Cost Analysis of an Initial Observation Approach in Metastatic Renal Cell Carcinoma

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INTRODUCTION

• Prospective study of 52 metastatic renal cell carcinoma (mRCC) patients

• Median time on observation - 14.1 months (95% C.I. 10.6-19.3)

• Conclusion: A subset of mRCC pts can be safely observed for a period of time before starting systemic therapy

• Is initial observation associated with decrease in health care cost compared to immediate systemic therapy?

Rini et al., ASCO 2014, abst 4520
METHODS

• 17 patients from the observation study and control mRCC patients who received immediate sunitinib therapy matched for following:
  ▪ Age (at start of observation/systemic therapy)
  ▪ Gender
  ▪ Performance status
  ▪ Heng risk criteria
  ▪ Length of follow up

• Radiographic assessment for observation patients at baseline, every 3 months for year 1, every 4 months for year 2, then every 6 months thereafter

• Radiographic assessment for immediate therapy patients at baseline, and generally every 2 cycles
METHODS

• Primary Outcome – Relative reduction in costs associated with observation compared to active therapy.
  ▪ Outpatient Cost reduction (includes associated laboratory and imaging expenses)
  ▪ Inpatient cost reduction
  ▪ Total cost reduction (Inpatient + Outpatient)

• Comparison between the 2 groups by the Wilcoxon signed rank test

• Excluded from Final Analysis
  ▪ Non mRCC-related encounters
  ▪ Drug Cost
## Results

<table>
<thead>
<tr>
<th></th>
<th>Observation group</th>
<th>Control (therapy) group</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outpatient visits</td>
<td>17 (range, 6-39)</td>
<td>19 (range, 4-59)</td>
<td>0.47</td>
</tr>
<tr>
<td>Inpatient admissions</td>
<td>1 (range, 0-6)</td>
<td>1 (range, 0-5)</td>
<td>1.0</td>
</tr>
</tbody>
</table>
Relative Cost Reduction With Observation

- **Outpatient**
  - Treatment: 100%
  - Observation: 69.4%

- **In-patient**
  - Treatment: 100%
  - Observation: 82.8%

- **Total**
  - Treatment: 100%
  - Observation: 78.1%
CONCLUSION

• Outpatient, inpatient and overall costs are decreased with and initial observation strategy compared to immediate systemic therapy.
  – The difference was not statistically significant perhaps due to small sample size

• Exploratory analysis with a larger sample size and/or longer follow up might shed more light into these diverging treatment strategies.