

Patient-centric workflows increase operational efficiency and quality of care for health systems

- Managing the complexity of clinical workflows in healthcare calls for a systemic approach.
- Optimised workflows can help provide a clear care pathway and predictable outcomes for patients.
- This helps healthcare leaders drive greater operational efficiency and clinical confidence.

The ability to quickly access, synthesise, and share data in healthcare is essential. Inefficient clinical workflow processes compromise care collaboration and quality.

When healthcare is seen as an ecosystem — powered by optimised workflows, data informatics, and intuitive technology — healthcare providers have a more holistic and impactful view of the entire patient journey. By integrating operations and applying automation, artificial intelligence

(AI), and clinical expertise at critical junctures in the workflow, healthcare leaders can enable their clinicians with a more streamlined path to a confident diagnosis and provide greater value to patients.

Transforming data into actionable information

The radiology workflow, in particular, is extremely complex as it comprises an interconnected set of separate workflows. Every step of the imaging process is susceptible to delays, variability, and gaps in communication — which can be costly. According to recent data, 97% of radiology departments¹ in the UK are unable to meet reporting requirements within the contracted hours. And, a global survey shows that 23% of radiology techs' work is inefficient² and could be automated, by their own estimation.

At Children's Hospital & Medical Center, Omaha (CHMC) in the USA, leaders are focused on rethinking delivery of pediatric radiology services to optimise workflow and enhance the patient, family, and staff experience. Christopher Maloney, MD, PhD, executive vice president, chief clinical officer, and physician-in-chief of CHMC, says inefficiencies in workflow can lead to increased costs and length of stay for patients.



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Christopher Maloney

MD, PhD, EVP, chief clinical officer,
and physician-in-chief of CHMC

“Converting data into information is probably one of the things that is most important to move healthcare forward, however, it’s also the most difficult,” Maloney says.
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Four ways to optimize operational efficiency and increase clinical confidence



Automate workflows



Standardized care pathways



Smart utilization of resources



Integrated care

Maloney adds that the standardisation of care has the potential to decrease variation in workflows. And, optimising the standard of care allows for monitoring changes and its impact on outcomes through visualisation, dashboards, and pattern recognition through AI.

With Philips as a strategic partner, CHMC is bringing in tools that enable it to capture and process that data right at the point of care. Working together, CHMC was able to assess current and projected patient volume demands for the main campus and shift to a more cost-effective, decentralised, remote delivery of radiology services.

This reconfiguration included a more streamlined referral process, which was particularly complex for out-of-state patients requiring multiple imaging rescans and rounds of tests. It also validated the needs within CHMC's expansion and achieved 10% construction cost savings within the

radiology department by right-sizing through data validation and improved workflow.

Jerry Vuchak, CHMC's senior vice president and chief information officer, stresses how critical workflow optimisation is in healthcare to making sure that technology investments are maturing, invoking the full range of capabilities, and enabling staff to provide the best care possible. By understanding how clinicians use various technologies in the care setting, the IT team can make sure everything is available to them, digitised and integrated into one technology system.



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Jerry Vuchak
SVP and CIO, CHMC

“Technology is an enabler of better patient care, but technology alone cannot bridge that care gap,” Vuchak says. “Working with strategic partners helps us solve specific problems. We ask them how they can advance and integrate their technology to help us simplify our environment as much as possible and reduce costs.”

Streamlining workflows and integrating insights

With an estimated 43% increase in radiology exams³ with advanced modalities, there is greater need for sophisticated analysis tools, AI and automated insights to enable integrated radiology workflows. That is certainly the case in the imaging department at the Hospital Nuestra Señora del Rosario in Madrid, Spain where many specialised studies require the use of advanced visualisation tools for deeper analysis of results. Leaders there note the challenges of integrating these tools in a way that allows for seamless reading, collaboration, reporting, and sharing of results — without

hindering workflow productivity.

Working with Philips, Hospital Nuestra Señora del Rosario was able to create an all-in-one workspace fully integrated with the enterprise imaging platform and embedded in the diagnostic viewer, which increased efficiency. These collaborative capabilities improved the quality of reporting significantly and extended beyond the radiology department to help referring physicians better manage the course of treatment and improve the quality of care.

Increasing patient satisfaction scores

Improved workflow is also closely connected to patient satisfaction. GenesisCare, a private provider of oncology, cardiology, and respiratory care services in over 30 sites

in Australia as well as facilities in the United Kingdom and Spain,⁴ has seen first-hand the impact it can have. After growing rapidly over the past decade in Australia, GenesisCare

needed to revisit elements of workflows, facilities, and care coordination to improve the experience for patients and staff. GenesisCare leaders wanted to optimise the time to treatment and identify root cause of inconsistencies in care delivery and customer services leading to variability in patient engagement.

Working with Philips, GenesisCare co-created a patient-focused care strategy that evolved into a “Cancer Service of the Future.” As a first step, they conducted a thorough data analysis, followed by a series of interactive workshops with patients, national advocacy groups, and cross-functional staff to appraise the current flow of patients through the various treatment areas.

The results revealed data-driven insights around how processes could be improved to enhance patient progress through their treatment pathway, as well as ways to improve facility design elements as part of the patient journey. Armed with this combination of hard and soft data,

GenesisCare was able to implement enterprise-wide changes that quickly provided results. Within the first month of the engagement, patient satisfaction score (NPS performance) at the Wembley, Australia facility improved to 60%, and further improved to 84% in subsequent months.⁵

Many health providers have similar challenges. But improving healthcare collaboration and workflow efficiency can give staff more time with patients and ease the growing burden placed on clinicians. This creates more predictable and precise care for patients and greater clinical and operational efficiency for healthcare organisations.

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References and disclaimers:

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3. <https://www.itnonline.com/article/top-trend-takeaways-radiology-rsna-2020>
4. <https://www.genesiscare.com/us/about-us-our-vision-and-values/>
5. Results from case studies are not predictive of results in other cases. Results in other cases may vary.

