

CURRENT THERAPY LANDSCAPE OF ADVANCED HER2-NEGATIVE BREAST CANCER PATIENTS IN A NETWORK OF OFFICE-BASED ONCOLOGISTS AND GYNECOLOGISTS IN GERMANY

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INTRODUCTION

Despite new developments in the treatment landscape for advanced triple negative breast cancer (TNBC) and hormone receptor-positive/ human epidermal growth factor receptor 2-negative breast cancer (HR+/HER2- BC), prognosis especially in later therapy lines remains poor. Real-world data from patients outside of clinical trials are rare but very helpful in understanding and improving the standard of care.

METHODS

Data were collected from 117 office-based oncologists and gynecologists from 50 practices in Germany using oncotrace software. Between January 2014 and June 2022, 8,432 breast cancer patients were documented within the Onkotrakt network. SPSS software was used for the descriptive statistical evaluation.

Collection	Electronic data acquisition using „oncotrace“ software
Time period	01. January 2014–30. June 2022
Source	50 practices of office-based oncologists and gynecologists
Data acquisition	Documented treatment data from cancer patients, anonymized in participating centers
Number of participating physicians	76 Office-based oncologists and 41 office-based gynecologist throughout Germany
Number of patients	8,432
Evaluation	Descriptive statistical evaluation using SPSS software

Oncologists treated a total of 5,221 (62%) patients and gynecologists 3,211 (38%) patients. In the neo(adjuvant) setting, oncologists treated 3,262 (55%) patients and gynecologists 2,716 (45%) patients. Relative to both specialty groups, 2,126 (76%) and 668 (24%) patients, respectively, were treated in palliative setting. Patients treated in palliative setting include advanced and metastatic patients.

Due to limitations of oncotrace software detailed patient characteristics or efficacy or safety endpoints cannot be captured here. The presentation of the analyzed data is purely descriptive.

