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**Methods:** Unicentric, cross-sectional survey conducted on cancer patients with a solid malignancy under chemotherapy, targeted agents or immunotherapy, between March and April 2021.

**Results:** We included 169 patients (109 female; 60 male) with a median age of 61 years old (29-82). More than half (n=105; 62.1%) had a lower literacy degree, 97 (57.4%) lived in the countryside. The majority of the patients were receiving palliative treatment (n=87; 51.5%). Most of the patients intended to be vaccinated (n=142, 84.0%), 24 (14.2%) were unsure and 3 (1.8%) did not. All the negative answers were given by patients receiving palliative treatment. Logistic regression analysis revealed that high school qualification (p=0.007), divorced status (p= 0.037), rural residence (p=0.047), and believing in the vaccine (p=0.001), had a statistically significant effect on the probability of the patients wanting to be vaccinated. The most frequent reasons for wanting to be vaccinated were the sense of collective responsibility and the fear of having severe disease. The most frequent reasons for not wanting to be vaccinated were the lack of evidence and the wish to wait for the end of treatment. The need for more information on effectiveness and safety were the main reasons for uncertainty related to the vaccine.

**Conclusions:** Despite the lack of information regarding efficacy, duration of immunity and timing of vaccination in cancer patients under immunosuppressive therapy, this study demonstrated that the majority of patients intend to be vaccinated against COVID-19. These results were related to residence type, literacy and belief in the effectiveness of the vaccine. The higher acceptance rate in our study when compared with other studies must be noted.

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### 1599P Vaccination in the COVID-19 era: Attitudes amongst oncology patients

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**Background:** Early data suggested a higher risk of COVID-19 in oncology patients, in particular those with co-morbidities or on systemic anticancer therapy (SACT). Immunisation strategies are likely to be critical in risk-reduction patient management. We examined patients' attitudes towards COVID-19 vaccines, studying factors affecting uptake such as demographics, socioeconomic, cancer diagnoses and treatments, and previous influenza vaccination.

**Methods:** An anonymised questionnaire was distributed among oncology patients attending for SACT from November to December 2020. Statistical analyses were performed using SPSS v23 (IBM, Armonk, NY, USA).

**Results:** In total 115 patients completed the survey. Of these, 30 (26%) were aged > 65, 65 (56%) were female and 54 (47%) were treated for metastatic disease. Overall 68 (59%) were receiving cytotoxic chemotherapy, and 15 (13%) were receiving immunotherapy. The most common cancer was breast (29%), followed by colorectal (18%) and lung (10%). Most patients (72%) had received or were intending to receive the influenza vaccine. Of patients surveyed 19 (17%) had friends or family who had been diagnosed with COVID-19, while only 3 (2.6%) had had COVID-19. The majority (81%) were in favour of receiving a COVID-19 vaccine if it was recommended for them. A small number however (5.2%) were against receiving a vaccine. Similar numbers of patients worried (30%) and did not worry (33%) that a COVID-19 vaccine could be unsafe. Interestingly 42% stated they if a COVID-19 vaccine were to be made available they would prefer to wait rather than to get it immediately. Patients who had received or intended to receive the influenza vaccine were less likely to want to delay receiving a COVID-19 vaccine (p=0.018). Age group, education level and palliative treatment was not associated with a significant difference in vaccine acceptance.

**Conclusions:** The majority of patients surveyed were agreeable to COVID-19 vaccination, particularly those with prior influenza vaccination. An interesting finding was that though 42% of patients would prefer not to be first to receive the vaccine the majority welcomed vaccination. This finding, especially within a cohort regarded as being "highly vulnerable" to COVID, may have implications for the vaccine program in the general population.

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### 1600P Suboptimal response to COVID-19 mRNA vaccines in older patients with cancer

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**Background:** SARS-CoV-2mRNA vaccines were approved to prevent COVID-19 infection, with reported vaccine efficacy of 95%. Older patients with cancer are at risk for lower vaccine immunogenicity and were not included in the registration trials. We assessed vaccine immunogenicity in this special population.

**Methods:** We recruited elderly vaccinated patients from the René Muret hospital between Apr 5, 2021 and May 8, 2021. All were inpatients in a 48-bed geriatric rehabilitation ward, where a cluster of B.1.1.7 (VOC-202012/1) variant COVID-19 cases occurred. We measured SARS-CoV-2 IgG production in all patients. We observed patients who developed symptomatic SARS-CoV-2 infection (confirmed by RT-PCR) despite previous vaccination with mRNA vaccine.

**Results:** Thirty vaccinated patients were enrolled. Mean age was 83 years and 60% were female. The IgG S-protein serology was positive in 16 of 18 (89%) patients without cancer. Immunogenicity among patients with cancer was significantly lower with positive serology in only 7 of 12 (58%, p<0.001). Antibody level was also significantly lower in this group (mean 2946 AU/mL vs. 4447 AU/mL in controls, p<0.001). Severe SARS-CoV-2 infection occurred in 7 patients included 5 with cancer. Predictors for infection among older patients were: negative serology, haematological cancer (CLL or NHL), lung cancer, and treatment with high dose steroids. Covid-19 related deaths occurred in 5 patients included 4 with cancer.

**Conclusions:** Routine measurement of post-vaccine antibodies in older patients with cancer should be considered. Novel strategies are needed to prevent COVID-19 in these individuals.

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### 1601P SARS-CoV-2 serological response in cancer patients in the Principality of Andorra (COVONCO study)

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**Background:** Little is known about the duration of SARS-CoV-2 antibodies and the factors that influence their durability in oncologic patients. This study aims to study serological response over time by means of a follow-up period of 6, 9 and 12 months. This study also compares patient characteristics by duration of antibody seroprevalence (≥6 months and <6 months) according to treatment groups within the oncological population.

**Methods:** Observational, unicentric, prospective cohort study. All adult patients with cancer diagnosis within 5 years (2016-April 2020) who accepted participation were included since May 2020. During subsequent months, a comprehensive follow-up of these patients has been performed. Demographic and clinical data was taken from medical records (HCIS, software SAAS) and inputted into a web form (<https://forms.epidemiex.org/form/study/covoncoand>).

**Results:** 182 oncologic patients with complete data who underwent population serological screening in May 2020 were selected. At baseline, 152 (83.51%) patients had solid tumors and 30 (16.48%) presented with metastatic diseases. Breast cancer was the main primary cancer site with 49 (26.92%) patients. 102 (56.04%) patients received active anti-cancer treatment, of which 48 (47.06%) received chemotherapy, 25 (24.51%) hormonal therapy, 64 (62.74%) biologics and 8 (7.84%) radiotherapy. Of these, 14 patients were seropositive (7.69%). At the 6-month analysis, 156 patients underwent a serological test (1 patient died and 25 did not perform the test) and 10 patients (6.41%) were seropositive. Among the 14 seropositive patients at baseline, only 3 (30.0%) remained positive at 6 months.

**Conclusions:** Seroprevalence at baseline and at 6 months was lower than observed in the general population in Andorra. Only 3 (30%) patients remained positive at 6 months. No significant differences were observed between overall seroprevalence and anti-cancer treatments. Drawing definitive conclusions is limited by a small sample size.