# The Arrival of Intelligent Encounter Management:

**Integrating Al-enabled Risk Analytics with Submissions** 

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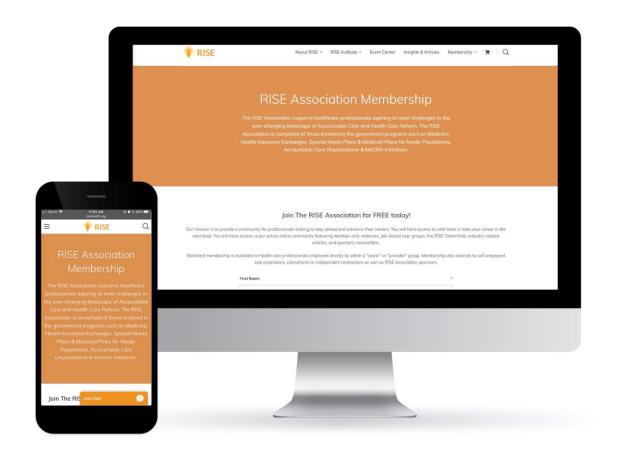




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## Agenda

1

What is Intelligent Encounter Management?

- The details and problem statements
- What can it solve for?

2

Practical
Applications of
AI/ML-enabled
Risk Adjustment
Analytics

- What's in the way?
- What's the value in solving the challenges?

3

The Arrival of Intelligent Encounter Management

- Overcoming roadblocks
- How to enable
- Current state & analysis

4

Recap and Q&A





## What is Intelligent Encounter Management?

- The details and problem statements
- What can it solve for?

## **Encounter Operations – Typical Characteristics**



Encounter operations are predictable



Errors and omissions



Manual work drives operational costs



Scaling with warm bodies is risky



### What it isn't...and what it is

#### Isn't

Work queues for managing manual tasks (task management)

Identifying errors and omissions without a solution to correct

#### Is

Identifying and correcting errors as part of the system process

Scaling the workflow to meet spikes in processing and deadlines

Making humans do human work and not operate as robots



### **Innovative Market Trends**

## Cloud Computing (SaaS)

## Al and Machine Learning

#### Robotic Process Automation (RPA)

## Interoperability (FHIR)









- 85% of enterprise organizations will be using cloud services for business critical functions – Gartner
- Driving the shift from analog and physical assets to digital assets
- ML mimics the human brains' ability to review information and make recommendations
- 40% of firms expect to increase investment in AI/ML in 2021
- Automates manual operational processes that are repetitive, mundane and prone to error
- 69% of data processing and 64% of data collection operations can potentially be automated
- Loosely couple payers, providers and systems using a standard semantic data interface
- Government mandated to implement...market requirement



## **Poll Question 1**



## Where is your Encounter Operations on their Emerging Technology Journey?

- 1. We have a plan to implement Cloud, ML, RPA and FHIR solutions in 2021
- 2. We are implementing Cloud, ML, RPA and FHIR solutions in 2021
- 3. We are already realizing the benefits of Cloud, ML, RPA and FHIR solutions in 2021
- 4. These solutions are not on our current roadmap

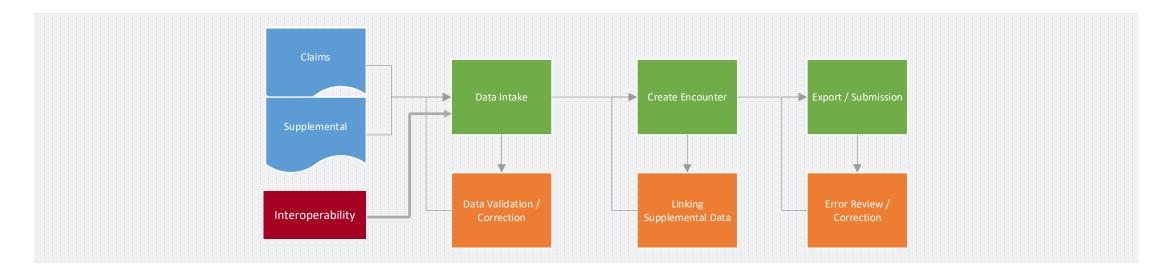




## **Practical Applications**

- What's in the way?
- What's the value in solving the challenges?

