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Patient Reported Outcomes

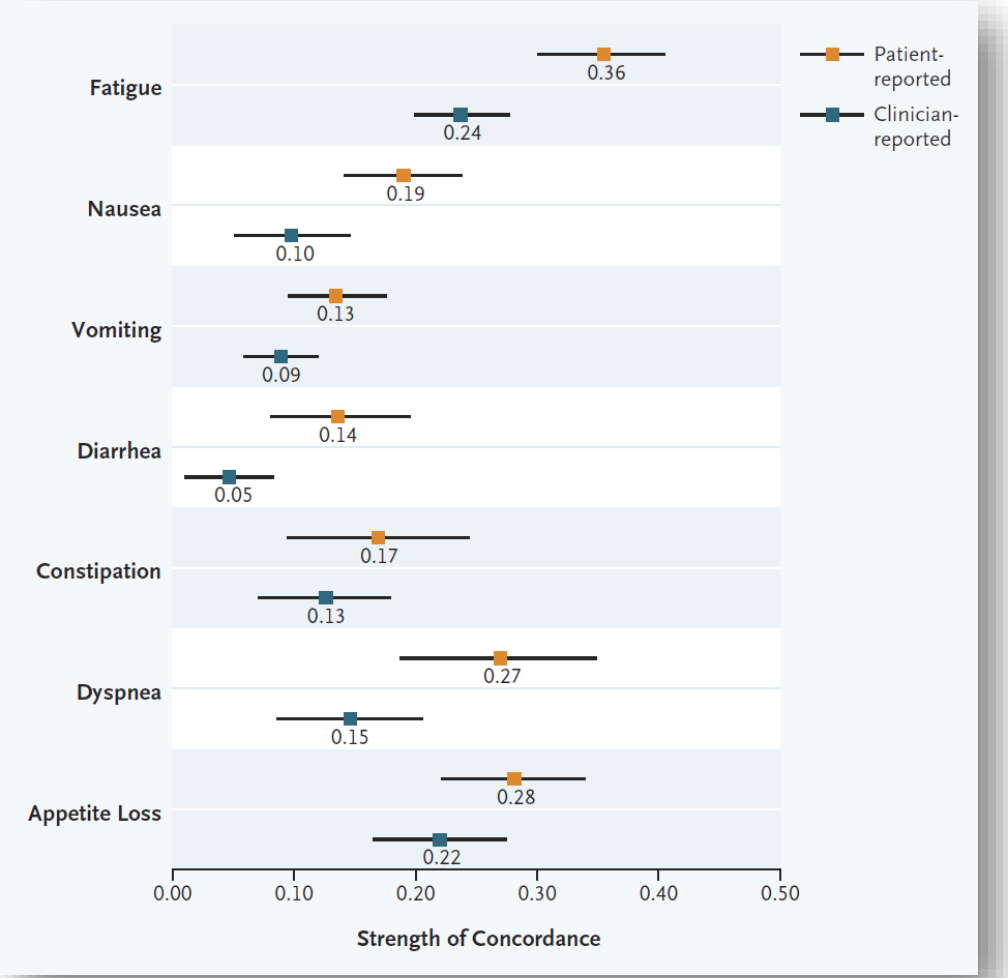
Introduzione alla sessione:
"Symptoms are best known by the individual patient!"
Giovanni L. PAPPAGALLO

The Missing Voice of Patients in Drug-Safety Reporting

Ethan Basch, M.D.

N ENGL J MED 362;10 NEJM.ORG MARCH 11, 2010

Current methods for detecting adverse events in clinical trials are acknowledged to lack sensitivity,[4] and worrisome symptoms might well come to light earlier in the drug-development cycle if reporting by patients were standard practice.



Symptomatic Toxicities Experienced During Anticancer Treatment: Agreement Between Patient and Physician Reporting in Three Randomized Trials

Massimo Di Maio, Ciro Gallo, Natasha B. Leighl, Maria Carmela Piccirillo, Gennaro Daniele, Francesco Nuzzo, Cesare Gridelli, Vittorio Gebbia, Fortunato Ciardiello, Sabino De Placido, Anna Ceribelli, Adolfo G. Favaretto, Andrea de Matteis, Ronald Feld, Charles Butts, Jane Bryce, Simona Signoriello, Alessandro Morabito, Gaetano Rocco, and Francesco Perrone

J Clin Oncol 33:910-915. © 2015 by American Society of Clinical Oncology

Table 2. Per-Patient Analysis of Association Between Patient (any severity) and Physician Reporting (any grade) of Toxicity

