Index Date Validation in OCEANIA a Real-World Database Study – The Importance of Looking Back

RWD155

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*At time of study

Background

- Real-world studies investigating the burden of ovarian cancer (OC) for patients and healthcare systems in Latin America are limited.
  - Routine collection and analysis of healthcare data is a cost-effective method for evaluating real-world outcomes and disease burden.[1,2]
- The standard approach for defining the index date (a proxy for diagnosis) is to use the date when the first disease-related medical code is assigned to a patient.
  - An alternative method uses earlier timepoints as the index date. The choice of approach will depend on the nature of the research aims.[3,4]

Aim

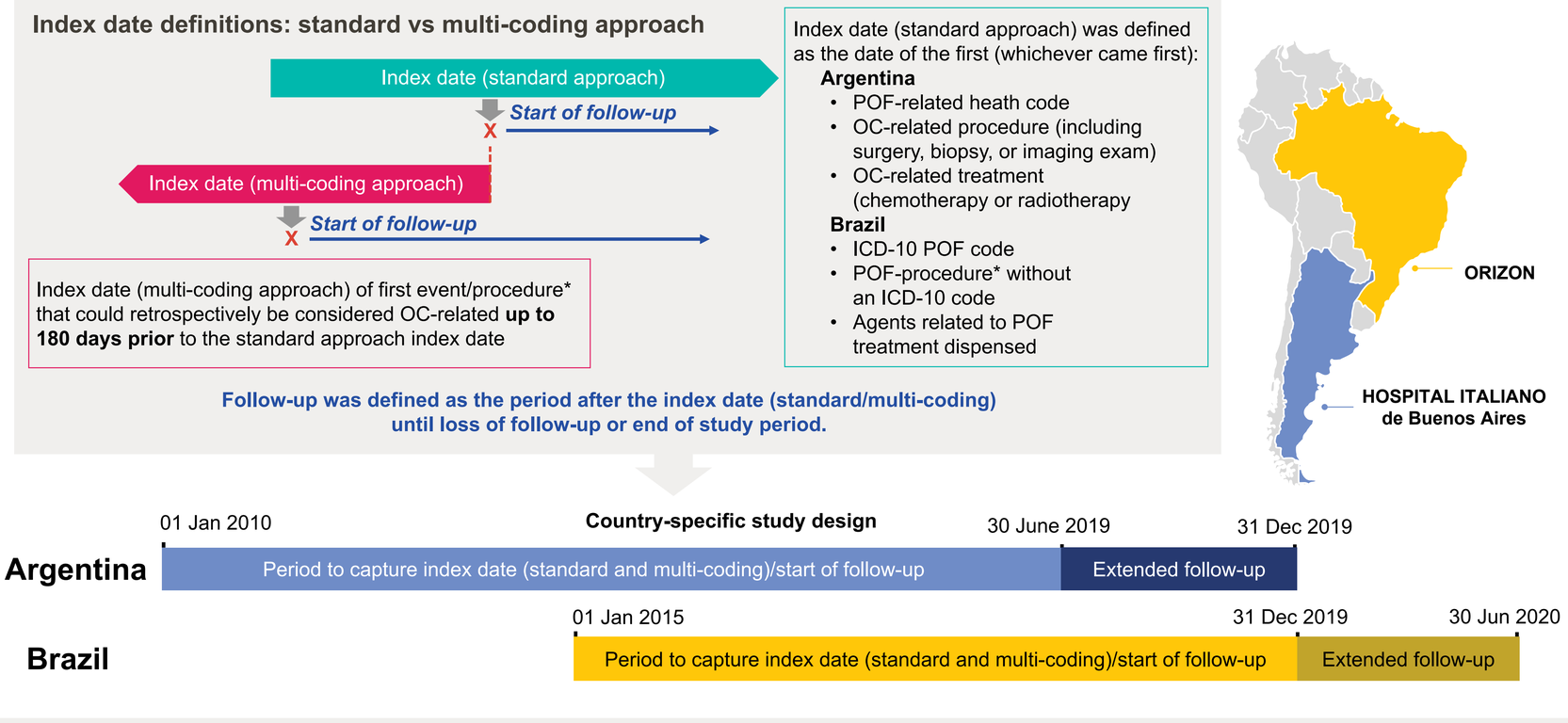
To compare the validity of defining the index date using the standard approach (first medical code) against a multi-coding approach in two real-world databases for patients with OC in Argentina and Brazil.

Methods

Study design

- 'Ovarian Cancer: drug utilization resEArch in LatiN AmerIcA' (**OCEANIA**) was a retrospective, open-cohort study that enabled evaluation of treatment patterns and clinical outcomes in patients with peritoneal, ovarian and fallopian tube cancer in Argentina and Brazil using the Argentinian Hospital Italiano de Buenos Aires (HIBA) and the Brazilian Orizon private health claims databases respectively (**Figure 1**).

