

emtelliPro[®] for Diagnostics

Unlock the Insights in Reports

The emtelliPro Natural Language Processing (NLP) engine creates structured data from the unstructured text of radiology, cardiology, and pathology reports. It uncovers deep insights into clinical and operational performance and enables analysis of cross-functional, multi-disciplinary data across all corners of the enterprise.

Next-Generation Technology

Process all types of medical text with high precision and recall, aided by deep learning models that parse confusing and ambiguous medical prose.



Extract, code, and categorize medical entities using standard and even custom ontologies (e.g. SNOMED, RadLex, MEDCIN, etc.)



Extract assertions within the medical text such as negation status, uncertainty, ambiguity, temporal references, and more



Extract relationships between terms such as qualifier values, measurements, experiencers, image references, and follow-up recommendations

Multi-disciplinary Timeline of Coordinated Care

Advanced data mining and clinical summary tools build a comprehensive timeline of procedures and diagnoses to provide a complete, unified, and contextually relevant view of the patient record.

Radiology

- Extract and correlate clinical insights from text reports to support chronic disease management and research
- Develop evidence-driven protocols for imaging appropriateness to support Choosing Wisely/CMS AUC/PAMA guidelines
- Develop clinical applications to improve the quality, safety, and efficiency of care

Cardiology

- Easily correlate multi-modality findings, measurements, and clinical indicators for complex cases and patients
- Accurately measure procedure times, inventory management, and associated costs
- Simplify and reduce the manual burden of registry reporting and accreditation

Pathology

- Reduce costs associated with duplicate or over-testing and unnecessary send-outs
- Simplify reporting to public health, state, and research bodies
- Correlate pathologic diagnoses with next-generation sequencing so that patients get the testing they need to qualify for advanced therapies

Next-Level Imaging Operations

emteLLiPro delivers deep insights into end-to-end imaging operations, enabling targeted optimization of workflow efficiency, quality, IT management, and associated costs enterprise-wide.



Optimize Workflow and Reduce Cost

- Gain a unified view of your organization's clinical and operational performance across imaging departments and specialties
- Execute evidence-driven continuous improvement programs that increase capacity and patient throughput, improve resource utilization, and reduce overall cost of care delivery



Elevate Quality

- Report upon peer review findings and discrepancies to create targeted improvement programs
- Proactively monitor follow-up recommendations to ensure timely adherence
- Expand and automate quality-based reporting to access value-based reimbursements and incentives (P4P, MACRA, MIPS)



Simplify IT Integrations

- Non-invasive, vendor-agnostic technology
- Flexible cloud-based or on-premise models
- Easy to configure and use
- Highly scalable, able to process millions of text-based reports daily on a single server instance
- Secure and HIPAA-compliant

Use Case: Tracking Follow-up Recommendations

emteLLiPro can identify follow-up recommendations in diagnostic reports from radiologists, pathologists, and cardiologists with high accuracy, and structure the data within. These follow-up recommendations contain critical information, which if not acted upon, can result in poor patient outcomes or delays in care.

- emteLLiPro identifies the reason, the recommended procedure, and the timeframe for the follow-up, which can be used to automate reminders for referring physicians and patients to ensure they get the tests they need
- This reduces medicolegal risk to the diagnostic physician, ensures appropriate patient care, and for private healthcare facilities, ensures appropriate resource utilization

DATE	PATIENT ID	DOCUMENT TYPE	SENTENCE	REASON	PROCEDURE	TIMEFRAME	
8	2019-09-02	998399	Radiology; CT	Followup CT in 2-16 months to document resolution is recommended and to exclude either a chronic infection or coexisting bronchoalveolar cell carcinoma.	carcinoma, infection	CT	2-16 months
9	2018-11-27	755279	Radiology; CT	In absence of known primary malignancy, recommend three month followup CT scan to confirm stability.	malignancy	scan	three month
10	2019-04-03	159445	Radiology; CT	As the patient is high risk, with a prior primary malignancy and emphysema, follow-up chest CT in 6 months is recommended, alternatively a PET/CT may be performed.	emphysema, malignancy	chest CT	6 months
11	2019-08-26	745112	Radiology; CT	Given patient's high-risk status of emphysema, a CT chest in 3 months after drainage of right pleural effusion is recommended for further evaluation.	emphysema, pleural effusion	CT chest	3 months after
12	2019-08-29	699799	Radiology; CT	3. Stable nodules including a 7-mm nodule that requires a one-year followup examination in 2015-4-27 to confirm two years' stability.	nodule, nodules	examination	one-year

Contact emteLLigent today to learn more about our ability to help prevent lost-to-follow-up patients at info@emteLLigent.com or at www.emteLLigent.com