



# Health-Related Quality of Life Assessment in Daily Urologic Practice: A Survey of Greek Urologists

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**Purpose:** Health-related quality of life (HRQoL) assessment has become an integral part of clinical research across different disciplines. However, the degree of incorporation of QoL standardized questionnaires in daily routine is variable. This survey study examined how HRQoL is perceived and utilized among urologists from the Hellenic Urological Association (HUA) in their daily practice.

**Methods:** A nationwide survey of Greek urologists registered with the HUA was conducted. Participants were asked to complete a questionnaire sent via email. The survey questionnaire consisted of demographic data including sex, age, working position and working environment and 11 Likert-scale questions regarding perception and use of HRQoL in clinical practice.

**Results:** A total of 1000 Greek urologists were contacted, of whom 400 (40%) responded. Participants were predominantly male (94.8%) with a mean age of 43.7 years and a mean working experience of 12.5 years. Most participants considered HRQoL assessment to be important in their clinical practice (95.3%) and valuable in both patient consultation (95.8%) and treatment follow-up (91.8%). Half of urologists (51%) agreed with the statement that there is limited time for HRQoL assessment in daily practice. Validated questionnaires were rated as useful by 75.5% of participants. Overall, only 26.7% of participants stated they have incorporated HRQoL questionnaires in their daily practice. A subgroup analysis of participants showed that experienced physicians (>10 years) were less likely to utilize HRQoL (OR 0.38,  $p=0.008$ , 95% CI 0.19–0.77) and experienced difficulty in distinguishing between HRQoL assessment and symptom-rating (OR 0.32,  $p<0.001$ , 95% CI 0.17–0.61). Lack of time for HRQoL assessment was a main concern for urologists in-training (OR 0.7,  $p<0.001$ , 95% CI 0.57–0.85).

**Conclusion:** HRQoL assessment is well-perceived by Greek urologists, although it has yet to achieve a substantial degree of integration in their daily practice.

**Keywords:** health-related quality of life assessment, urologic daily practice, survey, questionnaire

## Introduction

In recent years, patients' quality of life (QoL) has become critical in medical care worldwide. According to World Health Organisation (WHO), QoL can be defined as the individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns.<sup>1</sup> Health-related QoL (HRQoL) encompasses those aspects of QoL which can affect physical or mental health status in the course of time.<sup>2</sup>

Assessment of HRQoL is based on generic and disease-specific questionnaires.<sup>3</sup> The development of such metrics has allowed HRQoL to become an important therapeutic endpoint in clinical trials.<sup>4</sup> On the other hand, by being incorporated in the most recent guidelines of numerous medical associations, HRQoL becomes an important clinical tool in daily practice. However, there are limitations in the integration of QoL in routine practice, including physicians' lack of

experience, inadequate standardization of the documentation process as well as practical implementation issues.<sup>5-7</sup> Clinicians' perceptions about HRQoL have not been fully studied.<sup>5,8</sup> Additionally, the proportion of physicians adopting HRQoL measures in the clinical setting remains unclear.<sup>8</sup> In a postal survey assessing the use of HRQoL measures by oncologists outside clinical trials, less than half of responders collected QoL data prior to treatment initiation although 80% acknowledged its potential value. Furthermore, only half of the responders incorporated QoL in the assessment of treatment efficacy and safety, even in palliative care cases.<sup>5</sup> A recent German study investigating the use of HRQoL assessment in the clinical setting, found that the majority of German urologists consider this as an important tool in their practice; nonetheless, HRQoL questionnaires were deemed impractical by half of the physicians due to their length and complexity of interpretation.<sup>9</sup>

The present study aimed to determine the degree of acceptance and incorporation of HRQoL assessment in daily practice among Greek urologists.

## Methods

A nationwide anonymous survey of Greek urologists registered with the Hellenic Urological Association (HUA) was conducted in January 2021. The Ethics Committee of University of Thessaly, Faculty of Medicine, University Hospital of Larissa reviewed and approved the study (protocol N° 2020-4-15), and all participating medical professionals provided their informed consent. This study was conducted according to the guidelines and ethical standards outlined in the Declaration of Helsinki.

