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Robotic Process Automation in Healthcare

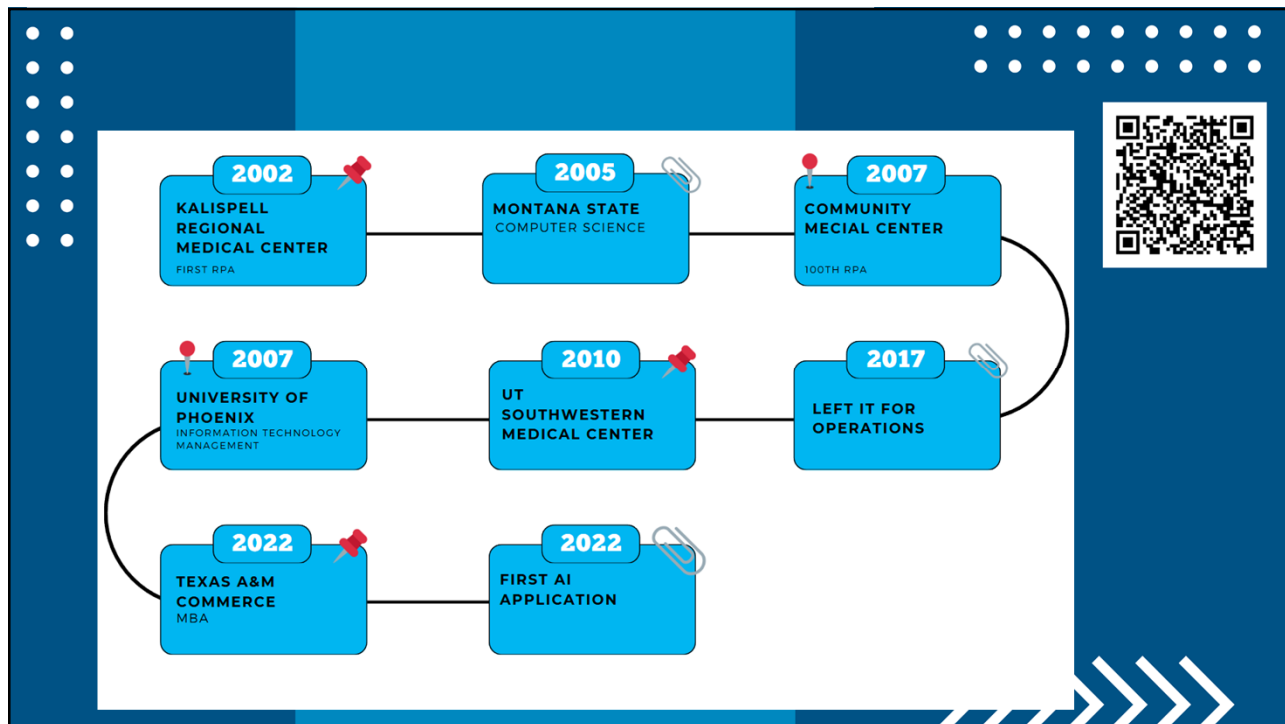
Transforming Operations for the Future

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THE STORY OF
**MICHAEL
LAUKATIIS**



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Using Mentimeter Today

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Where are you at in your current RPA Journey?



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Robotic Process Automation in Healthcare What is RPA?

■ What is RPA?



This is Bob
Bob works in Healthcare Revenue Cycle

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What is RPA?

■ Bob's Workflow



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What is RPA?

■ Bob then send this to the Boss



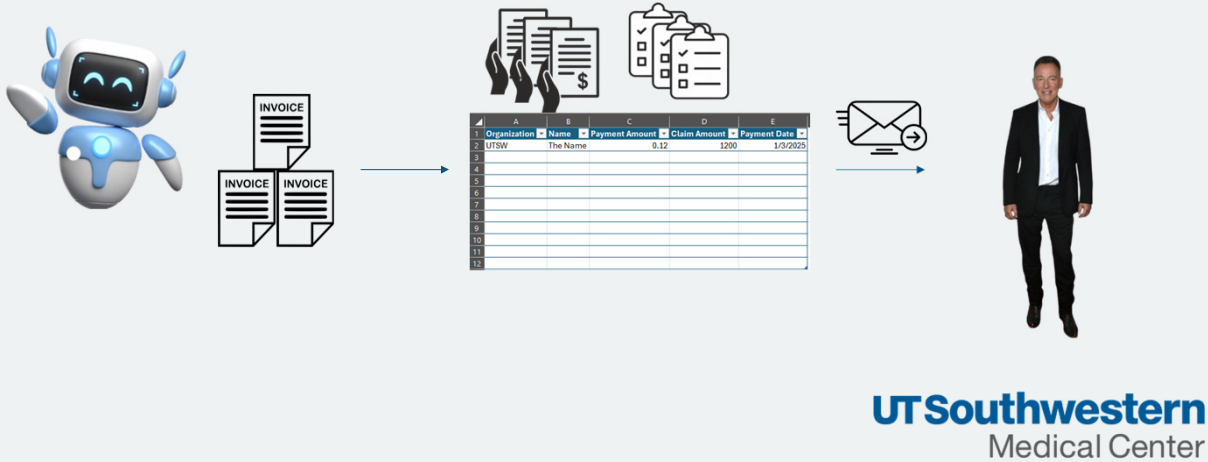
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What is RPA?