## **Standard Encounter Workflow**

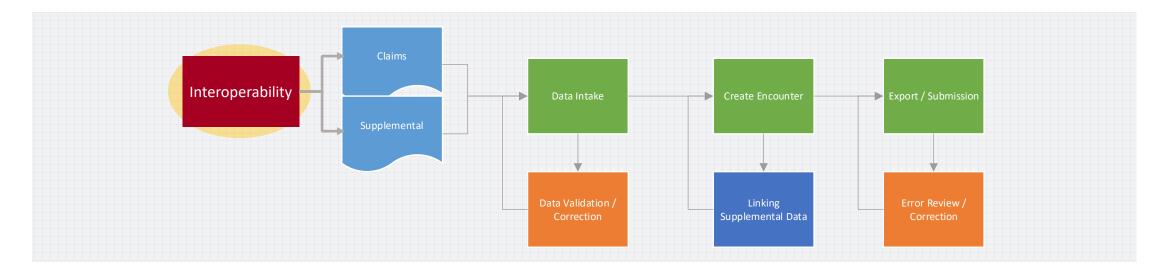


- Systems are used to extract, validate and translate data in the workflow (green)
- Process exceptions are considered manual activities (orange)
- Systems are used to identify, track and queue manual tasks and activities

- Large increase in labor is required to scale encounter workflows during peak times
- Repetitive labor activities are prone to error and create human robots



## Intelligent Encounters – Interoperability



#### Intelligent Solution: Interoperability – FHIR – Semantic Data Exchange

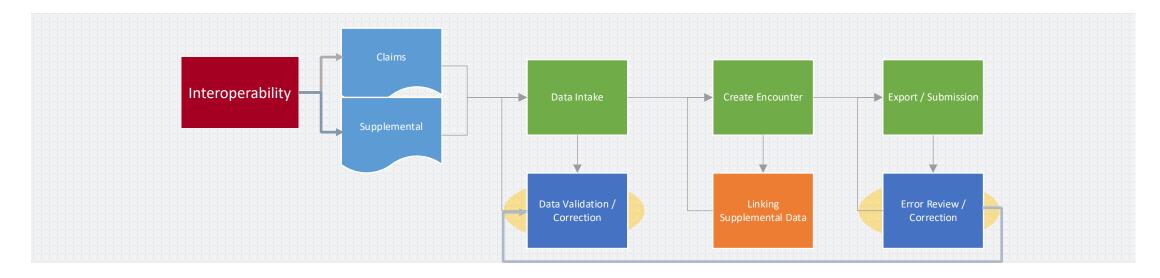
- Standardize data exchange between payers and providers
- Expand source data to EMR and other clinical data sources

#### Impact:

- Reduction in cost to implement data integration between systems and stakeholders
- Decrease the time to transfer data and submit to government systems



## **Intelligent Encounters – Error Correction**



#### **Intelligent Solution:**

#### **Robotic Process Automation**

RPA will automatically prioritize error correction from internal and external editors to maximize the business impact

#### **Machine Learning**

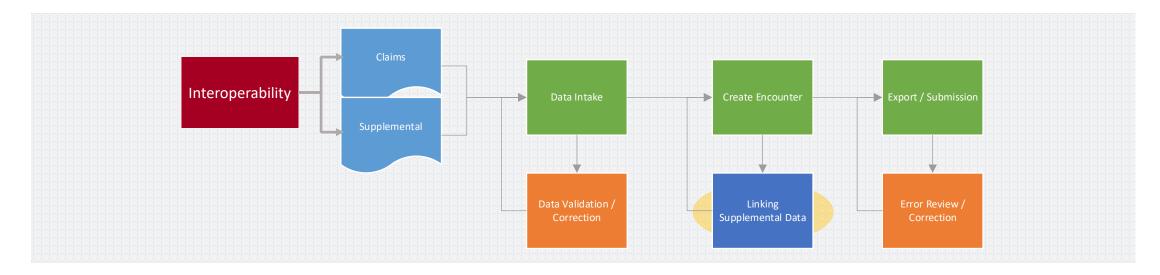
ML models are able to recognize the error and make corrections with no human interaction

#### Impact:

- Reduction of Manual data error correction and clean up by 90%
- Reduce labor requirements to scale by 80% and reduce time to scale during peak times
- Submission operations can operate at scale 24/7 with minimal labor support
- Significant reduction in errors introduced by manual processes