Participants were asked to complete a questionnaire sent via email and return their answers within 30 days. The survey questionnaire consisted of demographic data including sex, age, working position and working environment and 11 Likert-scale questions regarding perception and use of HRQoL in clinical practice. For statistical analyses, participants were divided into subgroups based on their demographics. Likert-scale analysis was conducted by combining "strongly agree" and "probably agree" responses in one group ("agree"). Likewise, responses under the terms "probably disagree" and "strongly disagree" were merged into a second group ("disagree").

Data analysis was performed using SPSS Version 27.0.1.0. Chi-square and Fisher's Exact test as well as logistic regression were used for subgroup analysis of categorical variables, as appropriate. Statistical significance was set at 0.05.

## Results

A total of 1000 Greek urologists were contacted, of whom 400 (40%) responded. Participants were predominantly male (94.8%) with a mean age of 43.7 years and a mean working experience of 12.5 years. Most urologists (47.3%) were working as private practice physicians whereas 13.3% were in training. Participants' demographic data are shown in [Table 1](#).

Responses regarding assessment of HRQoL are shown in [Table 2](#). Most participants considered HRQoL assessment to be important in their clinical practice (95.3%) and valuable in both patient consultation (95.8%) and treatment follow up (91.8%). Nonetheless, 51% of urologists agreed with the statement that there is limited time for HRQoL assessment in daily practice. Validated questionnaires were rated as useful by 75.5% of participants, as opposed to 22.5% who neither approved nor disapproved this statement. Overall, 26.7% of participants stated they have incorporated HRQoL questionnaires in their daily practice ([Table 2](#)).

A subgroup analysis of participants' views was conducted ([Table 3](#)). The stated importance of HRQoL assessment in patient consultation and follow-up was maintained throughout all subgroups, as was the statement that HRQoL might be considered a non-specific term. In contrast, multivariate analysis revealed a statistically significant difference between experienced (>10 years of practice) and non-experienced physicians about assessment of HRQoL in daily practice, with the former being more sceptical about its utility (OR 0.38,  $p=0.008$ , 95% CI 0.19–0.77). More than half of the participants (57.8%) found it difficult to distinguish between HRQoL assessment and symptom-rating and this was reportedly more difficult for physicians with >10 years of practice (OR 0.32,  $p<0.001$ , 95% CI 0.17–0.61). Urologists in-training were less likely to consider validated questionnaires to be useful in HRQoL assessment (OR 4.79,  $p=0.017$ , 95% CI 1.3–17.3), but more likely to state there is limited time for physicians to assess HRQoL in daily practice (OR 0.7,

**Table 1** Demographics and Participant Characteristics

	Male n=379	Female n=21	Total n=400
Age (mean, SD)	44.2 (8.9)	35.5 (7.2)	43.7 (9.1)
Number of years working (mean, SD)	12.82 (9.1)	5.8 (3.7)	12.5 (9.0)
<b>Working Environment n (%)</b>			
University hospital	65 (17.2)	6 (28.6)	71 (17.8)
General hospital	126 (33.2)	10 (47.6)	136 (34.0)
Private practice	160 (42.2)	3 (14.3)	163 (40.7)
Other healthcare institutions	28 (7.4)	2 (9.5)	30 (7.5)
<b>Work Position n (%)</b>			
University professor	23 (6.1)	0 (0.0)	23 (5.7)
Chief physician	33 (8.7)	0 (0.0)	33 (8.2)
Senior physician	99 (26.1)	3 (14.3)	102 (25.5)
Physician in-training	38 (10.0)	15 (71.4)	53 (13.3)
Private practice physician	186 (49.1)	3 (14.3)	189 (47.3)