- Bob has found Robotic Process Automation!



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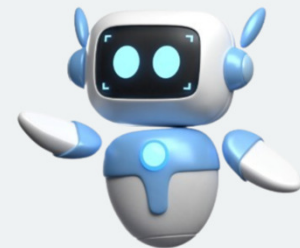
So what is it exactly?

What it is:

- Software developed by humans to replicate tasks
- Tool for assistance of Repetitive Tasks
- Simplification Devices

What it is not:

- Not a physical form robot
- Not a replacement for Human Workforce
- Not a critical thinking machine



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10 Best RPA Tools and their Features in 2024

The infographic features a central blue circle with the title. Surrounding it are ten RPA tool logos: UiPath, WorkFusion, NICE, KRYON, blueprism, AutomationEdge, Pega, KOFAX, Power Automate, and Automation Anywhere. The UT Southwestern Medical Center logo is located in the bottom right corner of the slide.

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If you are using RPA, what Software do you use?

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Robotic Process Automation in Healthcare Key Benefits of RPA in Healthcare

Why RPA?

- Streamlined Workflows
- Reduced Errors
- Cost Savings
- Improved Patient Experience

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Robotic Process Automation in Healthcare UTSW 5 Year Roadmap

5 YEAR ROADMAP

FY-YEAR 2022	FY-YEAR 2023	FY-YEAR 2024	FY-YEAR 2025	FY-YEAR 2026
<ul style="list-style-type: none"> • Pilot Automation • Research • Install Freeware • ROI 	<ul style="list-style-type: none"> • Choose Software • Hire Developer • Build 5 Automations • Develop Department 	<ul style="list-style-type: none"> • 10 Automations • Hire 2nd Developer • Virtual Machines • AI Azure Server 	<ul style="list-style-type: none"> • Machine Learning • 2 AI Builds • 10 Automations • Hire 3rd Developer 	<ul style="list-style-type: none"> • 2-3 AI Builds • 10 Automations • Community Builds

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Robotic Process Automation in Healthcare Awesome, So What Do We Automate?

- Inventory your Processes (SOP Library)
- Evaluate Tasks Using Key Criteria
 - Repetitiveness
 - Time Consumption
 - Complexity vs. Standardization
 - Risk or Error Rate
 - Impact on Productivity
 - Cost-Benefit Analysis
- Prioritize Potential Automation Projects
- Conduct a Proof of Concept (Pilot program)
- Refine and Scale
- Measure Results and Continuously Improve <-- We are here



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Robotic Process Automation in Healthcare SOP Library

SharePoint start page: Revenue Cycle Operations SOP Library

Home + New Page details Analytics Published 10/6/2021 Share

SOP Library

SOP/Tip Sheet Submissio...

Payor Published Regulati...

Recycle bin

Edit

Welcome to the Revenue Cycle Operations SOP Library

This site will house the Standard Operating Procedures (SOPs) that are applicable to all departments within the Revenue Cycle. SOPs are filed by department. You will also find within the SOPs, Tip Sheets & Workflows that pertain to your department.

If you have an SOP or Tip Sheet that needs to be added, please click on the "SOP/Tip Sheet Submissions" button below

[SOP/Tip Sheet Submissions](#)

Please review the SOP for SOPLibrary document for help and requirements for submission. Click on

Quick Links to SOPs housed external to this sharepoint site

- [Hospital \(HB\) PAS SOPs](#)
- [Hospital \(HB\) PAS Tip Sheets](#)
- [EPIC Upgrade Tip Sheets \(HB, PB, ADT\)](#)

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Robotic Process Automation in Healthcare SOP Library

Home

SOP Libr

SOP/Tip

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Recycle

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UT Southwestern Health System
Revenue Cycle
Standard Operating Procedure

Published 10/6/2021

Share

SOP Name:	HB Workers Comp 19 Denials SOP	Created By:	Linda P, Jessica E., and Laura A, Abby S
Covered Department(s):	Demos	Approved By:	
		Version Number:	
Effective Date:	1/13/2021	Revision Date:	4/5/2023

SOP Description

The patient's insurance has denied for denial code 19 stating these services should be billed and covered by the patient's Workers Compensation carrier.

