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HOW CODING AUTOMATION REMOVES GUESSWORK FROM AMBULANCE REVENUE CYCLE MANAGEMENT

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As digitalization accelerates, business optimization strategies are increasingly reliant on software and coding. There are very few industries that don't have a digital touchpoint, and the healthcare sector is no stranger to the integration of innovative technology.

Digital healthcare is steadily maturing, but there are always critical parts of the ecosystem that are both patient-centric and time-sensitive. Emergency medical services, for example, have specific tasks and responsibilities, the majority of which are focused on pre-hospital acute medical care.

And while ambulance crews are often the first point of contact for a patient, the data processing demands associated with Ambulance Revenue Cycle Management (ARCM) can be a challenge. This specific pain point is one reason why Coding Automation solutions can make a significant difference in lowering costs and streamlining critical tasks.

The issue, however, is that EMS providers are often trying to balance the requirements of patients and healthcare professionals – whether that be individuals in need of urgent treatment on route to hospital or the timely transportation of patients between healthcare facilities. For many of these companies, they are looking to not only streamline activities and optimize income, but also maintain a healthy bottom line.

AMBULANCE CODING IS UNIQUE

Ambulance trip coding and auditing is a very specialized form of developer expertise. And while integrating technology to solve problems is a sensible decision, finding well-trained and certified EMS coders is an oft-cited concern. When you factor in the constantly shifting landscape of compliance and healthcare regulations, keeping up with the rules while reducing reliance on manual claims processing becomes increasingly difficult for EMS providers.

Ambulance coding is unlike any other type of coding discipline. It requires a separate set of codes that are not utilized by physician or hospital services. The EMS coding and documentation requirements are not only distinctive, but they are also noticeably different from the code written by other healthcare coders. The process is also complex and must include specific codes, modifiers, indicators, and exceptions.

12	11	08	11	05
Levels of service codes	Transportation indicator codes	Special situation modifiers	Origin and destination modifiers	Signature of requirement exceptions

31	03	11	08	10
Advanced life support condition codes	Advanced life support non-emergency codes	Basic life support non-traumatic condition codes	Basic Life Support traumatic condition codes	Basic Life Support non-emergency condition codes

AMBULANCE REVENUE CYCLE MANAGEMENT CHALLENGES

EMS providers do not work to a specific schedule. Medical emergencies are, by their very nature, unexpected while ambulance crews have to be prepared for varying degrees of criticality and patient requirement. When you also factor in the insurance claims processing ecosystem, then the challenges impacting Ambulance Revenue Cycle Management (ARCM) can be significant.

For example, maintaining high-quality patient care while dealing with the limited financial flow is a typical issue for many ambulance firms. Additionally, an ambulance coder must consider the unpredictability of patient intake as well as other considerations to provide an accurate and compliant claim. Patient wellness is often a critical factor of EMS with the provider needing to ensure that every box is ticked.

Taking that into account, there are areas of concern and care that have a direct impact on ARCM.

Coding Errors

Around 33% of EMS claims submitted in 2017 (this is too old) were denied or rejected by insurance providers for coding errors. Coding staff must both analyze the reason for denial and re-submit the claims, affecting the accounts receivable.

Medical Neccessity

For ambulance crews assessing medical necessity, only the patient's condition matters. It is irrelevant if the other means of transportation are unavailable.

Training

EMS providers must engage in ambulance-specific training to maximize billing compliance and alleviate coding errors.

Advance Life Support Billing

EMS providers and crews must comply with the regulatory requirements and levels of service as defined by the state. ALS services can be billed when the dispatch of an ambulance requires an assessment of the patient by the crew, even if that person does not require an ALS intervention.

ALS Interventions

Interventions themselves must be medically necessary. It is the job of the EMS providers to document the clinical need for interventions.

CODING AUTOMATION: THE BENEFITS

Automating the billing process is already part of digital healthcare. And the coding for provided services is an aspect that lends itself particularly well to automation.

