



# Points of Light 2023 Case Study 2

Improving the Speed and Transparency of Authorizations through FHIR  
API-Enabled Data Sharing

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# Case Study 2

## Improving the Speed and Transparency of Authorizations through FHIR API-Enabled Data Sharing

### Executive Summary

Prior authorizations for referrals and clinical procedures are widely acknowledged as a significant pain point for all involved parties—payers, providers, and patients. Using implementation guides from HL7's Da Vinci Project, the collaborators in this case study created bidirectional data exchange through a FHIR API that enables an automated, in-workflow authorization process. The pilot use cases have been successful, achieving improved efficiency, reduced costs, and—most critically—more timely care and improved patient outcomes.

### Applicable to Other Organizations and Partnerships



### The Collaborators

**UC DAVIS HEALTH**

**Location:** CA  
**Sizing:** ~650 beds

*Payer Organization 2*

**Anonymous**  
**Location:** Nationwide presence  
**Sizing:** 26 million members

**InterSystems®**  
Creative data technology

**Headquarters:** MA  
**Segment:** CMS payer interoperability






### Points of Friction—Challenges to Be Solved

- **High administrative costs associated with labor-intensive authorization processes:** Manual processes for authorizing referrals and clinical procedures are inefficient and costly; some sources estimate that automations cost mere pennies per transaction compared to dollars per transaction for more manual efforts. Given that a vast majority of authorization requests could be automated, this is an area with significant opportunity for cost savings.
- **Siloed workflows and lack of transparency between payers and providers create churn and delay care:** The process for obtaining prior authorization for referrals and clinical procedures is often manual and outdated and is exacerbated by the fact that requirements for authorization vary between payers. Referral requests from community providers to larger health systems offering specialist care can become backlogged, resulting in delayed access to care for patients. The healthcare organization in this collaboration, UC Davis Health, was managing high request volumes that could come via fax, email, web form, Direct messages, and so on, and supporting all these various technologies added to the administrative burden. Both payer and provider organizations would like more modernized, near real-time bidirectional clinical data sharing that reduces their costs and improves the overall patient and provider experience.

### Action Plan—How the Collaborators Worked Together to Reduce Friction

- **Partnered on a pilot to automate authorization requests and approvals for therapeutic Botox treatments:** As a pilot program, UC Davis Health and Payer Organization 2 used implementation guides from HL7's Da Vinci Project to automate authorization requests and approvals for therapeutic Botox treatments. This required extensive management meetings early on to establish governance structures, understand the Da Vinci implementation guides, and get buy-in from all stakeholders.
- **Identified mutual business goals and success metrics:** By automating processes and reducing administrative time, the collaborators' top priorities were to first, improve the patient experience and second, address staffing shortages in payer and provider organizations. Success in this endeavor was defined as fewer denials and quicker turnaround times for authorizations.
- **Established bidirectional, in-workflow data sharing between the payer and provider organizations:** Using InterSystems' HealthShare rules engine to establish a FHIR API and apply the rules from the Da Vinci Project, the organizations were able to connect UC Davis Health's EMR and Payer Organization 2's population health platform. When referral or prior authorization requests come through, Payer Organization 2 can access members' clinical data in the EMR as needed and also send in-workflow requests for additional information. This has eliminated back-and-forth phone calls and faxes, thereby increasing the speed and transparency of prior authorizations.
- **Obtained three-year CMS waiver exempting the collaborators from HIPAA requirements for electronic transactions:** The pilot required special CMS approval exempting the stakeholders from using the standard, HIPAA-required X12, 275, and 278 transactions in the transfer of electronic information. The exemption is for three years and enables the information to be sent as FHIR bundles, streamlining data sharing and improving communication between the payer and provider organizations.

## Points of Light—Outcomes Achieved through Collaboration

-  **Improved efficiency through automated workflows that facilitate timely authorizations for therapeutic Botox treatments**
-  **Improved processes and governance for both parties**
-  **Cost savings for both parties through significant reduction in manual processes**
-  **Improved patient outcomes via more timely access to care**
-  **Three-year CMS exemption that allows electronic data to be transferred as FHIR bundles rather than the standard, HIPAA-required X12, 275, and 278 transactions**

## Lessons Learned—What Best Practices Can Other Organizations Replicate?

- **Develop a collaborative statement of work that includes all stakeholders (payer, provider, and IT vendor):** Proactive partnerships encourage buy-in and accountability for timelines and objectives by fostering joint agreement on the road map. Regular, dedicated discussions foster understanding of each stakeholder's values and goals and facilitate a shared definition of success. The provider partner needs to ensure that both IT and business partner resources are included in these discussions as changing the process for one payer could impact other business operations.
- **Start with a pilot and be clear about the commitment and availability of financial and human resources:** The collaborators started with a pilot, which involved a lot of executive oversight and regular meetings. Once the pilot was successful, additional funding was secured and additional resources could be onboarded, including implementation teams, security teams, and technical resources, like developers and testing analysts.
- **Benefits can be gained without adding to already onerous administrative burdens:** Clinicians are a finite resource, and recent pressures are leading them to opt out of healthcare. Improving their experience is crucial to employee retention. The new FHIR standard is highly configurable and can be leveraged without significant effort from clinicians. The bidirectional nature of the integration improves the speed and accuracy of the submission process, ensuring that all needed data is exchanged and enabling a determination to be made on the first pass.

## What's Next?—Vision for the Future

- **Identify additional use cases and payer/provider partners:** UC Davis Health and Payer Organization 2 would both like to extend the technology to additional use cases and data-sharing partners. Once UC Davis Health identifies a larger set of use cases, they plan to build out better back-end reporting capabilities to allow them to track things like when a request was made and how long it took to get approved.
- **Prove to CMS that the project has reduced the administrative burden:** Since the project was granted a special CMS waiver, the collaborators must now present metrics to CMS proving that the project has reduced the administrative burden for all parties.
- **Build a consent model:** UC Davis Health would like to create transparency for patients by notifying them when a payer requests their information and by limiting what clinical information the payer can see based on the type of authorization that is being requested.