The follow steps show how to obtain and verify the patients Workers Compensation coverage, how to create a Workers Comp guarantor, and how to update the HAR in order to bill the Workers Comp coverage under the correct guarantor.

Process

Step 1. Review EOB/Remittance to determine accuracy of the denial.

- If the insurance that denied for 19- workers comp related and the patient is the subscriber for UTSW policy, go to **Step 7.**
- If any other insurance denied for 19-workers comp, move to **step 2.** If they denied for a different denial, please reference the correct SOP.

Step 2. Review the patient history and patient chart notes to confirm that the services are truly related to workers compensation

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Robotic Process Automation in Healthcare Return on Investment Toolkit

UTSW Return on Investment Toolkit	
Automation Demographics	
<p><small>Intent: This section represents important demographic information of each automation to be used in deliberation.</small></p> <p><small>Directions:</small></p> <p><small>1. Please complete the fields below. Refer to notes where applicable.</small></p>	
Item	Description/Response
Authoring organization name:	
Revenue Cycle Process:	Other: 4.08
Automation Tool/RPA Platform:	Other: \$ 367,500.00
Hospital Billing or Physician Billing:	Other: \$ -
Primary application being automated:	Other:
Insert environment for client applications:	Other:
Insert environment restrictions/prerequisites:	Other:
Select desired bot process from drop down:	Other:
Automation description:	
Has a native, non-RPA, solution been pursued?	Description: nation implementation)
Select desired process schedule and frequency: <small>(If other, or specific configuration required, list in "Other" Section)</small>	Other: nation)
Select anticipated input list source:	Other:

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Robotic Process Automation in Healthcare Prioritization Grid

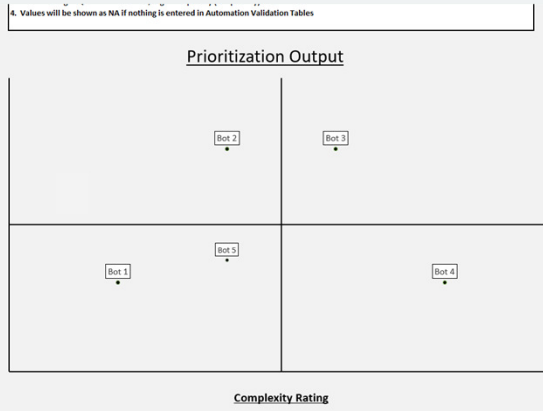
Automation Validation Summary - Automation 1			
Item	Description		
Complexity output:	Preferred RPA Candidate		
Cumulative Return on Investment:	Year Three:	\$100,000.00	
Anticipate volume output:	Daily:	500	Monthly: 3000

Automation Validation Summary - Automation 2			
Item	Description		
Bot process name:	Bot 2		
Complexity output:	Good RPA Candidate		
Cumulative Return on Investment:	Year Three:	\$250,000.00	
Anticipate volume output:	Daily:	5000	Monthly: 15000

Automation Validation Summary - Automation 3			
Item	Description		
Bot process name:	Bot 3		
Complexity output:	Manageable RPA Candidate		
Cumulative Return on Investment:	Year Three:	\$250,000.00	
Anticipate volume output:	Daily:	3000	Monthly: 9000

Automation Validation Summary - Automation 4			
Item	Description		
Bot process name:	Bot 4		
Complexity output:	Inefficient RPA Candidate		
Cumulative Return on Investment:	Year Three:	\$100,000.00	
Anticipate volume output:	Daily:	10	Monthly: 300

Automation Validation Summary - Automation 5			
Item	Description		
Bot process name:	Bot 5		
Complexity output:	Good RPA Candidate		



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How do you measure the success (ROI) of RPA in your Org?



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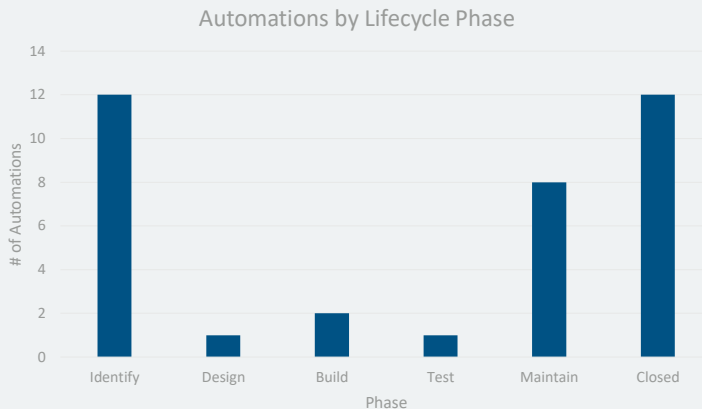
Robotic Process Automation in Healthcare Great, Mike what did you Automate?

