Assessing Quality of Life in Oncology Practice: First Results from a Pilot Study

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INTRODUCTION

Cancer disease, especially when in advanced stages, brings with it a multiplicity of symptoms amenable to cause great suffering and profoundly compromise quality of life (QoL). Therefore, multidisciplinary strategies which comprise the multidimensionality of the person and that focus in promoting QoL are essential to assure a needs’ based provision of care. Health related QoL (HRQL) is an increasingly approached theme in Oncology, simultaneously with diagnostic and therapeutic innovations that encompass patient-centered interventions. Patient-reported Outcomes (PROs) allow to the clinical team to acquire reliable information about the patient’s perspective of wellbeing, needs, symptoms and toxicities, among others, allowing for a better communication and discussion of patient’s concerns and desires. PROs have been implemented and adapted to clinical practice showing promising results. However, replication of these programs is mandatory, in order to strengthen clinical evidence on the impact of these measures in decision-making processes and in the way we approach cancer patients is mandatory for the improvement of QoL and survival.

RESULTS

Table 1 – Baseline characteristics in the overall cohort (n=37)

Gender		Tumor staging	
Male	11 (29.7%)	I-II	7 (19%)
Female	26 (70.3%)	III-IV	30 (81%)
Age, mean (range), years		Active tumor-directed therapy	
66 (+- 14.3)		Yes	25 (68%)
27-83		No	12 (32%)
Tumour Location		ECOG/Performance Status	
Esophagus, Stomach		0	15 (40.5%)
Colorectal and Anal		1	9 (24.3%)
Breast		2	6 (16.2%)
Gynecological		3	7 (18.9%)
Pancreas, Biliary tract, Liver			
Genitourinary

Graphic 1 – Prevalence of symptoms classified as “Quite a bit” or “Very much” at baseline

Table 3 – Univariate Logistic Regression for improvement in symptom scores

Variable	OR	CI 95%	p-value
Gender			
Female	1,17	0,13-10,22	0,02
Male (reference)			
Metastatic Disease	0,67	0,05-8,64	0,1
Performance Status	1,06	0,42-2,67	0,01
Active tumor-directed therapy	1,13	0,08-16,31	0,01
Doctor Intervention on Symptoms	1	0,02 – 1,71	0,00
Death	0,89	0,06-12,88	0,01

At 3-month follow-up, 6 (16%) patients had died. Worsen of symptoms was correlated with bigger odds of dying.

Worsening of both scores preceded in all cases evidence of cancer progression (mean of 34 days, SD +- 8).

OBJECTIVES

Our main goals were to assess feasibility of routine measurement of HRQoL through PRO measures in oncology practice. Additionally, we aimed to understand symptom prevalence, changes over time and to analyze its predictive use, as well as to understand how this information could impact on facilitating physician-patient communication.

METHODS

We’ve implemented a program for systematic and standardized measurement of PROs. This is a prospective, descriptive study, conducted in a tertiary central hospital. Here, we report first results. From January to June 2018, cancer patients were asked to complete the European Organization for Research and Treatment of Cancer Quality of Life Questionnaire-Core 30 (QLQ-C30 version 3.0) in consecutive outpatient visits, delivered to the physician prior to each consultation. Data regarding clinicians attitudes were provided through electronic medical records. Data analysis using descriptive statistics, chi-square test, kruskall-wallis test, two sample t-test and univariate logistic regression.

In functional scores, when the difference is **positive**, it means there was an **improvement**. So, overall functional scores improved, particularly emotional and cognitive, but social and physical functioning worsen.

In symptom scores, when the difference is **positive**, it means there was a **worsening** of symptoms.

Overall, global health worsen

Table 2 - Mean scores in different domains of the QLQ-c30 questionnaire over time

QLQ-c30 domains	Cronbach alpha	Baseline	2 months post baseline	Difference
Functional scores	0.88	70.6 (CI 95% 64.6-76.6)	72.8 (CI 95% 61.5-84.0)	2,2
Physical functioning	0.81	70.1	66.3	-3,8
Role functioning		68.9	68.6	-0,3
Emotional functioning		70.9	72.1	1,2
Cognitive functioning		76.6	78.4	1,8
Social functioning		66.7	50.3	-16,4
Symptoms scores	0.81	27.7 (CI95% 22.1-33.4)	28.0 (CI95% 17.4-38.7)	0,3
Fatigue	0.90	41.7	9.8	-31,9
Nausea/vomiting		14.0	33.3	19,3
Pain		35.1	15.7	-19,4
Dyspnea		17.1	33.3	16,2
Insomnia		33.3	33.3	0
Appetite loss		26.1	5.9	-20,2
Constipation		26.1	33.3	7,2
Diarrhea		20.7	5.9	-14,8
Financial Difficulties		35.1	37.3	2,2
Global Health		57.4	48	-9,4

In following visits (17,44%), mean deterioration in functional and symptom scores were -21.1 [CI 95% -40.5 to -5.5] and 16.6 [CI 95% 4.5-29.5].

