

Incidence and Treatment of Squamous Cell Anal Cancer (SCAC) in Germany – A Retrospective Study in German Statutory Health Insurance (SHI) Claims Data

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Abstract

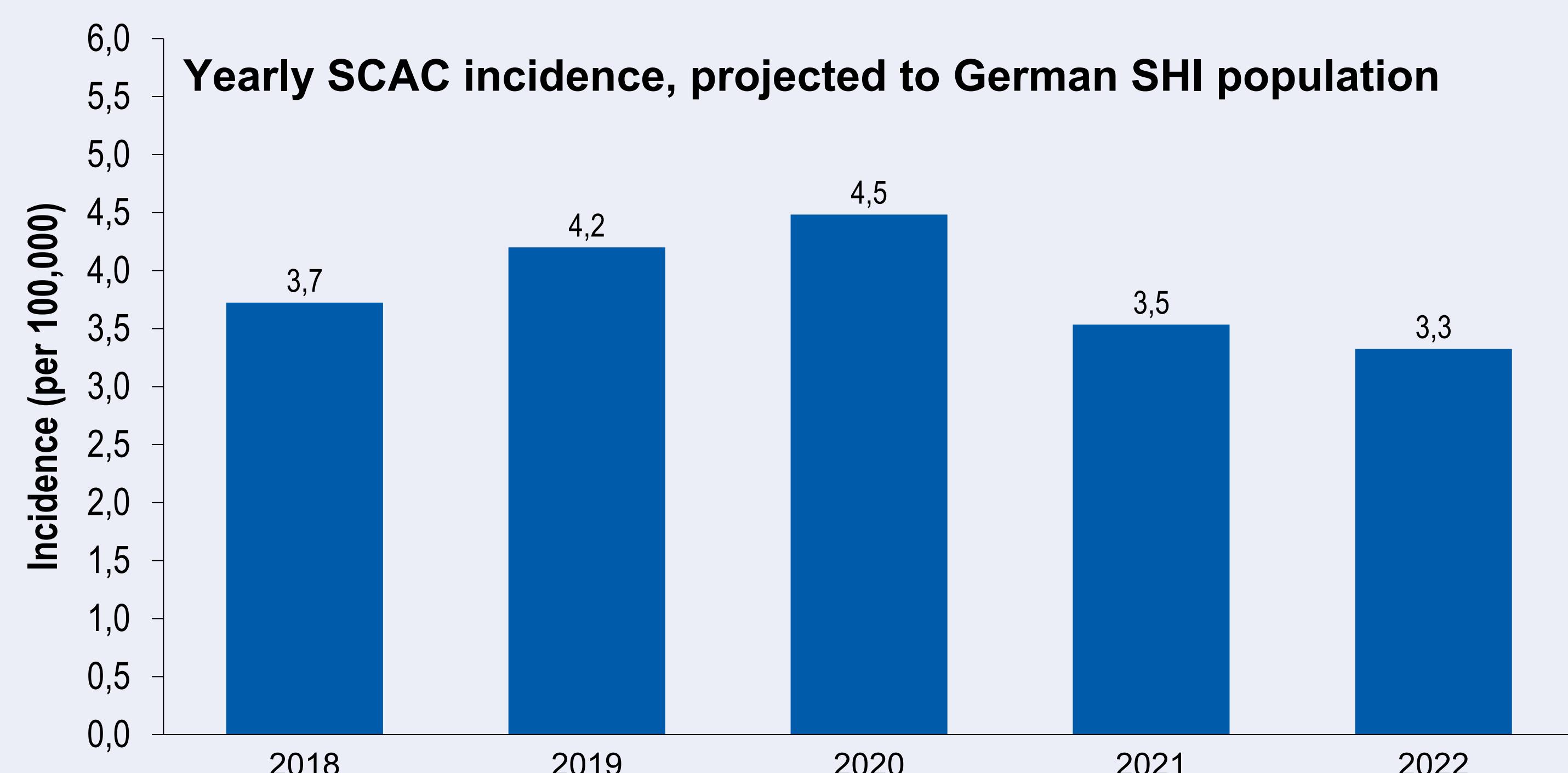
Objective: Data on the incidence and treatment patterns of squamous cell anal carcinoma (SCAC) in Germany remain limited. This study aimed to address this gap by analyzing representative claims data to assess disease burden and treatment pathways across healthcare sectors.

