MEDICOM!



MEDICOM SMART SEARCH

& Event-Driven Workflows FAQ

Industry Gap

Health Systems across the United States are experiencing gaps in administrative, operational and clinical processes caused by disparate silos of patient data. The inability to exchange medical images, reports and orders within the network of providers that care for a common patient often causes care delays, repeat scans, provider dissatisfaction and patient friction. Healthcare workers spend valuable time locating and retrieving prior health data, frequently relying on antiquated technologies such as CDs, faxes, and VPNs.

In response, Medicom developed the first peer-to-peer Network for bi-directional image exchange, providing interoperability for health systems utilizing Medicom Connect.

Medicom Smart Search: A better way to search

Medicom Smart Search automates the process of gathering relevant prior imaging exams that are necessary for treatment planning and diagnosis, reducing the burden on staff to manually request prior imaging from external organizations. Medicom uses events initiated in the RIS or EHR to initiate Smart Search. The start of an event-driven clinical workflow and the corresponding HL7 v2 order (ORM^O01) or schedule (SIU^S12) message automatically triggers a search on the network for relevant priors. All organizations that have authorized Smart Search will receive the search, and imaging exams that meet strict patient matching and relevance criteria will be transferred back to the requesting organization. The process of ingesting external studies can be further automated with retroactive order generation for outside (foreign) studies.



Cheryl Petersilge, MD *Medicom Medical Consultant*

Cleveland Clinic: Former Medical Director: Integrated Content & Enterprise Imaging

Vidagos: Founder

"[Medicom's] model most closely meets the functionality required for the free flow of information among healthcare providers, reducing information gaps and supporting information flow across the care continuum." — Cheryl Petersilge, MD, MBA

Cheryl, Medical Consultant for Medicom, founded Vidagos to provide healthcare providers with expert enterprise imaging strategy. Her 20+ years of extensive experience uniquely position her to guide healthcare institutions in creating sustainable imaging management strategies. Cheryl co-founded the successful teleradiology practice, NightVision Radiology, and played a key role in setting standards for healthcare imaging strategy at the Cleveland Clinic.

Q: How does Smart Search work?

Medicom Smart Search uses a Large Language Model (LLM) to associate search criteria such as study description, modality type and body part for continuous learning and improved search results. This new approach eliminates the need to constantly update mapping rules, alleviating rigorous mapping work that was previously needed to determine search criteria.

An order is placed or a patient is scheduled for an appointment: The appointment priority level (STAT, Routine, etc.) is used to either immediately issue a search of authorized organizations or wait until a scheduled time.

Event message generated: Information is gathered from the HL7 order or scheduling message or through FHIR/API access.

Determining what is relevant: A Large Language Model (LLM) uses this information to determine relevant exam types. This model will continue to learn to enhance the search results.

Medicom Connect Network Search: Medicom Smart Search automatically broadcasts a federated search of Medicom Connect authorized provider organizations.

Processed: All Trusted Contacts who have authorized Smart Search requests will receive the query.

Matched record: For patient safety, Smart Search will only return data if a single, distinct match is returned from an external system for the patient and the patient has relevant prior imaging exams.

Reconciliation: The process can be further automated with retroactive order generation for outside/foreign studies and reconciliation into PACS.

Q: We're on the Medicom Connect Network, why should we opt in to Smart Search?

Medicom's unique architecture enhances network security and protects patient data by employing a conservative approach to cloud utilization. Unlike other vendors, Medicom only passes metadata to the cloud, using study descriptors instead of patient demographics and images to return searches. As Smart Search participants, Medicom Connect users manually process significantly less requests for priors, decreasing the risk of information blocking and freeing up staff resources.

Health systems that use Smart Search experience:

- Cost savings related to resources spent locating and retrieving prior exams
- Reallocation of financial resources spent on CDs, VPNs and other legacy solutions for sharing and exchanging patient data
- · Reduction in the amount of repeat exams
- Increased staff satisfaction
- Improvements in quality and efficiency of care

Q: How does Smart Search meet HIPAA laws?

