**Purpose/Hypothesis**

- Efficient preparation of multidisciplinary tumor boards (MTB) is key for optimal patient outcome.
- Pathologists contribute significant amounts of time in MTB case preparation and play critical roles in optimal cancer treatment.
- This study evaluated whether digital technologies can aid pathologists in case preparation for MTBs.

**Materials/Methods**

- A prospective IRB approved cohort study was undertaken to examine the impact of the NAVIFY® Tumor Board on the Ear and Throat (ENT) MTB at University of Missouri Health Care.
- Pre- vs. post-NTB case preparation time was compared.
- NAVIFY® Tumor Board (NTB) is a cloud-based workflow product that integrates with the hospital EMR and displays relevant aggregated data into a holistic patient dashboard.
- Student’s t-test were conducted in cases where the normality assumption are met; Mann-Whitney test otherwise.

### Results

**Table 1: Summary of the pathology residents (PRs) preparation of ENT MTBs for pre- & post-NTB implementation**

<table>
<thead>
<tr>
<th>ENT Tumor board</th>
<th>PRE-NAVIFY®</th>
<th>POST-NAVIFY®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of meetings</td>
<td>11</td>
<td>25</td>
</tr>
<tr>
<td>Number of patient cases</td>
<td>115</td>
<td>293</td>
</tr>
<tr>
<td>Total time in mins</td>
<td>2,343</td>
<td>4,562</td>
</tr>
<tr>
<td>Mean (SD) in mins</td>
<td>20.4 (9.44)</td>
<td>15.6 (6.45)</td>
</tr>
<tr>
<td>Median (IQR) in mins</td>
<td>20.8 (9.85)</td>
<td>15.3 (7.62)</td>
</tr>
<tr>
<td>Min (mins)</td>
<td>0.5</td>
<td>7</td>
</tr>
<tr>
<td>Q1 (mins)</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Q3 (mins)</td>
<td>26</td>
<td>19</td>
</tr>
<tr>
<td>Max (mins)</td>
<td>35</td>
<td>34</td>
</tr>
</tbody>
</table>

**Figure 1: PRs preparation time decreased for pre- vs. post-NTB**

- Time preparation for 36 MTBs (408 cases) were evaluated: 11 (115 cases) in pre-NAVIFY® and 25 (293 cases) in post-NAVIFY®.
- Overall PRs spent 115 hours (6905 mins) in preparing all the cases (Table 1).
- Data showed PRs average meeting preparation time per-case significantly decreased from 20.4 (SD = 9.4) mins to 15.6 (SD = 6.5) mins, representing a 24% reduction in time (p-value = 0.04).
- A reduction in variance (SD & IQR) for time preparation was also observed.
- Benefits were sustained and became more evident over time (Figure 1).

**Clinical Relevance**

- The introduction of the NAVIFY® Tumor Board could lead to multi-layer benefits:
  - **Standardized** workflows and reduced pathologists workload
  - Improved **timely discussion of treatment decisions** in a multidisciplinary setting
  - Improved **patient outcomes and experience**

**Conclusion**

- Introduction of the NTB reduced time spent by PRs preparing for ENT MTBs.
- The observed reduction in variance for time preparation suggests that the NTB solution standardized the process for MTB preparation.
- Observed benefits were sustained and became more evident over time.