Methods: We identified adult patients newly diagnosed with SCAC (ICD-10-GM: C21.1) between 2018 and 2022 from a statutory health insurance (SHI) database covering 5.7 million individuals. Inclusion required ≥5 years of look-back. For treatment pattern analysis, ≥2 years of follow-up were required unless the patient died. Treatment lines were defined using procedure and billing codes for surgery, radiotherapy, chemotherapy, and immunotherapy across care settings.

Results: Annual SCAC incidence ranged from 3.3/100,000 (2022) to 4.5/100,000 (2020), corresponding to 2,055–2,800 new cases per year (projected to the SHI population). Office-based physicians were central to care delivery: 46% of patients received their initial diagnosis and 33% initiated treatment in this setting. Among 436 SCAC patients (unprojected), 84% received first-line treatment, 12% remained untreated during the 2-year follow-up, and 3% died without treatment. Of the 368 patients treated initially, 46% proceeded to second-line therapy, 44% received no further treatment, and 10% died. The overall 2-year mortality rate was 21%.

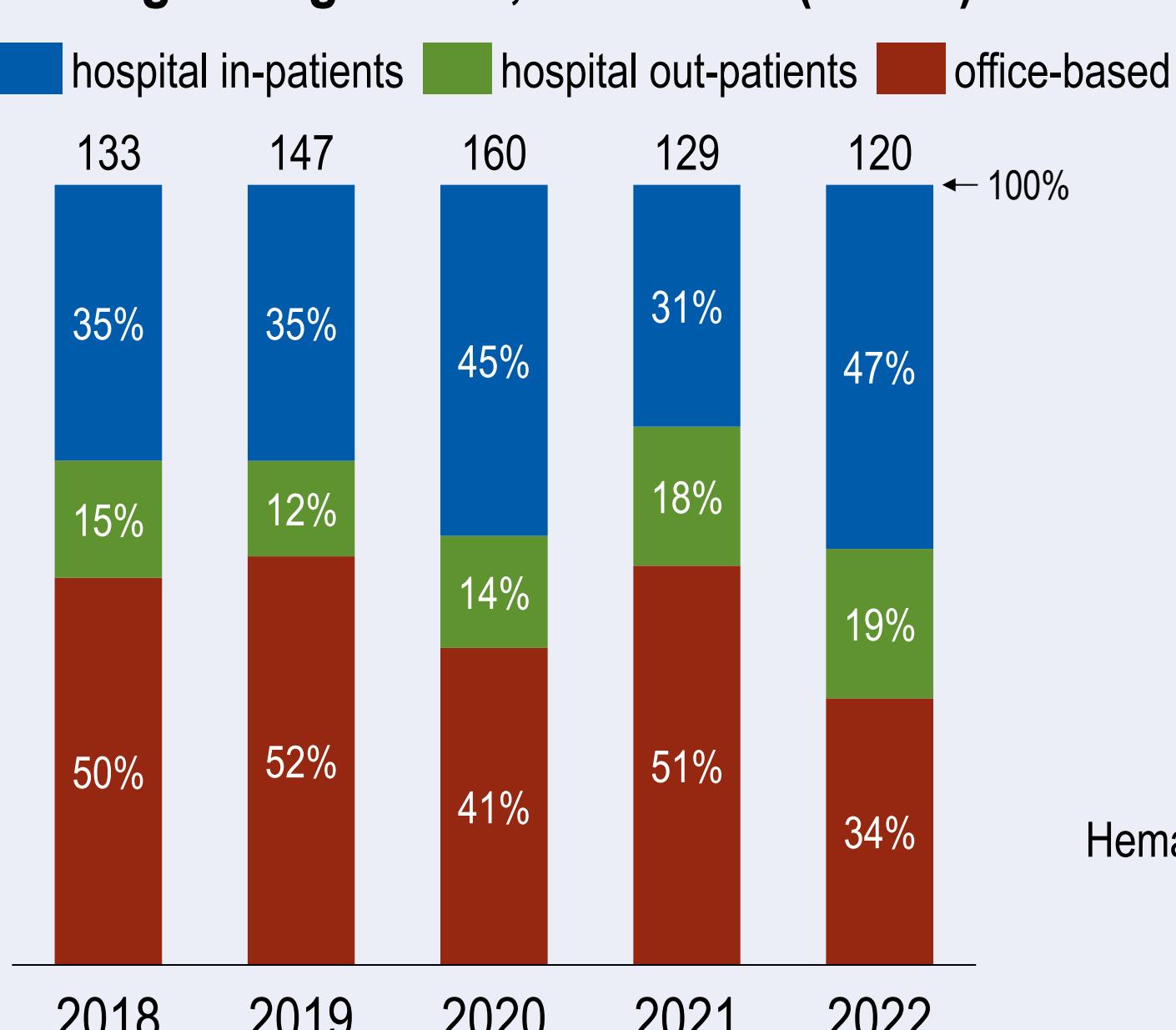
Conclusion: Office-based physicians play a critical role in both diagnosing and initiating treatment for SCAC, alongside hospital-based specialists. The proportion of untreated patients highlights the need for further investigation into barriers to care and treatment decision-making.