Figure 1. Study design



*Defined as surgical interventions, imaging tests, radiotherapy, or drug therapy.
ICD-10, International Classification of Disease 10th revision; OC, ovarian cancer; POF, peritoneal, ovarian and fallopian tube cancer.

Eligibility

Table 1. Patient eligibility

Argentina	Brazil
• ≥18 years of age	• ≥18 years of age
• OC-related medical code between 01 January 2010 and 30 June 2019 – A list of structured terms of medical codes related to OC were prepared by the oncologists and gynaecologists from HIBA and all EMRs of eligible patients were manually reviewed to confirm an OC diagnosis	• Two ICD-10 codes indicative of OC between 01 January 2015 and 31 December 2019 – C56 (malignant neoplasm of ovary), C57.0 (malignant neoplasm: fallopian tube), C48.1 (malignant neoplasm: specified parts of peritoneum), C48.2 (malignant neoplasm: peritoneum, unspecified)

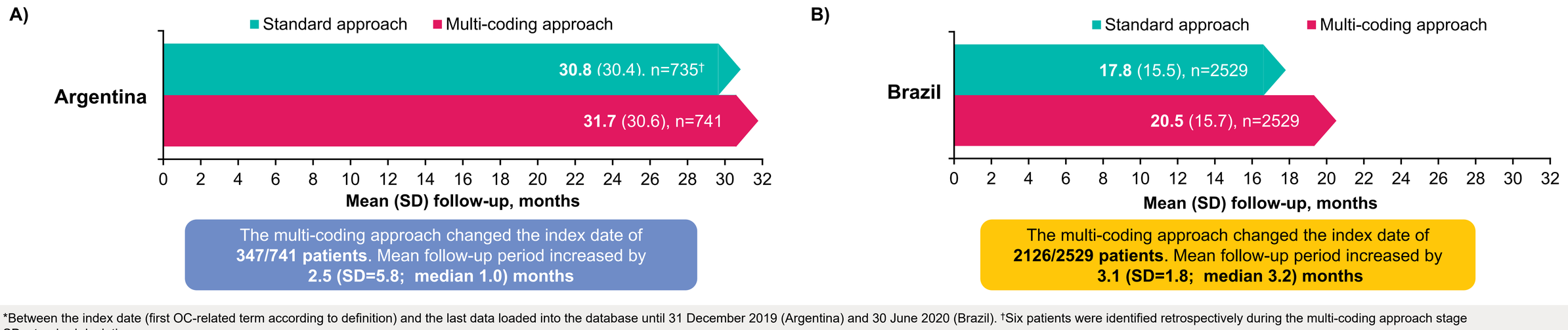
EMR, electronic medical record; HIBA, Hospital Italiano de Buenos Aires; ICD-10, International Classification of Disease 10th revision; OC, ovarian cancer.

Data analysis

- The follow-up period was defined as the time between the index date and last date that data were logged into either database, before study cut-off.
- The mean, median and standard deviation follow-up duration for patients were calculated.

Results

Figure 2. Mean (SD) follow-up times* using alternative approaches to defining the index period: Argentinian and Brazilian databases



*Between the index date (first OC-related term according to definition) and the last data loaded into the database until 31 December 2019 (Argentina) and 30 June 2020 (Brazil). †Six patients were identified retrospectively during the multi-coding approach stage
SD, standard deviation.

Conclusions

- Using a multi-coding approach to define the index date led to an extension of the mean follow-up period for 46.8% of the patients from Argentina and 84.1% in the patients from Brazil.
- For database studies, the choice of index date requires careful consideration to ensure accurate interpretation of time-dependent outcomes to help minimise bias and improve data validity.

- **Further analyses of the Argentinian database being presented at ISPOR-EU are as follows:**
  - Abreu G, et al. Platinum-Free Interval in Patients With Ovarian Cancer Across an Argentinian Database (Poster CO63, November 7, 2022 15:00–18:15) (Abstract QR code 2)
  - Abreu G, et al. Antineoplastic Agents in Ovarian Cancer Treatment Using Argentinian Real-World Data: OCEANIA Study (Podium Presentation, November 7, 2022 13:30–14:30) (Abstract QR code 3).

Disclosures

GA, **JQ**, **TN**, and **TP** are employees of GSK. **PSantana** and **JC** were employees at GSK at the time of the study. **CS**, **PM**, **GB**, **MC**, **RMF** and **LJ** are employees of, and hold stocks in, GSK. **LZ** has been on advisory boards for AstraZeneca, Eli Lily, GSK, Novartis, Pfizer and Roche. **PScibona**, **NES**, **VAS**, **MCR**, **FC**, **DO**, **JS**, **AS** and **ALBBG** have no conflicts of interest to declare.

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LZ and **AS** were unable to approve the final version of this poster but co-authored the abstract.

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