Prior Authorization Request Case Study: The Power of Operational Analytics and Process Automation in Healthcare

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May 2018

Our client, a Medi-Cal community Managed Care Organization (MCO) in California, saw their managed care membership grow by more than 60% between 2013 and 2014 due to Medi-Cal expansion as part of Affordable Care Act (ACA). The organization wasn't prepared for such rapid growth. Demand for medical services grew and all costs related to the managed care operations spiraled out of control. Staff struggled to keep up with the increased volume of work under strict regulatory requirements of turnaround times.

The plan's COO identified utilization management (UM) as one of the highest cost functions since it employs registered nurses and physicians to review the medical necessity of requested services. Even though the UM department was rapidly increasing its workforce to keep up with demand for its services, it still could not meet state-mandated turnaround times for service requests.

The COO called in a team from Health Roads and DocuStream to observe the UM workflow and do a time study, workflow shadowing, and analysis of the production data to optimize business processes. The team quickly observed that faxed authorization request documents were at the core of the problem.

While the plan had made a web portal available to its networked Providers for electronic submission of documents, few providers were using it. Most found it more convenient to fax or could only transmit their supporting clinical documentation via fax. To deal with the high volume of faxed Prior Authorization requests, the UM department was employing a large team of full-time and temporary operators, supervisors, nurses, and doctors to:

- Open each fax as a PDF file and read the contents, if the handwriting was legible
- Often times call the provider office to confirm the content or manually fax back with their rejection comments
- Label and assign the file using the Windows folder system for workflow routing
- Transcribe key information from the PDF image into the UM IT system
- Look up missing or illegible information
- Resolve Member ID and Provider NPI not found issues
- Resolve ICD-10 and CPT Code/Modifier/Quantity mismatch issues
- Read the physician notes and supporting docs in the faxed PDF
- Look up the clinical guidelines and make an initial review decision
- Call (or email) a Medical Director to jointly review the complex cases especially if the authorization
- request is to be denied

Much of the low-level work of collecting and verifying request data was being performed by medical staff who should have been focused on high-level review. In addition, extra time was spent routing files between Windows folders, and between operators, nurses, and the medical directors. There was little or no automation; often information had to be shared by phone instead of routed electronically through the UM system. This not only increased staff workload, but also led to higher error rates.

The Prior Auth Request form itself was a major problem. At least six form variants were "in the wild", some as old as 8 years, with different layouts and data fields that didn't map consistently with the UM database. Most of the forms were handwritten and difficult to read, prompting phone calls with the provider. At times the UM staff were guessing what the provider meant to request, based on personal experience with that physician.


Urgent!
Health Community Network Center - Prior Authorization and Referral Request Form
Urgent
This is Urgent

Poorly hand-written prior-authorization form

In the absence of any defined staff productivity metrics, managers couldn't accurately tell how many requests were getting processed by each person per day. When the backlogs increased, the department was asking for additional staff to meet turnaround times. A vicious circle arose: providers who didn't hear back for several days were re-submitting requests and labeling them "Urgent", adding to the delays and backlogs.

Based on these observations, the Health Roads / DocuStream team identified three target areas for operational and technical change: **(1) Workflow operations & automation, (2) Input form design, and (3) Provider Outreach & Feedback.** Below, we describe the solutions we implemented and their effect on costs, turnaround times, and regulatory compliance.

New Workflow & Automation

In a bid to speed up workflow processing, the health plan asked DocuStream to start performing Prior Auth data entry and validation as an outsourced service. An implementation team including UM, IT, and Provider Relations staff came together to assure that the front-end data capture and validation fit together seamlessly with the back-end clinical review and decision-making. The team defined and implemented the data exchange formats, validation rules, form layouts, reject and acknowledgement scenarios, provider outreach, and testing procedures.

Data Exchange Format: The standard EDI transaction set for UM Prior Auths is the ANSI X12 278 (Health Care Services Review & Response), but in this case the system required data to be uploaded in a custom flat file format. DocuStream and Health Roads worked with IT to define the data set and database schemas, and also created specific validations, default elements, and reject rules to ensure only clean data was uploaded in the format supported by the UM system. The team also defined the image file formats and XML metadata for linking supporting documentation images to request data.

Validation Rules: UM staff had been spending inordinate amounts of time validating Member IDs, Provider NPIs, ICD codes, and CPT/modifier codes. Often an invalid entry would need to be resolved downstream at high cost, or the Prior Auth request would simply be denied.

Health Roads and DocuStream implemented an extensive set of standard and custom rule-based validations for each data field. These rules not only flag invalid entries, but also attempt to resolve invalid or ambiguous data through lookup tables and databases. Finding alternate provider NPIs and disambiguating Member ID and Name variants has vastly reduced Member and Provider Not Found errors and substantially increased auto-adjudication rates.

Outpatient Form: DocuStream and Health Roads helped the UM staff determine the key data fields required for informed UM review. The form was then simplified and made more readable, eliminating all shading, inverse text, thick lines, decorations, and backgrounds, with enough space to allow providers to enter all data comfortably. The new form was published on the plan's web site as a fillable PDF file. The UM team then set out to "evangelize" the new form to providers. Alleviating earlier concerns, the team found that virtually all providers prefer to use a pre-saved PDF form, because it is actually less work than filling out a paper form by hand and allows re-using repeated information.

Inpatient Face Sheets: Since Inpatient hospital face sheets can't be redesigned, DocuStream set up an internal workflow to extract the data from these forms using a combination of forms processing automation, OCR, and manual key verification by operators. The separate Inpatient and Outpatient workflows deliver clean, verified, and formatted Prior Auth data for import into the UM IT system.

