

# Evaluation of whole slide imaging for frozen intraoperative consultations at a large academic institution

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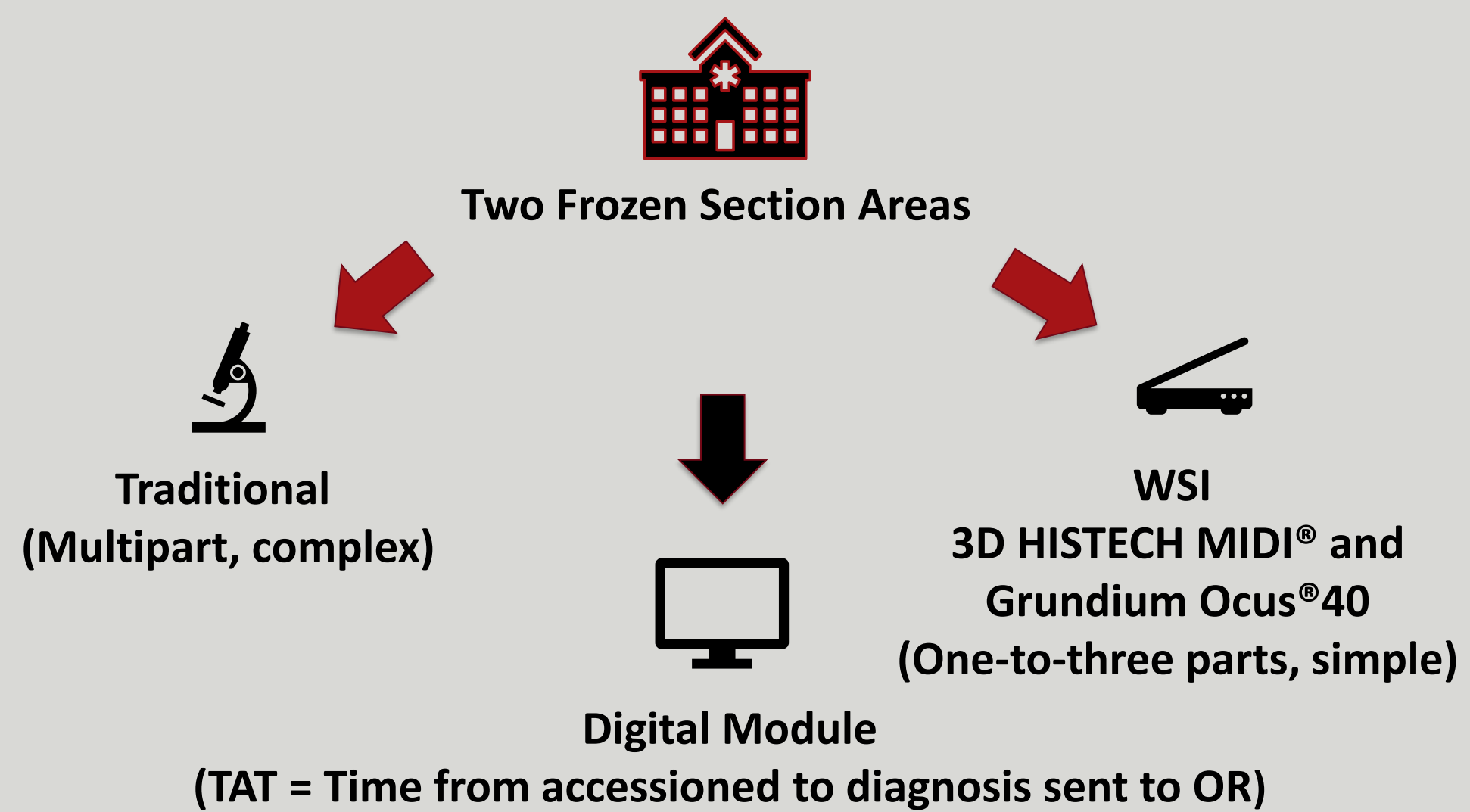
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## BACKGROUND

- Telepathology is increasingly utilized in frozen consultations and has implications for geographically remote practices and institutions with large infrastructure
- Static image, dynamic microscopy, and scanned whole slide imaging (WSI) are common telepathology modalities with different strengths and limitations
- WSI is a common, reliable, and efficient tool based on small retrospective case series and has not been demonstrated in large academic institutions or in the setting of a fully digital frozen consultation workflow

