



Case Study:

NuMantra's Medical Records Digitization with Hyperautomation Solution

Client Background

CynoCare Hospitals is a niche healthcare organization that offers cancer care and related treatment services to a vast number of patients. The organization was partially digitized with only a few of the departments like the front office, payrolls, and HR running on IT processes.

However, its documentation processes and records were largely manual and paper-based. The manual management of patient records had become time-consuming, and more staff were added each year to handle the increased workload. A bigger problem was inaccuracies, errors that impacted patient safety.

Therefore, the client's goal was to overhaul its document management process, align it with healthcare regulations, and optimize operational costs.



Problem Areas

CynoCare Hospitals experienced several issues that needed to be addressed:

- **Operational Inefficiency:** Access to patient data was slow, impacting decisions and treatments.
- **Data Security:** Manual records were subject to damage, loss, and unauthorized access.
- **Error-Prone Processes:** Manual data entry had inaccuracies, impacting treatment and patient safety.
- **Compliance Challenges:** New healthcare regulations demanded electronic record maintenance systems



NuMantra Hyperautomation solution

To address these challenges, NuMantra revolutionized record management at CynoCare Hospitals using its comprehensive Hyperautomation toolkit. The approach resulted in the following:

Intelligent Document Digitization: Using ML, OCR, and NLP technologies, records were quickly and accurately digitized.

Data Validation and Enrichment: By leveraging algorithms, extracted data was cross-verified with existing databases. This ensured robust error handling and filled information gaps effectively.

Contextual Data Integration: The solution leveraged RPA to integrate records with the EHR system. Context-aware algorithms used the following parameters - patient history, treatments, and specialties to complete the process.

Smart Data Analytics: Used Machine Learning and Predictive Analytics to analyze digitized data for patterns and trends. CynoCare will receive actionable insights based on this data to predict healthcare trends.

Data Metrics

- **Document Digitization Accuracy:** Improved accuracy from 80% < to 98% with automation
- **Efficiency:** Record access time reduced from 20 minutes to 2 minutes per patient record.
- **Data Security:** Integrity rate 100% data with DLT implementation
- **Cost Optimization:** Operational costs down to 30% due to automation and error reduction.



Benefits of the Hyperautomation Solution

- **Enhanced Efficiency:** Reduced record access time by 90%, leading to quicker patient care and streamlined workflows.
- **Data Accuracy:** Automation improved data accuracy, ensuring precise patient information and enhancing healthcare services.
- **Data Security:** Blockchain technology ensures tamper-proof, secure records, mitigating data breach risks.
- **Regulatory Compliance:** Automated compliance checks ensured adherence to healthcare regulations, preventing legal issues.
- **Cost Optimization:** Reduced operational costs significantly, contributing to substantial long-term savings.



Outcome

The notable results of deploying NuMantra's Medical Records Digitization for CynoCare Hospitals include the following:

- **Boosted efficiency:** CynoCare saw a significant reduction in the time needed to process patient records, improving overall healthcare delivery.
- **Organization-wide Compliance measures:** The hyperautomation solution also bolstered CynoCare's adherence to healthcare regulations, drastically minimizing the risk of non-compliance penalties.
- **Robust Security:** Finally, enhanced protection of patient data was achieved, ensuring records are safe from unauthorized access and breaches.



Conclusion

To summarize, NuMantra's Hyperautomation solution was transformative for CynoCare Hospitals, revolutionizing its previously manual record-keeping system. The implementation enhanced efficiency, drastically reducing record access time, and ensured impeccable data security and stringent regulatory compliance. The holistic upgrade led to a notable improvement in patient care, compliance adherence, and operational cost savings, exemplifying the power of digital transformation in healthcare.

