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Education. Innovation & Improved Patient Care. Advocacy.
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Association for Molecular Pathology Publishes Best Practice Guidance for Designing and Utilizing Slice Testing Approach for Diagnostics

New expert consensus report authored by representatives from AMP, CAP, and NSGC

ROCKVILLE, Md. – Dec. 20, 2023 – The Association for Molecular Pathology (AMP), the premier global molecular diagnostic professional society, today published a report that explores specific considerations for a slice testing strategy for diagnostics, including gene selection, analytic performance, coverage, quality, and interpretation. The report offers expert consensus recommendations and results from an AMP-sponsored survey that compares a slice testing approach with traditional static gene panels and comprehensive exome analysis. The manuscript, "[Slice Testing - Considerations from Ordering to Reporting: A Joint Report of the Association for Molecular Pathology, College of American Pathologists, and National Society of Genetic Counselors](#)," was released online ahead of publication in *The Journal of Molecular Diagnostics*.

As the number of genes associated with various germline disorders continues to grow, it is becoming more difficult for clinical laboratories to maintain separate assays for interrogating disease focused gene panels. To help overcome this challenge, laboratories are employing a slice testing strategy that utilizes capture backbone to analyze data specific to a set of genes. Similar to traditional disease focused panels, a slice test sequences a broad set of genes but limits the interpretation to a predetermined list of relevant genes. This approach combines the advantages of high-quality gene panels with the flexibility and broad scope of exome sequencing.

"As with any emerging clinical methodology, information on slice testing is limited. This new report summarizes the current collective state of knowledge and assists clinical laboratory professionals with best practice guidance for test design and utilization," said Susan Hsiao, MD, PhD, 2023 AMP Clinical Practice Committee Chair and Associate Professor of Pathology and Cell Biology at Columbia University Vagelos College of Physicians and Surgeons. "AMP will continue to work together with organizations like CAP and NSGC to monitor real-world evidence, share our members' expertise, and provide the broader laboratory community with a menu of guideline resources to help improve clinical practice."

The AMP Whole-Exome Sequencing Standards Working Group was established to survey current laboratory practice and develop initial best practice guidance for germline slice testing using exomes. The recommendations were informed by a directed review of existing scientific literature, observational survey data, and the professional experience of the Working Group's subject matter experts. The report outlines the capabilities, limitations, and considerations when using slice testing for laboratories and clinical providers. These expert consensus recommendations are meant to be a reference guide and not to be interpreted as a restrictive list.

"Slice testing is a relatively new practice that enhances flexibility in germline genetic testing for clinical laboratories and providers," said Rong Mao, MD, Chair of the AMP Whole-Exome Sequencing Standards Working Group and Medical Director of Molecular Genetics and Genomics at ARUP Laboratories. "AMP will continue to reassess and modify our best practice guidance as new data and/or reference materials become available."

To read the full manuscript, please visit <https://doi.org/10.1016/j.jmoldx.2023.11.008>.

ABOUT AMP

The Association for Molecular Pathology (AMP) was founded in 1995 to provide structure and leadership to the emerging field of molecular diagnostics. AMP's 2,900+ members practice various disciplines of molecular diagnostics, including bioinformatics, infectious diseases, inherited conditions, and oncology. Our members are pathologists, clinical laboratory directors, basic and translational scientists, technologists, and trainees that practice in a variety of settings, including academic and community medical centers, government, and industry. Through the efforts of its Board of Directors, Committees, Working Groups, and Members, AMP is the primary resource for expertise, education, and collaboration in one of the fastest-growing fields in healthcare. AMP members influence policy and regulation on the national and international levels, ultimately serving to advance innovation in the field and protect patient access to high-quality, appropriate testing. For more information, visit www.amp.org and follow AMP on X: [@AMPath](https://twitter.com/AMPath).

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