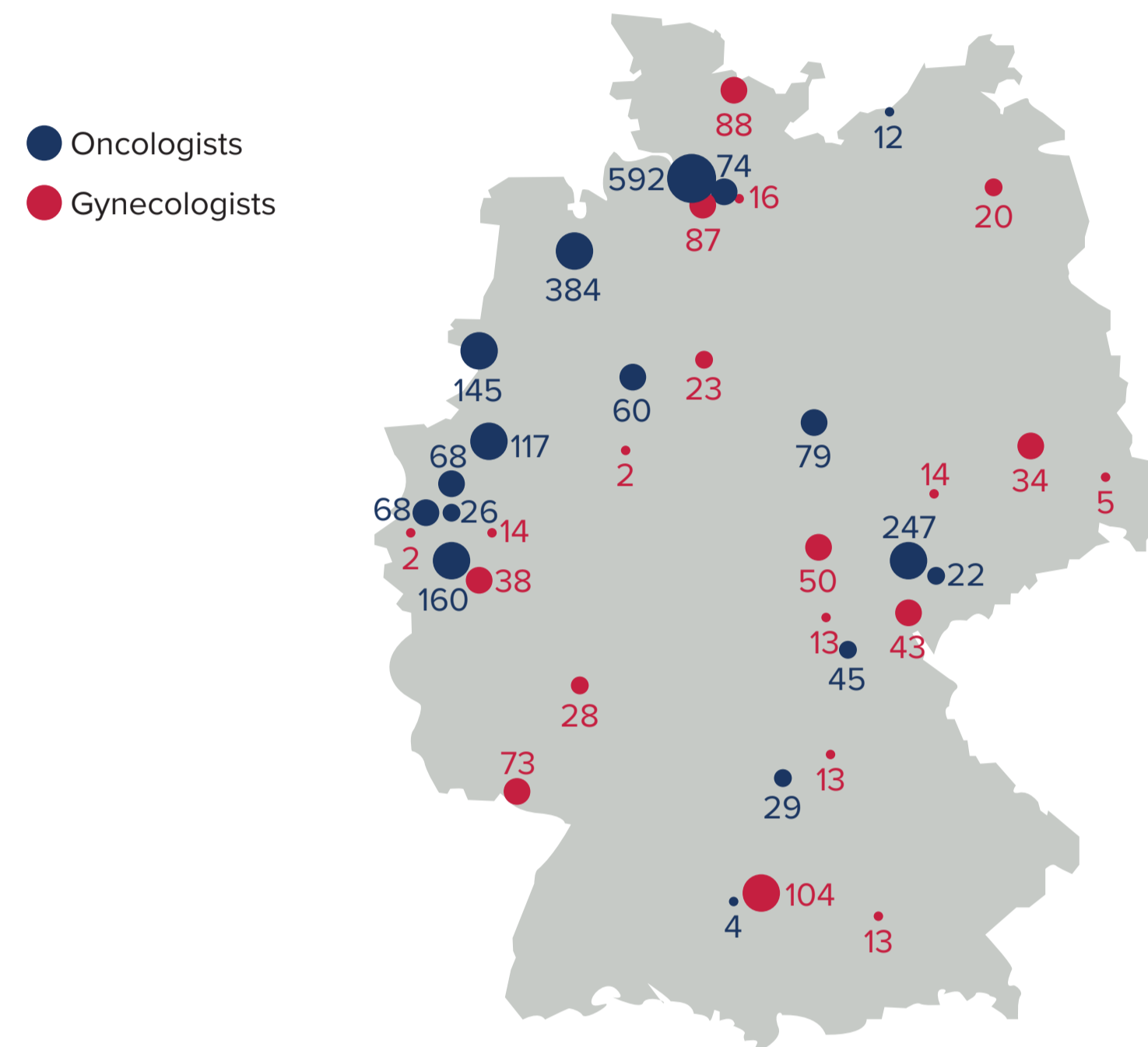
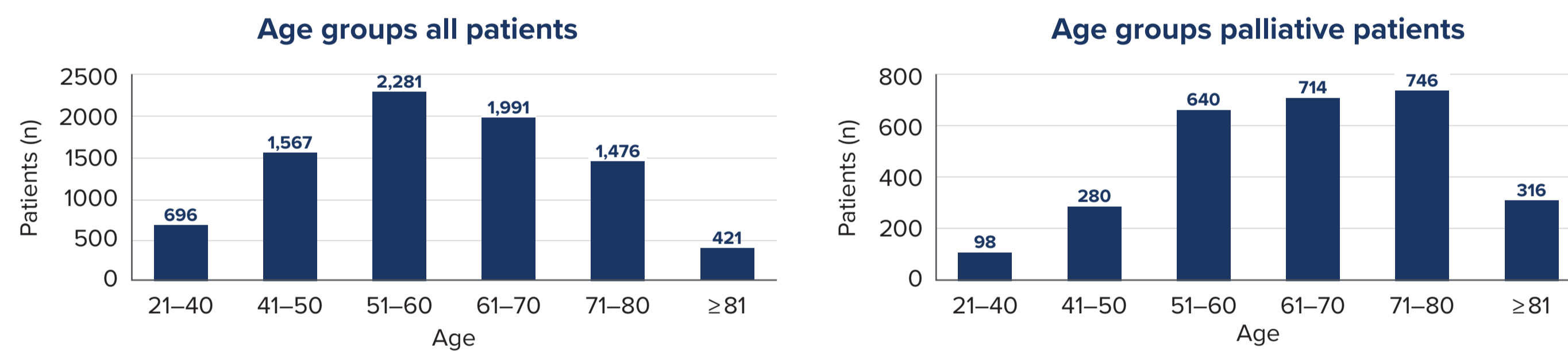


Figure 1. Location and number of documented palliative patients by practices according to specialties (oncologist in blue, gynecologists in red)

RESULTS

Patient characteristics



	Median age all patients	Median age palliative patients
HR+/HER2-	61	68
HR-/HER2+	58	62
HR+/HER2+	57	65
TNBC	57	62

Figure 2. Age distribution. Of 8,432 patients, 1.3% (118) were men. The median age of all patients was 59 years, of palliative patients 66 years. The most frequent age group for all patients was 51–60 years, for palliative patients 71–80 years. TNBC patients were the youngest subgroup. In palliative setting the median age of HR+/HER2- BC patients was 68 years.

a) Proportion of all patients per subtype (n=8,432) b) Proportion of palliative patients per subtype (n=2,794)



Figure 3. Proportion of patients per subtype

- a) In 56% (n=4,686) of patients, the BC subtype was HR+/HER2-, in 9% HR-/HER2+ (n=734), in 18% (n=1,515) HR+/HER2+, and in 18% TNBC (n=1,497)
- b) One third (n=2,794) of all patients were undergoing palliative therapy, with HR+/HER2- patients again forming the largest group with a proportion of 63% (n=1,758), HR-/HER2+ accounted for 8% (n=217), HR+/HER2+ for 15% (n=431) and TNBC for 14% (n=388).

