WHAT MORE INTELLIGENT IMAGING DATA MANAGEMENT MEANS TO HEALTHCARE LEADERSHIP TEAMS

FROST & SULLIVAN WHITEPAPER CHAPTER

DANIEL RUPPAR - CONSULTING DIRECTOR, HEALTHCARE & LIFE SCIENCES

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Introduction

If provider organizations' leadership teams are going to create the optimal environment to deliver on and reimagine healthcare, the various decision makers involved must invest in the right solutions to future-proof IT, applications, infrastructure, processes, and engagement practices. Such undertakings can be complex, given the range of clinical, financial, operational, and technological challenges and imperatives that must be considered for the enterprise-level strategy, including alignment with the institution's digital transformation roadmap. One of the most important goals of this journey is to embrace the approaches and innovations that create and support an optimal data foundation for myriad involved sources in both DICOM and non-DICOM formats.

Meeting Needs and Desires of Healthcare Leadership

A 2019 study published in the Journal of the American College of Radiology found that the lack of interoperability between different radiology IT systems leads to redundant imaging studies and increased costs. The study estimated that the cost of unnecessary imaging studies due to a lack of interoperability in radiology is $12 billion per year in the United States.[1] A 2019 survey from HIMSS found that only 24% of US healthcare organizations reported having a fully interoperable health IT ecosystem, suggesting that many organizations still struggle with data silos.[2]

Such challenges are top of mind to healthcare leadership, including hospital and health system C-suite and executives, and other administrators. Types of issues that keep the leadership team up at night include:

- Financial performance and revenue, including ways to monetize data

- Staff efficiency and effectiveness across clinical, operational, and administrative areas of the business

- Competitiveness and attractiveness of the organization for patient services and staff (including benefits from chosen and deployed applications and systems)

- Creating and embracing digital transformation strategy, including an effective data management strategy

Supporting Leadership Team Goals via Effective Medical Imaging Data Management

If a healthcare institution embraces appropriate data and information management principles for medical imaging, ramifications will impact clinical, financial, and administrative areas of the business. Best practice related to data governance is an organization-wide endeavor, including interdisciplinary teams, creating a culture that results in the security, availability, and reliability of data.[3] Leadership teams should avoid legacy data management approaches, centered on manual fixes and processes, as well as throwing bodies at the problem.

Ways to drive revenue via reduced denials, and improvements in IT-oriented revenue cycle approaches maximizing billing and coding are focus points today as part of attacking various financial pressures head-on. New revenue sources centric to the data monetization strategy are also an important growth opportunity for health systems. None of these can occur without smarter technology, including AI to address data management and potential use from structured and unstructured sources available. Better ways to capture revenue and bill from imaging has become an important part of solutions expanding in the market to help address these needs. Such undertakings require a more technology-oriented approach to mine imaging, reports, and other data to achieve.

According to the American College of Healthcare Executives, personnel shortages are the #1 hospital CEO concern.[4] Therefore, supporting the workforce, attracting and retaining staff, lowering burnout, and tightening provider engagement are top mandates for healthcare leaders, further expanded in focus since the COVID-19 pandemic. Staff and workforce considerations in imaging mean improving workflows, reducing manual tasks and points which are disruptive to clinical care (e.g., inconsistent hanging protocols, incorrect study routing), and having data and information (including relevant priors) readily available and correct when needed among other requirements. Radiologist time spent on non-image interpretative tasks (e.g., protocoling studies, administration, consultations, teaching, etc.) is only growing.[5] Healthcare leaders therefore must look for solutions that help reduce imaging-centric personnel time on non-clinical activities, given market forces also hitting now of imaging volume expansion, reimbursement pressures and RVU reductions, mandating revenue maximization from imaging and imaging service lines.

Through the use of AI, a more intelligent approach to data management can be deployed, overcoming challenges and aligning to the imperatives of healthcare leadership for their organizations. Healthcare leaders must ask themselves whether the organization has the right imaging data management approach to create the optimal foundation for their clinical and non-clinical goals.

Conclusion

With clean, standardized, anonymized, and quality imaging data, healthcare leadership teams can benefit from improvements to clinical, financial, operational, and technology results, impacting staff efficiency, workforce engagement, and downstream revenue. By effectively addressing data standardization and anonymization simultaneously, healthcare organizations can establish a strong foundation that enables them to maneuver with agility and scalability in an ever-changing operating environment.

Along this journey, healthcare leadership should consider the following when thinking about medical imaging data management practices:

Take stock of the various challenges your organization is facing with data management and medical imaging.

Understand steps and staff pain points related to areas including radiology workflows, use of point solutions, research requirements for imaging data utility for RWE, and current network performance.

Create strategic imperatives related to solution KPIs and desired ROI. Be sure to consider aspects of data standardization, automation, artificial intelligence, and security at the enterprise level.

Assess which approach is best in terms of efficiency, capacity reclamation, data foundation optimization, and long-term organizational sustainability.

Leverage a vendor that is innovative, adept at solving longstanding radiology challenges and enhancing data efficiencies, and client centric in terms of agreed-upon performance metrics.

Sources

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