- Medicaid Look up
 - 18,000 Patients looked up monthly between 4 staff members
 - Time to look up a patient ranged from 2 – 7 minutes (average of 3.5)
 - We broke down the cost, 260 working days 137 tasks per day (35,620)
 - Annual Salary 55,000
 - 55,000 / 36,620 is roughly \$1.54 a task
 - Monthly FTE savings is \$22,000
- EKG Charge Modifications
 - Review EKG charges – Determine Modifier (Same Day/Provider)
 - Time to complete 1 minute
 - Volume 27000 a month
 - Task breakdown is \$1.90
 - Monthly FTE savings at \$25,000

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Robotic Process Automation in Healthcare Automation Program Overview (Jan 2025)



- **Program Goal:** 10 new automations live by 8/31/2025
- **Program Health: On Track**
- **Key use case updates:**
 - **NOA:** ROI approved by Operations Leader and has been moved into "design" phase - estimating starting development in early January
 - **Claim Status - UHC:** currently in testing, targeting go live week of 12/16
 - **On deck use cases for design:** appeal statusing, appeal correspondence, PHHS coverage updates, PB claim status
- **Key program updates:**
 - **Analytics:** emailed Operations for automation specific productivity standards to refine ROI FTE savings
 - **Maintenance strategy:** Integrated maintenance incidents and ticketing process into Teams - will improve management and tracking of issues
 - **SLA:** finalized Automation Team:Operations SLA - ready to present to Operations

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Robotic Process Automation in Healthcare ROI to Date (Jan 13, 2025)

AUTOMATION_NAME	2019	2020	2021	2022	2023	2024	2025	Total
TMHP Medicaid	\$44,000.00	\$264,000.00	\$264,000.00	\$264,000.00	\$264,000.00	\$264,000.00	\$22,000.00	\$1,386,000.00
Chaco/Paco				\$84,000.00	\$252,000.00	\$252,000.00		\$588,000.00
EKG Charge Modifier					\$2,986.80	\$253,650.00	\$11,715.40	\$268,352.20
Referrals Epic						\$36,536.50	\$3,286.25	\$39,822.75
Interface Errors						\$34,616.15	\$1,135.05	\$35,751.20
MSA Redistribute					\$226.00	\$5,386.00		\$5,612.00
Referrals Availity						\$2,255.00	\$176.00	\$2,431.00
MSA Offset					\$398.00	\$612.00		\$1,010.00
Medical Record Epic Download						\$709.65	\$78.85	\$788.50
Medical Record Epic Post Note						\$344.45	\$16.60	\$361.05
PB Adjustments						\$183.00		\$183.00
Medical Record Availity Upload						\$161.85		\$161.85
HB Adjustments						\$36.00		\$36.00
Total	\$44,000.00	\$264,000.00	\$264,000.00	\$348,000.00	\$519,610.80	\$850,490.60	\$38,408.15	\$2,328,509.55

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In one word or short phrase, name the biggest challenge your organization faces in implementing RPA



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Robotic Process Automation in Healthcare Current Barriers

Barrier	Details	Impact	Recommendation	Addressed in IR Initiative?
Unreliable machines	Frequent, unanticipated power outages at Brookriver VMs were included in the budget but funds have not been allocated	Automation downtime with difficulty anticipating resolution timeframe Operations must manually work accounts to avoid delays and backlogs once machines are back online	Utilize virtual machines rather than remoting into machines at Brookriver Michael received approval on this request but has run into fund allocation delays	Yes
Access barriers	Cannot install extensions (e.g. google authenticator for multi factor authentication) on Managed machines	Automations involving Aavailability must run on unmanaged machines (not recommended)	Approve google authenticator as an extension on selected machines for automation program	Yes
Epic build delays	There have been delays in tickets for Epic optimizations that impact volume inflow for our existing or new automations (e.g. PB and HB medical records)	Very low ROI for PB medical records automation and inability to move forward with HB medical records automation	Prioritize ticket with Epic IR due to positive impacts on automation return	Yes
Workflows lacking standardization	Lack of standardization in targeted workflows (e.g. free text diagnosis codes impacting NOA and referrals automations)	Low ROI/not a candidate for continued pursuit	Prioritize process improvements and standardization efforts when surfaced by automation program Assign a resource for automation team to work with on PI efforts	No



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Questions?

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Michael Laukaitis
Michael.laukaitis@utsouthwestern.edu

