

Interim analysis of the German non-interventional post-marketing surveillance study (NIS) on quality of life of capecitabine in patients with metastatic breast cancer

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BACKGROUND

- Capecitabine is a commonly used treatment option for metastatic breast cancer (MBC) and has proven efficacy in this setting as both monotherapy¹⁻³ and in combination regimens,⁴⁻⁶ as first-line treatment and in patients with pretreated metastatic disease.
- Improvements in patient quality of life (QoL) have also been reported with capecitabine treatment.^{1,7,8}
- The purpose of this investigation was to evaluate QoL during capecitabine therapy as a part of routine breast cancer treatment in Germany in a non-interventional post-marketing surveillance study.
- Here we present the results of a pre-planned interim analysis of the study.

METHODS

Patients

- Pre- or post-menopausal patients aged ≥ 18 years, with HER2-negative or HER2-positive locally advanced recurrent or MBC were eligible for enrolment. The accrual target was 750 patients.

Quality of life

- QoL was assessed using the European Organization for Research and Treatment of Cancer (EORTC) Quality of Life Core Questionnaire 30 (QLQ-C30) version 3.0, with an additional question relating to the incidence of hand-foot syndrome.
- The QLQ-C30 incorporates nine multi-item scales
 - five functional scales: physical; role; cognitive; emotional; social
 - three symptom scales: fatigue; pain; nausea/vomiting
 - a global health and QoL scale.

Compliance

- Compliance was assessed by means of patient-completed questionnaires
 - questionnaires were completed at home.

Response

- Response rate was defined as the number of complete responses (CR) and partial responses (PR).
- Clinical benefit rate was defined as the number of CR plus PR plus stable disease (SD).

RESULTS

Patient demographics

- Between August 2008 and January 2010, 306 patients were registered; 219 patients had received at least one documented cycle of capecitabine.
- Median patient age was 62 years (± 11 years).

Quality of life

- Currently 97 patients have completed the QLQ-C30; data are available for the first six cycles of capecitabine therapy.
- In general, median values for emotional functioning (Figure 1a), social functioning (Figure 1b) and global health status/QoL (Figure 1c) increased slightly from baseline during capecitabine treatment.

- Conversely, median scores for role functioning (Figure 1d) and cognitive functioning (Figure 1e) tended to decline slightly from baseline with capecitabine treatment, while physical functioning scores remained stable.
- In all cases, higher scores were achieved with combination therapy than with monotherapy.
- No trends were observed in median scores for each of the symptom scales of fatigue, pain, or nausea/vomiting during capecitabine treatment.

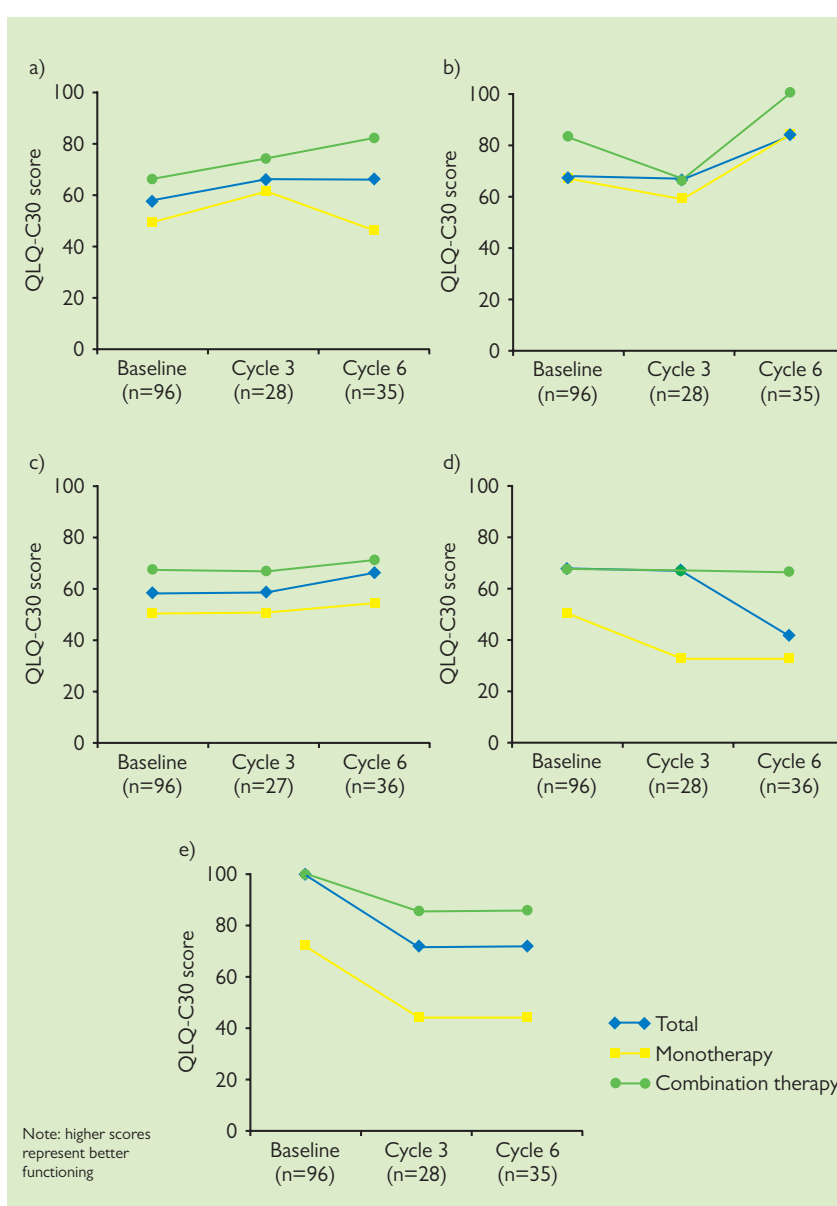


Figure 1. Change in QLQ-C30 scores during capecitabine therapy: (a) emotional functioning; (b) social functioning; (c) global health status/QoL; (d) role functioning; (e) cognitive functioning.