## MATERIALS AND METHODS

Retrospective review of traditional and WSI-based frozen consultations, using turnaround time (TAT) data retrieved from digital frozen module (Sept. 2022 to Sept. 2023)

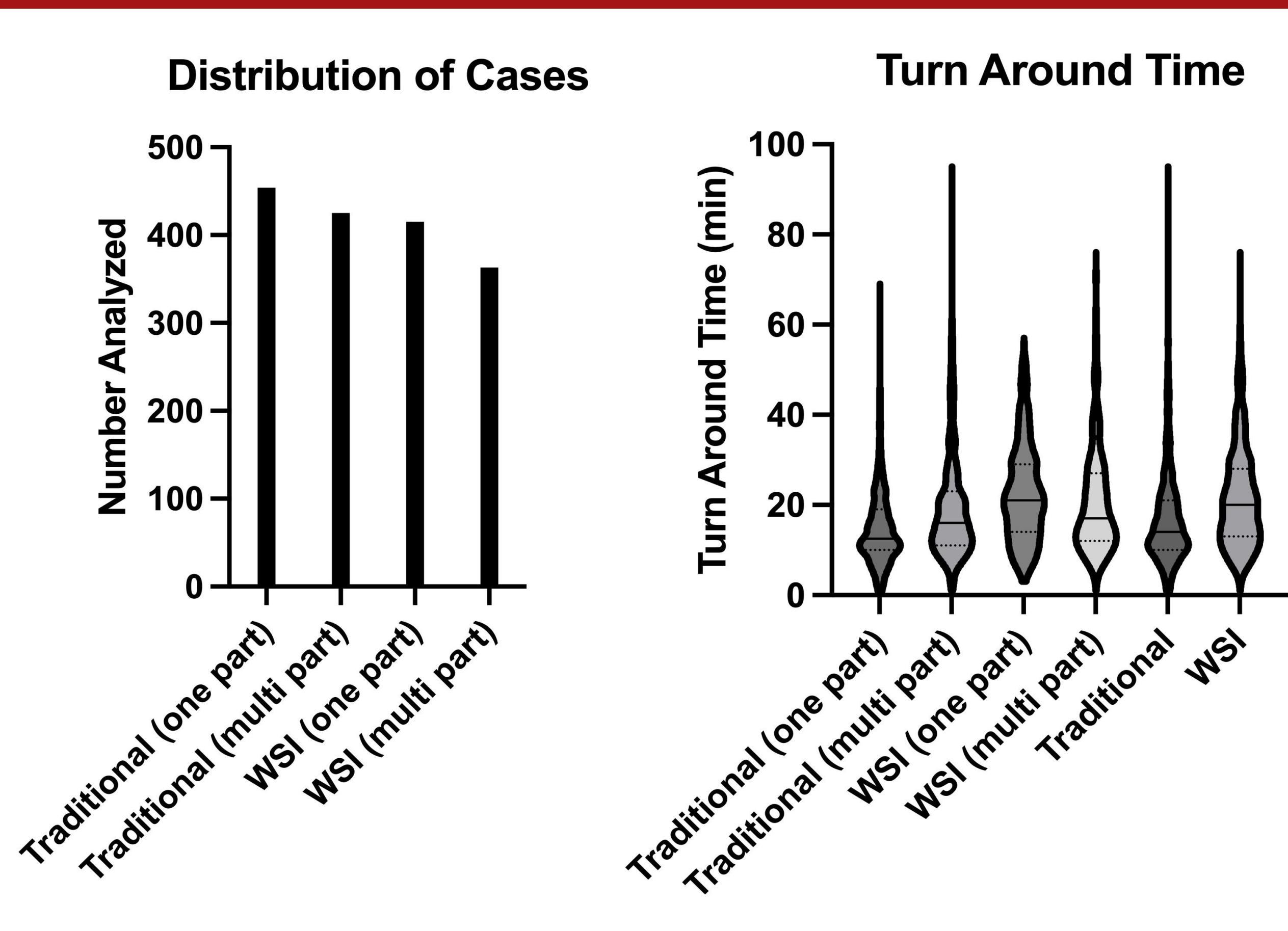


## RESULTS

**Traditional Mean TAT**  
 One part: 14.6 ± 8.3 min.  
 Multi part: 19.2 ± 11.8 min.

**WSI Mean TAT**  
 One part: 22.5 ± 10.9 min.  
 Multi part: 20.9 ± 12.2 min.

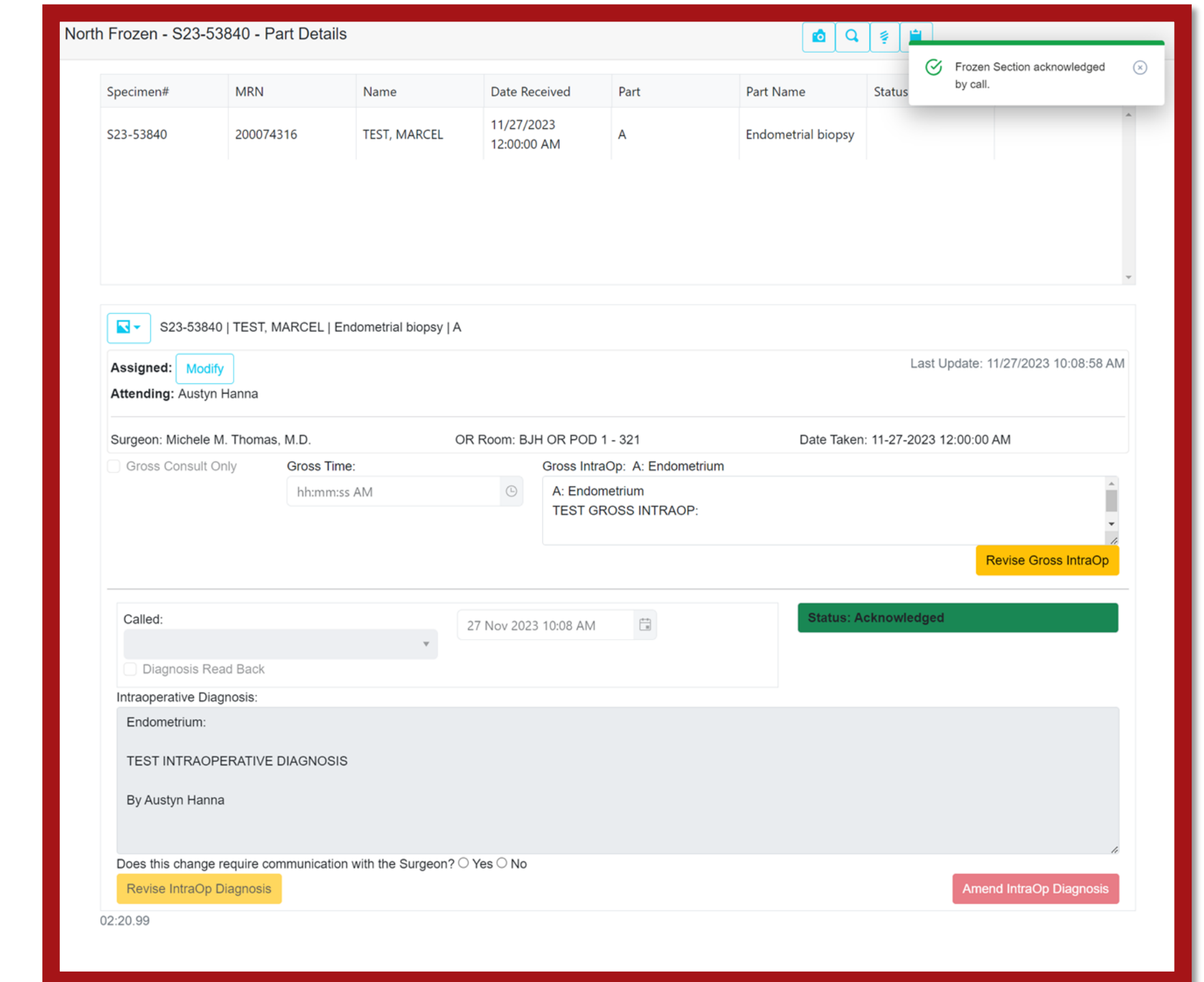
The traditional approach has significantly lower TAT compared to the WSI-based approach (p<0.0001) using Kruskal-Wallis test.



## ACKNOWLEDGEMENTS

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## FROZEN SECTION DIGITAL MODULE



## CONCLUSIONS

- While the traditional approach to frozen consultation shows a lower TAT compared to WSI (p<0.0001), the difference between modalities is not clinically significant
- WSI-based approach with an integrated digital module may benefit institutions with widespread infrastructure and address challenges such as geographic isolation, need for subspecialty expertise, and high throughput.
- As WSI becomes more widespread, adaptable, and efficient, institutions should consider incorporating this modality into frozen consultation workflows