Health-Related Quality of Life, Treatment Satisfaction, and Work Productivity for Patients With Advanced Renal Cell Carcinoma in a Chart Review Across Six Countries

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Disclosures

• Employee of Medical Data Analytics, paid by Bristol-Myers Squibb to design and conduct this study
Introduction

• In 2012, kidney cancer accounted for 3.4% of cancer diagnoses (n = 115,252) and 2.8% of cancer deaths (n = 49,025) in Europe.

• Patients with advanced RCC (aRCC) often require >1 line of therapy.

• While the clinical impact of multiple lines of therapy has been reported elsewhere, the humanistic burden associated with aRCC for patients treated with ≥2 lines of therapy is not well understood.

Objective

- To assess patient-reported outcomes (PROs) among patients in six countries with aRCC who are currently being treated with second or later line of therapy, including measures of:
  - Health-related quality of life (HRQoL)
  - Functional status
  - Treatment satisfaction
  - Work productivity
Study design and assessments

**Eligibility**
- Patients identified through their treating physicians
- Adults diagnosed with aRCC between January 1, 2010, and December 31, 2014
- Received second or later line of therapy
- Alive and on systemic therapy
- Ineligible if they were enrolled in a cancer treatment–related clinical trial since aRCC diagnosis

**HRQoL assessments**
- EuroQol EQ-5D (EQ-5D-3L)
- EQ-5D VAS (visual analog scale)
- Functional Assessment of Cancer Therapy-General (FACT-G)
- Functional Assessment of Cancer Therapy–Kidney Symptom Index (FKSI-19)
- Cancer Therapy Satisfaction Questionnaire (CTSQ)
- Work Productivity and Activity Index (WPAI)

**Study design:** Multicountry, multisite, observational, retrospective medical chart review with a survey to collect PROs in Brazil, Canada, France, Italy, Spain, and the United States
## Study cohort

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Total (N = 537)</th>
<th>United States (n = 151)</th>
<th>Brazil (n = 103)</th>
<th>France (n = 94)</th>
<th>Spain (n = 84)</th>
<th>Italy (n = 75)</th>
<th>Canada (n = 30)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>60%</td>
<td>50%</td>
<td>55%</td>
<td>72%</td>
<td>65%</td>
<td>64%</td>
<td>70%</td>
</tr>
<tr>
<td>Mean age</td>
<td>61 yrs</td>
<td>59 yrs</td>
<td>57 yrs</td>
<td>65 yrs</td>
<td>62 yrs</td>
<td>63 yrs</td>
<td>67 yrs</td>
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<tr>
<td>Year of aRCC diagnosis</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>2010</td>
<td>5%</td>
<td>2%</td>
<td>1%</td>
<td>10%</td>
<td>12%</td>
<td>7%</td>
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<tr>
<td>2011</td>
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<td>20%</td>
<td>0%</td>
<td>10%</td>
<td>8%</td>
<td>20%</td>
<td>0%</td>
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<tr>
<td>2012</td>
<td>15%</td>
<td>20%</td>
<td>2%</td>
<td>6%</td>
<td>20%</td>
<td>31%</td>
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<tr>
<td>2013</td>
<td>28%</td>
<td>21%</td>
<td>48%</td>
<td>20%</td>
<td>30%</td>
<td>19%</td>
<td>37%</td>
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<tr>
<td>2014</td>
<td>41%</td>
<td>37%</td>
<td>50%</td>
<td>54%</td>
<td>30%</td>
<td>24%</td>
<td>63%</td>
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<tr>
<td>Stage at aRCC diagnosis</td>
<td></td>
<td></td>
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<tr>
<td>III</td>
<td>34%</td>
<td>46%</td>
<td>37%</td>
<td>35%</td>
<td>23%</td>
<td>28%</td>
<td>0%</td>
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<tr>
<td>IV</td>
<td>66%</td>
<td>54%</td>
<td>63%</td>
<td>65%</td>
<td>77%</td>
<td>72%</td>
<td>100%</td>
</tr>
<tr>
<td>Current systemic line of therapy for aRCC</td>
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<tr>
<td>Second line</td>
<td>64%</td>
<td>50%</td>
<td>83%</td>
<td>62%</td>
<td>74%</td>
<td>44%</td>
<td>100%</td>
</tr>
<tr>
<td>Third or later line</td>
<td>36%</td>
<td>50%</td>
<td>17%</td>
<td>38%</td>
<td>26%</td>
<td>56%</td>
<td>0%</td>
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</tbody>
</table>
Mean summary HRQoL scores by country and line of therapy

EQ-5D index
(Range: -0.11 to 1; 0 = death)
MID = 0.084

EQ-5D VAS
(Range: 0–100)
MID = 7–10

FACT-G total
(Range: 0–108)
MID = 6–7

Self-reported population health

MID, minimally important difference

Mean summary HRQoL scores by country and line of therapy

**FKSI-19 total**
(Range: 0–76)
MID = 3–5¹

**CTSQ satisfaction**
(Range: 0–100)
MID = 6–7³

**WPAI productivity loss**
(Range: 0–100)
MID = 5⁵

EQ-5D-3L and FKSI-19 PRO domain scores for all countries

**EQ-5D-3L**

- Mobility: 53.1
- Self-care: 44.1
- Usual activities: 63.5
- Pain/discomfort: 70.6
- Anxiety/depression: 64.2

**FKSI-19 Domains**

- Symptoms Physical (Range: 0–48): 31.1
- Symptoms emotional (Range: 0–4): 1.9
- Treatment side effects (Range: 0–12): 8.5
- Functional well-being (Range: 0–12): 5.0
- Total score: 46.5
CTSQ, WPAI, and FACT-G PRO domain scores in all countries

**CTSQ Domains (Range: 0–100)**

- Expectations of therapy: 58.1
- Feelings about side effects: 49.3
- Satisfaction with therapy: 64.7

**WPAI Score (Range: 0–100)**

- Absenteeism: 31.1
- Presenteeism: 37.7
- Activity impairment: 51.4
- Overall work productivity: 50.1

**FACT-G Domain Score (Range: 0–28)**

- Physical well-being: 18.3
- Social/family well-being: 17.4
- Emotional well-being: 13.7
- Functional well-being: 11.8
- Total score: 61.2
Generalized linear models for FACT-G score

Red variables are significant
mTOR, mammalian target of rapamycin; TKI, tyrosine-kinase inhibitor
Conclusions

• There is a substantial humanistic burden on patients with aRCC, associated with low treatment satisfaction and decreased work productivity
• The QoL scores based on PROs were lower than US norms. The scores were higher in patients with two versus three lines of therapy in most countries except Brazil
• The introduction of new treatment options with increased effectiveness and improved adverse event profiles may help achieve significant improvements in HRQoL, treatment satisfaction, and productivity