

Process Design Document / Solution Design Document

IAH TELEPHARMACY ANTICOAG RESULTS AUTOMATION

Purpose of Document

This document serves as the technology policies and procedure for Intelligent Automation Hub at Geisinger.

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1. Document Control

Applies to:	All IAH RPA Operating Model
Classification:	Highly Confidential
Owner:	Intelligent Automation Hub Team

DOCUMENT HISTORY

Version	Date	Author	Approver	Reasons for Change
1.0	1/9/2023			Initial Draft
1.1	1/12/2023			Revisions after SME review
1.2	2/21/2024			Revised and updated with SME.
1.3	4/12/2024			Updated to proposed final iteration.

REVIEW/APPROVAL

Role	Name	Date
SME		
Process Owner		
Business Architect		
Developer		
IAH Director		
Epic HIT Members		

STAKEHOLDERS

Role	Name	Email
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Process Owner		
SME		
Business Architect		
IAH Director		
Developer		
Epic HIT Members		

2. Document Details

2.1 PURPOSE OF THIS DOCUMENT

The Process Design Document outlines the business process chosen for automation and the technology being utilized.

The document describes the sequence of actions performed as part of the business process, the conditions and rules of the process prior to automation and how they are envisioned to work after automating it, partly or entirely. This specifications document serves as a base for developers, providing them with the details required for applying automation to the selected business process.

3. Current State Process Description

3.1 PROCESS SUMMARY

The current process involved the pharmacists receiving the results of PT INR and Heparin, low molecular weight results to their own results folder in Epic InBasket and addressing the results by making same day or next day appointments for patients for Anticoag phone call visit types.

3.2 DATA FLOW & APPLICATIONS

3.2.1 INPUT

Input	Format	Location	Is it natively digital?	Is it structured?
Epic Results InBasket Messages	Digital / Epic Inbasket	Epic	Yes	Yes
TeleRx Anticoag InBasket Messages Report	Excel	Epic	Yes	Yes
'Attached Pharmacists' CCPS File	Excel	SharePoint	Yes	Yes

3.2.2 OUTPUT

Output	Format	Location	Frequency	Comment
Excel Output File	XLSX	Telepharm SP Site	After each run	Link: https://geisinger.sharepoint.com/sites/Gen/Telepharmacy/Shared%20Documents/Forms/AllItems.aspx?newTargetListUrl=%2Fsites%2FGen%2FTelepharmacy%2FShared%20Documents&viewpath=%2Fsites%2FGen%2FTelepharmacy%2FShared%20Documents%2FForms%2FAllItems%2Easpx&noAuthRedirect=1&id=%2Fsites%2FGen%2FTelepharmacy%2FShared%20Documents%2FBot%2FAnticoagulation%2FOutput%20Files&viewid=28f0ad1b%2D73ac%2D4bc1%2Dbe58%2Daf4434ce8358

3.2.3 APPLICATIONS

Application	Version	Interface	Req Key / Operation / URL	Comment
Epic EHR		Desktop Application	Username: IAHANTICOAG	
SP	N/A	Web Application	Access will need to be given to Bot users	https://geisinger.sharepoint.com/sites/Gen/Telepharmacy/Shared%20Documents/Forms/AllItems.aspx?newTarget

				ListUrl=%2Fsites%2FGen%2FTelepharmacy%2FShared%20Documents&viewpath=%2Fsites%2FGen%2FTelepharmacy%2FShared%20Documents%2FForms%2FAllItems%2Easpx&noAuthRedirect=1&id=%2Fsites%2FGen%2FTelepharmacy%2FShared%20Documents%2FBot%2FAnticoagulation&viewid=28f0ad1b%2D73ac%2D4bc1%2Dbe58%2Daf4434ce8358
Excel		Desktop Application		Output files
Outlook		Desktop Application		Error notification emails

3.3 BUSINESS RULES

Rule	Detail
Automation Frequency	Daily (Monday to Friday)
Bot Start Time	4:30A – 11:00A, then 12:00p – 3:00P (Mon → Fri)
Excluding weekends and holidays	Yes, exclude weekends and holidays
SLAs	4:30A – 11:00A, then 12:00p – 3:00P (Mon → Fri)

3.4 CURRENT STATE METRICS

Avg. Daily Transactions	# Batches Daily	Avg. Volume / Batch	Weekly Avg. Volume	Frequency
300 results (transactions)	2 batches daily	150 results (transactions) per batch	1,500 results (transactions)	Daily (Monday to Friday)

3.5 CURRENT STATE PROCESS FLOW

High-Level Process Flow Diagram (Current state):

1. Pharmacists log into Epic.
2. Pharmacists go to the Results folder.
3. Pharmacists find the PT INR and Heparin, Low Molecular Weight results.
4. Pharmacists schedule or cancel necessary Anticoag appointments for patients.
5. Pharmacists 'DONE' the message from their Epic InBasket and address the next message.