Distribution of patients in palliative setting with HER2- breast cancer by line of therapy

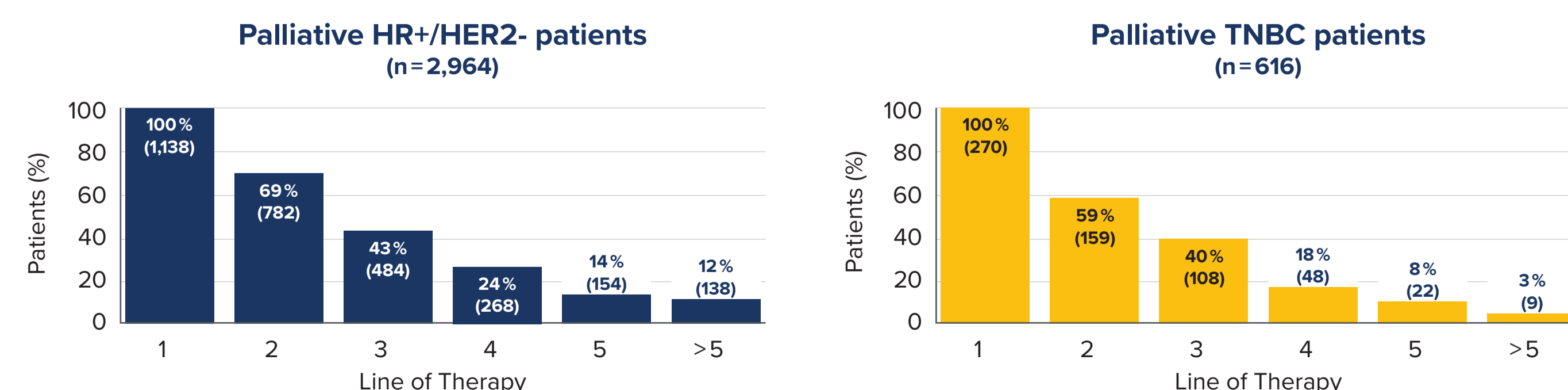


Figure 4. Distribution of patients in palliative setting with HER2- breast cancer by line of therapy (HR+/HER2- BC n=2,964, TNBC n=616). The proportion of palliative patients decreases continuously per line of therapy. In TNBC, fewer patients are treated in the later lines compared to HR+/HER2- BC. Since not all documented patients had to have received 1st line therapy, the number of 1st line patients is smaller than the total number of patients displayed in Figure 2.

Therapy landscape of HER2- BC in different lines of treatment in palliative setting

