

Being A Caregiver: CAR T-Cell Therapy

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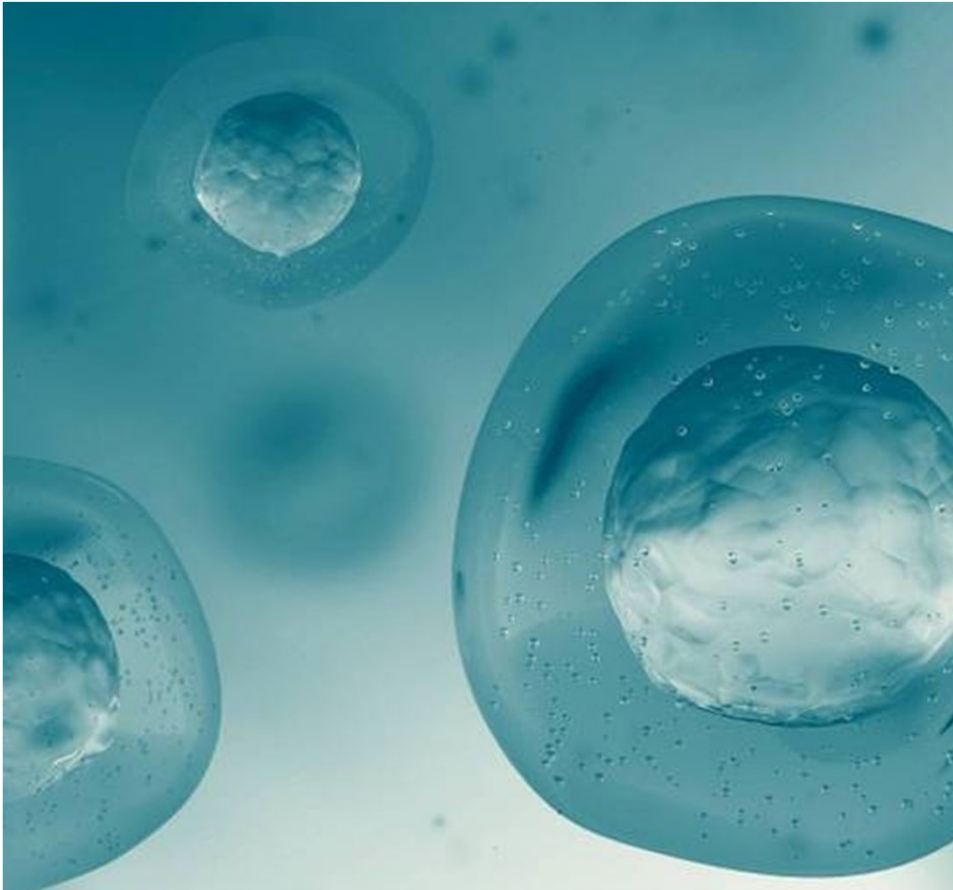
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**BEING A
CAREGIVER:
CAR T-CELL
THERAPY**

CAR T-CELL



- **CAR T:**
an abbreviation for Chimeric Antigen Receptor T-cell
- **CAR T-cell therapy:**
uses the patient's own immune system to help fight cancer

HOW DOES THIS WORK?

LEUKAPHERESIS

1. Collect white blood cells

MANUFACTURING

2. Isolate and Activate T-cells

MANUFACTURING

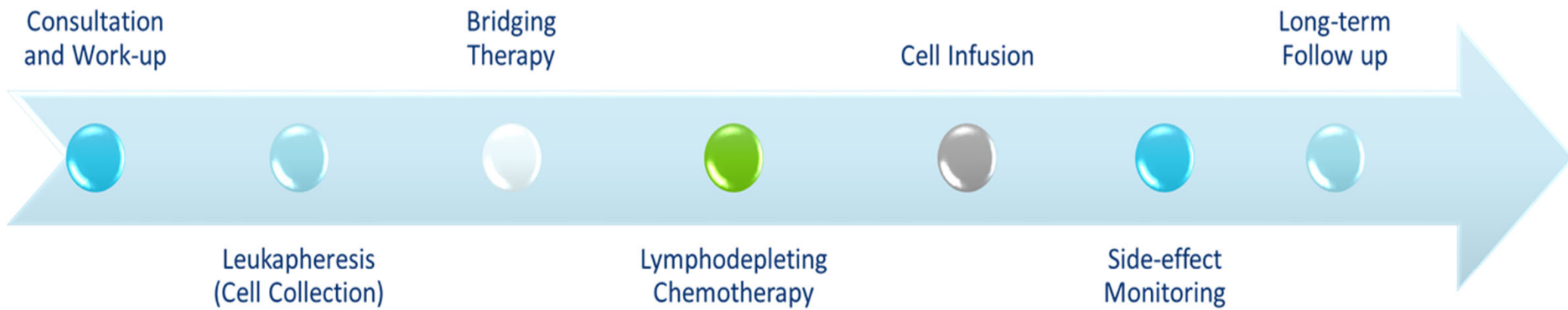
3. Engineer T-cells w/ CAR gene

MANUFACTURING

4. Grow & Expand number of CAR T-cells

CELL INFUSION DAY

Infuse CAR T-cells



CAR T TIMELINE

CONSULTATION & WORK UP

CONSULT DAY

& Work Up

What to expect

- Meet with doctor and staff
- Can be several appointments, departments, people, locations
- Series of tests
- Can be long days
- Completed before cell collection

Caregiver Role

- Drive and accompany patient to appointments
- Make a list of questions before you arrive
- Familiarize yourself with the medical facility location
- Bring water/snacks/cell phone

CELL COLLECTION (LEUKAPHERESIS)