## Intelligent Encounters - Data Linking



#### **Intelligent Solution: Machine Learning**

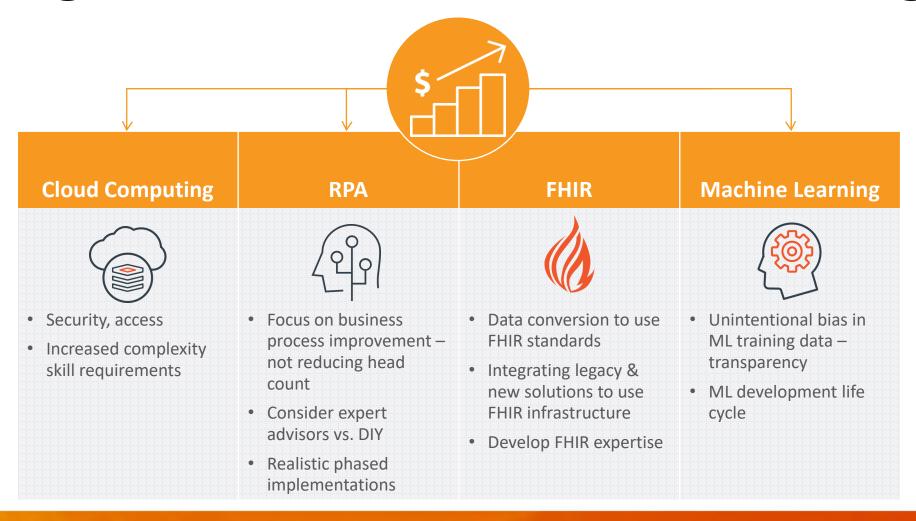
- ML models use Deep Neural Networks to identify claims that are likely to represent the office visit in a medical record and make the connection
- Supplemental Data that has no relevant claim or has a very low relationship will be queued for manual review, Pend for future linking or submit unlinked based on configurable rules.

#### Impact:

- Manual reduction of data linking by 70%
- Increase supplemental data linking accuracy by 55% compared to manual processes



## Intelligent Encounters: Risks and Challenges





## **Poll Question 2**



## Which operational area requires the largest allocation of resources in your organization?

- 1. Claims and supplemental data intake
- 2. Encounter creation
- 3. Encounter correction
- 4. Encounter submission/reconciliation





