



AUTONOMOUS MEDICAL CODING

Nym at a glance

Nym has innovated a **Clinical Language Understanding (CLU)** technology that autonomously codes medical charts and provides a transparent audit trail with the logic for why each medical code was assigned to the chart. The technology reduces operational costs, improves efficiency of denials management, and ensures compliance readiness for healthcare organizations and revenue cycle management companies.

The **Nym CLU** engine uses computational linguistics to identify and fully capture the medically-relevant aspects of each chart. It reconstructs the patient visit and automatically determines the suitable medical codes.

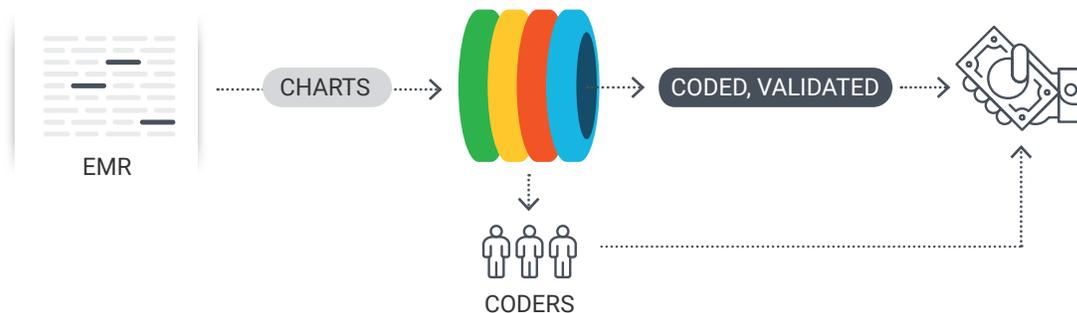
Nym assigns codes only for charts it fully understands, ensuring high coding accuracy on successfully processed charts. Unintelligible charts are automatically flagged and returned to human coding specialists for manual review and coding.

Nym CLU is the only medical coding technology that achieves highly accurate fully-autonomous coding in under five seconds and generates a comprehensive audit trail explaining the coding rationale for each chart.

Benefits

- ✓ **Increases coding accuracy** with zero human intervention, eliminating human error.
- ✓ **Accelerates denial handling** by providing a clear audit trail for each coded encounter.
- ✓ **Cuts operational costs** by reducing the workload of human coders by over 50%.
- ✓ **Accelerates payment cycles** and reduces denied claims with a quicker turnaround than manual coding.
- ✓ **Assures continuous compliance** by automatically implementing updated coding guidelines.
- ✓ **Maximizes audit-readiness** for hospitals and revenue cycle management companies with audit trails on all coded charts.
- ✓ **Ensures seamless integration** using standard interfaces with electronic medical records and practice management systems.
- ✓ **Promises high security** with HIPAA compliance to keep patient information safe and confidential.

Architecture



Nym is autonomous and transparent. It layers on top of the existing enterprise IT stack and integrates into the normal flow of revenue cycle management without change or interruption. It fully integrates with EMR or PM and billing systems, supporting HL7, FHIR, XML, EDI and free text.

Features

- ✓ **Autonomous coding** in under 5 seconds per chart.
- ✓ **Detailed audit trail** automatically generated explaining why each code was assigned.
- ✓ **Suggestions for documentation improvement** to increase revenue potential.
- ✓ **Metrics** on chart processing for continuous monitoring.

The technology behind autonomous coding

The innovative **Nym CLU (Clinical Language Understanding)** technology enables fully automated coding with zero human intervention. It is a new form of natural language understanding tailored specifically to clinical coding. At its core, the technology combines medical knowledge with computational linguistics and applies it to clinical language. It enables computers to understand the logical relations among linguistic elements in a patient chart, and builds a model describing the narrative of the patient encounter.

Auto-coding audit trail

Nym CLU is based on fully deterministic computational linguistics, and each step of the coding process is documented. For every chart that's coded, Nym's audit-trail view provides a clear explanation of the reasoning behind the decision to assign a specific code. This allows for immediate understanding of the audit trail for validation, compliance, and denial management. Ambiguous charts are flagged for a coding specialist.

Rule-based, not statistics-based

The technology's linguistic rule-based approach uses structured maps of human knowledge for identifying key elements in the text of a medical record. The engine reconstructs the clinical narrative of the patient chart by analyzing each textual component to understand linguistic intent and resolve context and word ambiguity.

Chart



Understanding sentence meaning using computational linguistics : words and structure

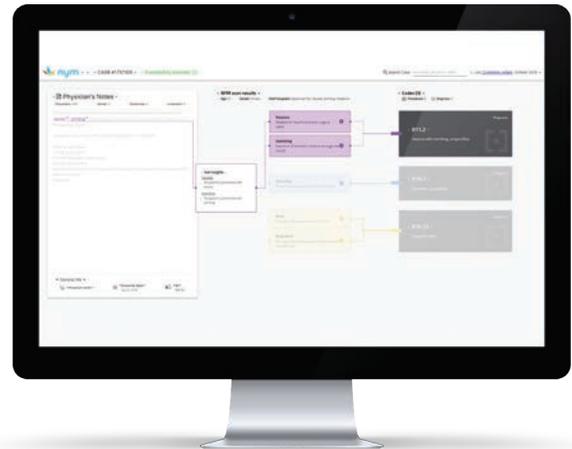
Reconstructing medical narrative - medical context within and across separate sentences

Extracting Insights

Coding - Applying guidelines



Coded chart for billing



Security

Nym's security-first approach harnesses the most advanced technologies to assure that data stays safe and private at every step of the process. The **Nym** service undergoes rigorous audits and employs the latest best practices to ensure the integrity of data as well as confidentiality, security, and compliance.



Confidential



Secured



HIPAA
compliant