LEUKAPHERESIS

Cell collection

What to Expect

- Usually takes place in an outpatient setting
- Appointment can take 4-6 hours
- Vein assessment/access
 - Peripheral vs central
- Specialized instrument/machine separates T-cells from blood
- Remaining blood returned to patient
- Can take 3-6 weeks to manufacture cells

Caregiver Role

- Drive patient to appointment
- Attend appointment with patient
- Provide a calming voice/support
- Help with drinks/food
- Bring things to do
- Bring snacks
- Discharge instructions

BRIDGING THERAPY

LYMPHODEPLETING CHEMOTHERAPY

CHEMOTHERAPY

Outpatient

What to Expect

- Usually done in outpatient treatment center (varies per medical facility)
- Average-3 days of chemotherapy
- Routine blood work
- Nursing assessments/vital signs
- Side effects



Caregiver Role

- Drive patient to appointment
- Attend appointment with patient
- Home chemotherapy precautions
- Infection prevention
- Who and when to call
- Side effect monitoring:
 - Fatigue, nausea, vomiting

CHEMOTHERAPY

Outpatient

Home Chemotherapy Precautions

- Take precautions with all body fluids (vomit, urine, stool) until 5 days after the end of chemotherapy
- Avoid contact with patient's body fluids by wearing gloves when handling dirty linen or clothing
- If linen or clothing becomes dirty, wash items separately before washing with other laundry
- Wash hands thoroughly with soap and water after providing any care

Infection Prevention

- Avoid crowds and handshaking
- Masks in public places
- Do not allow sick visitors or those exposed to contagious disease
- Keep the home clean
- Follow food safety
- Follow infection prevention guidelines from facility

CELL INFUSION

CELL INFUSION

What to Expect

- Patient will either be in a comfortable bed or chair during infusion
- Therapy is infused by the nurse
- Usually takes around 15-30 minutes to infuse/complete
- Pre-medication/IV fluids may be given
- Nurse monitors for possible reactions
 - Itching, hives, changes in blood pressure, heart rate, temperature

Caregiver Role

- Provide a friendly face/comfort
- Communicate with patient about how they are feeling
- Report any new symptoms to nurse right away
- Wallet Card

SIDE EFFECTS & MONITORING

SIDE EFFECTS

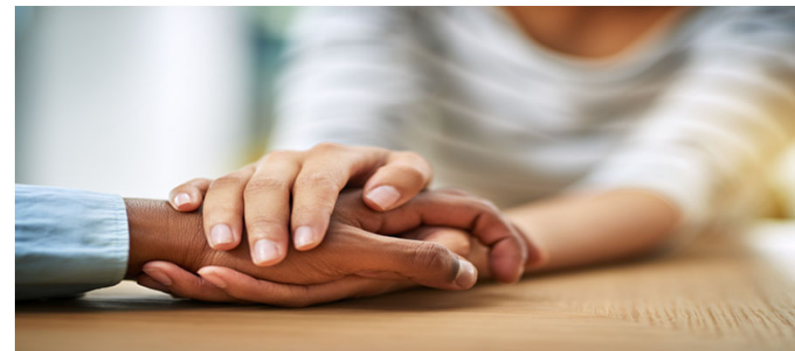
Chemotherapy

What to Expect

- Low red blood cells, white blood cells, & platelets
- Risk for infection
- Risk for bleeding
- Fatigue
- Nausea, Vomiting, Diarrhea

Caregiver Role

- Support/Listener
- Communication
- Monitoring
- Encouragement



SIDE EFFECTS

CAR T-cell Therapy

Cytokine Release Syndrome (CRS)

- Irregular or fast heart rate, low blood pressure
- Fever
- Shortness of breath, low oxygen levels
- Nausea, vomiting
- Headache, dizziness, confusion

Neurological Toxicities (ICANS)

- Confusion, hallucinations
- Difficulty walking
- Difficulty speaking, reading, writing, or understanding speech
- Extreme sleepiness, dizziness, or tremors
- Facial droop
- Seizures

CRS & NEUROTOXICITY MONITORING

- Monitor vital signs
- Checking pupils
- Hand/foot and arm/leg strength
- Hand coordination
- Questions to look for confusion or difficulty speaking
- Perform simple body movements to look for tremors or difficulty walking
- Write a sentence to check for changes in handwriting
- Possible additional monitoring





CAREGIVER ROLE

- Pay attention to changes in your loved one
- Inform medical team of changes/concerns
- Know who to call and when to call
- Keep yourself healthy
- Know your resources
- Ask for help

LONG TERM FOLLOW UP

LONG TERM FOLLOW UP AND SUPPORT

Long Term Follow Up

- Remain close to medical center for at least 4 weeks
- Re-admission to hospital may be necessary
- Possible complications
- Line/catheter care
- Patients are not able to drive a car for at least 8 weeks

Caregiver Role

- Drive and accompany patients to appointments
- Housekeeping, preparing meals, errands, laundry
- Infection prevention
- Medication management

- [American Cancer Society](#)
- [BMT InfoNet](#)
- [CancerCare](#)
- [Cancer Support Community](#)
- [Family Reach](#)
- [International Myeloma Foundation](#)
- [Leukemia & Lymphoma Society](#)
- [Leukemia Research Foundation](#)
- [Lymphoma Research Foundation](#)
- [National Cancer Institute](#)
- [Patient Empowerment Network](#)

RESOURCES

SUMMARY

As a caregiver, you play a vital role in your loved one's journey. You are part of the care team, the eyes and ears outside of the hospital. Education is the first step in preparing for this journey.



SELF CARE

- Meditation, Yoga, Music Therapy
- Breathing exercises
- Exercise, well-balanced diet
- Set limits, take breaks, don't overload to-do list
- Communication
- Find time for joy, things you find meaningful & enjoy
- Ask for Help

THANK YOU



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Questions?



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