**Table 2** Physicians' Assessment of HRQoL

n (%)	Strongly Agree	Probably Agree	Neither Agree nor Disagree	Probably Disagree	Strongly Disagree
HRQoL assessment is important in clinical practice	289 (72.3)	92 (23.0)	9 (2.3)	6 (1.5)	4 (1.0)
HRQoL is a non-specific term	231 (57.8)	149 (37.3)	7 (1.7)	9 (2.2)	4 (1.0)
There is not a clear difference between HRQoL assessment and symptom-rating	66 (16.5)	165 (41.3)	76 (19.0)	73 (18.2)	20 (5.0)
HRQoL assessment is not suitable for everyday practice	12 (3.0)	67 (16.8)	46 (11.5)	170 (42.5)	105 (26.2)
HRQoL assessment is valuable in patient consultations	242 (60.5)	141 (35.3)	17 (4.2)	0 (0.0)	0 (0.0)
HRQoL assessment is valuable in treatment follow-up	208 (52.0)	159 (39.8)	28 (7.0)	5 (1.2)	0 (0.0)
Validated HRQoL questionnaires are useful for HRQoL assessment	121 (30.2)	181 (45.3)	90 (22.5)	8 (2.0)	0 (0.0)
Patients refuse to answer to HRQoL questionnaires	11 (2.8)	45 (11.2)	153 (38.2)	132 (33.0)	59 (14.8)
There is not enough time to assess HRQoL in daily practice	50 (12.5)	158 (39.5)	52 (13.0)	92 (23.0)	48 (12.0)
Validated HRQoL questionnaires are difficult to use	13 (3.3)	85 (21.3)	124 (31.0)	122 (30.4)	56 (14.0)
I usually use HRQoL questionnaires in my daily practice	19 (4.7)	88 (22.0)	81 (20.3)	172 (43.0)	40 (10.0)

$p < 0.001$ , 95% CI 0.57–0.85). A minority of participants (14%) agreed with the statement that patients refuse to answer HRQoL questionnaires. Working position was the only factor related to this assessment in logistic regression analysis (OR 1.3,  $p = 0.007$ , 95% CI 1.07–1.58), with private practice (non-academic) physicians being more likely to support this statement.

**Table 3** Subgroup Analysis of Clinicians' Views Concerning HRQoL

	Agreement with Following Statement, n (% within Subgroup)										
	HRQoL Assessment is Important in Clinical Practice	HRQoL is a Non-Specific Term	There is Not a Clear Difference Between HRQoL Assessment and Symptom-Rating	HRQoL Assessment is Not Suitable for Everyday Practice	HRQoL Assessment is Valuable in Patient Consultations	HRQoL Assessment is Valuable in Treatment Follow-Up	Validated HRQoL Questionnaires are Useful for HRQoL Assessment	Patients Refuse to Answer to HRQoL Questionnaires	There is Not Enough Time to Assess HRQoL in Daily Practice	Validated HRQoL Questionnaires are Difficult to Use	I Usually Use HRQoL Questionnaires in Daily Practice
<b>Sex</b>											
Male	360 (95)	362 (95.5)	220 (58.0)	77 (20.3)	365 (96.3)	349 (92.1)	289 (76.3)	50 (13.2)	193 (50.9)	98 (25.9)	101 (26.6)
Female	21 (100.0)	18 (85.7)	11 (52.4)	2 (9.5)	18 (85.7)	18 (85.7)	13 (61.9)	6 (28.6)	15 (71.4)	0 (0.0)	6 (28.6)
<b>p-value</b>	1.00	0.422	0.326	0.241	0.451	1.00	1.00	0.063	0.036 <sup>b</sup>	0.017 <sup>b</sup>	0.256
<b>Working Environment</b>											
University hospital	69 (97.2)	71 (100.0)	47 (66.2)	8 (11.3)	71 (100.0)	71 (100.0)	69 (97.2)	8 (11.2)	51 (71.8)	16 (22.5)	23 (32.4)
General hospital	126 (92.6)	124 (91.2)	63 (46.3)	40 (29.4)	124 (91.2)	115 (84.6)	93 (68.4)	11 (8.1)	88 (64.7)	24 (17.6)	41 (30.1)
Private practice	156 (95.7)	155 (95.1)	98 (60.1)	25 (15.3)	158 (96.9)	151 (92.6)	120 (73.6)	33 (20.2)	56 (34.4)	50 (30.7)	34 (20.9)
Other	30 (100.0)	30 (100.0)	23 (76.7)	6 (20.0)	30 (100.0)	30 (100.0)	20 (66.6)	4 (13.3)	13 (43.3)	8 (26.7)	9 (30.0)
<b>p-value</b>	0.44	0.05	<0.001 <sup>a, b</sup>	0.001 <sup>a, b</sup>	0.623	0.205	0.061	0.053	<0.001 <sup>a, b</sup>	0.058	0.136
<b>Work Position</b>											
University professor	23 (100.0)	23 (100.0)	14 (60.9)	4 (17.4)	23 (100.0)	23 (100.0)	22 (95.7)	0 (0.0)	14 (60.8)	8 (34.8)	13 (56.5)
Chief physician	33 (100.0)	33 (100.0)	18 (54.5)	17 (51.5)	33 (100.0)	31 (93.9)	27 (81.8)	0 (0.0)	16 (48.5)	8 (24.2)	12 (36.3)
Senior physician	94 (92.2)	95 (93.1)	57 (55.9)	27 (26.5)	99 (97.1)	92 (90.2)	80 (78.4)	11 (10.8)	66 (64.7)	15 (14.7)	25 (24.5)
Resident	48 (90.6)	47 (88.7)	24 (45.3)	7 (13.2)	43 (81.1)	43 (81.1)	30 (56.6)	6 (11.3)	45 (84.4)	9 (17.0)	13 (24.5)
Private practice physician	183 (96.8)	182 (96.3)	118 (62.4)	24 (12.7)	185 (97.9)	178 (94.2)	143 (75.7)	39 (20.6)	67 (35.4)	58 (30.6)	44 (23.3)

