The Arrival of Intelligent Encounter Management: Integrating AI-enabled Risk Analytics with Submissions

Presented By:

Jay Baker, AVP, Product Management – Edifecs

Dave Foster, Senior Architect – Edifecs





We are a network of health care professionals addressing the challenges posed by the emerging landscape of value-based care and government health care reform.

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Agenda

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?

The Arrival of Intelligent Encounter Management 4

Recap and Q&A

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



What is Intelligent Encounter Management?

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

Encounter Operations – Typical Characteristics



Encounter operations are predictable



Manual work drives operational costs



Errors and omissions



Scaling with warm bodies is risky



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

lsn't S Identifying and correcting Work queues for errors as part of managing manual tasks the system process (task management) Scaling the workflow to meet spikes in processing and deadlines Identifying errors and omissions without a Making humans do human work and solution to correct not operate as robots



Innovative Market Trends

Cloud Computing	AI and	Robotic Process	Interoperability
(SaaS)	Machine Learning	Automation (RPA)	(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

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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



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Poll Question 2

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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 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



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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.

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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



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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

Submission Accuracy

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



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



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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