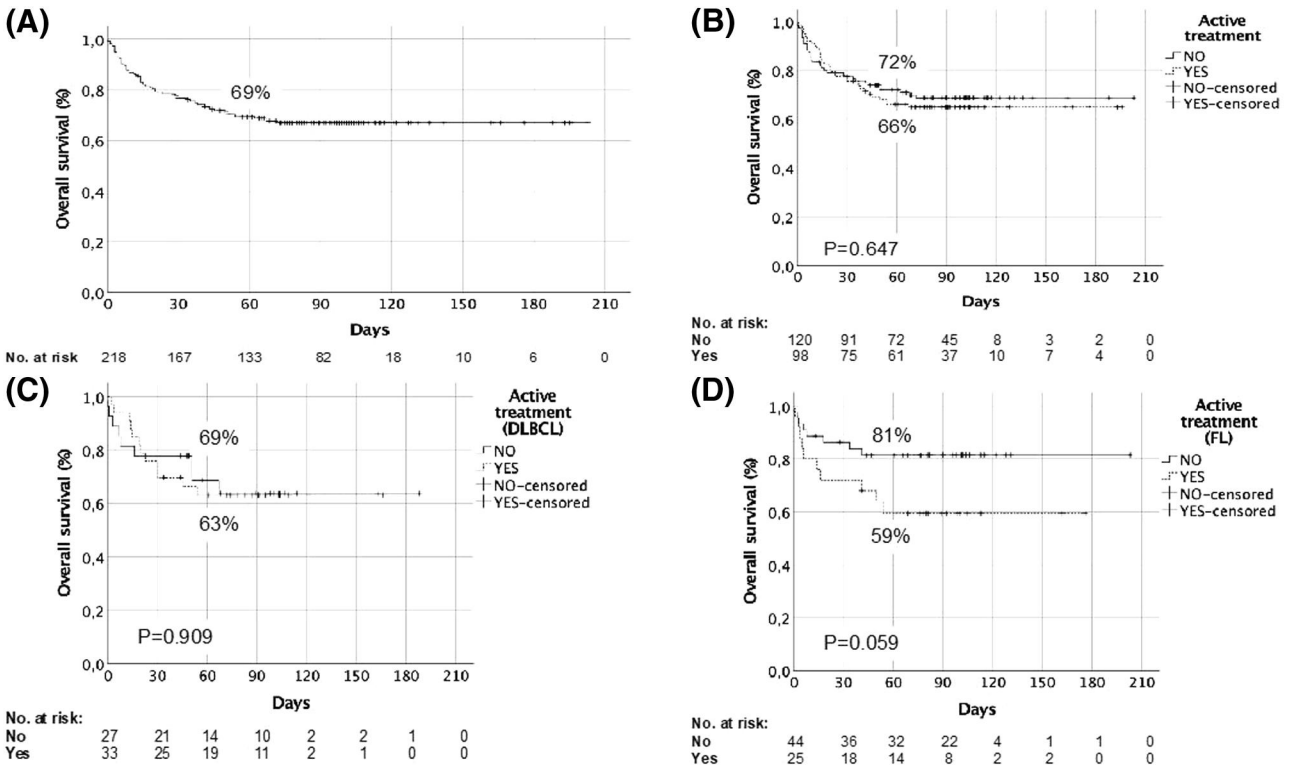

FIGURE 1 Overall survival in the whole series (A), and according to active treatment in the whole series (B), in patients with diffuse large B-cell lymphoma (DLBCL) (C) and in patients with follicular lymphoma(FL) (D)

Results: A total of 218 patients (median sage 69.5 [21-94] years, 54% male) were included; 100 patients had an indolent B-cell non-Hodgkin's lymphoma (NHL), 67 aggressive B-cell NHL, 19 mantle-cell lymphoma, 15 peripheral T-cell lymphoma, and 17 Hodgkin's lymphoma. Patients had received a median of 1 line (0-7) of therapy, and 44.9% were on active treatment at the time of COVID-19 diagnosis. Only 6.4%, 1.8% and 0.9% of patients had received previously autologous stem-cell transplantation, allogeneic SCT and CAR-T cell therapy, respectively. 89% of patients were hospitalized, 71% required oxygen, and 15% mechanical ventilation. With a median follow-up of 91.5 days (13-203), 65 patients have died (60 from COVID-19, 4 from lymphoma, 1 due to other causes), with an estimated 60-day OS of 68.6% (95% CI 62.1–75.1) (figure 1A). In univariate analysis, baseline characteristics associated with decreased OS were age ≥70 years, hypertension, diabetes, other cancer, active disease and hypogammaglobulinemia, but only age ≥70 years maintained independent influence in the multivariate analysis (HR 3.29, 95% CI 1.86-5.83, $p < 0.001$). Active treatment did not significantly impact OS (figure 1B). Univariate analysis revealed different prognostic factors, apart from age, for patients with DLBCL (N = 60) and FL (N = 69). While the presence of active disease had a prognostic impact on DLBCL (60-day OS 56% vs 79%, $p = 0.038$) but not on FL (60-day OS 65% vs 78%, $p = 0.181$) patients, the opposite occurred in the case of active treatment, which seemed to have a negative influence only in patients with FL, as shown in figures 1C and 1D.