p-value	0.662	0.079	0.101	<0.001 <sup>a, b</sup>	0.287	0.193	<b>0.028<sup>a, e</sup></b>	<b>0.005<sup>a, f</sup></b>	<b>&lt;0.001<sup>a, g</sup></b>	0.033 <sup>b</sup>	<b>0.021<sup>a, h</sup></b>
<b>Age</b>											
>40	242 (96.8)	238 (95.2)	150 (60.0)	52 (20.8)	240 (96.0)	226 (90.4)	196 (78.4)	27 (10.8)	112 (44.8)	72 (28.8)	74 (29.6)
<40	139 (92.7)	142 (94.6)	81 (54.0)	27 (18.0)	143 (95.3)	141 (94.0)	106 (70.7)	29 (19.3)	96 (64.0)	26 (17.3)	33 (22.0)
p-value	0.820	0.212	0.129	0.721	0.628	0.078	0.020 <sup>b</sup>	0.016 <sup>b</sup>	0.002 <sup>b</sup>	0.008 <sup>b</sup>	0.085
<b>Years of Practice</b>											
>10	178 (100.0)	177 (99.4)	116 (65.2)	47 (26.4)	177 (99.4)	166 (93.3)	143 (80.3)	17 (9.6)	83 (46.6)	62 (34.8)	49 (27.5)
<10	203 (91.4)	203 (91.4)	115 (51.8)	32 (14.4)	206 (92.8)	201 (90.6)	159 (71.6)	39 (17.6)	125 (56.3)	36 (16.2)	58 (26.1)
p-value	0.674	0.094	<b>&lt;0.001<sup>c</sup></b>	<b>0.015<sup>d</sup></b>	0.330	0.260	0.211	0.026 <sup>b</sup>	0.037 <sup>b</sup>	0.003 <sup>b</sup>	0.118

**Notes:** <sup>a</sup>Post-hoc testing. <sup>b</sup>No statistical significance in logistic regression. <sup>c</sup>Statistical significance maintained in logistic regression ( $p < 0.001$ , OR 0.32, 95% CI 0.17–0.61). <sup>d</sup>Statistical significance maintained in logistic regression ( $p = 0.008$ , OR 0.38, 95% CI 0.19–0.77). <sup>e</sup>Statistical significance maintained in logistic regression ( $p = 0.017$ , OR 4.79, 95% CI 1.30–17.3). <sup>f</sup>Statistical significance maintained in logistic regression ( $p = 0.007$ , OR 1.3, 95% CI 1.07–1.58). <sup>g</sup>Statistical significance maintained in logistic regression ( $p < 0.001$ , OR 0.7, 95% CI 0.57–0.85). <sup>h</sup>Statistical significance maintained in logistic regression ( $p = 0.014$ , OR 1.4, 95% CI 1.10–1.95). P-values maintaining statistical significance in binomial logistic regression are marked in bold.

