

# 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.

**emtelligent**<sup>®</sup>  
MEDICAL NLP



### 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

### MULTIDISCIPLINARY 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

## PARTNER USE CASE: bialogics

Through integrating emteLLiPro into Bialogics Business Intelligence platforms to analyze the content of orders and diagnostic reports, Bialogics' Pro versions of these platforms now provides a vendor-agnostic, comprehensive toolset for diagnostic Imaging and clinical business analytics.

Search diagnostic reports for content, allowing researchers and AI developers to easily identify cohorts of patients with one or multiple diagnoses

Track follow-up recommendations in diagnostic reports to prevent 'lost-to-follow-up' events to improve patient outcomes and reduce medicolegal risk

Monitor physician ordering patterns, and gather data on guideline compliance and appropriateness of ordering high-cost diagnostic studies

*"The convergence of imaging data with knowledge extracted from patient reports by emteLLigent provides a new level of clinical intelligence."*

Jeff Vachon, President of Bialogics

To learn more about the Bialogics Analytics platform for Medical Imaging visit [www.bialogics.com](http://www.bialogics.com) or contact Bialogics at [info@bialogics.com](mailto:info@bialogics.com).