Medicom is designated as a non-covered entity under HIPAA and HITECH rules (45 CFR 160.103). Medicom's data transfer protocol exceeds HIPAA and HITECH requirements for ePHI, allowing users to be compliant with applicable rules (45 CFR 160.302-.318). Unlike most cloud offerings, we do not store diagnostic data.

Health systems utilizing Smart Search to retrieve and access common patient data from other health systems are exercising continuation of care and remain in compliance with HIPAA regulations. Medicom executes a BAA with each of the user-entities and all sign a common terms of service agreement. In addition, there are detailed user query disclosures and modification logs in Medicom Connect ImageX.



Q: What about Patient Consent? Am I allowed to share a patient's data with another facility without a release of information signed?

Yes - HIPAA specifically allows for the sharing of PHI for continuity of care.

From the <u>Department of Health and Human Services</u>, "if the disclosure of PHI is for the health care operations of the recipient covered entity, the Privacy Rule requires that:

- Each entity either has or had a relationship with the individual who is the subject of the PHI being requested
- The PHI pertains to that relationship
- The disclosure is for a health care operation listed in paragraphs (1) or (2) of the definition of health care operations or for health care fraud and abuse detection or compliance. 45 CFR 164.502(a)(1)(ii); 45 CFR 164.506(c)(4)."

Q: How does Smart Search navigate rescheduled appointments?

The need to update or modify scheduled appointment is on-going as you serve your patients and coordinate with their schedules. In a scenario where a patient adjusts their original appointment date or time, rescheduled HL7 v2 SIU messages automatically change the appointment data without a manual user trigger. Additionally, Smart Search allows manual triggers in the event the health system would prefer to allow a user to initiate the search.

Q: How will Smart Search impact my patients?

Because Smart Search provides interoperability between health systems, patients are able to receive more specialized care at a greater range of care choices in their communities and across the nation. Organizations that adopt interoperability, especially through Smart Search, lead their network in quality and efficiency of care and have a higher rate of <u>patient satisfaction</u>. Many value-based reimbursement models award payments and reimbursements for reaching a threshold of quality care, which includes rates of patient satisfaction.



Q: How do I make sure we are only allowing access to those that need this data for continued treatment of the patient?

Smart Search is validated by the covered entity's scheduling or ordering system. An end user is not involved in searching for patient data in the event-driven Smart Search workflow. Each time this workflow is invoked, it is tied to a unique appointment ID, which is tied to the upcoming continuity of care event or order. This unique identifier is held in audit logs so that the order and relevancy criteria can be subjected to review. The end-user is not permitted to search for or retrieve any data - permissions allow the system to invoke this workflow based on a relevant, upcoming procedure.

All queries are captured in HIPAA logs that meet HIPAA compliance standards, typically including:

- Who accessed the network
- · What time they accessed the network
- · What actions they performed
- What documentation or data they viewed regarding the patient

Q: How does Medicom Patient Matching work with Smart Search?

Smart Search will retrieve data ONLY if there is a unique patient match. An exact match is based upon three points of identification - name, date of birth and sex.

Q: What if we have patients with sensitive data that need to be excluded from searches?

We know there are unique circumstances where certain patients need to be excluded from Smart Search to limit unwanted attention and enhance their privacy and security. Using External Retrieve Search Limiters, you can exclude specific patients from searches triggered by external organizations. Common examples of patients that may require exclusion are:

- Public figures
- High level business executives
- Politicians

- Professional athletes
- Celebrities



Q: How do we configure our Medicom Connect ImageX space to allow for **Smart Search?**

As a Medicom Connect customer, you are in control of the level of access you grant other organizations. The steps to configure your Medicom Connect ImageX space to allow for Smart Search can be found in our <u>Customer Community</u> Knowledge Base articles or Medicom Connect ImageX <u>User Manual</u>. For additional assistance you are encouraged to submit a Support Ticket by visiting our Customer Community.

Support Resources:

Customer Community

Medicom **User Manual** **Submit a Support Ticket**

To get started with Medicom Smart Search. reach out to your Account Executive or schedule a meeting.