## Discussion

HRQoL assessment is currently a key clinical parameter in both daily practice and research. Although in the clinical trial setting QoL issues have to be strictly investigated, there is still much concern about the use and degree of incorporation of HRQoL assessment in every day practice. Studies have demonstrated that, despite QoL data being considered important by physicians, collection of such data is actually limited due to shortage of time, complexity and length of questionnaires, and experience with QoL assessment.<sup>10</sup>

The present study investigated the degree of knowledge and attitude of Greek urologists towards HRQoL assessment in daily practice. The majority of participants considered evaluation of HRQoL to be valuable in the assessment, treatment, and follow-up of patients and thus characterized HRQoL assessment as important in their daily practice. These findings are in line with those of a German survey which reported that 86.5%, 94.8% and 95.4% of the participants recognised HRQoL assessment as a valuable tool in their clinical routine, with respect to patient initial evaluation, and follow-up after treatment, respectively.<sup>9</sup> A similar positive perception on the value of HRQoL was reported by an Italian study, conducted in a tertiary academic hospital, where more than 80% of participating physicians stated they would like to use QoL in daily practice.<sup>8</sup> In our study, despite the stated importance of HRQoL assessment, only 26.7% of Greek urologists reported they regularly use relevant questionnaires. In subgroup analysis, work position was found to influence this practice, with academic urologists being more likely to use validated instruments in their daily practice compared to physicians in private practice. Limited time was reportedly a substantial barrier to QoL assessment in both hospital and private practice settings.

Lack of use of validated questionnaires does not exclude conduction of a general evaluation of patients' QoL, which may be carried out in the clinical setting. Schmick et al reported that more than half (55.2%) of their study subjects, particularly those occupied in private practice, considered verbal assessment of HRQoL to be sufficient and thus preferable compared to validated QoL questionnaires.<sup>9</sup>

In our study, subgroup analysis revealed that work setting is an important factor influencing not only frequency of HRQoL assessment in daily practice, but also patients' reluctance to complete HRQoL questionnaires. The latter was more common in private practice, a finding which is difficult to interpret, as one would expect that patients would be more eager to respond in a private office environment compared to a busy outpatient hospital clinic. Additionally, the subgroup of urologists in-training was the main representative of the statement on lack of time for QoL assessment in every day practice, which is explained by their tight schedule. Furthermore, experienced (>10 years of practice) urologists considered the difference between HRQoL assessment and symptom rating as less apparent and characterised HRQoL assessment as unsuitable for every day practice. A potential explanation might be that experienced urologists feel more confident in grading patients' symptomatology and its impact on QoL, without the need for using detailed questionnaires.

The proportion of Greek urologists who have incorporated HRQoL questionnaires in their daily practice (26.7%) is substantially smaller than the one reported in the German survey, where more than 60% of the respondents were found to employ validated questionnaires to record HRQoL assessment, thus confirming the substantial role of these instruments in the German clinical routine; the authors had hypothesized that such a role would be achieved if more than 30% of participants would be found to exercise this practice.<sup>9</sup> Based on these findings, it is evident that HRQoL questionnaires do not currently consist an integral part of Urology practice in Greece, despite being perceived as important diagnostic tools by the majority of physicians. An underuse of HRQoL assessment (17%) was also reported among Dutch paediatricians.<sup>11</sup> Obstacles that reportedly prevented the use of QoL questionnaires were the extra time needed for assessment, the lack of validated questionnaires and poor knowledge about QoL documentation.<sup>11</sup>

Several studies have assessed the effect of using HRQoL questionnaires for both disease detection and patient management, with some discordant findings.<sup>12-14</sup> In general, use of HRQoL questionnaires has been shown to positively influence the interactive relationship between patients and physicians, including patient-physician communication. Detmar et al demonstrated that incorporating standardised HRQoL assessments in daily oncology practice facilitates discussion of HRQL issues and can increase physicians' awareness of patients' HRQL.<sup>15</sup> Similarly, a prospective study involving 28 oncologists and 286 cancer patients, reported that routine HRQoL assessment in individual patients had

a positive effect on patient-physician communication and resulted in better HRQoL and emotional functioning.<sup>16</sup> These findings undoubtedly indicate a significant role of regular HRQoL assessment in patient care.

Our study was limited by the use of a non-validated questionnaire as well as by response bias, due to the fact that respondents might have been more interested in participating than non-respondents.

## Conclusion

This is the first study providing a detailed view of the attitude of Greek urologists towards use of HRQoL assessment in their daily practice. Collectively, our results indicate that HRQoL assessment is well-perceived by Greek urologists, although it has yet to achieve a substantial degree of integration in their daily practice, more commonly due to time constraints and informal symptom rating.

## Funding

The authors did not receive any funding for this study.

## Disclosure

Panagiotis J Vlachostergios and Vassilios Tzortzis jointly supervised this study. The authors report no conflicts of interest related to this work.

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