

Epidemiology and treatment patterns of patients with locally advanced or metastatic urothelial cancer in France: a non-interventional database study

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Objective

- To describe and assess the epidemiology and treatment patterns of patients with locally advanced or metastatic urothelial carcinoma (la/mUC) in France

Conclusions

- Incidences of la/mUC increased over time in France during the study period (from Jan 2020 to Dec 2022)
- Most patients who received first-line (1L) treatment from Jan 2020 to Jun 2022 had only chemotherapy as their 1L modality
 - More than 60% of patients only received 1L treatment
 - Avelumab use was low overall but increased over time (11.9–19.3%)
 - Only 17.7% of patients received second-line checkpoint inhibitors after 1L and 1.0% of patients received enfortumab vedotin
- The treatment landscape of la/mUC is further evolving with recent recommendations of enfortumab vedotin with pembrolizumab and of nivolumab with gemcitabine and cisplatin as 1L treatments³; further research is needed to assess the best treatment option in 1L according to the patient profile and the impact of subsequent treatments

References
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Conflicts of interest
 Florence Joly received consulting fees from Astellas, Pfizer and Merck. Morgan Rouprêt received consulting fees from Ipsen, Astellas, Janssen, Astra Zeneca, Bayer and BMS. Stéphane Culine has no conflicts of interest to disclose. Aurore Tricot, Emilie Casarotto and Khalil Karzazi are employees of IQVIA, contracted by Astellas Pharma Inc. to conduct the study. Rafaël Minacori, Torsten Strunz-McKendry, Kirsten Leyland, Marthe Vuillet, and Marie-Catherine Thomas are employees of Astellas Pharma Inc.

Acknowledgements
 This study was sponsored by Astellas Pharma Inc. and Seagen, which was acquired by Pfizer Dec 2023. Medical writing support was provided by Pedro de Campos Silva, PhD, on behalf of Lumanity, funded by Astellas Pharma Inc. and Pfizer.

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 Presented at the European Society for Medical Oncology (ESMO) Annual Meeting, 13–17 September 2024, Barcelona, Spain and online

Background

- In France, the treatment landscape of la/mUC has recently changed
 - Avelumab was approved in 2021 as 1L maintenance treatment for patients with la/mUC who have not progressed after platinum-based chemotherapy¹
 - Enfortumab vedotin was approved in 2022 for patients with la/mUC who have previously received platinum-based chemotherapy and a programmed death receptor-1 or programmed death-ligand 1 inhibitor²
- Here, we analyse the epidemiology and treatment patterns of la/mUC in France from 2020 to 2022

