IMMUNIZATION SCHEDULE
Hematologic Malignancies, Stem Cell Transplant and Cellular Therapy Recipients

Immunization in Hematologic Malignancies

- SARS-CoV-2 (COVID-19)
  - Patients with cancer should be prioritized for vaccination (CDC priority group 1b/c) and should be immunized when vaccination is available
  - Proceed with vaccination at the earliest opportunity in the following patients:
    - Not yet start lymphocyte-depleting therapies and complete 2-dose schedule of COVID-19 vaccine 14 days prior to initiation of therapy
    - Completed therapy
    - Stable lymphocyte counts while on therapy (Defined as: ALC ≥1.0 or B cell count ≥50 cells/mL)
  - For patients receiving lymphocyte-depleting therapy (rituximab, blinatumomab, ATG, alemtuzumab) -Deferral is reasonable until 6 mo after completion therapy or until ALC ≥1.0 and/or B cell counts ≥50). It is reasonable to administer vaccine during times of high community transmission even to patients unlikely to mount a B-cell response
  - Specific disease state recommendations

CLL	• *Special consideration of rituximab, venetoclax, ibrutinib • Asymptomatic: Hold B-cell depleting therapy until 1 mo after completion of vaccination (both doses) • Symptomatic: On small molecule therapy, hold vaccine until 1 mo after treatment completion and administer once ALC ≥1.0 and/or B cell counts ≥50
B or T-cell ALL	• Induction: No delay • Maintenance: Should be given at ta time point of hematopoietic count recovery
DLBCL (or other aggressive B-cell lymphoma)	• Systemic induction therapy including anti-CD20 antibodies, for newly diagnosed disease should in general not be delayed for vaccination • Vaccine should be given after completion of therapy, assuming patient is in remission and further treatment is planned, once there is evidence of B-cell recovery from anti-CD20 depletion
Indolent lymphomas	• Asymptomatic: Hold B-cell depleting therapy until 1 mo after completion of vaccination series • In need of systemic therapy: Treat with induction but without maintenance therapy, and vaccinate following completion of therapy, assuming no further immediate treatment is planned and there is evidence of B-cell recovery.
T-cell lymphoma	• Therapy should not be delayed for vaccination and should be given during induction, preferably after count recovery
R/R lymphoma	• Systemic therapy should not be delayed for vaccination purposes
Myeloma	• No specific disease or treatment related contraindications for vaccine
AML	• Induction therapy should not be delayed for vaccine purposes. For patients receiving cytotoxic chemotherapy (cytarabine/anthracycline based induction) delay vaccination until ANC recovery • Vaccine should not be given during induction remission but should be considered during consolidation • Consider in relapsed disease
MPN/MDS/CML	• Patients on observation or active therapy should be considered for vaccination

  - Other recommendations
    - IVIG: COVID-19 vaccine may be administered to patients receiving plasma therapy not specific to COVDI-19
    - Rituximab: COVID-19 vaccination should be given prior to therapy initiation (both doses completed >2 weeks prior to initiation of B-cell directed therapy), when feasible. If not feasible, still reasonable to consider vaccination during times of high community transmission.
    - Immune checkpoint inhibitors: COVID-19 vaccination should be given and ICI therapy should not be paused but if possible avoid scheduling ICI therapy when side effects are expected (2-3 days after the vaccine)