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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.epidmix.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.

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**1602P COVID-19 vaccination efficacy in cancer patients: An ongoing prospective trial**

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**Background:** Cancer patients (pts) have higher risk of severe COVID-19 infection. However, observations are based on non-comparative retrospective studies. Evidence regarding vaccination in cancer pts is limited, but there is enough evidence to support COVID-19 vaccination, even under active treatment. Data on humoral and cellular immune response to antiviral vaccination in cancer pts are scarce. In pts receiving immunosuppressive therapies (IST) like chemotherapy and targeted therapies, seroconversion/protection rates are expected to be lower than general population, but not in pts receiving immune checkpoint inhibitors (ICI). Serum antibodies against an infectious agent may be an immunity indicator.

**Methods:** Prospective observational longitudinal study with the intent of evaluating the humoral response of cancer pts to COVID-19 vaccination. The study includes pts diagnosed in any stage, without or under active treatment, or survivors followed in Hospital Prof. Dr. Fernando Fonseca, in partnership with Instituto Gulbenkian de Ciência. Pts are divided into 4 arms, independently of the vaccine: A – IST; B – ICI; C – Hormone therapy (HT); D – Cancer survivors. Recruitment started in March 2021, expecting at least 50 pts per arm. IgG, IgA and IgM anti-SARS-CoV-2 antibodies ELISA determination in 9 timepoints: before 1st dose and at the 3rd, 6th, 12th, 15th, 24th, 36th, 48th and 60th weeks post 1st dose. Side effects' questionnaire will be implemented after 1st and 2nd doses.

**Results:** Recruitment is ongoing and a total of 202 pts were enrolled, of which 178 pts have 3-weeks post 1st dose evaluated: 101 in arm A: 11 in B: 31 in C; and 35 in D. The mean age is 61.6 years, with 53.4% females. Regarding vaccines, 55 pts were submitted to ChAdOx1-S/nCoV-19, 5 to Ad26.COV2.S, 89 to BNT162b2 and 12 to mRNA-1273 vaccines. At 3 weeks, 33/97 pts (34%) in arm A, 2/11 pts (18%) in B, 14/28 pts (50%) in C and 15/35 pts (43%) in D already generated anti-spike IgG. Most common side effects were local inflammatory reaction (47%), generalized muscle pain (17%), fatigue (11%), and chills (10%).

**Conclusions:** Efficacy and safety profiles of vaccines against COVID-19 infection in cancer pts is still unknown. This study hopes to assess differences in immunization between pts' treatment profiles and duration profiles and safety profiles.

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**1603P SARS-CoV-2 seroconversion among oncology healthcare workers in Brazil**

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**Background:** We aimed to estimate the incidence of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) seroconversion after baseline screening among oncology healthcare workers (HCW).

**Methods:** This is a prospective longitudinal cohort study of HCW, applied at Centro de Terapia Oncológica (CTO), an Oncology clinic in Petrópolis, Brazil. Baseline screening for SARS-CoV-2 occurred between April 9 -29, 2020 using rapid IgM and IgG serological tests for all HCW. Follow-up serology testing took place once between November 5-December 28, 2020 and included retesting with indirect chemiluminescence immunoassay LIAISON SARS-CoV-2 S1/S2 IgG all HCW for seroconversion incidence. Reverse transcriptase–polymerase chain reaction (RT-PCR) testing was offered at baseline and follow-up for all symptomatic staff. The McNemar test was used to assess the change in positive serology incidence in both tests.

**Results:** The study included 60 HCW, with 40 females (66.7%). Mean age was of 43.4 years old (SD =14.5). At baseline SARS-CoV-2 antibody assessment, 57 (95%) were negative and 3 (5%) positive; 59 (98%) asymptomatic HCW, and 1 symptomatic (1.6%) tested positive in RT-PCR. A total of 11 RT-PCR were performed since baseline until follow-up in symptomatic HCW, with 9 (81.8%) positive results, all of them with seroconversion. 6 (10%) asymptomatic HCW were seropositive at follow-up screening. None of baseline positive-serology asymptomatic HCW sustained their serology. Seroconversion occurred in 15 (25%) HCW - Table. The incidence of positive serologies in follow-up screening was statistically higher than at baseline ( $p = 0.008$ ).

**Table: 1603P**

Baseline / Follow - up	Negative	Positive	Total	p
Negative	42 (70%)	15 (25%)	57 (95%)	0.008
Positive	3 (5%)	0 (0%)	3 (5%)	
Total	45 (75%)	15 (25%)	60 (100%)	
McNemar Test				

**Conclusions:** Most seroconversions were in symptomatic HCW, although the substantial number of positive serologies in asymptomatic HCW accent the importance and direct impact of regular universal testing. Seropositivity increased five-fold compared to baseline results. This detected increase in infections reflects a national pattern, suggesting community-based and not nosocomial transmission.

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**1604P Global survey of 104 cancer patient organisations reveals devastating impact of COVID-19**

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**Background:** The Global Cancer Coalitions Network (GCCN), established in May 2020, collectively represents over 750 cancer patient organisations representing over 14 million patients around the world. Cancer services have faced challenges as a result of COVID-19, including suspension of screening and diagnostic services; delays in diagnosis leading to higher mortality rates; cancellation/deferral of life-saving treatments; changes in treatment regimens and suspension of vital research. Substantial increases in the number of avoidable cancer deaths are to be expected as a result of diagnostic delays due to the COVID-19 pandemic.

**Methods:** 6 global cancer coalitions surveyed their member organisations in December 2020.

**Results:** Among 104 organisations from 46 countries representing advanced breast, bladder, colorectal, lymphoma, ovarian, and pancreatic cancer patient groups: · Demand for services has increased · 2/3 organisations experienced a fall in income from December 2020, averaging -48% · Over 1 in 10 organisations have closed temporarily, and some permanently · Only 1 in 10 organisations believe their 2021 income will return to levels seen before the pandemic · Almost half report that their ability to operate is under threat · Half do not have access to any national funding schemes to ensure operation during the pandemic · Staff shrunk -20%; volunteer numbers -70% · <20% organisations report normalised cancer services in December 2020; more respondents report services are "worse than ever" · Patient distress, isolation and financial hardship have increased markedly.

**Conclusions:** For organisations providing support to cancer patients, declining income, the need to reduce staff and move to virtual working practices has added strain while demand for support due to the pandemic has increased. Emergency support, including funding, must be made available to these organisations to ensure that the needs of cancer patients worldwide continue to be met.

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