SCAC Incidence 2018 - 2022

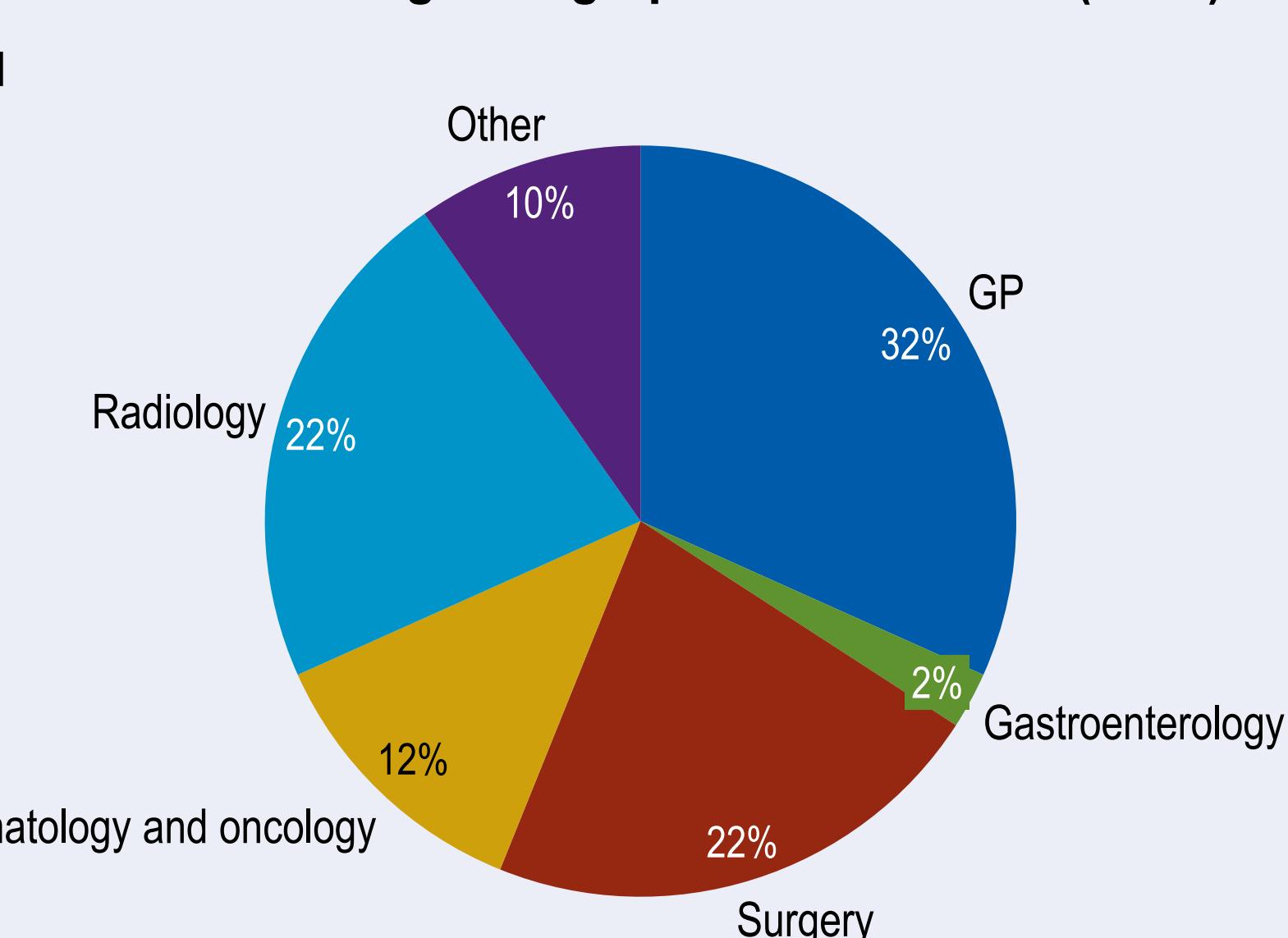


Diagnosing Sectors and Specialties

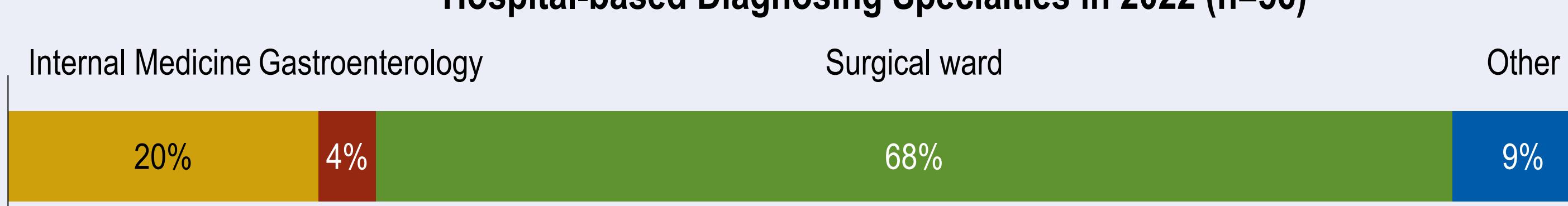
Diagnosing Sector, 2018-2022 (n=689)



Office-based Diagnosing Specialties in 2022 (n=41)



Hospital-based Diagnosing Specialties in 2022 (n=56)

