HealthPointe Solutions

Chart-Natural Language Understanding (NLU)



Chart/NLU Processing

- 1. EMR Integration with Cloud Services for provider workflow optimization
 - Unstructured(PDF/ OCR) data converted into a structured data set
 - Normalize with structured data for combined insights
- 2. Natural Language Processing (NLP) & Machine Learning (ML)
 - NLP identification of key phrases in data.
 - Key phrases are evaluated using our clinical knowledge map of healthcare.
- 3. Natural Language Understanding (NLU).
 - Our cognitive Al engine identifies key insights
 - Medical record insights are packaged into a summarized, annotated summary.

To learn more about how HealthPointe Solutions can help your business, contact us at <u>bizdev@healthpointe-</u>



Chart/NLU Processing

Using Cognitive AI Solutions to structure data and automate the creation of a medical chart summary

Today, 70% of clinical interactions are documented in notes across different practitioners. Integrating this information into structured systems is time consuming and prone to error. Many notes remain siloed from other healthcare data, resulting in an incomplete picture of a consumer's health status and history.

HealthPointe's Natural Language Understanding Solution uses Cognitive AI to capture, interpret and integrate unstructured information into your health records and workflows, so you can use it in analytics and clinical workflow.

- Moving the chart from unstructured to structured: Full electronic medical charts are rare. Some pieces of the medical chart come to the provider in an unstructured format like a PDF, FAX, Word document which is painful to merge into the full electronic chart. Healthpointe Solutions converts those charts into an electronic format and combines into a full medical record.
- Highlight key elements from the chart: Beyond converting of the chart, Healthpointe Solutions then scans the medical record and uses NLU to understand the key phrases within the chart and applies the key phrases across the HPS clinical knowledge base of healthcare to create actionable insights for the each practice or analytic process.

A Cognitive Al-supported system that brings unstructured health information into your data and workflows, so you can use it.

 Embed insights directly into workflow: Using the AI cognitive clinical insights identified during NLU, Healthpointe Solutions returns a full, enriched medical record that includes a structured summary of key clinical findings and can be further enriched with HPS value added analytics.

Important Differentiators

HealthPointe Chart/NLU processing goes beyond moving from an unstructured medical record to an organized medical record and provides a clinically enriched summary of key findings. Those key findings also include actionable recommendations and pointers of evidence to support clinical findings. Our clients have access to best-in-class clinical analytics that goes beyond industry standards, Healthpointe Solution's Al Intelligent Informatics.

Integrated Reporting for Regulatory and Performance Measures

HealthPointe can generate dynamic dashboards and plug-ins into existing EMR's that support the medical record summary within the provider's workflow. HealthPointe provides the necessary data available in near real time so the care team can take action to schedule necessary treatments, coordinate care, and better meet their quality improvement goals.

HealthPointe Solutions, Chart/NLU Processing Solution (continued)

Optimization Across the Continuum of Care

Chart/NLU processing offers a simplified solution focused on capturing, interpreting and integrating unstructured data into a full health care record that can be consumed directly into the provider's workflow.

- Data Enrichment Enables a provider to get to a full more usable medical record helping to identify the right patient care at the right time.
- 2. Clinical Interoperability Advanced data privacy empowers sharing of patient health records and personalized actions across various experiences
- 3. **Reduce administrative costs** and improve experience by reducing data latency, improve quality, and standardizing analytics and insights in workflow
- 4. Support **clinical practice transformation** and measurement by integrating AI into workflow moving from descriptive analytics to prescriptive analytics.
- 5. Reduce development, integration, and maintenance costs with a common, standards-based clinical canonical model and API layer.

Value to Stakeholders – Results from Customers

<u>Client Use Case – Large Integrated Delivery System</u> Challenge:

Lower of the cost and time to market by 10% for new treatment protocols into the stream of care.

Value and Return on Investment:

Improved decision making and reduced costs from typically 3 months to minutes, reducing costs in turn saving **\$10M+** annually in aggregated spend (Data, People, and Time to Market), and improving quality of care by 18%.

Client Use Case- Clinically Integrated System of Health Challenge:

Create a fully integrated consumer and practitioner experience across a multi specialty professional services clinic including ancillary providers, sharing clinical insights.

Value and Return on Investment:

Created Integrated Analytics through clinical interoperability across 5 different healthcare systems. Reduces system redundancy by over **\$25M+** annually for a consistent view of population health including productivity, clinical alerts (value based care), and shared decision making.



Unstructured Chart to Enriched, usable data