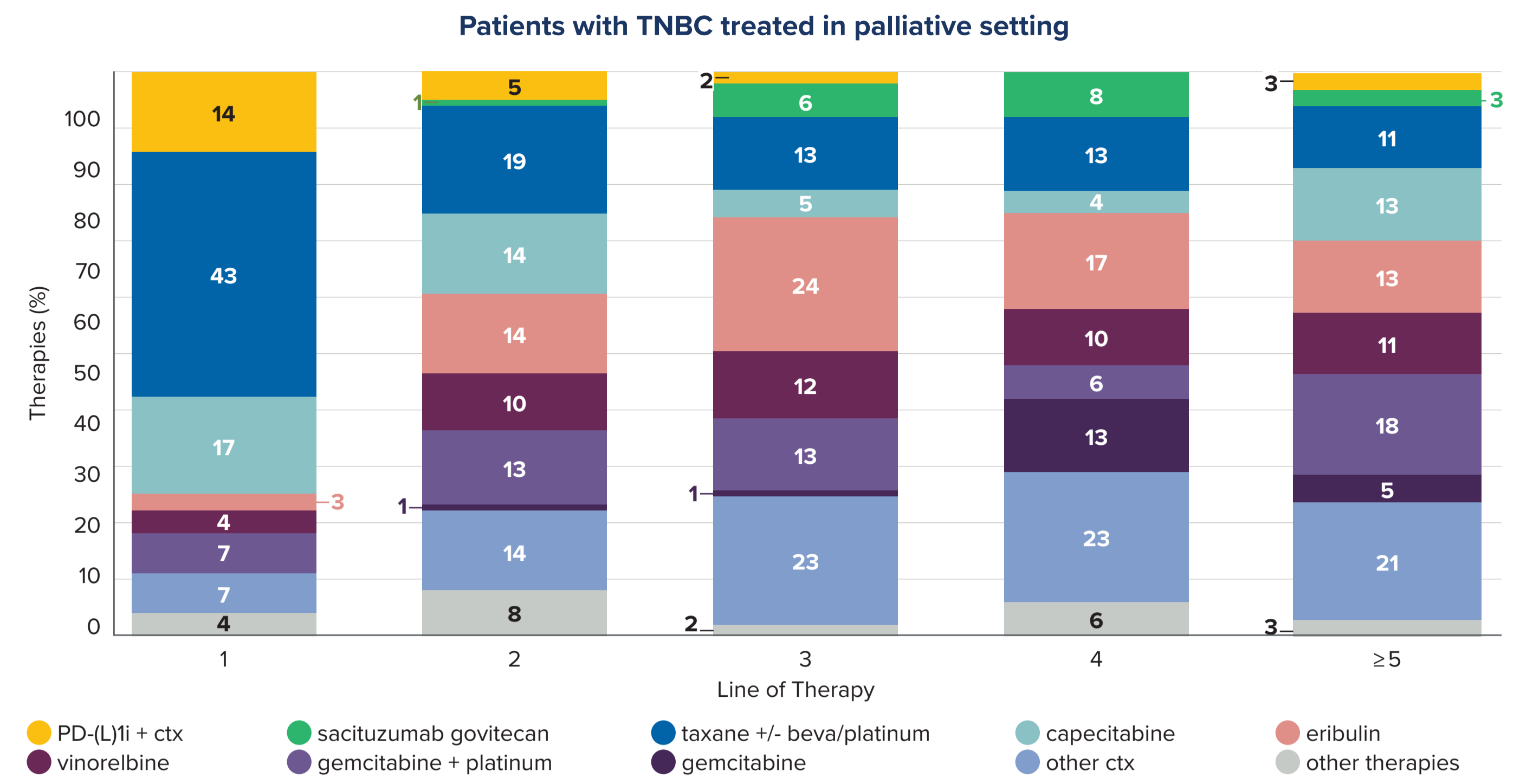


Figure 5. Frequency of therapies used in palliative TNBC patients by line of therapy (2014–2022, n=623 therapies). Majority of patients are treated with chemotherapy (ctx). In 1st line top three used therapies are taxane with 43% (40% + bevacizumab (beva) and 23% + platinum), capecitabine with 17% and PD-(L)1 inhibitor (i) + ctx with 14%. In the following lines of therapy, the use of taxane decreases while eribulin, capecitabine, vinorelbine and gemcitabine are used more frequently. Sacituzumab govitecan, which was approved in November 2021, has also already entered clinical practice with 1–8% in 2nd to 5th line of therapy. Due to limited data source, the proportion of therapies with PARPi could not be included.

