Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

BRT and pre-CAR T. Post-CAR T, 2 pts (5%) had grade 3 CRS, 4 (9%) had grade 3 neurotoxicity, and no severe toxicity in the BRT field was noted.
After CAR T, ORR was 72% (CR: n=25, 60%; PR: n=5, 12%). Median post CAR T follow-up was 9 mos (range 1-40), with 44% (n=19) having no evidence of disease, 44% (n=19) deceased, and 12% (n=5) alive with disease at last contact. 33 (77%) never progressed in field. Of the 27 (63%) who relapsed, 9 (33%) had disease within the BRT field at first progression. In DLBCL pts, progression free survival (PFS) was 83%, 60%, and 51% and overall survival (OS) was 100%, 89% and 69%, respectively at Day +30, +90, and +180. Pre-BRT ECOG status ≥2 (HR: 12.0, p<0.005), CNS disease (HR: 7.6, p=0.006), 3 prior systemic lines (HR: 8.1, p=0.05), and BRT dose 30 Gy (HR: 0.21, p=0.01) were significantly associated with OS.
Conclusion: BRT has broad utility and is associated with excellent pre-CAR T local control and no serious toxicity within irradiated sites. Most had durable local control post-CAR T. Prospective studies are planned to clarify outcomes, evaluate mechanistic synergies and define optimal characteristics for systemic vs. radiotherapy bridging.

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Did COVID-19 Push CAR-T to the Outpatient Setting?

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Introduction: CAR-T therapy has traditionally been administered in the inpatient setting due to the need for skilled practitioners, logistics, and reimbursement setting. However, there is increasing interest in administering CAR-T in the outpatient setting for stable patients since cost of infusion would be lower and adverse effects may take days to appear after infusion.
Objectives: Examine if patient volume in CAR-T moved to the outpatient setting during the COVID-19 pandemic
Methods: Patients in the Vizient Clinical Data Base were queried by ICD-10-PCS code for inpatients (XW033C3, XW043C3) and CPT code for outpatient (Q2041, Q2042, 0540T) CAR-T infusion between January 2018 and August 2021.
Results: In 2018, there were 17 outpatient infusions for CAR-T. In 2019, there was an average of 8.7 outpatient infusions per month, increasing to 10.83 per month in 2020, and 12.75 per month January-August 2021. The number of sites performing outpatient infusions also increased from 4 in 2018, to 18 in 2019, and 19 in 2020 and 2021. The average age of patients receiving an outpatient infusion was 55.3 years. However, looking at the inpatient infusion sites, average infusions per month were 109.1 in 208, 150.8 in 2019, 168.5 in 2020 and 180.4 January-August 2021. The number of infusion centers was 66 in 2018, 74 in 2019, 84 in 2020 and 86 in 2021. In the first few months of the COVID-19 pandemic in April-June 2020 the average encounters decreased to 140, but recovered and even increased to an average of 172.7 in Q3-2020 and 193 in Q4-2020.
Conclusion: While many CAR-T clinics are equipped to provide inpatient infusions, many have not transitioned to providing outpatient infusions as well. There has been a slow shift towards outpatient that began pre-pandemic and has continued into the COVID-19 pandemic, but the degree to which outpatient infusions have been taken up has remained lower than on the inpatient side. The inpatient uptake of CAR-T continues to increase in monthly encounters as well as sites performing transfusions. Barriers to CAR-T may have prevented some infusions during the first few months of the pandemic, but when patients returned, they remained as inpatients rather than outpatients.

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Comparison of Humoral and T-Cell Response after Sars-Cov-2 Vaccination Among Patients before and after Chimeric Antigen Receptor-Modified T Cell (CAR-T cell) Therapy

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Background: Patients treated with chimeric antigen receptor-modified T cell (CAR-T cell) therapy for B cell malignancies are at high risk for severe COVID-19 disease. Humoral and cellular immune responses to SARS-CoV-2 vaccination are poorly understood in this patient population, particularly when administered pre-CAR-T cell therapy.
Methods: We assessed SARS-CoV-2 vaccine responses both before and after CAR-T cell therapy. Post-CAR-T cell therapy recipients were in remission. Blood samples were collected at least 14 days after completing mRNA vaccination (BNT162b2/Pfizer or mRNA-1273/Moderna) series or an Ad.26.COV2.S/J&J/Janssen vaccine. Serum was tested for nucleocapsid (anti-N) and spike (anti-S) protein IgG using a semiquantitative total antibody assay (Roche Elecsys Anti-SARS-CoV-2 S) and for neutralizing antibodies using a D614G SARS-CoV-2 spike pseudotyped lentivirus neutralization assay. A 50% neutralization dilution (ND50) ≥0.004 IU/mL was considered positive and converted to IU/mL. T cell assays of cryopreserved PBMC used a commercial IFN-gamma ELISPOT (T-Spot COVID) with pooled S peptides and control stimuli.
Findings: 33 patients were enrolled (Table 1). 33% (n=11) were vaccinated prior to CAR-T cell therapy (median, 3.8 months pre; range, 1.3-5.6), and 67% (n=22) were vaccinated after CAR-T cell therapy (median, 21.2 months post; range, 3.1-69.5). The mean age was 63 years (range, 39-84). Of the 11 pre-CAR-T

Table 1: Patient characteristics

Variable	Pre CAR-T	Post CAR-T
Number of patients	11 (33.3%)	22 (66.7%)
Median age at cell therapy (range), yrs	70.4 (51-84)	59.7 (39-81)
Time from cell therapy to vaccine, median (range) months	3.8 (1.3 to 5.6)	21.2 (3.1 to 69.5)
CAR-T Target		
CD19	9 (81.8%)	14 (63.6%)
CD20	2 (18.2%)	2 (9.1%)
BCMA	0	6 (27.3%)
Indication		
ALL	0	1 (4.5%)
CLL	0	2 (9.1%)
Lymphoma	10 (90.9%)	13 (59.1%)
Multiple Myeloma	0	6 (27.3%)
Waldenstrom Macroglobulinemia	1 (9.1%)	0
Vaccine		
mRNA-1273/Moderna	3 (27.3%)	8 (36.4%)
BNT162b2/Pfizer	8 (72.7%)	13 (59.1%)
Ad.26.COV2.S/J&J/Janssen	0	1 (4.5%)