

# CAR T-cell case study with Erica Smeaton

- Speaker 1  
0:00:08 - 0:00:13 Rapid listening evidence-based cancer Learning on the go presented by eviQ education.
- Speaker 2  
0:00:18 - 0:02:00 Hi everyone. My name is Erica Smeaton. I'm the national manager for Lymphoma Australia and I also worked clinically as the lymphoma CNC at a large tertiary center. Initially when I was asked to be involved in the rapid learning series on CAR T-cell, I was actually a bit reluctant as I don't work in a CAR T service and my experience is from the view of the referring site. At this point, I was actually reminded that is the predominant experience of a lot of hematology nurses who then send their patients off for CAR T-cells. So, with this in mind I thought it was probably important to share the learning, my learning, and to support the learning of those across Australia as well too. Unfortunately, our treating site hasn't had a lot of success with CAR T and this is likely multifactorial but it doesn't take away from the successes of patients who have had CAR T-cell and that CAR T is also a viable option for many patients. So the first case study that I will share is a 65 year old gentleman who was diagnosed with low grade follicular lymphoma in the United States. He moved to Australia in 2018. He had no haematology follow up at this point in time. He presented to a local emergency department with significant symptoms in 2019, flank pain and nausea and vomiting. Scans revealed stage IV lymphadenopathy with renal impairment, and paint, his blood painted a picture of tumour lysis. He required bilateral renal stents and a biopsy confirmed that he had transformed disease with DLBCL. He proceeded to six cycles of DA-R EPOCH and achieving a CMR had regular hematology follow up until he progressed. In May 2021 he progressed with femoral lymph nodes and again his blood painted a picture of tumour lysis again.
- Speaker 2  
0:02:00 - 0:03:51 So, he had three cycles of RICE and a stem cell transplant and of autologous stem cell transplant. Sorry. And he again achieved the CMR. Unfortunately he progressed quickly this time and in october 2021 he had localized disease in his groin. It was at this point he was referred for CAR T cells and commenced on radiation to attempt to gain some disease control. Unfortunately in the workout process for CAR T, the patient progressed and his disease escalated quite quickly

with a rising LDH and progressive bone marrow infiltration. It was determined at this point that he was not a suitable candidate for CAR T cells as he had incredibly poor risk disease and was not responding well to treatment. The patient was immediately commenced on our GDP salvage chemotherapy only managing one cycle and his LDH began to rise again. The patient was in switch to compassionate access glofitamab treatment but unfortunately progressed through this treatment option as well and was palliated. Unfortunately for this gentleman, his disease was incredibly aggressive and not responsive to treatment by the time that CAR T was an option, CAR T is currently only approved for use after two lines of therapy. So, this unfortunately rules out a lot of patients from having CAR T and by the time they're suitable for CAR T, their disease is less responsive to treatment and harder to control. So the next case study is slightly different. So, this is a case study of a 45 year old gentleman who had follicular lymphoma, grade 3A stage IV in 2018. So, he completed examples of RCHOP and achieved a CMR. In September 2019, he relapsed with PET scans demonstrating stage III disease. He had RICE treatment times three and an autologous stem cell transplant, achieving a CMR.

Speaker 2  
0:03:53 - 0:05:42

Only six months later in July of 2020, the patient had another PET scan that revealed a relapse in his groin and his neck. His disease was relatively stable though and he was referred for CAR T-cells. Logistics are an issue for this gentleman as he had a young family travel and accommodation were also a problem for him as he had to travel quite a significant distance to get to the CAR T center because of this and because of the patient support programs that are eligible to patients who are undergoing CAR T cells we linked to the patient in with the drug company who was, who, who owns the CAR T product and the patient actually had funded accommodation and travel expenses as well too. Most CAR T drug companies have patient support programs that make this a viable option for patients as well too. In November 2020 he proceeded to a Flu/Cy CAR T. Um he tolerated it incredibly well, he had no ICANS and no CRS toxicity. Um he actually said that he was bored the entire time he was there. Day 30 of his PET. He had a PET scan on day 30 which showed a DS of 4 response to treatment. But unfortunately by the time he had his 100 day PET scan, he had progressive disease. Um this was confirmed in April 2021 and then he went on to a trial chemotherapy which he still had an ongoing response with. I wanted to thank

everyone for listening and hearing my experience in CAR T. Um I hope that as as time progresses CAR T becomes a viable option for many more patients and is brought forward in the treatment line. So thank you to everyone for taking the time to further your learnings by completing this rapid learning session. Thank you.

Speaker 1  
0:05:48 - 0:05:57 This is a production of the cancer institute in New South Wales, a pillar organisation of New South Wales health For more information, visit [cancer.nsw.gov.au](https://cancer.nsw.gov.au)