CURRENT TREATMENT LANDSCAPE OF PANCREATIC CANCER PATIENTS AMONG A NETWORK OF OFFICE-BASED ONCOLOGISTS IN GERMANY

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ONKOTRAKT
DATEN. WISSEN. MANAGEMENT

INTRODUCTION

Pancreatic cancer is a very aggressive lethal malignancy. Today, the 5-year survival rate is 8–9 %[1], which highlights the high unmet medical need for new therapies. Developments in recent years could not significantly improve the poor prognosis but since Conroy et al. 2018[2], more regimen focused on platinum-based therapies. Real world data on patients outside of clinical trials are rare but very helpful to understand and improve the standard of care.

METHODS

Data were collected in 24 office-based oncologic practices in Germany using oncotrace software. Between April 2017 and December 2019, 1193 pancreatic cancer patients were documented within the Onkotrakt network. For descriptive statistical evaluation SPSS software was used.

Collection	Electronic data acquisition using "oncotrace" software
Time period	01. April 2017–31. December 2019
Source	Office-based oncologists throughout Germany
Data acquisition	Documented treatment data from cacer patients, anonymized in participating centers
Number of participating physicians	73
Number of patients	1193
Evaluation	Descriptive statistical evaluation using SPSS software

RESULTS

Patient demographics

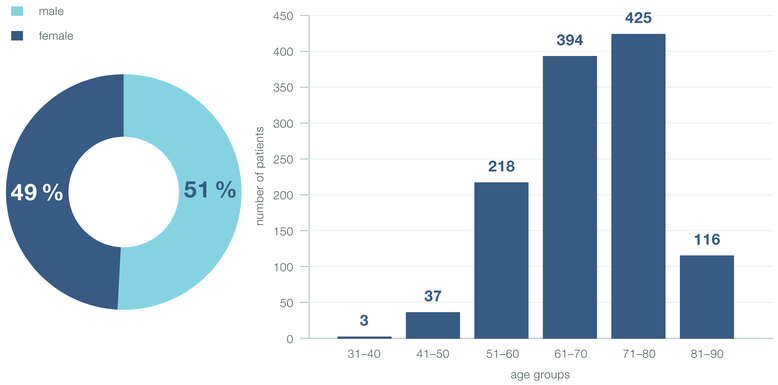

Figure 1. Patient demographics. Data were collected from 1193 patients, whereby the patient cohort displayed an equal gender distribution of 607 male and 586 female patients. The median age at the beginning of treatment was 68 years and 45 % of the patients were older than 70 years. The largest age group represented was the age group of 61–80 years (68.8 %).

A Number of patients by intention of therapy

B Palliative therapy by line

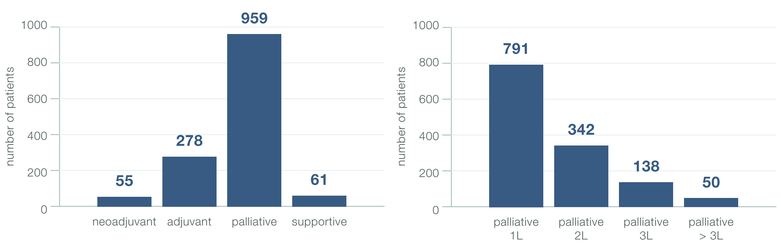

Figure 2. Number of patients by intention of therapy and palliative therapy by line. Some patients may have been treated with different lines during the documentation period. **A** Data were collected from 1193 patients and the majority of 959 patients was intented to treat with palliative therapy. **B** Patients treated palliatively received the therapy mainly as 1L, the number of patients suitable for palliative therapy as 2L was reduced by more than half. Patients were rarely treated with palliative therapy later than 3L.

1L: first-line; **2L:** second-line; **3L:** third-line

A Frequency of adjuvant therapies

B Top three therapy protocols over time for adjuvant therapies started per quarter

