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## Prevalence and impact of COVID-19 sequelae on treatment pathways and survival of cancer patients who recovered from SARS-CoV-2 infection

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### Background

The long-term impact of COVID-19 in cancer patients (pts) is undefined.

### Methods

Among 2795 consecutive pts with COVID-19 and cancer registered to OnCovid between 01/2020 and 02/2021, we examined clinical outcomes of pts reassessed post COVID-19 recovery.

### Results

Among 1557 COVID-19 survivors, 234 (15%) reported sequelae including respiratory symptoms (49.6%), fatigue (41%) and cognitive/psychological dysfunction (4.3%). Persisting COVID-19 sequelae were more likely found in males ( $p=0.0407$ ) aged  $\geq 65$  years ( $p=0.0489$ ) with  $\geq 2$  comorbidities ( $p=0.0006$ ) and positive smoking history ( $p=0.0004$ ). Sequelae were associated with history of prior hospitalisation ( $p<0.0001$ ), complicated disease ( $p<0.0001$ ) and COVID-19 therapy ( $p=0.0002$ ). With a median post-COVID-19 follow up of 128 days (95%CI 113-148), multivariable analysis of survival revealed COVID-19 sequelae to be associated with an increased risk of death (HR 1.76, 95%CI 1.16-2.66) after adjusting for sex, age, comorbidities, tumour characteristics, anticancer therapy and COVID-19 severity. Out of 473 patients who were on systemic anticancer therapy (SACT) at COVID-19 diagnosis; 62 (13.1%) permanently discontinued therapy and 75 (15.8%) received SACT adjustments, respectively. Discontinuations were due to worsening performance status (45.1%), disease progression (16.1%) and residual organ dysfunction (6.3%). SACT adjustments were pursued to avoid hospital attendance (40%), prevent immunosuppression (57.3%) or adverse events (20.3%). Multivariable analyses showed permanent discontinuation to be associated with an increased risk of death (HR 4.2, 95%CI: 1.62-10.7), whereas SACT adjustments did not adversely affect survival.

### Conclusions

Sequelae post-COVID-19 affect up to 15% of patients with cancer and adversely influence survival and oncological outcomes after recovery. SACT adjustments can be safely pursued to preserve oncological outcomes in patients who remain eligible to treatment.

### Clinical trial identification

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**Legal entity responsible for the study**

Imperial College London.

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**Disclosure**

A. Cortellini: Financial Interests, Personal, Advisory Board: MSD; Financial Interests, Personal, Advisory Board: BMS; Financial Interests, Personal, Advisory Board: Roche; Financial Interests, Personal, Invited Speaker: Novartis; Financial Interests, Personal, Invited Speaker: AstraZeneca; Financial Interests, Personal, Invited Speaker: Astellas; Financial Interests, Personal, Advisory Board: Sun Pharma. D.J. Pinato: Financial Interests, Personal, Advisory Board: ViiV Healthcare; Financial Interests, Personal, Invited Speaker: Bayer; Financial Interests, Personal, Advisory Board: Eisai; Financial Interests, Personal, Invited Speaker: Roche; Financial Interests, Personal, Invited Speaker: AstraZeneca. All other authors have declared no conflicts of interest.

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