Patients with HR+/HER2- BC treated in palliative setting

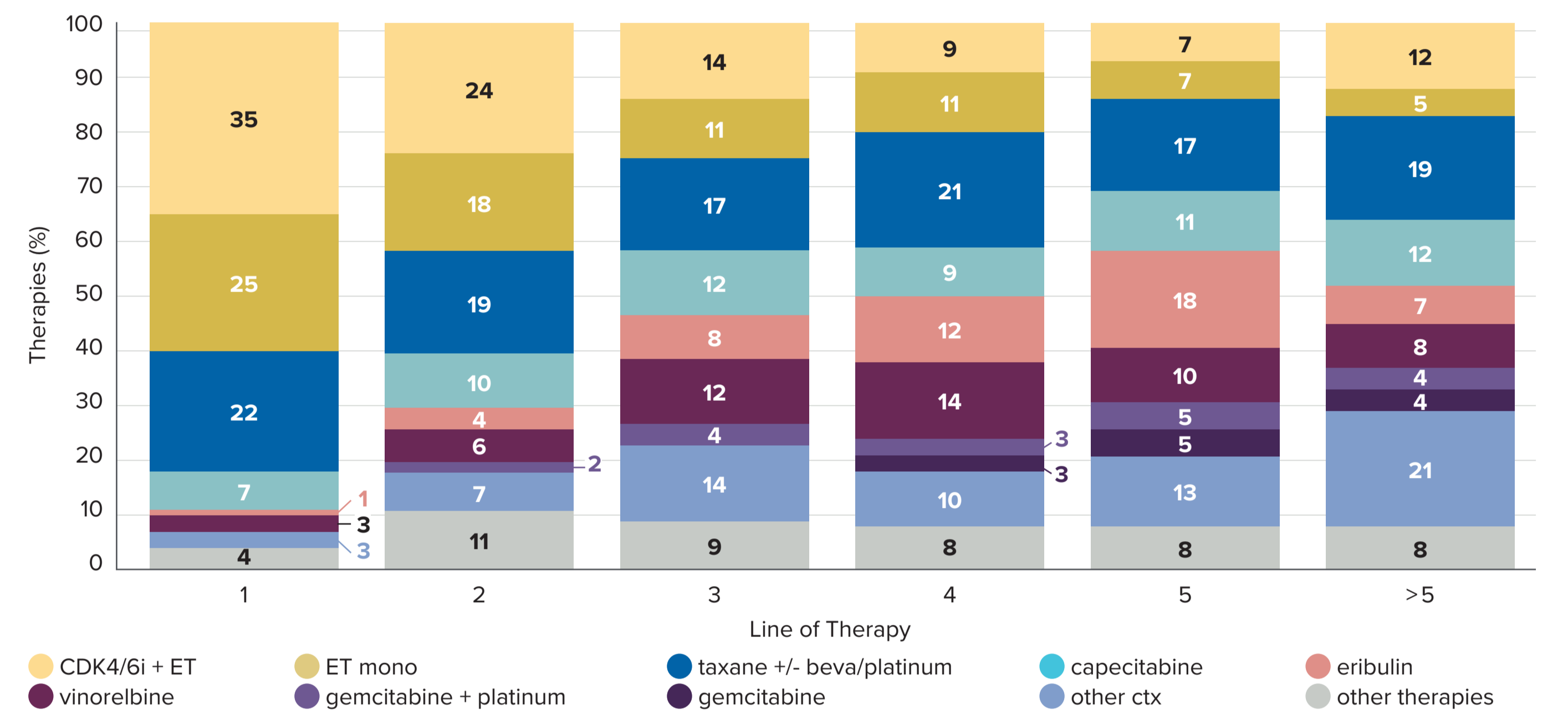


Figure 6. Frequency of therapies used in palliative HR+/HER2- BC patients by line of therapy (2014–2022 n=2,930 therapies). The top three used therapies in 1st line are CDK4/6i + endocrine therapy (ET) with 35%, ET monotherapy (mono) with 25% and taxane 22% (46% + beva). Over all lines of therapy the utilization CDK4/6i + ET and ET mono decreases, instead taxane, capecitabine, eribulin and vinorelbine are used most frequently. From 3rd line onwards, chemotherapies account for approx. 70%.

Types of treatment in first line therapy of palliative HR+/HER2- BC patients over time