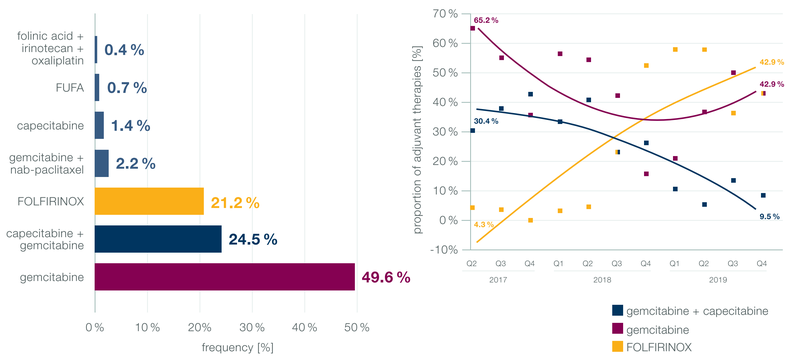

Figure 3. Frequency of adjuvant therapies and therapy protocols over time for Q2/2017–Q4/2019. **A** Gemcitabine as a monotherapy (49.6 %) or in combination with capecitabine (24.5 %) were the most common adjuvant therapies in patients. FOLFIRINOX was also frequently used (21.2 %). **B** A comparison of the top three regimens in adjuvant therapy, namely FOLFIRINOX, gemcitabine as a monotherapy or in combination with capecitabine, shows that the proportion of patients treated with FOLFIRINOX has increased clearly since the publication of the proridge study (from 4.3 % to 42.9 %), while the treatment with gemcitabine + capecitabine according to the ESPAC study has declined from 30.4 % to 9.5% Data presented as polynomial trend lines of the adjuvant therapies started per quarter.

FUFA: 5-fluorouracil, folinic acid; **nab:** nanoparticle albumin-bound; **FOLFIRINOX:** 5-fluorouracil, folinic acid, irinotecan, oxaliplatin; **Q2:** second quarter in a year; **Q3:** third quarter in a year; **Q4:** fourth quarter in a year; **Q1:** first quarter in a year

A Frequency of palliative 1L therapies

B Top three therapy protocols over time for palliative 1L therapies started per quarter

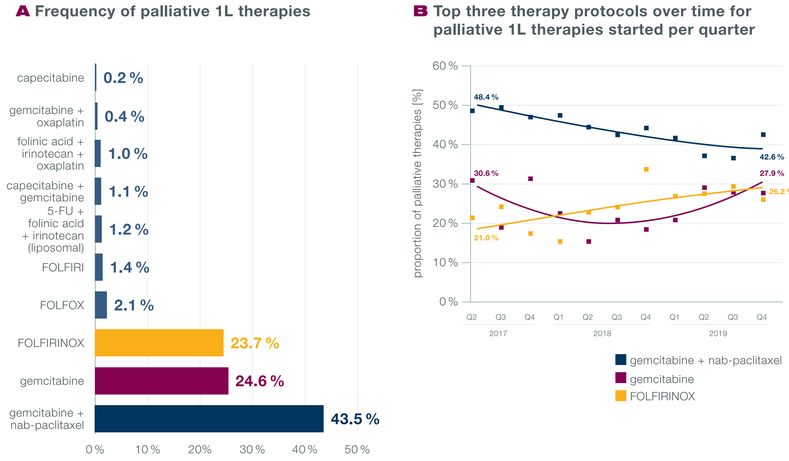

Figure 4. Frequency of palliative 1L therapies and therapy protocols over time for Q2/2017–Q4/2019. **A** Gemcitabine + nab-paclitaxel (43.5 %) or gemcitabine as a monotherapy (24.6 %) were the most common palliative therapies in patients. FOLFIRINOX was also frequently used (23.7 %). **B** A comparison of the top three regimens in palliative 1L therapy, namely FOLFIRINOX, gemcitabine as a monotherapy or in combination with nab-paclitaxel, shows that the proportion of patients treated with FOLFIRINOX has increased slightly but continuously (from 21.0 % to 26.2 %), while the treatment with gemcitabine + nab-paclitaxel has declined from 48.8 % to 42.6 %. Data presented as polynomial trend lines of the palliative therapies started per quarter.

1L: first-line; **5-FU:** 5-fluorouracil; **FOLFIRI:** folinic acid, 5-fluorouracil, irinotecan; **FOLFOX:** folinic acid, 5-fluorouracil, oxaliplatin; **FOLFIRINOX:** 5-fluorouracil, folinic acid, irinotecan, oxaliplatin; **nab:** nanoparticle albumin-bound; **Q2:** second quarter in a year; **Q3:** third quarter in a year; **Q4:** fourth quarter in a year; **Q1:** first quarter in a year

A Top three palliative 1L therapies by patient's age (≥ 70 or < 70 years)

B Top three palliative 1L therapies by patient's age groups at the beginning of treatment