Toxicity	No. of Evaluable Patients*	Toxicity Reported by Neither Patient Nor Physician		Toxicity Reported by Physician but Not Patient		Toxicity Reported by Patient but Not Physician		Toxicity Reported by Both Patient and Physician		Cohen's κ	95% CI
		No.	%	No.	%	No.	%	No.	%		
Anorexia	1,090	383	35.1	28	2.6	505	46.3	174	16.0	0.15	0.12 to 0.19
Nausea	1,089	335	30.8	100	9.2	266	24.4	388	35.6	0.34	0.29 to 0.39
Vomiting	1,090	700	64.2	107	9.8	134	12.3	149	13.7	0.41	0.34 to 0.47
Constipation	1,087	501	46.1	32	2.9	384	35.3	170	15.6	0.24	0.20 to 0.29
Diarrhea	1,088	643	59.1	57	5.2	197	18.1	191	17.6	0.45	0.39 to 0.50
Hair loss	1,086	519	47.8	15	1.4	360	33.1	192	17.7	0.32	0.27 to 0.36

*No. of evaluable patients may be slightly different among toxicities, because some patients did not complete all items of quality-of-life questionnaire.

Different Orientations

- Clinician adverse symptom reports are more highly associated with clinical endpoints (such as death or hospitalization)

  while:

- Patient adverse symptom reports are more highly correlated with measures of day-to-day health status (such as HRQL or global health measures)

