Emerging Types of CAR T-Cell Therapy

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What's unique about this CAR T, as I talked about earlier, it's a one-time treatment, okay? Again, if it works, the cell is living in the living in the patient's body. Not only does in kill the lymphoma but if the lymphoma tries to come back, there is a memory to the lymphoma; much like an infection, where if it tries to rear its ugly head again, the cells will wake up and kill it. And with this approach, in patients where we really had no really effective therapies to give, we can here (again, depending on the study you look at, anywhere between 30 and 50%), so now we can take a bunch of patients where we used to have no really good options besides clinical trials or supportive care, and offer them a one-time treatment with a curative approach. That's what CAR T-Cell Therapy is. So there are three CAR Ts that are currently approved for administration for patients with relapsed diffuse large B-Cell Lymphoma. One's called YESCARTA, the other is called KYMRIAH, and then the newest one is called BREYANZI. They all target the same target (CD-19). They have slight differences in how they're made. But they all have roughly similar efficacy and slightly similar toxicity profile, slightly different depending on the product. And just because our therapy continues to change, and remember I told you this therapy was approved for patients where they failed two lines of therapy or transplant didn't work. The FDA just approved YESCARTA for patients where the frontline therapy R-CHOP didn't work at all, or the disease came back within a year of front frontline therapy. We used to take patients like that to stem cell transplants knowing that the stem cell transplant doesn't work that great. We now have a study that CAR T Therapy, for that indication, is better. So we are offering quite a bit more CAR T-Cell Therapies. So I think to summarise what this therapy is; it's approved for patients with diffuse large B-Cell Lymphoma where frontline or stem cell transplant therapy is ineffective; it is a therapy that is collected from the patient. We collect the T-Cells. We then manufacture the T-Cells (which takes about two to three weeks from collection of the T-Cells. We then take the T-Cells and send them back to the medical centre. The patient receives a few days of chemotherapy to settle down the immune system. We then administer the CAR T-Cell product, just like a blood transfusion. And then the patient is in the hospital anywhere from a week to longer depending on the toxicity that they experience, which can be anywhere from mild cytokine release syndrome to more severe cytokine release syndrome, requiring blood pressure medications and the ICU. Another side effect in the neural toxicity, which can anywhere be from just being a little tired, confusion, to more severe side effects like seizures. Again, both these toxicities in a centre that administers these therapies are completely treatable and reversible. And hopefully, the patient leaves the hospital done with, hopefully for the last time, and it can provide durable responses and cures for these patients. I hope that was information and you learnt CAR T-Cell Therapies. Again, feel free to reach out to me or your oncologist if you have any questions. Again, the need or treatment with these therapies is very individual, and there's specific criteria and indications; so it's not approved for all indications. So, your oncologist should know, so please reach out to him or her to find that out. Thank you.