Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Methods: An unbiased hyper reaction monitoring mass spectrometry (HRM™-MS) approach was used to analyze serum samples from severe COVID-19 cases before and 7 days after treatment with tocilizumab (n = 28), enabling simultaneous identification and quantification of all detectable serum proteins. All samples were measured using 1h gradient on a nano-flow LC-MS/MS setup operated in data-independent acquisition (DIA) mode. Data was extracted using Spectronaut™ (Biognosys). Univariate and multivariate statistical analyses were conducted to identify biomarker candidates. Pathway analysis was used to identify dysregulated biological functions and signaling pathways.

Results: Over 450 proteins were quantified across all samples by HRM-MS. Univariate statistical analysis identified significantly changing proteins across conditions (mortality day 30, pre-post treatment, responder/non-responder, q-value > 0.05 and fold change >1.5). Multivariate analysis (PLS-DA) was also used to classify proteins based on their abundance across condition. Proteomic data was further integrated with clinical outcome data to identify a panel of protein biomarker candidates potentially useful in predicting tocilizumab treatment efficiency and the COVID-19 disease severity.

Conclusions: Unbiased proteomic profiling of COVID-19 patient serum identified a panel of candidate protein biomarkers that associate with tocilizumab treatment response as well as the ensuing course of the disease. Further validation of these biomarker candidates opens the way for a personalized medicine approach in treating COVID-19.

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1695P Risk assessment of admission procedures for cancer patients during the convalescence of COVID-19

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Background: Through great efforts, the outbreak of 2019 novel corona virus disease (COVID-19) has been slowing down in Wuhan. This study was to assess the potential errors of established admission procedures from a tertiary cancer center.

Methods: A multidisciplinary team of eight frontline nurses and oncologists would conduct a failure mode and effects analysis (FMEA) to our established procedures. The FMEA consisted of 4 main steps, Including a detailed review of the on-going admission processes and the drawing of the corresponding flow chart, followed by repeated discussions of the possible errors among those processes, and then evaluation of the occurrence (O), detectability (D), and severity of impact (S) of each failure mode according to a scoring criteria (a five-point scale). Finally, the risk of errors were determined through a calculation of risk priority number (RPN=O*D*S).

Results: From March 24, 2020 to May 14, 2020, based on the established procedures, our center has screened 1,214 cancer patients in the oncology outpatient department and subsequent buffer wards. No nosocomial infection (among doctors or patients, or between patients and doctors) occurred. On the scale of RPN from high to low, ten high-risk steps were identified by FMEA, involving a failure of scheduled screening for particularly vulnerable populations, the failure of hand hygiene in outpatient and buffer wards, and the incorrect disposal of clinical waste by cleaning service staff. In addition, the psychological burden to cancer patients might increase the risk of buffer ward management failure.

Conclusions: Self-review and continuous improvement for established procedures can minimized underlying mistakes. Increasing the approaches to treatment appointments, reasonably optimizing the working during for outpatient physicians, strengthening the awareness of hand hygiene (both physicians and patients), and setting up oncological psychological counseling groups will likely improve the potential error steps.

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1696P Incidence of influenza-like illness (ILI) in cancer patients during COVID-19: The ONCOVID prospective observational study

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Background: There are limited data on cancer patients (pts) and the novel coronavirus (SARS-CoV2) respiratory disease (COVID-19). Fever and/or respiratory symptoms (influenza-like illness, ILI) is a common finding in cancer pts. We aim to evaluate the frequency of ILI in cancer pts during the pandemic, and to identify high-risk subjects to test for COVID-19.

Methods: From March 20th to April 17th 2020 we collected data of cancer pts in a prospective trial approved by the local ethics committee. The primary endpoint was to estimate the cumulative incidence of ILI in the study population. The secondary endpoint was to estimate which proportion of pts with ILI had COVID-19 diagnosis. A triage procedure with questionnaires was performed in pts accessing the hospital, with laboratory tests (complete blood count, C-reactive protein) in pts on active treatment. Non-urgent visits were converted into telehealth visits and triage: pts with symptoms were addressed to general practitioners. Based on a diagnostic algorithm, pts with ILI symptoms underwent an infectious disease specialist's evaluation and SARS-CoV2 swab. The LepuMedical SARS-CoV2 immunoassay technique was used in pts with suspect symptoms or altered laboratory tests, not falling into the diagnostic algorithm.

Results: Overall, 562 pts were enrolled: 13 (2%) pts had a positive SARS-CoV2 swab, none of which performed on the basis of triage procedures or questionnaires, rather detected through telephone communications and triage; 52 (9%) pts reported suspect symptoms and/or laboratory tests. Forty-five (8%) SARS-CoV2 swab positive, or with suspect symptoms and/or laboratory tests pts underwent SARS-CoV2 antibody (Ab) tests; 20 (3%) pts were excluded for poor clinical conditions (n=10), death (n=4), or pts' refusal (n=6). Four out of 41 (10%) suspect pts had IgG+ (n=3), or IgM+/IgG+ (n=1); 4 out of 4 COVID-19 positive pts had IgG+ (100%). Ab tests were negative in the remaining 37 pts.

Conclusions: In our experience, triage procedures and questionnaires were not helpful in detecting COVID-19 in cancer pts. The incidence of both COVID-19 diagnosis (2%), and SARS-CoV2 Ab positivity in pts tested on the basis of suspect symptoms (<1%), were similar to those observed in the general population.

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1697P Cancer patients' perceptions, opinions and feelings during the COVID-19 epidemic in the most affected Italian areas: Serial cross-sectional study

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Background: Risks associated with COVID outbreak and consequent restrictive measures taken by the Government can cause concern and anxiety. The impact on cancer patients (pts) may be even greater. We investigated the influence of COVID pandemic on pts' perceptions, opinions and feelings during the peak of the epidemic and after the loosening of the Government restrictions.

Methods: Multicenter, serial cross-sectional study conducted in 11 cancer centers located in the hardest hit Italian areas. The study is composed by 2 surveys administered to unselected adult pts receiving onsite oncologic treatments: the first during the enforcement of containment measures against COVID spread; the second upon the loosening of Government restrictions. A self-administered questionnaire composed by 11 closed questions (only 1 answer) was used. At least 1000 pts per each survey were deemed necessary. Multivariable logistic regression models will be used to identify factors associated to recorded perceptions and opinions. Main outcomes are: 1) perception of the pandemic effect on feelings 2) perception of changes in the relationship with the medical team 3) opinions on healthcare reorganization