Acknowledgements & Rejects: Resubmissions and duplicates were a major cause of backlogs in the old process. To address this problem, Health Roads and DocuStream set up an ongoing Fax Back service that acknowledges each Prior Auth request within hours of receipt, with a small image snippet of the original request showing exactly what was sent and instructions to deal with any problems detected. Providers could now see how handwriting, obsolete and dirty forms, and missing data fields just slow down their request.

By the fourth month of processing, more than 85% of the Outpatient request forms were new, typed, clean, and readable – substantially cutting duplicates, resubmissions, "urgents", and phone calls, while improving provider satisfaction.

CHCN Prior Authorization Request

Network Health Community Center

Please Don't Handwrite!

TYPE OF REQUEST (please select only one)

Routine

Urgent

Retro

Modification

REQUESTING PROVIDER

Name: Sergei Prokofiev
Address: 3 Orange Square
City: Moscow State: RU Zip: 12345
NPI #: 31415926359
Office Contact: Nikolai Rimsky-Korsakov
Phone: 666-123-1313 Fax: 666-123-0002
Email: tsarvlad@comcast.ru

MEMBER

First Name: Pyotr Ilyich
Last Name: Tchaikovsky
Date of Birth: 05/07/1840
Address: 1812 Onegin Blvd
City: St. Petersburg State: RU Zip: 90210
Health Plan ID#: 662606957
Newborn? DOB: 03/01/2015
Phone: 510-555-1234
Other Insurance (i.e. Commercial, Medicare A, B):
United Healthcare of Siberia

PLACE OF SERVICE:

AUTHORIZE TO

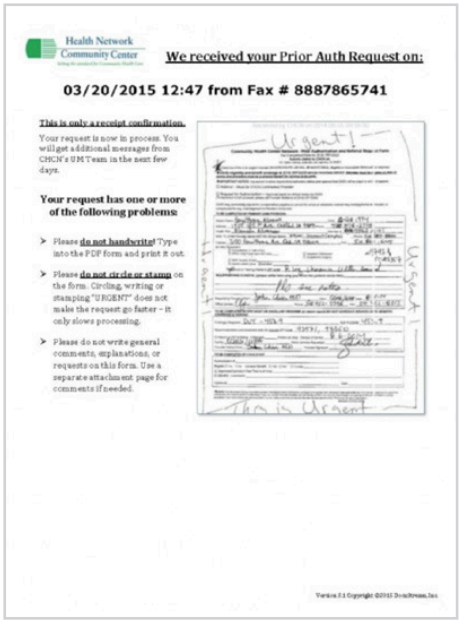
Name/Facility: Mayo Clinic
Specialty/Dept: Club Sandwiches
NPI #: 1618033988
Anticipated Date of Service: 10/14/2014
Phone: 507-266-5670
Fax: 507-266-5671
Address: 200 First Street
City: Rochester State: MN Zip: 55905

Non-Contracted. Please give reason for out of network provider request.
We were out of mustard, so we decided to use some more Mayo.

DIAGNOSES / SERVICE CODES

ICD-9 Codes:	123.45			678.90			987.65			432.10			123.45			678.90			987.65			432.10			666.66		
CPT/HCPCS	Mod	Qty	CPT/HCPCS	Mod	Qty	CPT/HCPCS	Mod	Qty	CPT/HCPCS	Mod	Qty	CPT/HCPCS	Mod	Qty	CPT/HCPCS	Mod	Qty	CPT/HCPCS	Mod	Qty	CPT/HCPCS	Mod	Qty	CPT/HCPCS	Mod	Qty
90210	25	101	94305		1	99	20005	50	0	75205	99	10															
94111	11	49	02138	99	1	95834	ZZ	799	60611	55	1																
89109	A1	21	10001	AA	666	33139	2	3	81611	12	200																

Structured fillable PDF form designed to eliminate hand writing on the form



Health Network Community Center

We received your Prior Auth Request on:

03/20/2015 12:47 from Fax # 8887865741

This is only a receipt confirmation.

Your request is now in process. You will get additional messages from CHCN's UM Team in the next few days.

Your request has one or more of the following problems:

- Please do not handwrite! Type into the PDF form and print it out.
- Please do not circle or stamp on the form. Circling, writing or stamping "URGENT" does not make the request go faster - it only slows processing.
- Please do not write general comments, explanations, or requests on this form. Use a separate attachment page for comments if needed.

Acknowledgement of receipt of the form faxed back to the provider offices. Also contained automatically generated feedback to change behavior of staff at the provider offices.

Provider Outreach: Provider behavior can be difficult to change. With that in mind, the Provider Relations and UM teams continually reach out to providers, urging them to send in clean, complete, typed requests, while emphasizing that the benefits to the provider. Such outreach to providers is critical for success and remains an ongoing part of the service.

Metrics: Health Roads defined performance metrics for all departmental staff and enabled managers to analyze their performance with data visualization. A leader board showcased names of the high performers. This competitiveness increased the overall productivity of the department.

Results

Within three months of implementation, our client plan saw dramatic improvement in overall UM productivity: delays and backlogs disappeared, turnaround time was cut in half, and processing cost per request fell by 40 percent. Overall profitability of the organization improved as the cost curve was bent while membership and revenue increased steadily. Morale rose as UM staff focused on higher value-added services without the stress of looming regulatory deadlines.

Building a Solution, Poweered by Analytics

Paying attention to the operational inefficiencies in the UM workflow has paid large dividends. A “just-in-time” operations management approach, powered by analytics, forced the organization to measure throughput, identify failures, and implement an efficient process. Healthcare organizations are going through many transformational changes and will have to stay efficient and nimble so that they can eliminate waste and change appropriately in response to the macro environment.