



Midwest Regional CAC at Children's Minnesota Improves Diagnostic Quality with VisualStrata[®]

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Challenge

Midwest Regional Children's Advocacy Centers (MRCAC) at Children's Minnesota facilitates and manages expert peer review processes for specialty pediatric services across the nation. In addition, MRCAC hosts an anonymous expert review program for child abuse medical providers to improve diagnostic accuracy and photo documentation of medical evaluations.

MRCAC was looking for a secure, HIPAA-compliant technology solution to serve as the collaboration and peer review platform to support its anonymous expert review process, as well as to collect data to be used for ongoing training, education, and quality assurance. Regular case review and expert review leads to increased diagnostic accuracy and quality of examinations where misclassification can have grave consequences for children and families.

MRCAC needed a solution that could easily support the remote peer review needs of multiple geographically dispersed institutions.

Solution

MRCAC evaluated software applications to meet the remote collaboration, peer review and training needs of various providers and their patients. With its secure, web-based architecture and workflow-centric approach, VisualStrata's ability to enable specialty-remote peer review fit the organization's goal to improve the quality and timeliness of diagnoses through collaboration.

“ This platform has allowed us to bridge the gap between rural providers and national experts in the field of child abuse, breaking down silos and leveling the playing field for quality care for all children impacted by abuse. ”

VisualStrata improves the diagnostic process by providing clinicians with secure case collaboration tools for remote peer review and expert consultation.

Case submissions are entered into VisualStrata through a HIPAA-compliant server via MRCAC's myCasereview and myQI portals. They are reviewed for the clinician's diagnostic impression and conclusion. VisualStrata provides a secure means for storing, processing and sharing accumulated knowledge as well as accessing and auditing case information for peer review and expert analysis.

Results

For this study, data from 432 clinicians who had submitted cases was reviewed. Data was collected from all submitting clinicians and analyzed for trends and outcomes. The analysis included reviewing each diagnostic impression and the conclusions of the submitting clinician and the expert reviewer. All of the clinicians' data being examined was de-identified so there was no risk to patient health information (PHI).

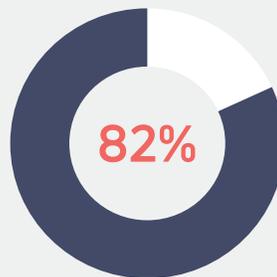
Clinicians who participated in the myCasereview and myQI portal programs, powered by VisualStrata, were found to improve their diagnostic accuracy over time. This improvement in diagnostic quality is driven by decreasing the incidence of misclassifications, avoiding false positives and improving overall case interpretation.

“This platform has allowed us to bridge the gap between rural providers and national experts in the field for quality care for all children impacted by abuse,” explains MRCAC Project Director Kori Stephens. “Many of our providers rely heavily on this system and have expressed gratitude for the honest and important feedback they’ve received to improve their practice. Having an easy, secure, on-line platform makes this best practice much more accessible to those who would otherwise be at a loss.”

It is important to note that an improvement in diagnostic accuracy and reduction in false positives can have a profound impact in some specialties where a child’s safety can be at risk with an incorrect diagnosis.

In addition to the clear clinical advantages of collaboration, peer review and expert analysis, VisualStrata provides additional areas of value too. For example, remote clinical sites often lack the resources to locally deploy and maintain hardware and software, making a web-based solution like VisualStrata particularly useful. Also, a centralized case repository promotes HIPAA compliance as patient information remains secure, private and accessible only to authorized users.

82% of myCaseReview medical providers indicate that...



the program has increased their diagnostic skill base.

Key VisualStrata Benefits

- Web-based, anywhere access and real-time visual dialog that speeds up the diagnostic and/or referral process
- HIPAA compliant (secure and private)
- Automated workflow supports collaboration
- Built-in checks to ensure valid information for reducing misdiagnosis and false positives
- Electronic reporting and email notifiers of pending cases queued for review
- Case material managed and stored in a database for medical reference, training and education

About the Authors

Kori Stephens, MPH serves as the project director for the Midwest Regional Children's Advocacy Center. She received her Master of Public Health in Maternal Child Health with an emphasis on child abuse and neglect from the University of Minnesota. Stephens has been involved in numerous national initiatives to improve systems involved in child abuse investigations. She is also a site review for the National Children's Alliance and serves on the Leadership Council of the Greater Minneapolis Crisis Nursery located in Minneapolis, MN.

Midwest Regional Children's Advocacy Center provides training, technical assistance and quality improvement activities to over 5,000 child abuse professionals annually. Its mandate is to promote and support widespread, consistent implementation of evidence-based practices and a multidisciplinary approach to child abuse investigation, assessment, intervention and prosecution. Its constituents include child abuse professionals, multidisciplinary teams, children's advocacy centers and chapters, and MRCAC services 196 children's advocacy centers in 12 midwestern states, and across the nation.

Patricia Goede, PhD is Vice President of Clinical Informatics at XIFIN, Inc., where she brings 22 years' experience developing biomedical imaging informatics solutions and technology to facilitate multi-modality and multispecialty image-based exchange, collaboration and management in distributed environments. Goede founded VisualShare and served as CEO until its acquisition by XIFIN in 2015. Previously, Goede was at the University of Utah where she pioneered a number of image, visualization and collaboration tools. She is the founder of the Electronic Medical Education Resource Group (EMERG), and as its director, established the Utah Center of Excellence for Electronic Medical Education. Goede holds an MS in Computational Visualization and a PhD in Biomedical Imaging Informatics.

XIFIN is a health information technology company that leverages diagnostic information to improve the quality and economics of healthcare. The XIFIN technology platform facilitates connectivity and workflow automation for accessing and sharing clinical and financial diagnostic data, linking healthcare stakeholders in the delivery and reimbursement of care.