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Gaining Ground on an Elusive Goal:

# The Comprehensive Patient Record

By Navin Parmar

**For years now, healthcare providers have been searching for a single, comprehensive patient record, or what has been termed "The Golden Record." The Golden Record is a desired state, it's a term that doesn't capture the full importance and impact of a comprehensive record, and at the moment, it's an elusive goal.**

Patients often have multiple medical records for a variety of reasons including regulatory requirements that need the system of record to be the same as the source system. Sometimes, patient data is entered in the place of service for localized use only, and those entering the data may not have a central Electronic Medical Record (EMR) system. And there are scenarios when patients are authorized caretakers of family members and friends, which requires an additional record that's not the patient's own to now be part of their file. The "golden record" attempts to create single record for patient but does not provide comprehensive view.

The goal behind the comprehensive patient record is to collect these duplicates of a patient's record, and bring them into a single, all-encompassing record that houses their data in one spot. Additionally, the Golden record just provides partial truth around the patient. The patient care is from variety of sources beyond the EMR record. The data may exist from in-home, nursing facilities, wellness centers that are part of the care management, but information are not usually connected due to nature.

# So, what's stopping a comprehensive patient record from happening?

**Creating a single comprehensive patient record is challenge when the EMR captures the encounters that are within the provider locations (assuming provider has single EMR system across its network).**

The build of analytics and datawarehouse system has provided some initial foundation on building comprehensive patient record but that can be time consuming and may be limited for more long-term care.

We've seen that Master Patient Indexes (MPIs) within EMRs are exceedingly limited in their ability to compare records from disparate sources. And as some EMR systems inadvertently duplicate patients' information, multiple individual records are created when the EMRs lack the sophisticated algorithms that compare and link records across different data sources and locations.

Despite these challenges, though, healthcare providers are making progress toward the comprehensive patient record by using Continuum of Care records. These Consolidated Clinical Document Architecture (C-CDA / HL7 v3) has provided the clinical documents that providers can ingest into its EMR systems for building comprehensive patient record. However, this data is restricted to either digital scan documents (some providers get faxes) or structured encounter data that was provided via interoperability. The challenges still continue on bringing encounter data that is not EMR, for example, at-home care, wellness centers, outdated medication (Over the counter (OTC) and/or Prescription).

# The promise of a comprehensive patient record

## With a comprehensive record, all healthcare service providers have a common, shared dataset and patient profile.

The comprehensive patient record can also alleviate the inconveniences, frustration and stress patients feel when their records aren't able to be found at a location, and they're forced to re-register. When their information can be easily accessed, and they do not need to fill out the same paperwork multiple times. The comprehensive patient record also helps eliminate multiple unnecessary tests, misdiagnosis. The longitudinal view of patient is available for providers to better patient care, patients have improved experiences and better outcomes overall when it comes to healthcare.

There are many benefits for healthcare providers as well. With a comprehensive patient record in hand, healthcare providers have the capability to understand their patients completely, and thus provide better services. Providers can also answer questions such as:

**What are the Social Determinants of Health (SDOH) for the consumer?**

**What are the factors that help deliver better quality services and reduce the risks for pre- and post-care?**

**Where do gaps exist in services that are being offered?**

# How can we make the promise of a comprehensive patient record a reality?

**Artificial Intelligence-based algorithms can help make progress toward a comprehensive patient record by matching criteria used in multiple systems.**

There are algorithms that can provide matching capabilities using deterministic and probabilistic methods, and these algorithms are built into modern tools that can help combine data from multiple sources into a “belly button” patient record. Building out these algorithms to include external social data and automate processes that reduce the need for manual intervention will be huge steps toward the comprehensive patient record becoming reality. Using, FHIR API capability to ingest data from external compatible system provides building complete comprehensive record on the platform. The data from non-encounter transactions, outreach calls, medication follow-ups would help clinicians and care providers improve overall healthcare delivery.

Neudesic’s Care Management Platform is further helping realize the promise of a single, comprehensive patient record as an interactive platform that enables shared communications between consumers, vendors and community care providers. Built on the Dynamics Cloud for Healthcare, the Neudesic Patient Reactivation Solutions are helping providers and healthcare organizations to:

- **Identify patients for Care Management based on consolidated patient data and segmentation**
- **Target outreach to engage patients with care journey management tools**
- **Optimize scheduling via self-service portals, virtual agents, email and text**
- **Track data to calculate ROI generated by new appointments**

This work to bring together fragmented and duplicated patient information into a single, comprehensive record is the ultimate goal because the better the patient record is, the better the care the patient receives.

# About Neudesic

Neudesic is the trusted technology partner in business innovation, delivering impactful business results to clients through digital modernization and evolution. Our consultants bring business and technology expertise together, offering a wide range of cloud and data-driven solutions, including custom application development, data and artificial intelligence, and comprehensive managed services. Founded in 2002, Neudesic is headquartered in Irvine, California.

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