Chimeric Antigen Receptor T Cells: Patient Experience

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Intake Process

Initial communication with Intake Coordinator and Nurse Navigator

- Education
  - Program
  - Timeline
  - What to expect with first visit at CHOP

Initial Patient and Family Visit: T Cell Collection/CART Consent Meeting

Meet with Nurse Practitioner, Oncologist, Clinic Nurse, Social Work, Child Life, Intake Coordinator, Nurse Navigator

Discuss T cell collection

Apheresis line planning

CAR T cell consent meeting

Apheresis unit visit. Meet with nurses and physician.

Anesthesia visit

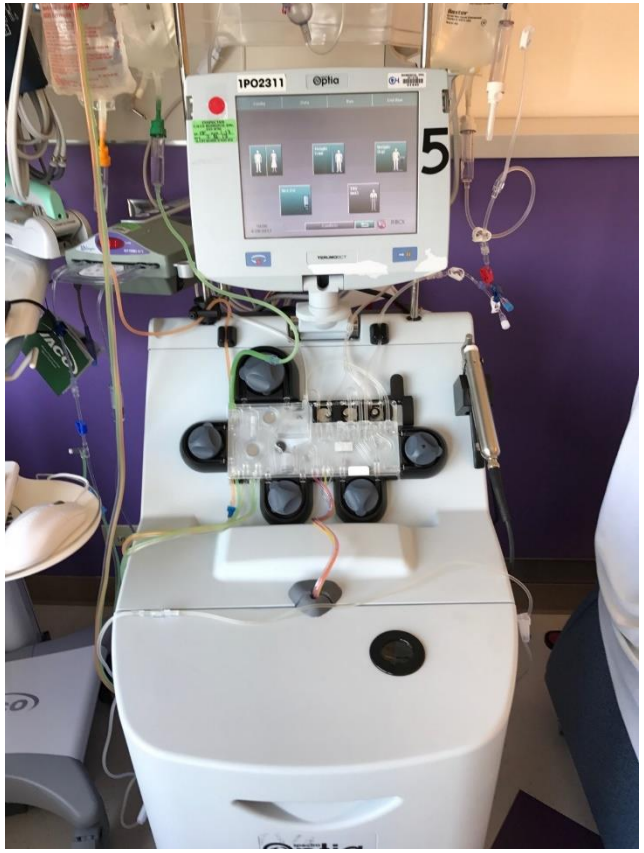
T Cell Apheresis

Temporary apheresis catheter placement

T cell collection

Apheresis catheter removal prior to return home

Post consent discussion/review



Infusion Visit

Patients need to stay locally for ~ 6 weeks

Everything planned outpatient including chemotherapy and CAR T cell infusion

Infection prophylaxis

- Fungal
- Bacterial
- PJP

Seizure prophylaxis

- Keppra for high-risk patients

Week 1: Lymphodepleting Chemotherapy

Cyclophosphamide 500 mg/m2 x 2 days

Fludarabine 30 mg/m2 x 4 days

Nausea/Vomiting
- Antiemetics
- Fluid bolus

Decreased PO intake

Tumor lysis risk
- May need daily lysis labs
- Allopurinol

Transfusions

Week 2: CAR T Cell Infusion

CAR T-Cell Infusion

- Pre-Meds (acetaminophen/diphenhydramine) ½ hour prior
- Infusion over few minutes
- Monitoring Vital Signs 1-2 hours post infusion. Acute infusional toxicities are rare.

Coordinate with oncologist, clinic nurse, clinical research coordinator, stem cell lab with timing and readiness for infusion.

Education patients and families regarding reasons to call

Steroids as an allergy

Problem list: History of engineered cell therapy

Frequent monitoring the week of infusion

Communication With Inpatient Team

- Oncologist
- Hospitalist
- Fellows
- Nurse Practitioners
- Nursing Leadership
- Social Work

- Patient history
- Relapses
- Organ toxicities
- Pertinent infectious history
- Amount of disease pre CAR T cell infusion

Admissions

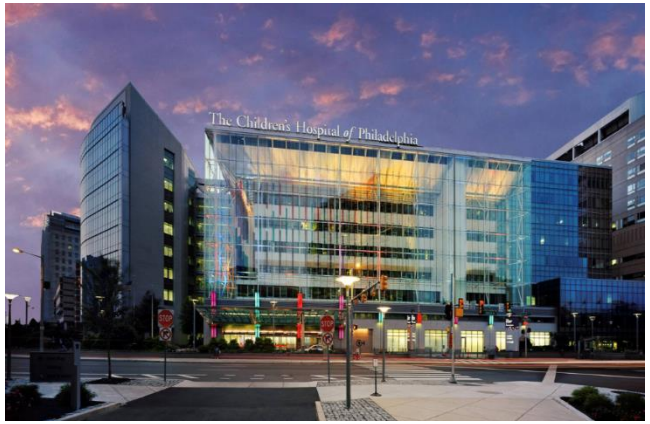
- Anytime from infusion day to ~D14
- Monday-Friday admit through clinic
- Evenings and weekends admit via ED
- Remain inpatient until afebrile
- Inpatient communication with the PICU

Follow Up

Weeks 3-6

- Week 3: Follow up Visits (Day 7, 10)
- Week 4: Follow up visits (Day 14, 17)
- Week 5: Follow up Visits (Day 21)
- Week 6: Day 28 BMA/BX/LP

Follow up week after to review results (Day 35)



Side Effect Monitoring/Management: Outpatient and Inpatient

- Fevers
- Tachycardia
- Anorexia
- Mylagias
- Headaches
- Fatigue
- Hypotension
- Capillary leak
- Pulmonary edema
- Coagulopathy
- Neurologic changes

Post-Infusion

Clinical updates to primary team throughout their treatment

- Weekly updates
- D28 Results, IVIG, next steps
- Provide follow-up instructions and materials (Clinical Research Coordinator)
- Monitor IgG monthly, peripheral B cells monthly, monthly IVIG replacement
- Stop Septra 3 months post chemotherapy

Identification of Patient Needs

Nutrition

PT

Psychology

Child Life

Social Work

Psychosocial Aspects of CART

Oncology Journey has been long

- Multiple relapses
- Inability to get into remission
- Maybe only chance of cure

Separated from family and support system

Travel/Lodging

Medically well educated

Social Media

Patient and Family Education

Multiple opportunities for education

- Begins with first contact with institution
- T cell collection
- Consent meeting
- Chemotherapy and infusion visits
- Majority of patients and families come with some knowledge of the therapy
- Many patients and families are very well educated due to the number of years they have been dealing with ALL
- This is a new therapy different than anything they have experienced in the past

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