Study design

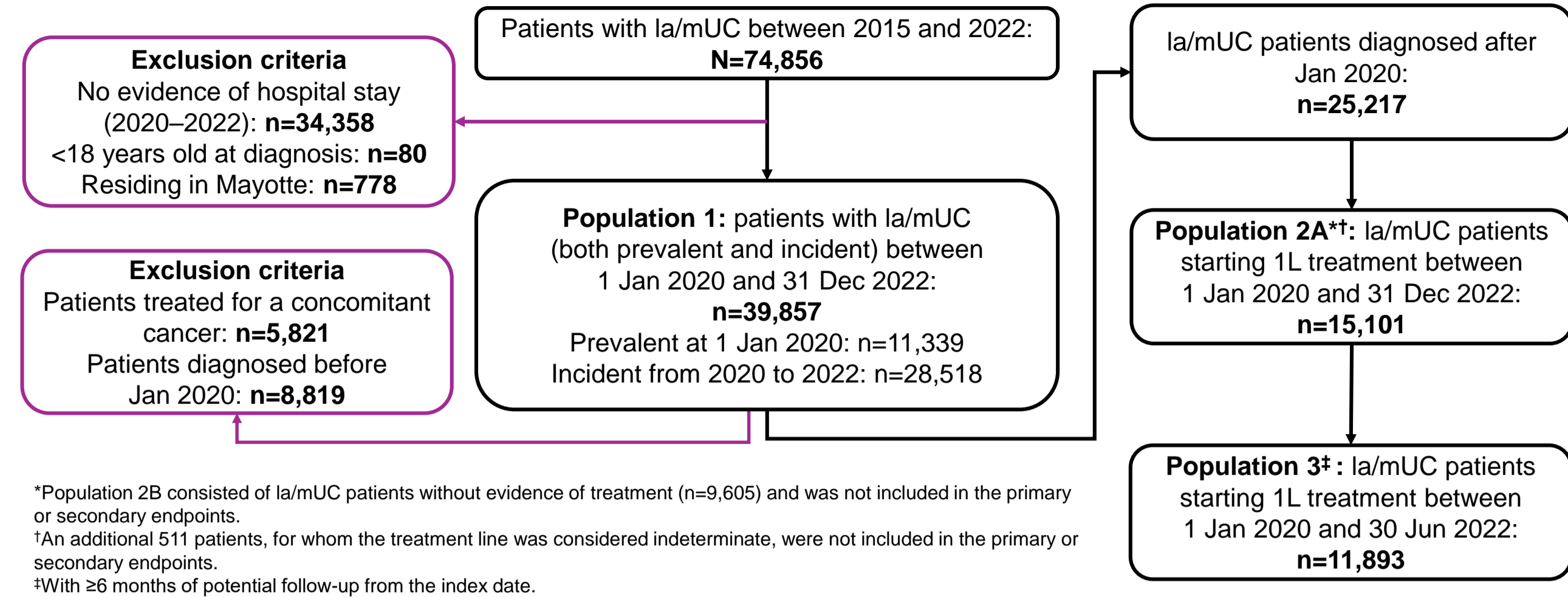
- EVOLVE-2 was a descriptive, non-interventional, longitudinal, and retrospective study
- Adult patients with la/mUC were identified from the Programme de Médicalisation des Systèmes d'Information, the French national database for hospitalisation records
- Data were extracted from 1 Jan 2015 to 31 Dec 2022

Study endpoints

- Primary:**
 - Population 1: Annual incidence and prevalence
 - Population 2A: Annual incidence
- Secondary:**