For example, coding automation comprises analyzing electronic Patient Care Reports (ePCR) with a computer application to establish appropriate output codes for the level of service, priority, medical necessity of transport, and ICD10 for emergency medical services. By automating these tasks, providers can experience significant benefits, including:

Auto Code Generation

Automatically generate EMS codes from ePCR and PDF-based trip note formats, such as:

- Medical Necessity (MN)
- Priority (PR)
- Level of Service (LOS)
- International Classification of Disease (ICD)

Standard EMS Data Mart

- Extract data from trip notes (PDF, XML, ASCII, text) and clean at the individual file level
- Synthesize information through NLP engine for billing, audit, and compliance using Explainable AI

Customizable Platform

- Set data input rules depending on client or state-defined configurations
- Supplement existing coding efforts or push codes directly to the EMS audit

Managed Costs

Migrate from labor-intensive and repetitive manual coding processes to efficient AI-based auto-coding approach

Improved Accuracy

- Reduce Turnaround Time (TAT) from code submission to processing
- Visualize data with charts
- Decrease potential denials with accurate EMS coding

APEXEMS

Apexon offers an advanced analytics solution called ApexEMS. This platform includes customizable business intelligence tools and can provide insightful revenue cycle analytics.

By using ApexEMS, ambulance companies can introduce results-oriented actions based on data. ApexEMS combines the power of machine learning algorithms, natural language processing techniques, business rules, and robotic process automation to deliver a comprehensive solution for emergency coding services. In addition, ApexEMS can be quickly deployed as a plug-and-play mechanism, with the added bonus that the solution is easy to maintain.

Customers who have integrated ApexEMS into their ARCM processes have reported significant impacts including:

70% Reduction in manual inputs for coding and billing

98% Charge capture

5% Increase in cash per trip

20% Cost reduction in outsourcing services

ApexEMS has also been able to provide users with a decrease in TAT time from 72 to 24 hours, the ability to prevent revenue leakage through real-time analytics, and a reduction in the number of issues relating to Clinical Documentation Improvement and physician education.

WHY APEXEMS TICKS SO MANY BOXES FOR EMS PROVIDERS

With ambulance coding being such a unique use case, there is a defined need for companies to integrate solutions that are both efficient and cost effective. The rules concerning non-physician provider ambulance codes remain distinct and emergency conditions mandate the services provided by non-physicians to be coded according to the severity of the medical condition itself.

Auto coding solutions like ApexEMS give EMS providers the flexibility and agility of an error-free procedure. Integrating automation into existing workflow and coding process thereby increases efficiency and reduces overall expenses. As a result, EMS providers are able to:

Reduce Reporting Errors & Billing Denials

Maximize accuracy and efficiency by reducing redundancy and human error with:

- Automated imports from ePCRs

- One-click searches

- Auto-population of claims data

Do everything on one platform

EMS providers do not have to switch between different apps and systems. Our ApexEMS solution is integrated with all ePCR formats and provides seamless interaction between the ePCR and the relevant clearing house.

Enhance Speed, Safety & Security

ApexEMS is 100% HIPAA, ICD-10, and HITECH compliant. The solution also runs on Amazon Web Services, an industry-leading cloud platform that has been adopted by hospitals and major insurance carriers.

AMBSMART EMS CASE STUDY

THE PROBLEM

This EMS company was experiencing a rise in operational costs and a corresponding decrease in profit margins. This was leading to an increase in AR days, a denial rate of 5% and a 3-day TAT

THE REQUIREMENTS

A solution that could provide cost savings, drive operational efficiencies, and increase collections. Specifically, the client required:

An ability to resolve compliance issues with minimum fuss

Improved follow-up processes for denials, rejections, and coding errors

Secondary claim visibility and provider follow-up

Secure client access to claims system

Data analytics and dashboards

Improved cash flow

THE SOLUTION/RESULTS

ApexEMS was implemented within 30 days of the request. In less than 90 days following implementation, the client reported:

10% increase in cash received per trip

TAT went from 85 to 24 hours

20% increase in collection rate

AR was reduced to 40 days

30% decrease in denials rate

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We leverage deep technical expertise, Agile methodologies and data-driven intelligence to modernize systems of engagement and simplify human/tech interaction.

We deliver custom solutions that meet customers' technology needs wherever they are in their digital lifecycle. Backed by Goldman Sachs and Everstone Capital, Apexon works with both large enterprises and emerging innovators — putting digital to work to enable new products and business models, engage with customers in new ways, and create sustainable competitive differentiation.

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