Basch: ISOQOL, 2009

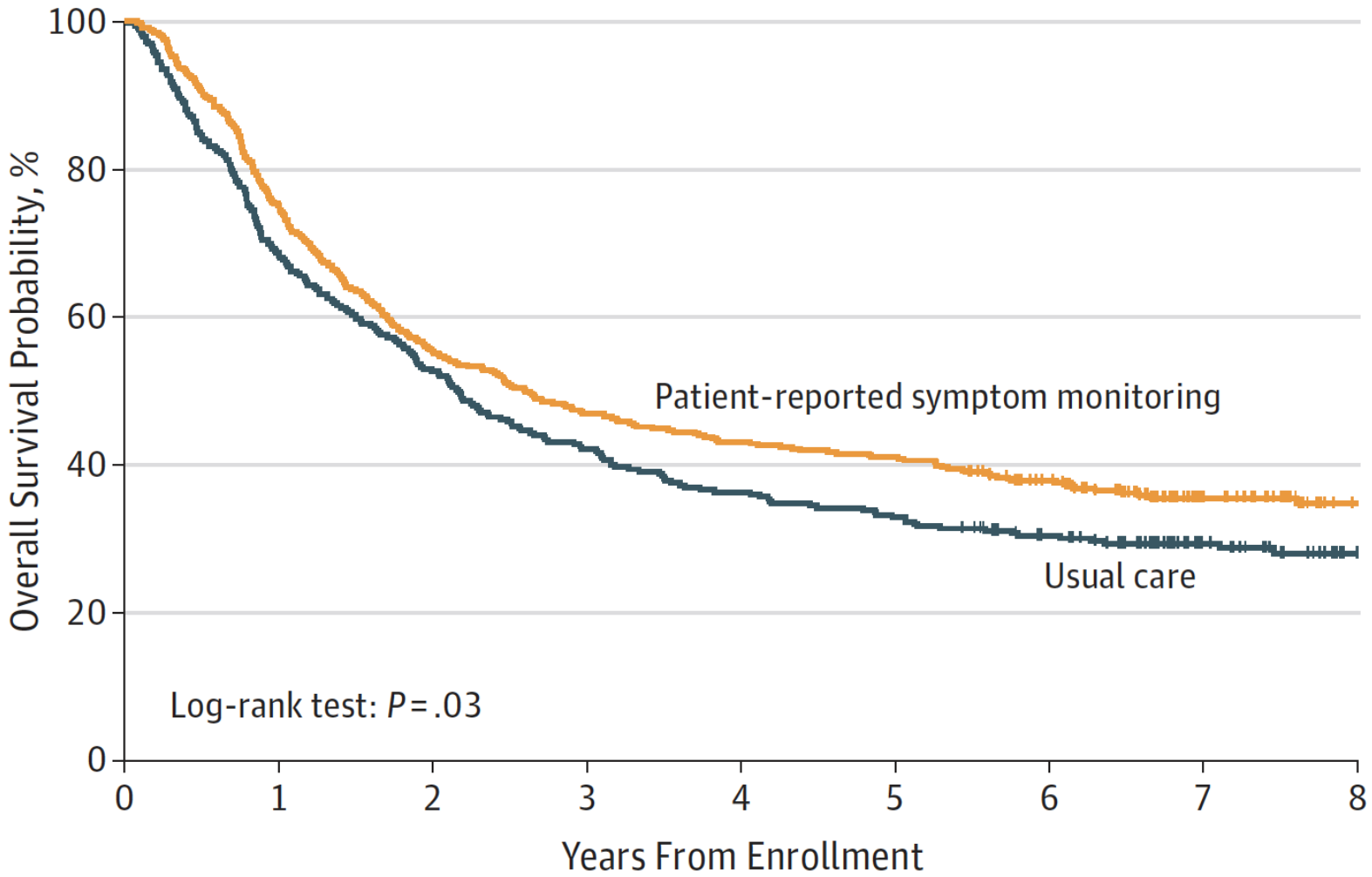
Complementary Perspectives

- Clinician-reporting better reflects trajectory towards major clinical benchmarks
  - Clinicians are oriented towards these events
- Patient-reporting better reflects suffering from day-to-day
  - This represents additional information which is not currently collected in trials

Basch: ISOQOL, 2009

Overall Survival Results of a Trial Assessing Patient-Reported Outcomes for Symptom Monitoring During Routine Cancer Treatment

JAMA July 11, 2017 Volume 318, Number 2



Self-Reported Quality of Life as a Predictor of Survival in Renal Cell Carcinoma

Ridwan Alam, Hiten D. Patel, Michael A. Gorin, Michael H. Johnson, Mohamad E. Allaf, Phillip M. Pierorazio

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Background

- Previous studies have shown that quality of life (QOL) metrics can independently predict survival in a number of cancer disease states.
- With the acceptance of active surveillance and ablation for the management of renal cell carcinoma (RCC), QOL metrics may provide prognostic value above and beyond traditional demographic and disease parameters.
- OBJECTIVE: To evaluate the utility of self-reported QOL metrics to predict survival/mortality among patients with RCC.

Methods

Study Design

- We used the Surveillance, Epidemiology, and End Results – Medicare Health Outcomes Survey (SEER-MHOS) database.
- Patients who completed a QOL survey after the diagnosis of RCC were included.
- All surveys were completed between 1998 and 2014.
- Mental component summary (MCS) and physical component summary (PCS) scores were derived from the surveys to estimate mental and physical health, respectively.
- **MCS and PCS scores were classified as high (≥50; denoted as +) or low (<50; denoted as -) based on a population mean score of 50 points.**
- Patients were sorted into one of four discrete groups:
  1. MCS+, PCS+
  2. MCS+, PCS-
  3. MCS-, PCS+
  4. MCS-, PCS-

Statistical Analysis

- The Kaplan-Meier curve estimates the overall survival across time.
- Multivariable Cox proportional hazards regression evaluated associations between QOL metrics (as a continuous measure) and all-cause mortality. The Harrell's concordance statistic (C-index) estimated the predictive accuracy of this model.
- Multivariable Fine and Gray competing risks models estimated RCC-specific and non-RCC-specific mortality based on QOL metrics (as discrete groups).

Results

Table 1. Baseline Characteristics for Patient Cohort

Baseline Characteristics	Total	MCS+, PCS+	MCS+, PCS-	MCS-, PCS+	MCS-, PCS-	*P*-value
Study Size	1494	198	630	56	610	–
Median follow-up, years [IQR]	5.6 [4.0-8.3]	6.6 [5.5-9.6]	5.6 [4.2-8.4]	5.6 [4.5-8.0]	5.1 [2.9-7.4]	**<0.001**
Median age at survey, years [IQR]	73.4 [68.8-79.3]	72.8 [68.4-77.4]	73.4 [69.1-79.5]	71.5 [68.6-80.1]	73.9 [68.3-79.8]	0.4
Male (%)	864 (57.8%)	139 (70.2%)	353 (56.0%)	33 (58.9%)	339 (55.6%)	**0.002**
African-American (%)	147 (9.8%)	11 (5.6%)	43 (6.8%)	7 (12.5%)	86 (14.1%)	**<0.001**
Clinical stage (%)						0.7
T1	1068 (71.5%)	138 (69.7%)	457 (72.5%)	44 (78.6%)	429 (70.3%)	
T2	199 (13.3%)	31 (15.7%)	80 (12.7%)	7 (12.5%)	81 (13.3%)	
T3-T4	227 (15.2%)	29 (14.6%)	93 (14.8%)	5 (8.9%)	100 (16.4%)	
Metastatic RCC (%)	51 (3.4%)	3 (1.5%)	15 (2.4%)	0 (0.0%)	33 (5.4%)	**0.004**
No surgery for RCC (%)	82 (5.5%)	5 (2.5%)	28 (4.4%)	4 (7.1%)	45 (7.4%)	**0.03**
Median time from RCC diagnosis to survey, years [IQR]	4.4 [1.8-8.3]	4.7 [2.2-8.6]	4.3 [1.8-8.9]	3.2 [1.7-8.7]	4.5 [1.8-7.7]	0.5
Diagnosed with other cancer prior to survey (%)	362 (24.2%)	53 (26.8%)	168 (26.7%)	13 (23.2%)	128 (21.0%)	0.1
Modified cardiovascular index (%)						**<0.001**
0	976 (65.3%)	176 (88.9%)	411 (65.2%)	44 (78.6%)	345 (56.6%)	
1	313 (21.0%)	20 (10.1%)	132 (21.0%)	3 (5.4%)	158 (25.9%)	
2-4	205 (13.7%)	2 (1.0%)	87 (13.8%)	9 (16.1%)	107 (17.5%)	