 - Population 3: patient characteristics and treatment patterns

Methods

Figure 1: Study flow chart – study population and sub-populations



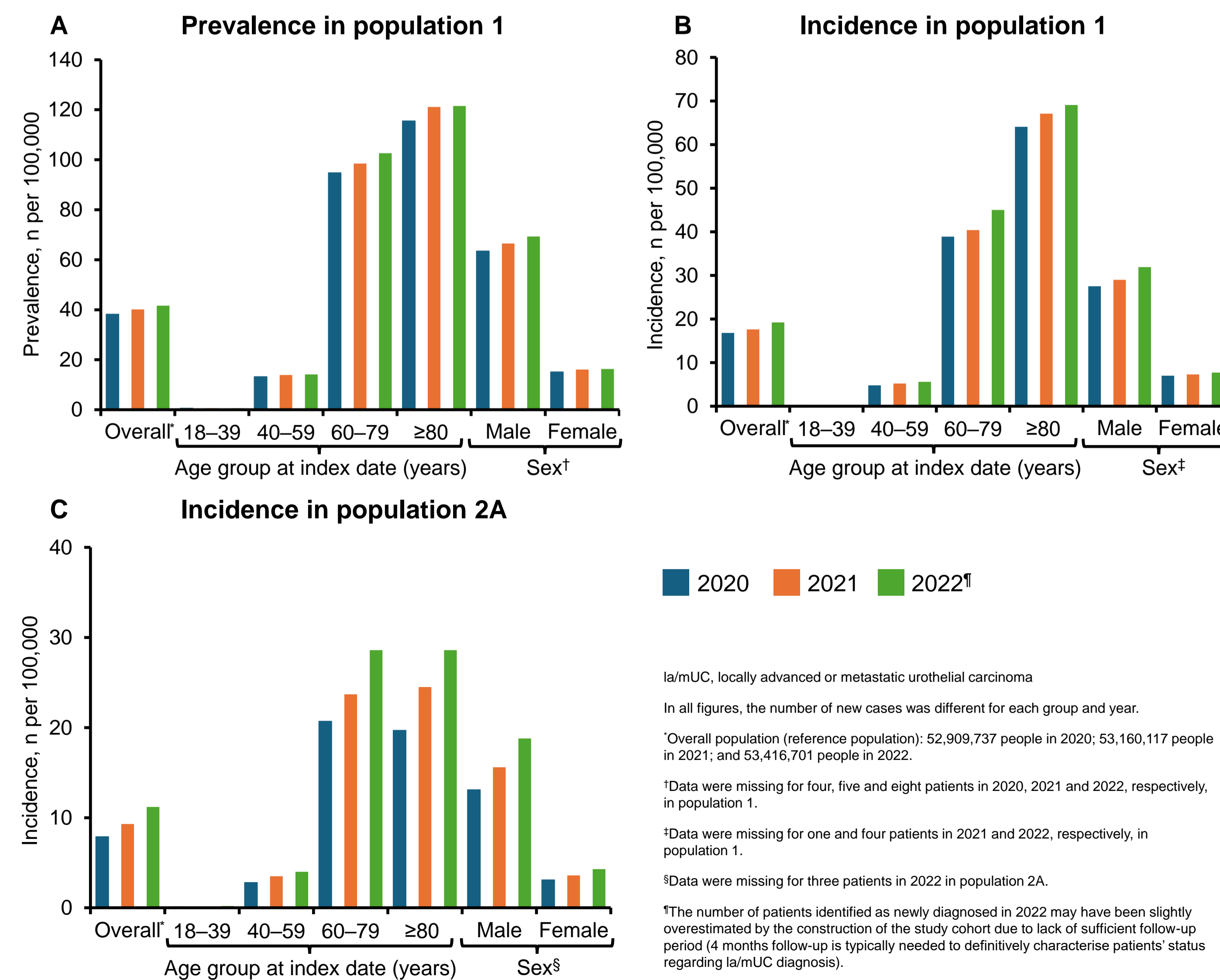
*Population 2B consisted of la/mUC patients without evidence of treatment (n=9,605) and was not included in the primary or secondary endpoints.
 †An additional 511 patients, for whom the treatment line was considered indeterminate, were not included in the primary or secondary endpoints.
 ‡With ≥6 months of potential follow-up from the index date.

