ASTRO COVID-19 Practice Response Survey: Updated Results from Three Waves of Data Collection

David Schwartz, MD

University of Tennessee Health Science Center
Disclosures

• Employer: University of Tennessee Health Science Center, Department of Radiation Oncology

• I have no relevant conflicts of interest to disclose.

• Data reported on behalf of the American Society of Radiation Oncology (ASTRO) in collaboration with the University of Tennessee Health Science Center (UTHSC)
Study Design

- Web-based survey of leaders from academic and community practices.
- To our knowledge, this is only longitudinal U.S. specialty COVID-19 practice survey.

Longitudinal Design (3 Timepoints)

- **Timepoint 1**
  - April 16-30
  - 222 responses (43%)

- **Timepoint 2**
  - April 30-May 14
  - 156 responses (30%)

- **Timepoint 3**
  - June 11-25
  - 159 responses (31%)
The Good News

- 100% of radiation oncology networks/departments remained open during the pandemic.
- Only 6% closed a satellite clinic to centralize services.
- Nearly all practices (97%) increased and implemented measures to reduce transmission risk for patients and staff.
Infection Control

- Patients did their part—adoption of masking grew briskly across time.
Patient Visits

• The vast majority of sites experienced delays in referrals (76%) and/or patient treatment (92%) in April, in keeping with lock-down events and guidelines.

• Scheduling of new patients resumed over time, consistent with national re-opening, though not to pre-pandemic levels.
Treatment Delays

- In line with expert guidelines, most common treatment delays were for early-stage, lower-risk disease. These delays decreased with each survey.
The Challenges

• 80% sites reported shortages of COVID-19 resources; this continued through June.
  • PPE (masks, gowns, gloves)
  • Medical-grade hand sanitizer
  • COVID-19 test swabs

Practices Experiencing Resource Shortages

<table>
<thead>
<tr>
<th></th>
<th>Timepoint 1</th>
<th>Timepoint 2</th>
<th>Timepoint 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>78%</td>
<td>70%</td>
<td>65%</td>
<td></td>
</tr>
</tbody>
</table>
Fewer Patient Visits

• More than 8 in 10 U.S. radiation oncology practices experienced declines in patient volume due to the pandemic

• Roughly half of the practices also reported staffing shortages due to reduced patient volume

Has the COVID-19 pandemic led to a decline in patient volume at your practice?

- Yes:
  - Timepoint 1 (n=222): 85%
  - Timepoint 2 (n=156): 86%
  - Timepoint 3 (n=159): 83%

- No:
  - Timepoint 1 (n=222): 15%
  - Timepoint 2 (n=156): 14%
  - Timepoint 3 (n=159): 17%
Financial Hardship

- Over 2/3 practices reported at least 10-30% revenue loss.
- About 10% practices reported high-threat losses.

**Estimated Practice Revenue Loss Due to the COVID-19 Pandemic**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Timepoint 1 (n=189)</th>
<th>Timepoint 2 (n=133)</th>
<th>Timepoint 3 (n=131)</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>0%</td>
</tr>
<tr>
<td>11-20%</td>
<td>12%</td>
<td>24%</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td>21-30%</td>
<td>31%</td>
<td>34%</td>
<td>32%</td>
<td>0%</td>
</tr>
<tr>
<td>31-40%</td>
<td>43%</td>
<td>11%</td>
<td>16%</td>
<td>0%</td>
</tr>
<tr>
<td>41-50%</td>
<td>12%</td>
<td>10%</td>
<td>9%</td>
<td>0%</td>
</tr>
<tr>
<td>More 51%</td>
<td>12%</td>
<td>11%</td>
<td>7%</td>
<td>0%</td>
</tr>
</tbody>
</table>
Conclusions

• Patient access to radiation treatment was fully sustained.
• Practice responses were rapid, flexible, and data-driven. These were maintained and refined despite financial headwinds.
• Pandemic supply chain shortfalls were broadly felt.
• The current “3rd U.S. surge” lends a unique opportunity for our field to lead the way towards studying long-term pandemic impact and health system responses.