Purpose/Objectives

- To evaluate correlations between observer (physician) versus patient-reported outcomes (ObsROs and PROs) among gynecological cancer patients receiving external beam radiation.

Materials/Methods

- Concurrent assessments of Common Terminology Criteria for Adverse Events (CTCAE v4), and PRO CTCAE questionnaires were acquired.
  - during radiation oncology clinic visits from week1 to week5 (July 2017 to January 2018)
  - for cervical and endometrial cancer patients
- ObsROs
  - graded by observers
- PROs
  - captured via electronic tablets
- Gastrointestinal toxicities
  - Anorexia
  - Nausea
  - Vomiting
  - Diarrhea
- Gastrointestinal toxicities
  - Urinary incontinence
  - Urinary frequency
- A Pearson’s correlation was used to determine the relationship between ObsROs and PROs.

Results

- Of the 27 patients treated, 27 had ObsROs, and 23 had concurrent PROs. The capture efficiency over this 6 month trial period was 85%.
- The median age at diagnosis was 61 years old (22-77 years old). The median total prescription radiation dose was 45Gy (28-45 Gy). 15 patients had pelvis and 8 had extended fields to paraaortic lymph nodes treatment.

Fig. 1. Bland and Altman plots to describe agreement between ObsRO and PRO for (a) anorexia and (b) urinary incontinence.

The x axes indicate the average of ObsRO and PRO. The y axes indicate difference between ObsRO and PRO. Dots = group of patients
(a) Anorexia toxicity agreement was high and stable
(b) Urinary toxicity agreement was high when absent but declined as toxicities increased. In (b), most disagreement was due to lower severity by ObsRO.

<table>
<thead>
<tr>
<th></th>
<th>correlation coefficient</th>
<th>P-value</th>
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</thead>
<tbody>
<tr>
<td>Anorexia</td>
<td>0.88</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Nausea</td>
<td>0.83</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Vomiting</td>
<td>0.87</td>
<td>&lt;.0001</td>
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<tr>
<td>Diarrhea</td>
<td>0.65</td>
<td>0.0004</td>
</tr>
<tr>
<td>Urinary incontinence</td>
<td>0.56</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Urinary frequency</td>
<td>0.64</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

- For the GI toxicities management, 19 patients (82%) received bowel movement medications while the remaining 4 patients tolerated well without need for intervention.

- For GU toxicities management, 3 (13%) patients received urinary symptom treatment.

Conclusions

- Agreement among ObsROs and PROs appears to be stronger in GI than in GU outcomes during the treatment.
- GI toxicities might be more easily observed and also assessed more thoroughly due to the ease of intervention with existing medications.
- GU toxicities may be less easy to observe and less amenable to treatment, and therefore, remain underreported by the healthcare team.
- Healthcare providers may consider PROs in the future to better measure and monitor symptoms and direct therapeutic interventions for patients receiving pelvic radiation therapy.