Results

- Of 39,857 patients with la/mUC, 25,217 (63.3%) were newly diagnosed from 1 Jan 2020 with no evidence of treatment for cancer other than UC after the date of la/mUC diagnosis (**Figure 1**)
- The prevalence and incidence of la/mUC ranged from 38.2 to 41.6 and 16.8 to 19.2 cases/100,000 people, respectively, from 2020 to 2022 (Population 1; **Figures 2A and 2B**)
- Treated incidence of la/mUC ranged from 7.9 to 11.2 cases/100,000 people from 2020 to 2022 (Population 2A, **Figure 2C**)
- Incidences were approximately four-fold higher in men than women and were higher in older (≥60 years) versus younger patients (**Figures 2B and 2C**)

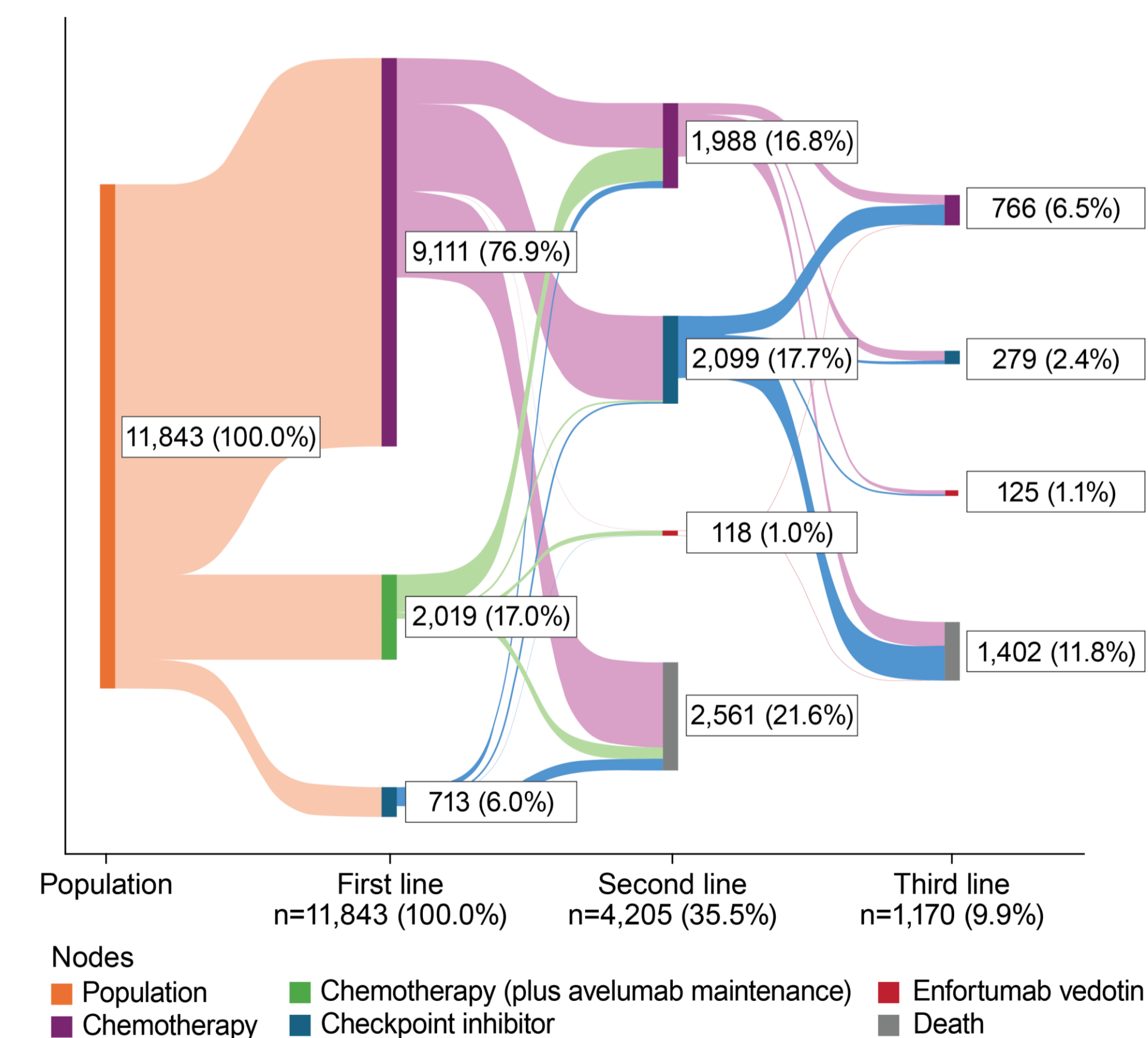
- In population 3, the mean (standard deviation) age of patients was 71.0 (9.8) years, and 79.5% of patients were male
 - The most common comorbidities (≥10%) at index date were other cancers (including lung and prostate cancers), peripheral vascular disease, chronic pulmonary disease, moderate or severe renal disease and myocardial infarction
- There were 64.5% of patients who received only 1L treatment in population 3
 - Almost all (93.6%) received platinum-based chemotherapy as 1L treatment (**Figure 3**)
- Overall, 17.0% of patients received subsequent avelumab maintenance therapy in population 3:
 - 11.9% (497/4,163) in 2020; 19.9% (986/4,947) in 2021; and 19.3% (536/2,783) in 2022

Figure 2: Prevalence and incidence of la/mUC in France (2020–2022)



la/mUC, locally advanced or metastatic urothelial carcinoma
 In all figures, the number of new cases was different for each group and year.
 †Overall population (reference population): 52,909,737 people in 2020; 53,160,117 people in 2021; and 53,416,701 people in 2022.
 ‡Data were missing for four, five and eight patients in 2020, 2021 and 2022, respectively, in population 1.
 §Data were missing for one and four patients in 2021 and 2022, respectively, in population 1.
 ¶Data were missing for three patients in 2022 in population 2A.
 ††The number of patients identified as newly diagnosed in 2022 may have been slightly overestimated by the construction of the study cohort due to lack of sufficient follow-up period (4 months follow-up is typically needed to definitively characterise patients' status regarding la/mUC diagnosis).

Figure 3: Sankey diagram of treatment patterns in population 3††



*A total of 50 patients who received avelumab as 1L treatment without any evidence of prior chemotherapy were excluded from the analysis.
 ††The maximum follow-up period for incident patients was 3 years and patients included more recently may have not had sufficient time to experience a relapse during the study period and then begin a subsequent line of treatment.