

Below is a summary of our findings. We will continue to update these results as more data is collected and analyzed.

COVID-19 Vaccine Response by Blood Cancer Diagnosis

Percent of patients with detectable antibodies

Smoldering multiple myeloma	100
Hairy cell leukemia	100
Hodgkin lymphoma	98
Chronic myeloid leukemia	97
Myelodysplastic syndrome/myeloproliferative neoplasm	97
Multiple myeloma	95
Acute myeloid leukemia	91
Acute lymphocytic leukemia	88
T cell lymphoma	85
Diffuse large B cell lymphoma	79
Non-Hodgkin lymphoma, not specified	79
Follicular lymphoma	78
Waldenstrom's macroglobulinemia	74
Chronic lymphocytic leukemia	64
Marginal zone lymphoma	62
Mantle cell lymphoma	44

Percent of patients seronegative

Mantle cell lymphoma	56
Marginal zone lymphoma	38
Chronic lymphocytic leukemia	36
Waldenstrom's macroglobulinemia	26
Follicular lymphoma	22
Non-Hodgkin lymphoma, not specified	21
Diffuse large B cell lymphoma	21
T cell lymphoma	15
Acute lymphocytic leukemia	12

Acute myeloid leukemia	9
Multiple myeloma	5
Myelodysplastic syndrome/myeloproliferative neoplasm	3
Chronic myeloid leukemia	3
Hodgkin lymphoma	2
Hairy cell leukemia	0
Smoldering multiple myeloma	0

Note: There were smaller numbers of patients in the Registry with blastic plasmacytoid dendritic cell neoplasm (1 patient who was seronegative), Burkitt lymphoma (1 patient with detectable antibodies), primary amyloidosis (2 patients with detectable antibodies), primary CNS lymphoma (1 patient who was seronegative, 1 patient with detectable antibodies), primary mediastinal (thymic) large B cell lymphoma (4 patients, all with detectable antibodies).

Source: The LLS National Patient Registry. Data collected from 1,445 patients who had antibody tests at least 2 weeks after their second dose of Moderna or Pfizer mRNA vaccine. Data collected March 12 to May 5, 2022

COVID-19 Vaccine Antibody Response among CLL Patients by Type of Treatment

<i>Treatment within the past 2 years</i>	<i>Percent of patients seronegative</i>
None	17
Obinutuzumab	90
Rituximab, acalabrutinib	85
Rituximab, ibrutinib	77
Multidrug therapy w or w/o cytotoxic chemotherapy	71
Obinutuzumab, ibrutinib	70
Obinutuzumab, acalabrutinib	66
Rituximab	63
Acalabrutinib	55
Ibrutinib	48
Ibrutinib, IVIG	40
IVIG	25

Source: The LLS National Patient Registry. Data collected from 1,845 patients with chronic lymphocytic leukemia (CLL) who had antibody tests at least 2 weeks after their second dose of Moderna or Pfizer mRNA vaccine. Data collected March 12 to June 12, 2021.