

IMPACT OF PHARMACEUTICAL COUNSELLING ON CANCER PATIENTS' INFORMATION DESIRE AND TREATMENT SATISFACTION

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Introduction

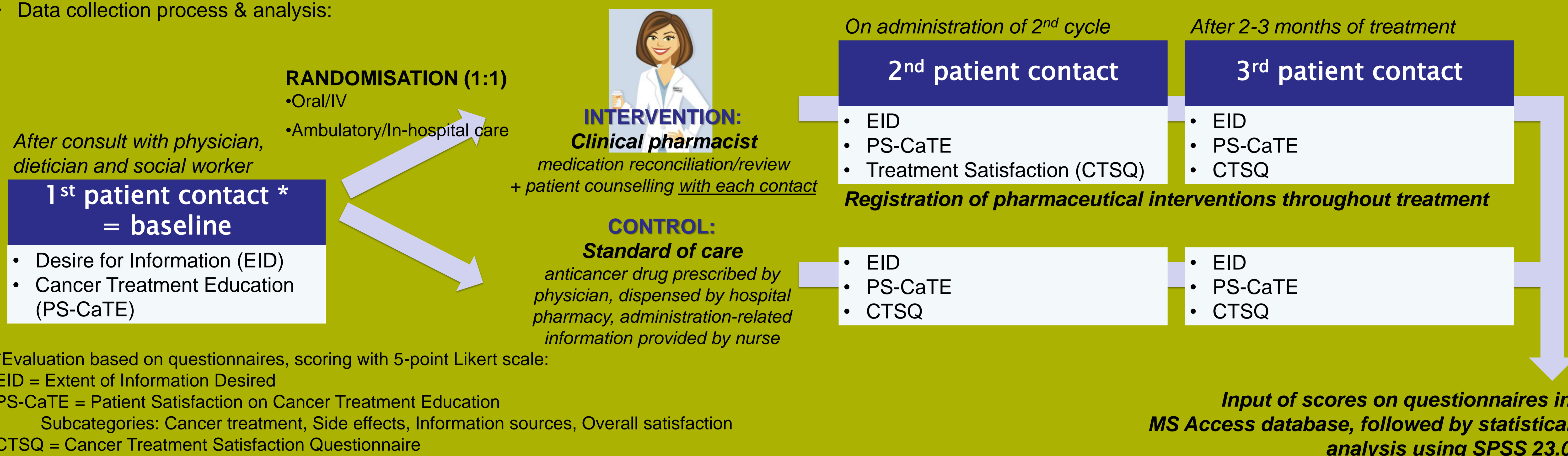
Appropriate education of onco-/haematological patients is a prerequisite to improve patient empowerment, hereby facilitating shared decision making. Clinical pharmacists are proven to be an asset to the multidisciplinary team as drug experts, focusing on pharmacotherapeutic consequences for the patient and his/her drug therapy after an antitumor treatment has been initiated.

Objective

To quantify patients' information need and satisfaction on antitumor drug therapy and how this can be improved by clinical pharmacist's counselling. Additionally, the pharmacist's impact on therapy quality and costs was assessed.

Methods

- Setting: prospective, randomised study in the ambulatory (26 beds) and in-hospital onco-/haematology unit (34 beds) in a tertiary care university hospital.
- Inclusion criteria: adult patients receiving a new course of intravenous or oral antitumor treatment, after informed consent.
- Data collection process & analysis:



*Evaluation based on questionnaires, scoring with 5-point Likert scale:
EID = Extent of Information Desired
PS-CaTE = Patient Satisfaction on Cancer Treatment Education
Subcategories: Cancer treatment, Side effects, Information sources, Overall satisfaction
CTSQ = Cancer Treatment Satisfaction Questionnaire

Outcomes

- Eighty-three patients included over a period of six months (10/2015 – 3/2016)
- Control (N=43); intervention (N=40)