Therapy overview

- Overall, 45% of patients received capecitabine monotherapy and 55% received combination therapy (Table 1 and Figure 2).
- As combination therapy, capecitabine was most commonly administered with bevacizumab (15%), lapatinib (13%) or trastuzumab (10%).
- Forty-one percent of patients were treated in the first-line metastatic setting, 24% in the second-line setting and 35% in further lines.

Table 1. Percentage of patients receiving capecitabine monotherapy or capecitabine combination therapy.

Therapy	Patients, n (%)				
	All (n=219)	1st-line (n=89)	2nd-line (n=53)	3rd-line (n=39)	>3rd-line (n=38)
Capecitabine monotherapy	99 (45.2)	41 (46.1)	24 (45.3)	19 (48.7)	15 (39.5)
Capecitabine combination therapy	120 (54.8)	48 (53.9)	29 (54.7)	20 (51.3)	23 (60.5)
Capecitabine + bevacizumab	33 (15.1)	21 (23.6)	5 (9.5)	3 (7.7)	4 (10.5)
Capecitabine + lapatinib	29 (13.3)	4 (4.5)	10 (18.9)	10 (25.6)	5 (13.2)
Capecitabine + trastuzumab	21 (9.6)	8 (9.0)	5 (9.4)	4 (10.3)	4 (10.6)

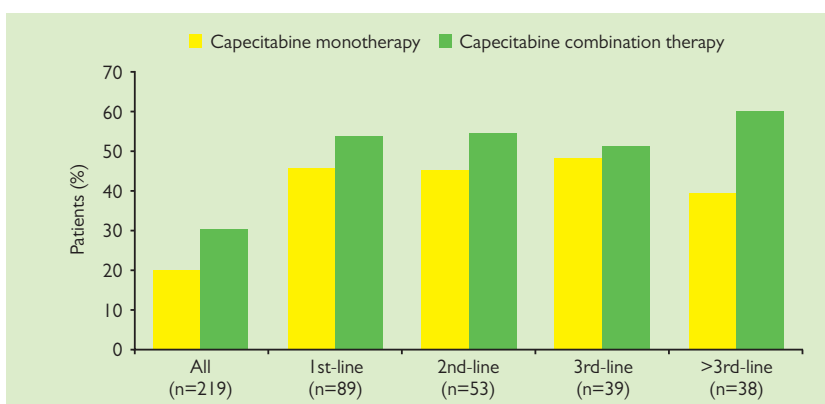


Figure 2. Percentage of patients receiving capecitabine monotherapy or capecitabine combination therapy.

Response rates

- Across all therapy lines, seven patients (14.9%) achieved a CR or PR with capecitabine monotherapy compared with 17 patients (24.3%) receiving capecitabine combination therapy (Table 2)
 - approximately 25% of all patients achieved SD as their best response.
- Clinical benefit rates were 40.4% and 48.6% with capecitabine monotherapy and combination therapy, respectively (Table 2).
- Analyzing response by treatment line highlighted that only patients in the first-line setting achieved a CR (Table 3).
- As expected, the highest rates of progressive disease (PD) were seen in patients receiving treatment in the fourth-line or later setting.
- No mature data were available on progression-free survival at the time of this analysis.

Table 2. Best response with capecitabine monotherapy or combination therapy.

n (%)	All (n=117)	Monotherapy (n=47)	Combination therapy (n=70)
CR	3 (2.6)	1 (2.1)	2 (2.9)
PR	21 (17.9)	6 (12.8)	15 (21.4)
SD	29 (24.8)	12 (25.5)	17 (24.3)
PD	29 (24.8)	11 (23.4)	18 (25.7)
Unknown	35 (29.9)	17 (36.2)	18 (25.7)

Table 3. Best response by metastatic treatment line.

n (%)	All (n=117)	1st-line (n=46)	2nd-line (n=28)	3rd-line (n=18)	>3rd-line (n=25)
CR	3 (2.6)	3 (6.5)	–	–	–
PR	21 (17.9)	8 (17.4)	5 (17.9)	7 (38.9)	1 (4.0)
SD	29 (24.8)	9 (19.6)	11 (39.3)	3 (16.7)	6 (24.0)
PD	29 (24.8)	11 (23.9)	4 (14.3)	3 (16.7)	11 (44.0)
Unknown	35 (29.9)	15 (32.6)	8 (28.6)	5 (27.8)	7 (28.0)

Compliance

- Compliance rates (n=69) ranged between 76% and 84% during the first six cycles of capecitabine therapy.
- Side effects were the main reason for lack of compliance, cited by 26% of patients during cycle 1 and 41% of patients during cycle 6.
- Capecitabine therapy was most often interrupted as a result of hand-foot syndrome (4 patients), diarrhoea (2 patients) or nausea (2 patients).
- All patients were fully satisfied with the information they received about potential side effects.

CONCLUSIONS

- In this non-interventional post-marketing surveillance study in Germany, capecitabine was most commonly used in the first-line setting and the most common combination partner was bevacizumab.
- The relatively low overall response rates achieved in this study may be explained by the limited follow-up of a substantial number of patients who had not achieved their best response by the time of this interim analysis
 - data collection is continuing to confirm these findings and will be presented at a later date.
- Data from the first six cycles of treatment in 97 patients indicate that QoL is stable during capecitabine therapy, however, more QLQs are needed to evaluate potential differences between monotherapy and combination therapy and also between the cycles during the course of treatment.

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