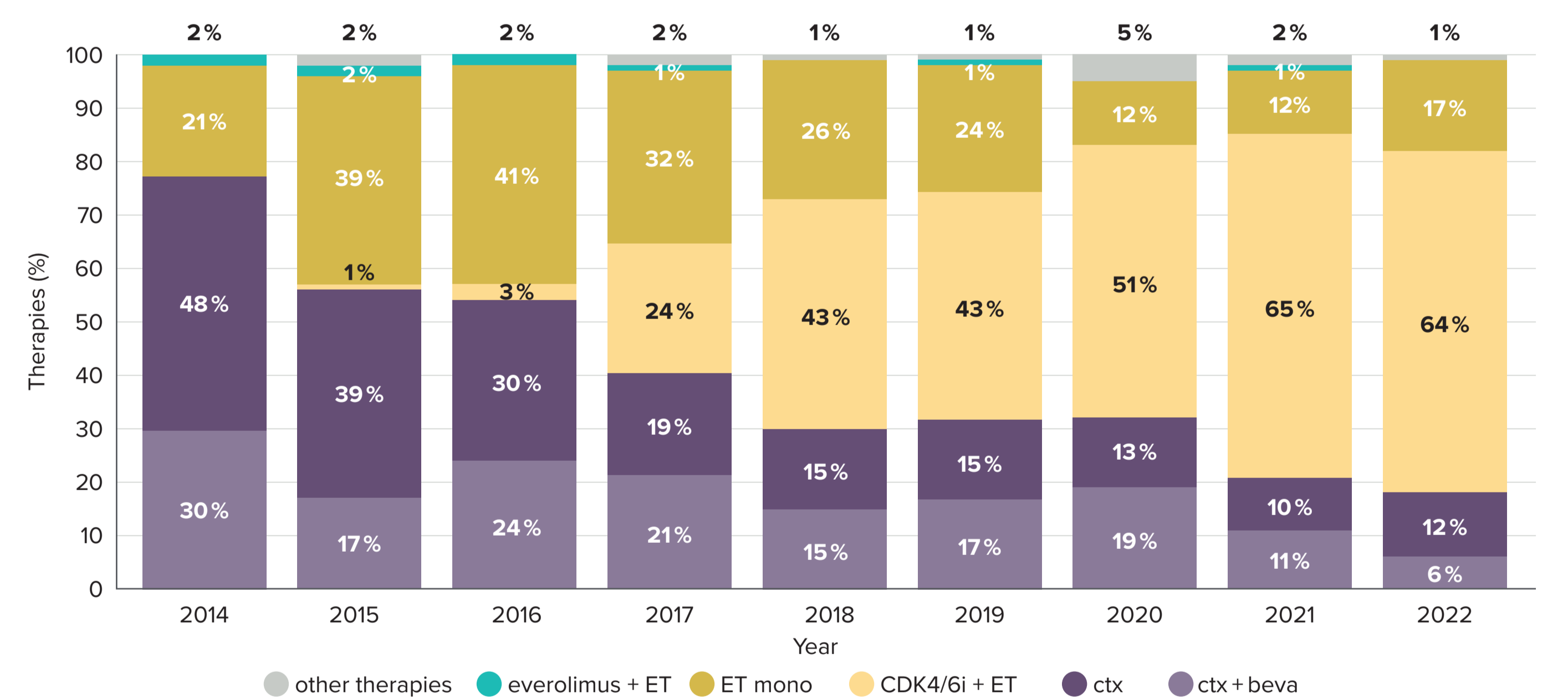


Figure 7. Frequency of chosen therapies for palliative HR+/HER2- BC patients treated in 1st line (n=1,108 therapies). The distribution of used therapies changed over time. While the percentage of patients treated with CDK4/6i + ET increased to 64% after becoming available in 2016 to 2022, the use of chemotherapy with or without Bevacizumab decreased from over 78% in 2014 to approx. 20% in 2021–2022. The utilization ET mono increased in 2015–2016 to about 40% but decreased after availability of CDK4/6i to approx. 15% in 2021–2022.

CONCLUSION

Here we describe the real world treatment for a large cohort of patients with advanced HER2-negative BC in a network of office-based oncologists and gynecologists in Germany.

The specialty group of gynecologists documented 40% of the patients described, but the majority of these patients were treated in the early setting (45%) and only 24% in the palliative setting. This suggests that more of palliative patients are treated by office-based oncologists. The number of palliative patients treated per line of therapy shows a clear decrease from line to line. This emphasizes the still high unmet medical need in later lines. Potent therapy options are required.

The most commonly used palliative treatment option in TNBC is chemotherapy. In first line the majority of patients receive taxane (43%), mostly in combination with bevacizumab or platinum. In first line PD-(L)1 inhibitors are also gaining traction. Although PD-(L)1 inhibitors were not approved until 2019, the proportion is already high (14%). In the following lines, eribulin, gemcitabine +/- bevacizumab, vinorelbine and capecitabine are most frequently used. The proportion of gemcitabine is surprisingly high and capecitabine unexpectedly low. Besides chemotherapy novel treatment option e.g. ADCs with sacituzumab govitecan entered quite rapidly the therapy landscape of palliative TNBC patients. Although the approval was in Nov 2021, the share of sacituzumab govitecan in the later lines is already up to 8%.

The most commonly used palliative treatment option in HR+/HER2- BC is chemotherapy. Between 2020 and 2022 in first line therapy the percentage of patients treated with CDK4/6i + ET increased to approx. 60% and chemotherapy decreased to approx. 25%. These data can be compared to the evaluation of the PRAEGNANT registry¹ in which the proportion of CDK4/6i + ET is higher (2020–2022 approx. 75%). Over all lines of therapy the utilization of CDK4/6i + ET and ET mono decreases, instead chemotherapy increases, from 3rd line onwards, chemotherapies account for approx. 70%.

The majority of all therapies used in the palliative setting for HER2-negative BC are chemotherapies. Additional individualized, targeted treatment options should be considered for future treatment decisions.

Reference

¹ Engler T, Fasching P, Lüftner D et al. Implementation of CDK4/6 Inhibitors and its Influence on the Treatment Landscape of Advanced Breast Cancer Patients – Data from the Real-World Registry PRAEGNANT. Geburtshilfe und Frauenheilkunde 2022; 82(10): 1055–1067.

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