Figure 1. Kaplan-Meier Curve for Overall Survival

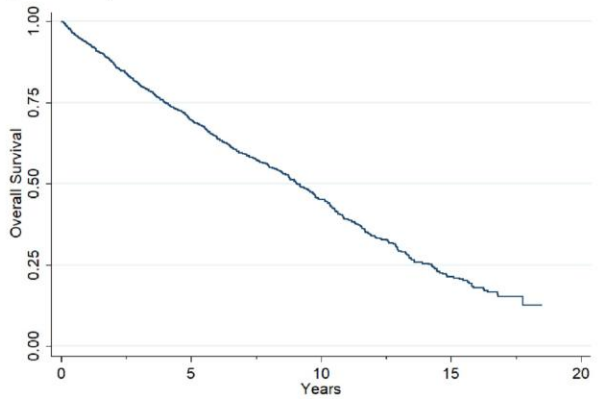


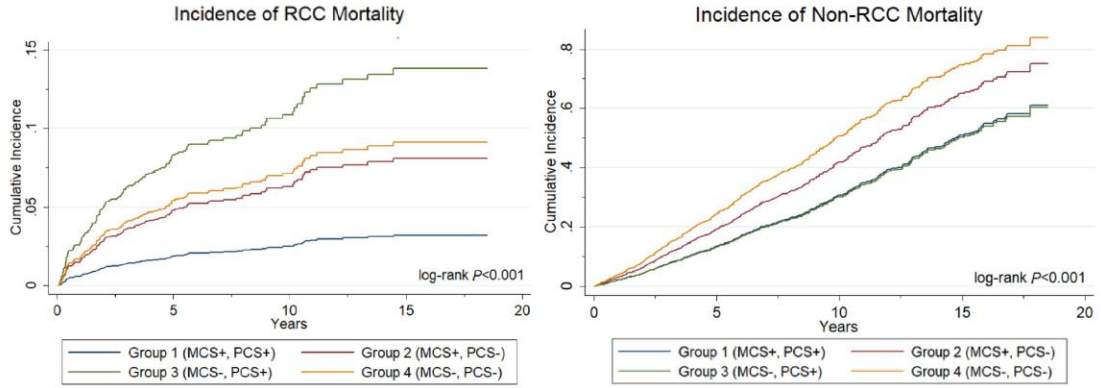
Table 2. Multivariable* Regression for Overall Survival

Baseline Characteristics	Hazard Ratio [95% CI]	*P*-value
MCS score, per point	0.987 [0.981-0.993]	**<0.001**
PCS score, per point	0.977 [0.971-0.984]	**<0.001**

*adjusted for all characteristics listed in Table 1 (yellow table)

C-index for regression = 72.3%

Figure 2. Fine and Gray Competing Risks Models



Results Summary

- Among 1494 patients, each additional MCS and PCS point reduced the hazard of all-cause mortality by 1.3% and 2.3%, respectively **[Table 2]**.
- With Group 1 as reference, Groups 2-4 demonstrated a higher incidence of RCC mortality; Groups 2 and 4 also demonstrated a higher incidence of non-RCC mortality **[Figure 2]**.

Conclusions

- Self-reported QOL metrics predict all-cause mortality in RCC patients with good accuracy (C-index 72.3%).
- Low MCS and low PCS scores independently predict higher rates of all-cause mortality.
- Non-RCC mortality was associated more with low physical health rather than low mental health.


VOTES
FOR
WOMEN


VOTES
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