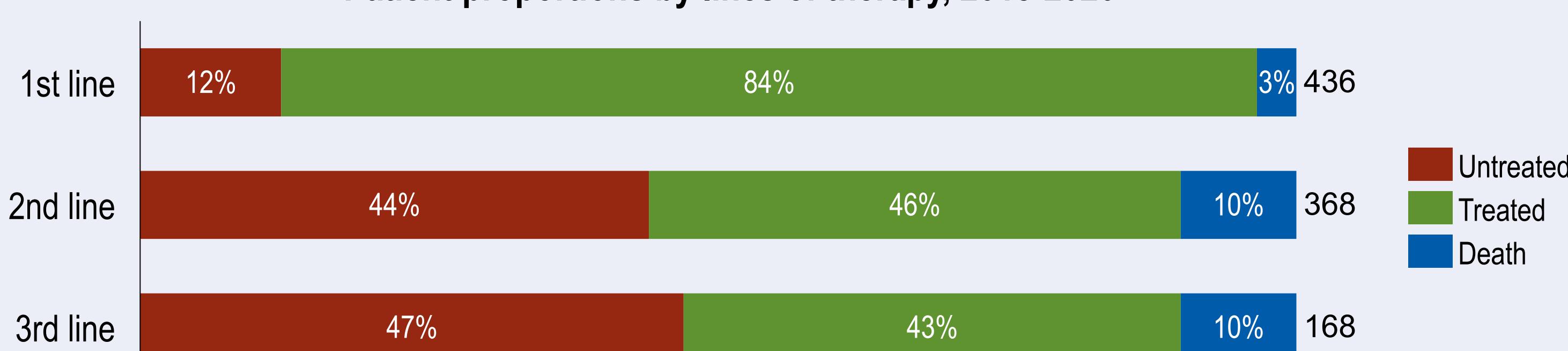


Diagnosing specialties of SCAC patients

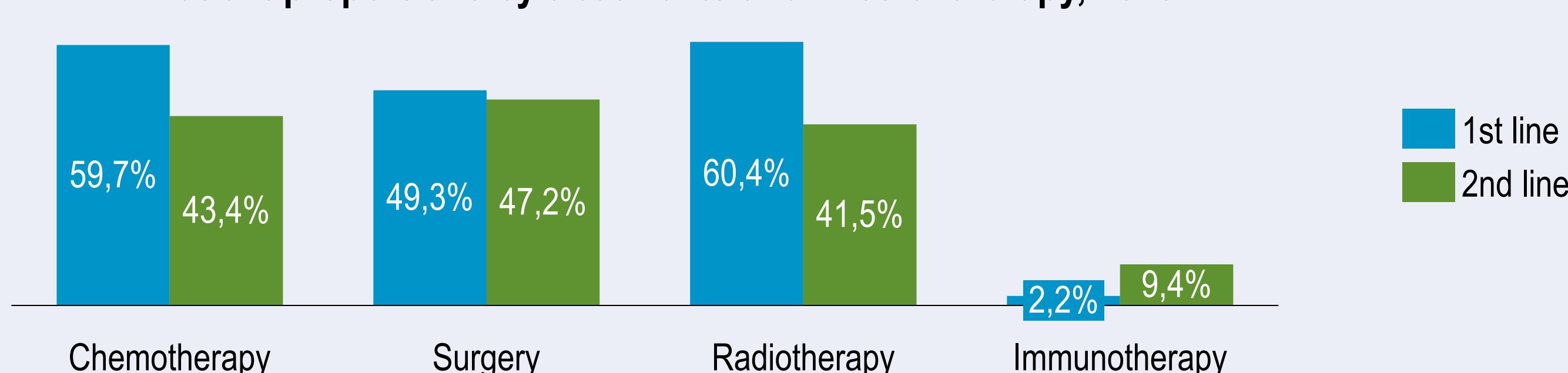
- Overall, nearly half of the patients are first diagnosed in the hospital setting
- About 68% of the incident SCAC diagnosis are associated with the surgical ward in the inpatient setting
- Office-based doctors play an important role in the diagnosis of SCAC patients
 - About 30% of incident office-based patients with SCAC diagnosis have received their incident diagnosis from the GP

Lines of Therapy

Patient proportions by lines of therapy, 2018-2020



Patient proportions by treatments and lines of therapy, 2020



Lines of therapies, operationalized by ATC and OPS codes

- A total of 12% of SCAC patients remain untreated within two years post-diagnosis
- 21% of incident SCAC patients died within two years of follow-up
- 37% of chemotherapy patients received 5FU/Mitomycin treatment (followed by capecitabine-based chemotherapies with 14%), although hospital inpatient generic chemotherapy treatments are not separately reported, so that this number is likely underestimated

Conclusions

This retrospective cohort study in German SHI claims data selected incident SCAC patients and examined incidence over time, and described patterns in diagnosing and treating physicians by line of therapy

- About 12% of newly diagnosed SCAC patients are not treated; further investigations into treatment barriers are needed
- Annual incidence rates ranged between 3-4 adult patients per 100,000 in the study period, with about 2,000 to 2,800 newly diagnosed patients per year
- By 2020, immunotherapy remain rare with only 9% of patients having records of immunotherapies in second line (up from 2% in 2018)
- The office-based sector plays an important role in diagnosing and treating SCAC patients; with GPs representing the largest group in this sector associated with incident SCAC diagnosis
- About 2% of patients received immunotherapy in 1st line, while this proportion increased to 9% in 2nd line; most of the identified immunotherapies were checkpoint inhibitors.
- 1st line therapy duration was on average 1 month; patients also receiving 2nd line treatment received this on average after 5-6 months (median of 3 months)

Disclosures

AW is a paid employee of Team Gesundheit. CV is a paid employee of IQVIA. CV also served as paid consultant to the National Institutes of Mental Health, Bethesda, USA. MG is an employee of Incyte Biosciences Germany GmbH. BB is an employee of Incyte Biosciences Germany GmbH.

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