Functional scores improved in 12 patients (71%) (10.7, CI95% 5.1-16.2), and symptom scores in 11 (65%) (-12.0, CI 95% -17.4 to -7.8).

Graphic 2 – Change in scores from baseline to follow-up

DISCUSSION/CONCLUSIONS

Our preliminary results show a high prevalence of distressing symptoms, and with just a short time follow-up how much of them remain. Nonetheless, physician’s approach to these issues was extremely valuable with statistical significant improvement in symptom scores. Despite this, patients’ perceptions on HRQoL domains, here assessed with QLQ-c30, are often not perceived by clinicians, leading to insufficient approach of issues that negatively impact patient’s wellbeing. PRO’s systematic use may be crucial in providing early identification of complexity, with adequate provision of structured palliative care. Furthermore, PROs may counterpart other routine clinical methods to monitor cancer progression. We are currently conducting a prospective cohort trial to measure real impact of routine measurement of PROs in symptom management, assessment of toxicities, in reducing emergency visits, hospital admissions and mortality, which will hopefully reflect into better QoL and survival.

BIBLIOGRAPHY

1. Bosset, Jean-François et al. Fluorouracil-based adjuvant chemotherapy after preoperative chemoradiotherapy in rectal cancer: long-term results of the EORTC 22921 randomised study. The Lancet Oncology . Volume 15 , Issue 2 , 184 – 190;
2. Brugom AI, van Gijp W, Muller EW, et al. Adjuvant chemotherapy for rectal cancer patients treated with preoperative (chemo)radiotherapy and total mesorectal excision: a Dutch Colorectal Cancer Group (DCCG) randomized phase III trial. Ann Oncol. 2015;26(4):696–701. doi: 10.1093/annonc/mdu560.
3. Brugom AI, Swets M, Bresser JF, et al. Adjuvant chemotherapy after preoperative (chemo)radiotherapy and surgery for patients with rectal cancer: a systematic review and meta-analysis of individual patient data. Lancet Oncol 2015;16:206–7. doi:10.1016/S1473-2045(14)71199-4.
4. QUASAR Collaborative Group. Adjuvant chemotherapy versus observation in patients with colorectal cancer: a randomised study. The Lancet. Volume 370 , Issue 9604 , 2020 – 2029
5. Rödel, Claus et al. Oxaliplatin added to fluorouracil-based preoperative chemoradiotherapy and postoperative chemotherapy of locally advanced rectal cancer (the German CAO/ARO/AO-04 study): final results of the multicentre, open-label, randomised, phase 3 trial. The Lancet Oncology . Volume 16 , Issue 8 , 979 – 989;
6. Hong, Yong Sang et al. Oxaliplatin, fluorouracil, and leucovorin versus fluorouracil and leucovorin as adjuvant chemotherapy for locally advanced rectal cancer after preoperative chemoradiotherapy (ADORE): an open-label, multicentre, phase 2, randomised controlled trial. The Lancet Oncology . Volume 15 , Issue 11 , 1245 – 1253
7. Hong, Yong Sang et al. Long-term results of the ADORE trial: Adjuvant oxaliplatin, leucovorin and 5-fluorouracil (5-FU) versus 5-fluorouracil and leucovorin (FL) after preoperative chemoradiotherapy and surgery for locally advanced rectal cancer. Journal of Clinical Oncology 2018 36:15, suppl, 3501-3501
8. Schmoll HJ, A. Stein, R.D. Hofheinz, T.J. Price, B. Nordlinger, J-F. Daisne, J-F. Daisne, J. Janssens, B. Brenner, P. Schmidt, H. Reinl, S. Hollerbach, K. Caca, F. Fauth, J. Zalcberg, S. Marneaud, M. Maurer, M. Lutz, E. Van Cutsem, K. Haustermans; Preoperative chemoradiotherapy and postoperative chemotherapy with capecitabine and oxaliplatin vs. capecitabine alone in locally advanced rectal cancer: final analyses. Annals of Oncology, Volume 27, Issue suppl_6, 1 October 2016, 467PD, <https://doi.org/10.1093/annonc/mdw370.16>
9. Schmoll HJ et al. Preoperative chemoradiotherapy and postoperative chemotherapy with capecitabine and oxaliplatin in locally advanced rectal cancer: Final results of PETACC-6. Journal of Clinical Oncology 2018 36:15, suppl, 3500-3500