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.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
infection and AXL inhibition has demonstrated antiviral activities. Recently, bemcentinib, a highly selective and potent AXL inhibitor with antiviral activity, has been fast-tracked as the first potential treatment for assessment in the United Kingdom’s ACCELERATE COVID-19 Research & Development (ACCORD) multicenter, randomized phase II trial.

Methods: We analyzed mRNA expression of AXL and other TAM family members as well as angiotensin-converting enzyme 2 (ACE2), the SARS-CoV-2 receptor, in treatment-naïve (n=1016) and previously treated (n=239) NSCLC tumors and in a panel of NSCLC cell lines (n=70). We also analyzed AXL mRNA levels in NSCLC cell lines (n=3) infected with SARS-CoV-2.

Results: In treatment-naïve and previously-treated NSCLC tumors, AXL mRNA expression was higher in mesenchymal tumors, as expected, and inversely correlated with ACE2. Similarly, in NSCLC cell lines, high ACE2 expression was associated with low AXL mRNA and protein expression. Notably, expression of ACE2 was downregulated while that of AXL and ZEB1, an EMT transcription factor, were upregulated in NSCLC cells infected with SARS-CoV-2 as compared to mock infected cells, suggesting a shift to a more mesenchymal phenotype. Treatment with bemcentinib for 24h downregulated ZEB1 expression in mesenchymal cell lines, reversing EMT.

Conclusions: These data, in the context of ACE2’s role in preventing acute respiratory distress syndrome, suggest a shift from ACE2-expressing epithelial cells to a more mesenchymal phenotype characterized by low ACE2 and high AXL expression, upon infection of NSCLC cells with SARS-CoV-2. In addition to bemcentinib’s antiviral activity, it can also reverse EMT, further supporting AXL and EMT as novel therapeutic targets for COVID-19 treatment.

Legal entity responsible for the study: Lauren A. Byers.

Funding: NIH/NCI CCSG P30-CA016672 (Bioinformatics Shared Resource), NIH/NCI T32 CA096666, ASCO Young Investigator Award (C.M.G.); University of Texas SPORE in Lung Cancer PS-CA079097 (L.A.B. C.M.G.), NIH/NCI ROI-CA207295, NIH/NCI U01-CA213273, the Department of Defense (LC170171) (L.A.B.), The LU/Ngevity foundation (D.G., L.A.B.), through generous philanthropic contributions to The University of Texas MD Anderson Lung Cancer Moon Shot Program (J.H., J.W., L.A.B.); and an Andrew Sabin Family Fellowship (L.A.B.), and The Rexanna Foundation for Fighting Lung Cancer (J.H., J.W., L.A.B.).

Disclosure: C. Gay: Research grant/Funding (self): AstraZeneca. D. Gibbons: Advisory/Consultancy, Research grant/Funding (self): AstraZeneca; Advisory/Consultancy: GlaxoSmithKline; Advisory/Consultancy: Sanofi; Advisory/Consultancy, Research grant/Funding (self): Janssen; Research grant/ Funding (self): Takeda; Research grant/Funding (self): Rothen Therapeutics; Research grant/Funding (self): Astellas. J.K. Meyham: Advisory/Consultancy, Research grant/Funding (self): AstraZeneca; Advisory/Consultancy: Boehringer Ingelheim; Advisory/Consultancy: Ewalis; Advisory/Consultancy: Genentech; Advisory/Consultancy, Research grant/Funding (self): GlaxoSmithKline; Advisory/Consultancy: Guardant Health; Advisory/Consultancy: Hengrui; Advisory/Consultancy: Lilly; Advisory/Consultancy: Novartis; Advisory/Consultancy, Research grant/Funding (self): Licencing/Royalties: Spectrum; Advisory/Consultancy: EMD Serono, Advisory/Consultancy: Synta; Research grant/Funding (self): Bayer. L.A. Byers: Advisory/Consultancy, Research grant/Funding (self): AstraZeneca; AbbVie; GenMab; Sierra Oncology; Advisory/Consultancy: BergenBio; Pharma Mar SA; Merck; Bristol Myers Squibb; Genentech; Pfizer; Research grant/Funding (self): Toleron Pharmaceuticals. All other authors have declared no conflicts of interest.

https://doi.org/10.1016/j.annonc.2020.08.1800

Table: 1737P

| Components          | Recommendations N | National Guidelines completely compliant to all recommendations N (%) | National Guidelines partially compliant to all recommendations N (%) | No National guidelines about the component N (%) |
|---------------------|-------------------|---------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------|
| Patients management | 5                 | 7 (53.8)                                                            | 5 (38.5)                                                          | 1 (7.7)                                       |
| HCW Management      | 7                 | 4 (30.8)                                                            | 8 (61.5)                                                          | 1 (7.7)                                       |
| Facility Management | 6                 | 7 (53.8)                                                            | 5 (38.5)                                                          | 1 (7.7)                                       |
| Testing for COVID-19| 3                 | 9 (69.2)                                                            | 3 (23.1)                                                          | 1 (7.7)                                       |
| Measures to reduce hospital visits | 7 | 6 (46.15) | 6 (46.15) | 1 (7.7) |
| Measures to reduce complications | 2 | 4 (30.8) | 3 (23.1) | 6 (46.1) |
| Five Site specific recommendations | 1 | 7 (53.8) | 0 (0) | 6 (46.1) |

Background: COVID-19 pandemic presented serious challenge to oncology care due to the associated risks form infection and from disruption of care delivery. Therefore, many professional societies published recommendations to help manage cancer care during the crisis. The objective of our study was to assess the national responses of MENA countries in terms of publishing relevant guidelines and analyze various components of these guidelines.

Methods: A survey based on literature review regarding cancer care adaptation was developed then completed by senior oncologists representing the following countries: Algeria, Egypt, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Saudi Arabia, Syria, Tunisia, UAE and Yemen. The survey queried about instructions of the national recommendations regarding (3) general measures of COVID-19 prevention in oncology, (2) cancer care adaptations during the pandemic.

Results: Analysis of the guidelines revealed 31 essential recommendations categorized into seven essential components with specific recommendations for each component. These components are patients’ management, health care workers (HCW) management, facility management, testing for COVID-19, measures to reduce hospital visits, measures to reduce complications, and site-specific recommendations. The table showed compliance of these guidelines with having the required components and relevant recommendations.

Conclusions: There is inconsistency in the components of the guidelines across the region, which may reflect the evolving nature of the pandemic and lack of clear evidence for many issues in question. There is a need for clear framework on essential components to be included in the guidelines to assure providing the best guidance to the oncology community.

Editorial acknowledgement: On behalf of the International Research Network on COVID-19 Impact on Cancer Care (IRN-CICC).

Legal entity responsible for the study: The authors.

Funding: Has not received any funding.

Disclosure: M.A.M.A. AlNassar: Research grant/Funding (institution): Roche. A. Jazieh: Research grant/Funding (institution): MSD. All other authors have declared no conflicts of interest.

https://doi.org/10.1016/j.annonc.2020.08.1801

1737P National approaches to managing cancer care: Responses of countries in the MENA region to COVID-19 pandemic