Table 1. Patient characteristics

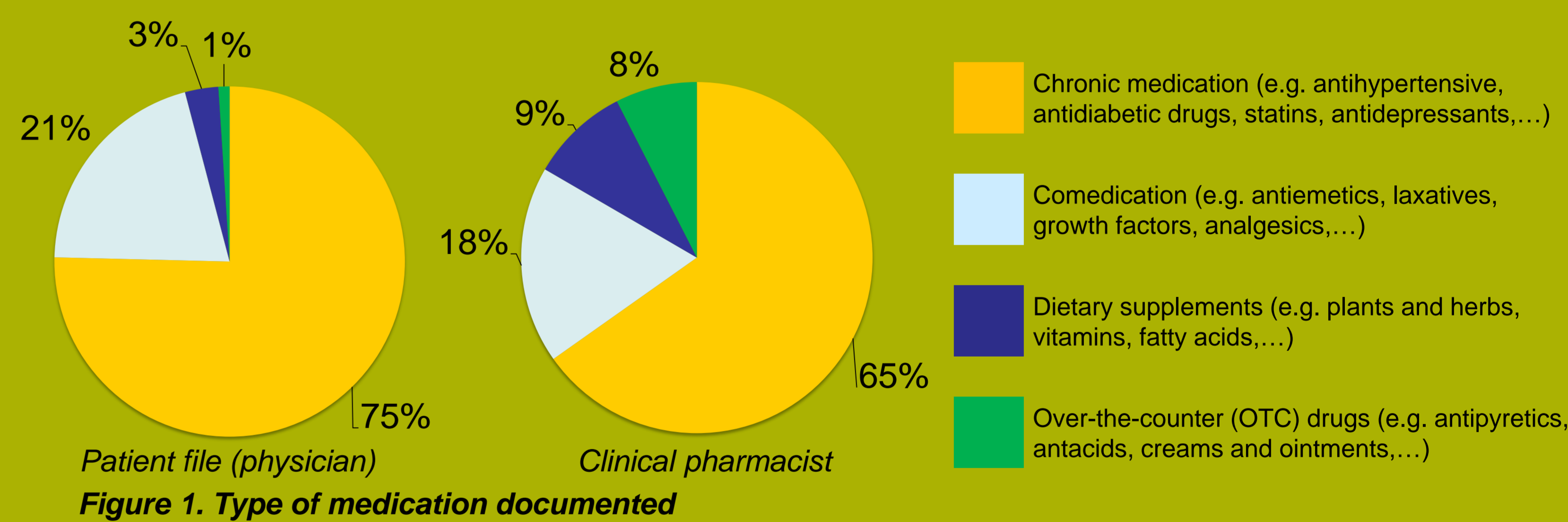
| Patient characteristics | Control | Intervention |
|---|--------------------|--------------------|
| Median age (IQR) | 63,0 (56,0 – 74,0) | 63,0 (53,5 – 70,5) |
| Gender | | |
| Man / Woman | 15 / 28 | 15 / 25 |
| Department | | |
| Ambulatory care / In-hospital unit | 34 / 9 | 31 / 9 |
| Number of course | | |
| 1 st therapy / Salvage therapy | 21 / 22 | 27 / 13 |
| Administration route | | |
| Oral / IV / Both | 3 / 39 / 1 | 1 / 37 / 2 |
| Karnofsky score | | |
| 90-100 / 70-80 / 50-60 / <50 | 36 / 4 / 3 / 0 | 28 / 9 / 0 / 3 |

- Questionnaires EID / PS-CaTE / CTSQ:
 - scores between patient contact moments (1 – 2 – 3): $P > 0,05$
 - scores between patient groups (control vs. intervention): $P > 0,05$
- Intervention patient data showed patients' satisfaction on SE education was positively correlated with the contact moment ($r_s = 0,198$; $P = 0,022$). A similar trend was seen in a multiple linear regression analysis ($B = 0,207$; $P = 0,101$; $R^2 = 0,128$).
- Patients receiving an antitumor treatment either for the first time or in ambulatory care, were significantly more satisfied on side-effect education than patients on salvage therapy or in-hospital setting (Table 2).

Table 2. Multiple linear regression analysis for all patient data, with PS-CaTE SE as dependent variable

| Model ($R^2 = 0,127$; $P < 0,001$) | B | P |
|---------------------------------------|-------|------|
| 1 st therapy | 0,261 | ,000 |
| Ambulatory care | 0,156 | ,018 |

- Drug reconciliation done by the clinical pharmacist showed (Figure 1):
 - higher number of drugs documented vs. patient file (8,0 vs. 4,9);
 - more chronic medication recorded (5,2 vs. 3,7);
 - less comedication documented (1,0 vs. 1,4);
 - more thorough registration of dietary supplements (0,7 vs. 0,2) and OTC-drugs (0,6 vs. 0,05).



- Patient follow-up during first 2-3 months of treatment (Table 3):
 - 48% of patients had a drug therapy requiring pharmaceutical intervention;
 - pharmacist intervened mostly on drug related problems (45%) and patient counselling (20%);
 - shift in type of intervention (drug related → patient education);
 - physician acceptance rate on drug related interventions = 72%.
- Assessment of active antitumor treatments and medication stock optimisation lead to a savings of €36 890.

Table 3. Interventions on drug therapy

| Interventions | 1 st contact (N=40) | 2 nd contact (N=36) | 3 rd contact (N=29) |
|---|--------------------------------|--------------------------------|--------------------------------|
| Total | 40 | 36 | 17 |
| Number of patients | 19 (48%) | 13 (36%) | 9 (31%) |
| Number of interventions per patient (mean ± SD) | 2,1 ± 1,4 | 2,8 ± 3,1 | 1,9 ± 0,9 |
| Drug related problems | 32 | 19 | 4 |
| Patient education/advice | 5 | 12 | 7 |

Conclusion

- Pharmaceutical counselling should be repeated and primarily focused on side-effect management to have a meaningful impact on patient satisfaction.
- Hospitalised patients and patients receiving salvage therapy appear to have higher educational needs on side-effects, making them possibly overlooked target groups.
- Physicians tend to underregistrate chronic medication, dietary supplements and OTC-drugs, stressing the clinical pharmacist's role to improve drug reconciliation.
- Pharmaceutical intervention should focus on medication review at treatment startup, followed by adequate patient education.
- Involving the pharmacist in the prescribing process enhances stock management, leading to significant cost savings.
- Currently used questionnaires may not be sensitive or specific enough to detect changes in patient satisfaction upon pharmacist intervention.