Conclusions: Our results confirm a high mortality in patients with lymphoma and COVID-19, especially in those ≥70 years old. In patients with DLBCL, disease control seems essential to reduce the risk of mortality in the event of contracting the infection. By contrast, in patients with FL, delaying the start of treatment until it is not strictly necessary should be considered, and these patients should be prioritized to be vaccinated before starting antitumor treatment. This study provides initial data to develop recommendations for the management of lymphoma patients during the COVID-19 pandemic.

Keywords: Lymphoid Cancers – Other, Therapeutics and Clinical Trials in Lymphoma - Other

No conflicts of interests pertinent to the abstract.

286 bis | SEROLOGICAL RESPONSES AFTER SARS-COV-2 VACCINATION FIRST DOSE IN PATIENTS WITH LYMPHOID MALIGNANCY: FIRST INTERIM ANALYSIS OF THE UK PROSECO STUDY

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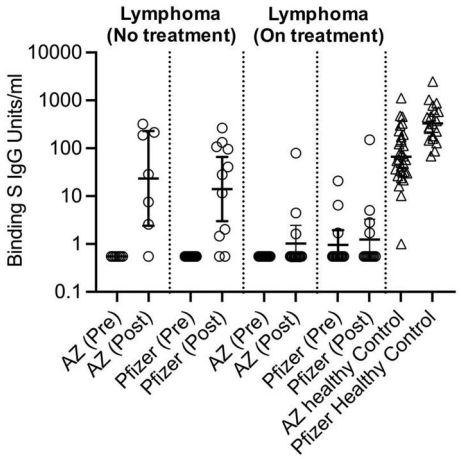
Introduction: A population-wide SARS-CoV-2 vaccination programme commenced in the UK in December 2020. Two vaccines have been widely deployed; BNT162b2 (Pfizer) and a ChAdOx1 nCoV-19 (Astra Zeneca) both encoding the full length of the spike (S) protein. The vaccines are administered in two doses 12 weeks apart, as opposed to 3-weekly in other countries. Studies in healthy individuals indicate that a single dose of the vaccine induces detectable anti-S IgG antibodies in most adults.

Patients with lymphoid malignancies risk more severe COVID-19 and are also likely to be poor vaccine responders. PROSECO is a prospective observational study to evaluate the robustness and persistence of SARS-CoV-2 vaccine responses, and identify baseline clinical parameters correlated to vaccine responses.

Methods: Patients with a confirmed lymphoma diagnosis undergo blood sampling prior to vaccination, 4 weeks after the first dose, and 2-4 weeks, 6 and 12 months after the second dose. IgG to SARS-CoV-2 Spike, Receptor Binding Domain (RBD) and nucleocapsid protein are tested using a qualified electrochemiluminescent assay (Meso-Scale Discovery®) calibrated to the WHO International reference serum (NIBSC 20/136) and compared to responses in healthy volunteers. T-cell reactivity against spike protein will be assessed by ELISpot.

Results: This first interim analysis reports the serological response of 44 participants with lymphoma (6 Hodgkin lymphoma, 12 diffuse large B cell lymphoma, 16 follicular lymphoma, 2 mantle cell lymphoma, 2 chronic lymphocytic leukaemia, 2 marginal zone lymphoma, 4 peripheral T-cell lymphoma), and data from 49 healthy volunteers analysed on the same platform, 4 weeks after their first dose of vaccination. Post-vaccination anti-S IgG levels were significantly lower in patients with lymphoma (geometric mean 3.4 U/ml) compared to healthy participants (geometric mean 331.3 U/ml (Pfizer) and 66.5 U/ml (Astra Zeneca)). Among patients vaccinated during systemic anti-lymphoma therapy, only 2/26 had anti-S IgG >10 Units/ml, compared to 11/18 patients who have had no treatment, or who completed therapy >6 months before the first vaccination dose. In the post-treatment group, patients with curable disease (n = 5) had anti-S IgG levels comparable to healthy participants. In contrast, the serological response in incurable indolent lymphomas, 4/8 cases exhibiting poor responses despite never being treated or completed treatment >3 years previously.

Conclusions: This initial analysis indicates that patients with lymphoma receiving treatment have a reduced serological response (14-fold vs untreated) to the first dose of SARS-CoV-2 vaccination and suggests a rationale for prompt administration of the second dose. Patients with indolent lymphoma showed persistently poor serological responses irrespective of treatment and might benefit from further vaccine boosters.



Keywords: Lymphoid Cancers – Other

Conflicts of interests pertinent to the abstract

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287 | EFFICACY AND SAFETY OF DARATUMUMAB FOR THE TREATMENT OF MULTIPLE MYELOMA: A SERIES OF COCHRANE REVIEWS

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