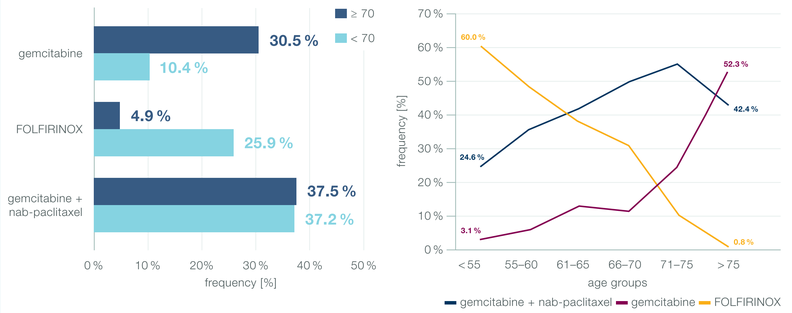

Figure 5. Palliative 1L therapies by patient's age and by patient's age group at the beginning of treatment. **A** Gemcitabine + nab-paclitaxel was the most common treatment among palliative 1L therapies, regardless of age (37.5 % and 37.2 %). Consecutively, gemcitabine as a monotherapy predominated in the age group < 70 years (30.5 % compared to 10.4 %). FOLFIRINOX as palliative 1L therapy was clearly used more frequently in the age group of < 70 years (25.9 %) compared to ≥ 70 years (4.9 %). **B** The preference for FOLFIRINOX declined from 60.0 % in the age group of < 55 years to 0.8 % in patients >75 years. In contrast, the preference for gemcitabine as a monotherapy increased from 3.1 % (< 55 years) to 52.3 % (> 75 years). The use of gemcitabine + nab-paclitaxel first increased from 24.6 (< 55 years) to over 50 % in the age group of 71–75, but then decreased again to 42.4 % for patients > 75 years.

1L: first-line; **FOLFIRINOX:** 5-fluorouracil, folinic acid, irinotecan, oxaliplatin; **nab:** nanoparticle albumin-bound

Duration of treatment (< 4 months, ≥ 4 months) and number of therapy cycles of FOLFIRINOX

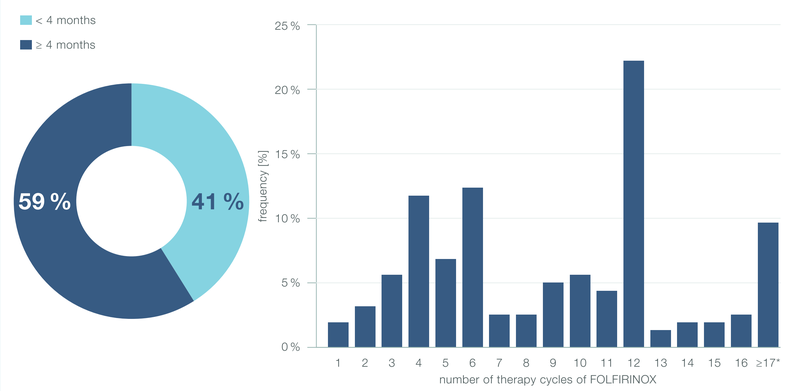

Figure 6. Duration of treatment and number of therapy cycles of FOLFIRINOX. The majority of patients (59 %) were treated with FOLFIRINOX for ≥ 4 months. The number of cycles of FOLFIRINOX varied from 1 cycle to 67 cycles, with 12 cycles being the most common (> 20 %), followed by 4 and 6 cycles with > 10 % each. 65.2 % of the patients were treated with ≥ 8 cycles of FOLFIRINOX.

* the therapy cycles 17 to 67 were grouped as "≥ 17".
FOLFIRINOX: 5-fluorouracil, folinic acid, irinotecan, oxaliplatin

CONCLUSION

Here, we describe the treatment reality in a network of office-based oncologists in Germany. The median age in the Oncotrace registry is significantly higher than in clinical trials relevant to approval. The proportion of platinum-based treatment protocols has increased in both adjuvant and palliative first-line therapy during the observation period.
The age of the patients at the start of therapy is decisive for the choice of treatment. Especially in younger patients the proportion of platinum-based treatment protocols increased considerably over time. While only 5 % of patients > 70 years of age received FOLFIRINOX, age has no influence on the choice of gemcitabine + nab-paclitaxel.
The use of FOLFIRINOX varies clearly in the duration of therapy and consequently also in the number of therapy cycles. Approximately, two thirds receive the therapy over 4 months.
Referring to new study data on maintenance targeted therapy without progression after 4 months of platinum-based chemotherapy e. g. olaparib in patients with *BRCA1/2*-germline mutations this development could increase the number of patients qualifying for this new concept.

CONFLICTS

Prof. Dr. med. Susanna Hegewisch-Becker has no conflicts of interest to report.

FUNDING

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1. Robert-Koch-Institut. Krebs in Deutschland 2015/2016, 12. Ausgabe, 2019. **2.** Conroy T et al. N Engl J Med 2018; 379(25): 2395–2406.