

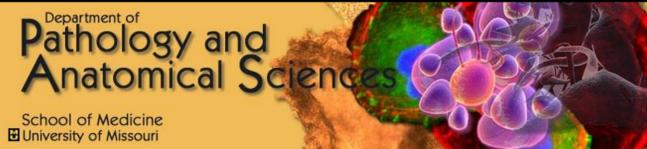


The Impact Of A Digital Solution On Tumor Board Preparation Time For Pathology Residents



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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

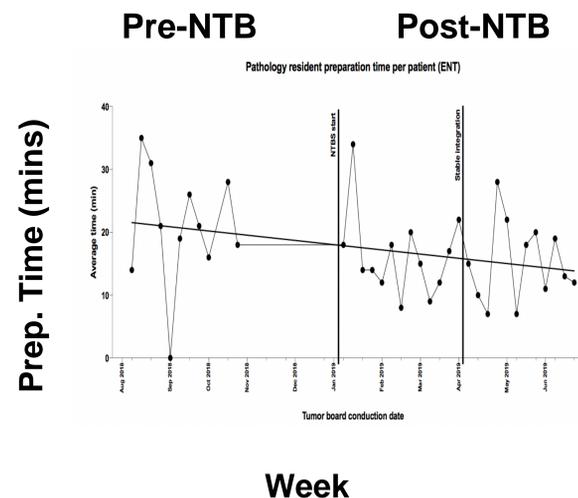
Materials/Methods

- 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.

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

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

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



PRs: Pathology residents
 SD: Standard deviation
 IQR: Interquartile range
 Min: Minimum
 Max: Maximum

Results

- 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).

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

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**