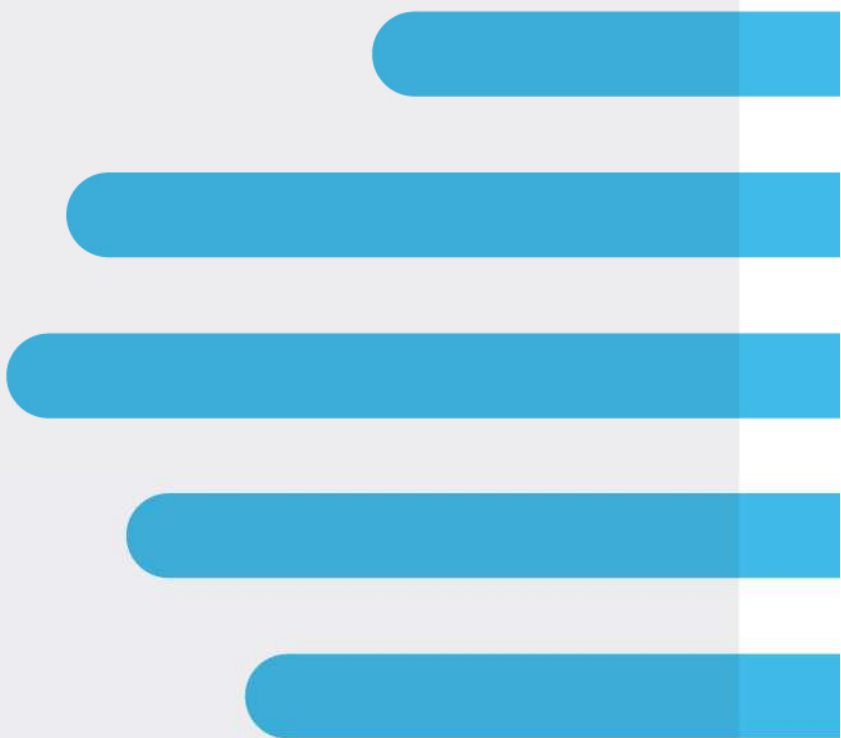




# IQVIA Linguamatics NLP

*GCloud 15 Service Definition*



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## Table of Contents

|                               |          |
|-------------------------------|----------|
| <b>SERVICE OVERVIEW .....</b> | <b>3</b> |
|-------------------------------|----------|

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## SERVICE OVERVIEW

IQVIA provides award winning NLP through its Linguamatics offering. The company has over 20 years of expertise in democratising access to NLP in healthcare and life science companies and was awarded 2023 best AI breakthrough in Healthcare for its innovative work in identifying Social Determinants of Health from unstructured medical records. IQVIA specialise in empowering healthcare organisations to free the insights trapped in clinical documentation, call centre notes, and patient reported information, without needing to be NLP experts. We enable companies to expand and modify our platform and out-of-the-box capabilities, so they are not reliant on professional services or product updates from black box NLP systems.

### Linguamatics NLP supports the following key application areas

#### Provides:

- Interactive search across unstructured documents - such as electronic medical records
- Integration with large language models
- Large Language Model benchmarking
- **Disease stratification for population health** - uncover true disease burden from clinical documentation, versus structured data.
- **Clinical coding improvement** - use NLP to search for uncoded conditions within medical records. Our Human Assisted Review Tool (HART) enables coders to review the output of NLP and verify and validate coding suggestions.
- **Oncology Data normalisation and curation** - transform pathology and radiology reports into structured curated data.
- **Normalisation to over six million synonyms across healthcare ontologies** - such as ICD10, ICD9, SNOMED, HPO, LOINC.
- **Quality measures and quality improvement reporting** - Significant time and effort is often required to extract quality measures from clinical documentation, which are often dependent on manual chart review. Using Linguamatics NLP significantly streamlines these processes by extracting specific measures automatically and preparing them for curation.
- Understanding the trends and topics coming into patient portals and call centres for members is critical. It starts with identifying the basic sentiment around a product, service, or company, but quickly expands into more complex concepts related to classification of messages and routing important messages to the correct departments.
- **Disease registries** - Many diseases require details to be captured for government statistics that are trapped in unstructured data. With Linguamatics NLP, these details can be prepopulated and then reviewed, improving the efficiency and timeliness of these important data sets
- **Clinical research and real-world evidence (RWE)** - Identifying specific cohorts for clinical studies or trials often relies on manual review of patient charts, especially when specific concepts such as biomarker values or genetic variants need to be

extracted. Linguamatics NLP helps identify and extract these concepts to match more patients to trials and make outcomes available as RWE.

- Access to over two hundred million documents of scientific content (such as pubmed, medline, biorxiv) to enable scientific research and knowledge discovery using NLP.

### **Service Features**

- Mature NLP platform with over 20 years of development
- Linguamatics NLP brings rapid time to value
- Linguamatics NLP supports multiple business and clinical applications including population risk models, quality measures, patient safety and quality and disease registries.
- The Linguamatics platform does not require NLP experts to be hired to use the capabilities
- Customers can make extensive modifications and extend the capabilities of Linguamatics using the GUI provided.
- Linguamatics has a large professional services team to help implement larger projects
- Deployment expertise in Large Language Models
- Linguamatics provides multiple real time and batch processing APIs to automate NLP applications.

### **Service Benefits**

- Identify high risk patients based on insights trapped in clinical notes such as disease severity and Social Determinants of Health.
- Reduce clinical coding gaps
- Reduce manual chart review needed for quality measures, disease registries and patient safety
- Identify early signs of cancer (e.g., pulmonary nodules) in radiology notes and flag for follow up
- Improve cohort selection for clinical trials and observational studies
- Support large scale population outcomes studies with insights from clinical documentation
- Integrate with existing investments in EHRs and data warehouses

## Contact IQVIA

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