IBM Healthcare Industry Framework
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Health plans today collect a lot of information about their members. Every doctor visit and hospital stay means pages and pages of data.

When a claim comes in, your goal is to connect the claim to the findings in physician, procedure, discharge, and nursing notes, as well as other clinical data.

And convert that unstructured but useful data into a structured format for claims processing and analysis.

To address these challenges, IBM is offering a robust Medical Record Text Analytics Solution (or MRTAS) on the Health Integration Framework that automatically unlocks the valuable information in unstructured textual clinical data.

MRTAS gives health plans three ways to improve their processes.

First, MRTAS streamlines claims processing and dramatically improves employee productivity.

Second, on the patient side, better analysis will provide deeper understanding for improved disease management and wellness program enrollment, keeping members healthy and out of hospitals, thus significantly reducing claims' payout.

Finally, on the physician side, MRTAS supports pay-for-performance programs, and assists in enforcing evidence-based treatment protocols, improving quality of care and patient outcomes.

Let's take a look at one patient's story and how a health plan handled his high-value claim.

John Smith arrives in the Emergency Department with complaint of chest pain, shortness of breath, and pain in left arm.

By the end of John's treatment he has spent 7 days in 2 different hospitals. His claim is valued at over $100,000 so it routes for evaluation.

The health plan requests information from both hospitals.

The first hospital sends an HL7 electronic transmission of documents related to John's stay, while the second hospital faxes documents to the health plan.

Altogether, the health plan received 50+ pages of John Smith.

IBM Medical Record Text Analytics Solution (MRTAS) pulls the 50+ pages into the system, classifies documents into categories, and converts faxed images and PDFs into text.

MRTAS begins to identify the key data and populates the medical findings in a structured format into a database and assigns ontology codes to them.

John was examined by an Emergency physician.

John's EKG was normal but he had classic symptoms of Acute Coronary Syndrome and responded to nitroglycerine, so a cardiologist was consulted.

The Emergency Physician also called an internist to admit John overnight for observation.

A Nuclear stress test was performed on John the following morning. The results revealed critical blockages of coronary arteries.

A cardiologist recommended an angiogram be performed ASAP.

Within an hour John was prepped and the angiogram performed.

Because of how many arteries were blocked and the locations of the blockages, John was not a good candidate for stent placement.

John was transferred to another hospital for a cardiothoracic surgery consultation. The next day, John had bypass surgery.

John stayed in the second hospital for 5 days where he developed a urinary tract infection. He is discharged to a rehab facility.

Now that the data is in a structured format, it is ready for analysis.

The data can be used to enhance a 360-degree view of John's care.

A medical examiner can use this dashboard to review findings extracted from John's medical record and alerts generated from deviations from standard of care. The dashboard can also link back to the original medical record for further details.

The dashboard enables medical examiners to find information and resolve claims quickly. It also empowers the health plan to provide better services such as offering appropriate disease management counseling or identifying additional products and services.

The data can also be used to run a report, using a rules engine, to identify deviations from standard of care:
- EKG done 20 minutes after arrival when the standard is 10
- No oxygen is recorded given
- Urinary tract infection during hospital stay
- Beta-blocker is not prescribed at discharge or administered in the second hospital

The care representative contacts the provider to verify the deviations and then contacts the primary care provider to develop a corrective plan to ensure protocols such as prescription of beta blocker are performed.

The health plan can also use these figures to evaluate providers on their performance and potentially adjust claims reimbursement rate to encourage higher quality of care.

The IBM Medical Record Text Analytics Solution helps health plans to decipher information in order to
- Speed claims payment decisions, increase efficiency and accuracy
- Improve quality of care and support evidence-based protocols and pay for performance programs
- Enable programs such as medical home through a more collaborative relationship among health plans, providers, and members, thus keeping members healthy and out of the hospital

Learn more about how Medical Record Text Analytics Solution can work for you.