in contact with my insurance agent".

Without having to worry about funding for his treatment, David was able to focus on getting well.

Cancer care in a time of COVID-19

However, a different challenge came in early 2020 when the world was hit with the global COVID-19 pandemic and saw city-wide lockdowns. For vulnerable patients like David, the situation caused minor inconveniences in his cancer treatment journey.

"When there was the rush for toilet paper, hand sanitisers and alcohol swabs, I had to mobilise friends and family

to source different supermarkets around the island to get anti-bacterial ones.

"When you hear about supermarkets and pharmacies running out of these supplies, we as patients are doubly worried because we really need these supplies. Without these supplies, I may catch an infection and that may send me back to the hospital in no time."

"Patients who have just undergone a bone marrow transplant have weakened immunity and are more susceptible to viruses and infections," commented Dr Lee.

COVID-19 also had a social and psychological impact on David's mental health during his post-treatment recovery. "With everyone at home, there was no longer any outside entertainment to entertain me," shares David. "My Instagram feed suddenly became all about cooking or Zooming at home. So for the first few months, it was mentally difficult because all that came to a stop.

"The good thing is that everyone now wears a mask out and has proper hygiene, proper distancing, and less people transmitting infections. As a result, us as patients feel safer outside."

Embracing acceptance

For David, acceptance is key to managing the physical, psychological and emotional turmoil that patients with cancer face.



"When I was reading about leukemia, I found one quote that changed my mindset," shares David. "It says, 'The sooner you accept wholeheartedly that your life will never go back to the way it was before, the happier you will be.'

"There are a lot of big life-changers from diagnosis. If you keep thinking about the past, or if you keep thinking about the future, you will be unhappy. So I kept reminding myself to not think about anything, and just focus on how to keep myself occupied.

"If I could tell myself back then what to do, it'd be to not let anything get to you because we've only got one body; we've only got one life, one health. So we have to treasure that."