IBM Healthcare Industry Framework
Provider Version
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Healthcare providers today collect a lot of information about their patients. Each visit and hospital stay means pages and pages of data.

What healthcare providers need is a way to convert important information in physician notes, discharge notes, nursing notes, and lab results into a structured format so it can be analyzed and reviewed.

But this can be a major challenge, so IBM is offering a Medical Record Text Analytics Solution (or MRTAS) built on the Health Integration Framework that automatically unlocks the valuable information in unstructured textual clinical data.

MRTAS gives healthcare providers three ways to improve how they care for patients and manage their performance.

First, MRTAS helps providers automate the collection and analysis of structured and unstructured data, a manual process typically performed by a team of nurses, thus improving staff productivity

Second, it enables providers to leverage a dashboard view of the most relevant information to a patient's health issue, when it matters most—at the point of care; thus improving quality of patient care.

Finally, MRTAS enables providers to better enforce standard of care by letting them review their performance on core measures at a glance, correct any deviations, and provide timely staff training. This can maximize reimbursement from Medicare and other insurance entities.

Let's take a look at one patient's story and how his hospital managed his medical crisis.

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

John was examined by an Emergency physician.

Although John's EKG was normal he had classic symptoms of Acute Coronary Syndrome and responded to nitroglycerine, so his cardiologist was called.

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.

John ended up having bypass surgery.

John developed a urinary tract infection after his surgery. But, he recovers well and is discharged to a rehab facility.

Once home, John will need to follow up with his cardiologist to create a plan to better manage his heart health.

John visits his cardiologist for a follow-up appointment one week later.

With information processed by IBM Medical Record Text Analytics Solution and the hospital's Electronic Medical Record system, John's cardiologist can view a patient 360 dashboard displaying John's most current information.

John's cardiologist first reviews a scoreboard of John's key test results, paying special attention to those abnormal indicators on
- Total Cholesterol
- LDL-C
- Triglyceride
- C-reactive Protein
- Nuclear stress test

Then John's cardiologist drills down into four other categories relevant to John's recent episode of care.
- Diagnoses
- Medications
- Procedures
- Allergies

Finally, John's cardiologist examines the alerts indicating deviations from standard of care. The dashboard can also link back to the original medical record for further details.

John's cardiologist now takes corrective action on deviations by prescribing beta-blocker and recommends a personalized diet and exercise plan. All of that unstructured data is added to John's patient dashboard.

To give hospital administrators a view of staff performance, MRTAS extracts information from thousands of patient medical records, combines it with data in the EMR system, and makes it available via a Critical Care Dashboard.

For example, while reviewing the dashboard for physician performance, the Chief Medical Officer notices a higher than normal occurrence of post-operative Urinary Tract Infections.

He can drill down on the number to see these patients' records and their respective attending physicians and nurses.

With this information he is able to identify under-performing staff members and provide training to improve their performance.

We've just shown two types of dashboards:
- a clinical dashboard used at the point of care
- and a performance dashboard used by hospital administrators.

The key to this comprehensive view is the IBM Medical Record Text Analytics Solution because it helps healthcare providers gather, structure and analyze patient data and turn them into actionable information.

MRTAS
- Improves quality of care by giving providers relevant patient information at the point of care and ability to identify and address any deviations from standard of care
- Enables administrators to view their staff performance on core measures at a glance and proactively take steps to improve performance
- Maximize providers' reimbursement from Medicare and other insurance entities by achieving satisfactory performance on core measures

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