Cancer patients with COVID-19 a population-based, nationwide analysis from Belgium





Senior Principal Investigators: de Azambuja E and Punie K / Junior Principal Investigators: Brandão M and Geukens T Co-investigators: Rottey S, Wildiers H, Laenen A, Aspeslagh S, Fontaine C, Collignon J, Lybaert W, Demey W, Verheezen J, Rutten A, Vuylsteke P, Goeminne JC, Prenen H, Neyns B, Ignatiadis M



COVID-19 in patients with cancer – Part I

Background

- UK (Docherty, BMJ 2020): 20 000 patients hospitalized with COVID-19
 - 10% with a malignancy; 13% \uparrow in the likelihood of death compared to patients without cancer
- COVID-19 and Cancer Consortium (Kuderer, The Lancet 2020):
 - 30-day mortality: 13%
 - Adverse prognostic factors: advanced age, male gender, being a former smoker, number of comorbidities, ECOG performance status of ≥2 and having an active cancer

Remaining questions

- 1. Do hospitalized patients with cancer present with *different signs & symptoms* from COVID-19 compared to patients without cancer?
- 2. What is the *effect on mortality* of solid cancer among hospitalized patients with COVID-19:
 - Overall?
 - Across different *patient subgroups*?





- **Population-based, nationwide** analysis
 - ightarrow Hospitalized patients registered in the Sciensano database until May 24, 2020
- Objective:

To compare **30-day mortality** between patients with prior or current *solid cancer* and patients *without cancer* hospitalized with COVID-19, *overall* and among different *patient subgroups*

Results – Baseline analysis



(number of patients; %)

Patients with **solid cancer** were:

- Older (median age: 75 vs 70 years)
- More male gender (55% *vs* 53%)



When adjusting for age/gender:

- More chronic lung/liver disease
- More often immunossuppressed
- More likely to be current **smokers**
- More influenza vaccination





Results – Baseline analysis



■ Non-cancer group ■ Solid cancer group



Results – In-hospital analysis



→ Patients with solid cancer have *higher* 30-day in-hospital mortality



Increase of **34%** in the likelihood of death (OR 1.34, 95% CI 1.13-1.58) after adjustment for age, gender, comorbidities and RAAS inhibitors use



Results – In-hospital analysis

Subgroups



→ Solid cancer has a **different impact on 30-day in hospital mortality** of COVID-19 among *different subgroups* of patients



Conclusions of Part I

• Solid cancer is an independent adverse prognostic factor for 30-day in-hospital mortality among patients with COVID-19

Open access

Impact of solid cancer on in-hospital mortality overall and among different subgroups of patients with COVID-19: a nationwide, population-based analysis

> Evandro de Azambuja ^(D), ¹ Mariana Brandão ^(D), ² Hans Wildiers, ³ Annouschka Laenen, ⁴ Sandrine Aspeslagh, ⁵ Christel Fontaine, ⁵ Joelle Collignon, ⁶ Willem Lybaert, ⁷ Jolanda Verheezen, ⁸ Annemie Rutten, ⁹ Peter Vuylsteke, ^{10,11} Jean-Charles Goeminne, ¹⁰ Wim Demey, ¹² Dominique Van Beckhoven ^(D), ¹³ Jessika Deblonde ^(D), ¹³ Sylvie Rottey, ¹⁴ Tatjana Geukens ^(D), ¹⁵ Kevin Punie ^(D), ³ The Belgian Collaborative Group on COVID-19 Hospital Surveillance and the Belgian Society of Medical Oncology (BSMO)

• This adverse effect was more pronounced among younger patients and those without other comorbidities

→ Patients with solid cancer should be prioritized in vaccination campaigns and in tailored containment measurements







Part II: Study design



• **Population-based, nationwide** analysis: patients with *solid cancer*, diagnosed and hospitalized with COVID-19 from March to June 1, 2020 – estimation: **1000 patients**

Objectives:

- To compare the *clinical characteristics and severe event occurrence* between patients with "active" vs "non-active" solid cancer and according to tumor type
- To compare the *30-day and 3-month mortality* between patients with "active" vs "non-active" solid cancer and according to *tumor type*
- To investigate *toxicities and outcomes* among specific groups of cancer patients (e.g. **those under immunotherapy**) and *changes in cancer treatment* due to COVID-19



Part II: Clinical data collection



We are counting on your participation!



Contact marjolein.heijlen@uzleuven.be for questions regarding the ongoing Part II

Part II: 24 Participating Sites

AZ Jan Palfijn - Dr. I. Samyn AZ Klina - Dr. W. Demey AZ Lokeren - Dr. W. Lybaert AZ Nikolaas - Dr. W. Lybaert CH de Liège - Dr. J. Collignon CH Jolimont - Dr. E. Seront CHR de Huy - Dr. J. Collignon CHR de la Citadelle - Dr. I. Louviaux CHU Brugmann - Dr. S. Lecomte CHU UCL Namur - Dr. J. Goeminne Clinique Saint Pierre - Dr. L. Duck CU St. Luc - Dr. C. Van Marcke

GZA-ziekenhuizen - Dr. A. Rutten Institut Jules Bordet - Dr. E. de Azambuja Imelda Ziekenhuis - Dr. H. Van Den Bulck Jessa Ziekenhuis - Dr. J. Mebis Sint Trudo Ziekenhuis - Dr. J. Verhezen St. Andriesziekenhuis - Dr. L. De Backer UZ Antwerpen - Dr. H. Prenen UZ Brussel - Dr. S. Aspeslagh UZ Gent - Dr. S. Rottey U7 Leuven - Dr K Punie Ziekenhuis Oost-Limburg - Dr. W. De Roock **ZN Antwerpen** - Dr. S. Van Wambeke



We are counting on your participation!



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World Cancer Day 4 February

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- Sciensano
- Belgian Society of Medical Oncology Board
- Marjolein Heijlen (<u>marjolein.heijlen@uzleuven.be</u>)
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