

# Case Study: Accelerating Second-Look Clinical Review at Scale

### The Opportunity

This client receives more than 1.4 million patient documents each month that must be organized and prepared for physician second-opinion ("second-look") reviews. Partnering with emtelligent, the pilot validated emtelligent's clinical Al suite that enables rapid document searchability and automated patient summaries suitable for clinical decision-making.

A pilot focused on an initial batch of 10,000 documents using emtelligent's Medical Language Engine demonstrated how Al can streamline second-look workflows by replacing manual categorization with automated classification, searchable indexing, and clinician-ready summaries.



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# **Commercial Impact**

The client's workflows start with bundled PDFs that staff must label, split, categorize, and date before physician review. These multi-source, inconsistent, and lengthy documents create heavy manual overhead and slow turnaround. For the pilot, emtelligent processed the raw PDFs rather than pre-split versions, directly testing Aldriven splitting and classification on real-world intake. Volumes are steep—300,000 cases annually and 1.3 million pages monthly, ranging from a few pages to 10,000+. Turnaround requires 24-hour delivery and prioritization of urgent requests.



~1.3M pages processed monthly



Cases range from 50 - 10,000 pages



24-hour turnaround requirement



Real-time prioritization for urgent cases

# The Approach

emtelligent's solution integrated directly into client workflows with:

**Document Al:** Automated splitting and classification of bundled PDFs.

Medical Language Engine: NLP extraction of concepts, relations, measurements, and context.

**Search & Query:** Patient-level lookups with SNOMEDaligned coded lists.

Clinical Summarization: Clinician-ready summaries tailored to specialty workflows.

**Embedding & Outputs:** An iframe widget with flexible PDF/ISON/XML outputs.

#### The Result

The pilot proved the system delivered measurable gains in efficiency, accuracy, and scale across intake and review processes, including:

Faster Reviews: Searchable notes and clinician-ready summaries sped up second-look reviews.

Operational Efficiency: Automated splitting reduced manual workload.

Infrastructure Validation: Fully processed within Azure with iframe embedding for clinician apps.

Flexible Outputs: Supported both structured feeds and combined PDFs.

Turnaround Assurance: Batch and priority queuing consistently met 24-hour SLAs.

Scalable Growth: Designed to handle >1.3M pages monthly via parallel CPU/GPU acceleration.



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#### About emtelligent

Based in Vancouver, British Columbia, emtelligent helps healthcare professionals work more efficiently and improve patient care.

Built by medical experts for medical experts, its Medical Language Engine and suite of clinical and search tools automate the extraction and analysis of data across systems, specialties, and populations, turning complex, unstructured medical text into actionable insights.

Through partnerships with health networks, imaging facilities, research institutions, payer organizations, and technology innovators, emtelligent increases safety, boosts operational efficiency, and elevates care quality across North America.