## The Arrival of Intelligent Encounter Management

- Overcoming roadblocks
- How to enable
- Current state & analysis

## Intelligent Encounter Management Use Case Overview



#### **Interoperability**

Quality Data at the Edge



#### Learning

Data Validation and Correction



#### **Accuracy**

Linking Supplemental Data



#### **Automation**

Exception
Correction and
Prioritization

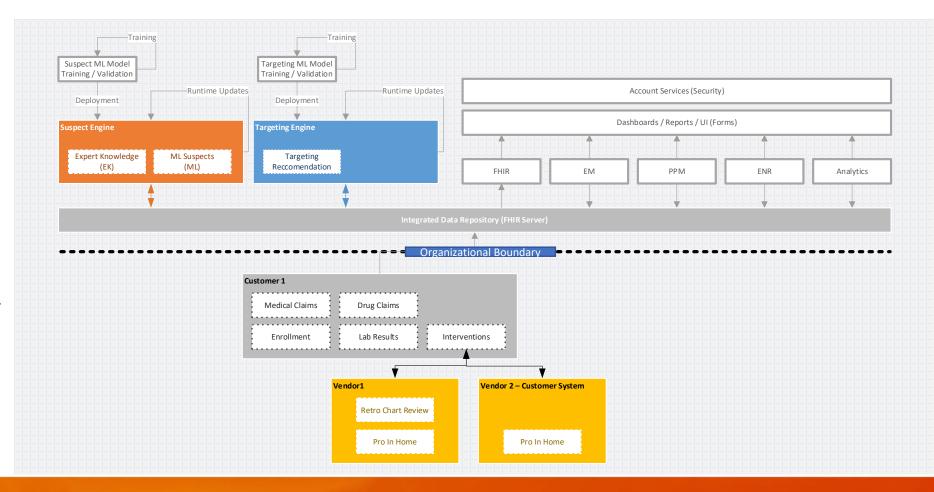


## Interoperability meets Analytics

FHIR server is used to loosely couple applications, databases and systems

Leverage the variety, volume and velocity of Information

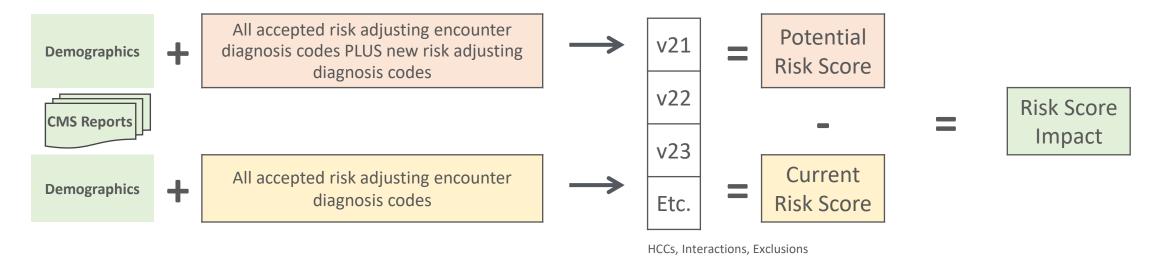
Simplify the exchange of healthcare information





## **Risk-based Exception Prioritization**

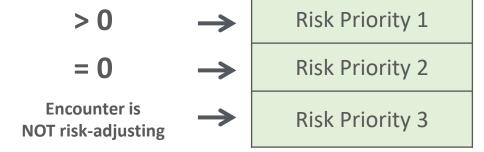
Worklist prioritization driven by direct impact on revenue



Potential risk score, risk score impact and risk priority are assigned to ALL encounters.

Risk prioritization can be periodically updated to reflect recent activity impacting encounters that have been sitting on the worklist.

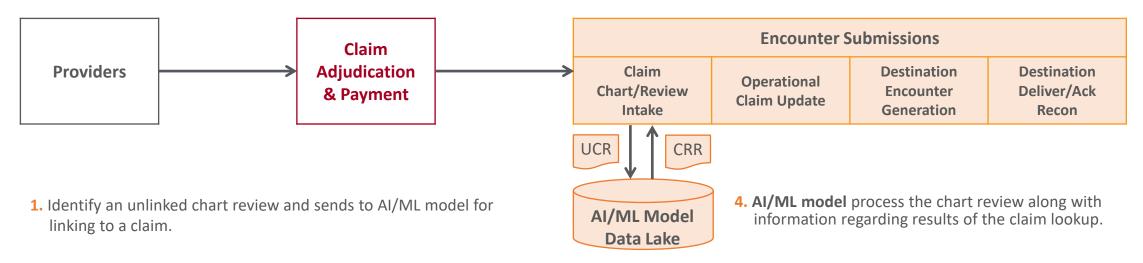
Risk Score Impact





## Machine Learning linking of supplemental data to existing claims

Reduce or eliminate Chart Review Updates Unliked to Claims



- 2. AI/ML model retrieves a list of claim candidates from 3. The candidate claims along with the chart review are run the EM Datamart for that member, date of service year, and claim type.
  - through an AI/ML model that evaluates associations between the providers, dates, etc. and assigns a probability % of each claim as occurring within the same episode of care as the chart review.

Configurable thresholds are used to control whether a claim is automatically linked or reported out for manual review and linking to the chart review.

5. If a claim is not automatically linked, encounter submissions will either deliver to the destination as unlinked or halt it for manual review and potential resubmission with a link to one of the returned potential claim links.



### **Solution Goal: Encounter Submission Success**

Provide transparent access to encounter lifecycle information history and status to support intelligent decision makers:

- IT Operations
- Business Analysts
- Finance Teams





Leverage data to make Intelligent Decisions



Identify and address operational gaps in submissions



Of submission gaps on payments



Prioritize exception workflow tasks with greatest impact



Use Intelligence to improve submission success



## 4-Point Checklist of Intelligent Encounter Management



Improve submission compliance, accuracy, reasonableness and timeliness



ML-based correction/ enrichment of data to ensure high acceptance rates



Integrate SaaS-based encounter submissions with AI-enabled analytics



Insight into encounter records





## Recap and Q&A

## **Innovators in Encounter Processing**

## **Encounter Management Solution Profile**

Serving more than **60 Million lives** through our 43+ encounter customers



### **Substantial Submission Footprint**

1.4B encounter submissions annually across Medicare Advantage,Managed Medicaid and the Marketplace



#### **Scalability & Performance**

Supports clients as large as 7.2M members; Single instance supports over 24 LOB's; process up to 4M encounter submissions per week



#### **Submission Accuracy**

Achieved very high submission compliance and protect revenue accuracy for our customers



#### **Market Leader**

Overall, ~32% of encounters submitted to CMS are generated by our system

#### **Key Differentiators**



CMS/ACA/State
OOTB modular approach



Prioritized exception workflows



Intuitive operational dashboards



Impactful data visibility



# THANK YOU



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