4. Future State Process Description

4.1 FUTURE STATE PROCESS FLOW

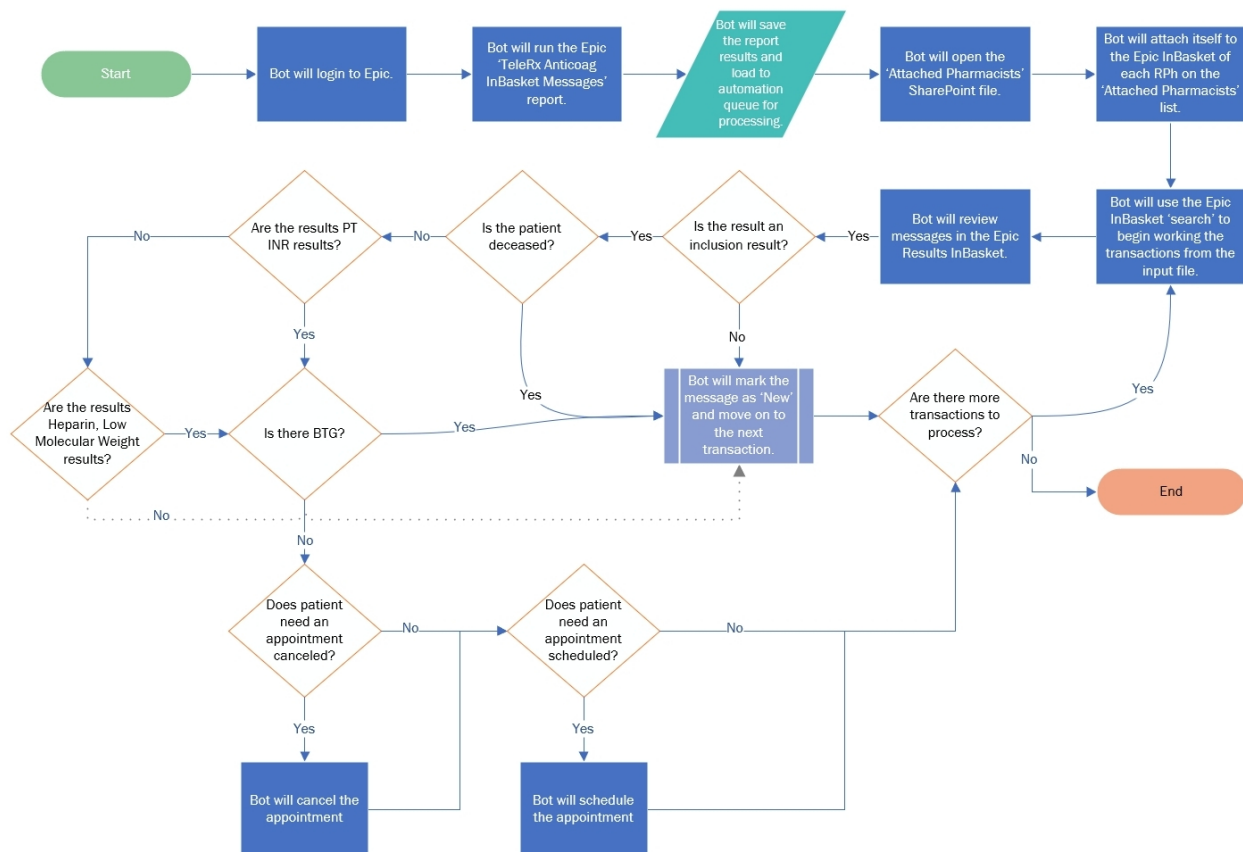
High-Level Process Steps

1. Bot will log into Epic.
2. Bot will run the Epic 'TeleRx Anticoag InBasket Messages' report.
 - a. Bot will save the report results and load the input file to the automation queue for processing.
3. Bot will open the 'Attached Pharmacists' list in SharePoint.
4. Bot will attach itself to the Epic InBasket of each RPh on the 'Attached Pharmacists' list.
 - a. If any of the Pharmacists return a 'no match found' response in Epic, the bot will report it in the output file.
5. Bot will use the InBasket 'search' functionality to begin working through the transactions (MRNs) loaded from the input file (i.e., 'TeleRx Anticoag InBasket Messages' report).
6. Bot will confirm the patient and click on 'Results' in the Search submenu in the left sidebar.
7. Bot will review the message in the Results InBasket.

- a. If the result is for either a PT INR or Heparin, Low Molecular Weight, the bot will go to Step #8.
 - b. If the result is NOT for a PT INR or Heparin, Low Molecular Weight, the bot will mark it as 'New' and move on to the next transaction (looping back to Step #5).
- 8. Is the patient deceased?
 - a. If yes, Bot will mark the message as 'New' and go to the step #5 to process the next transaction.
 - b. If the patient is **NOT** deceased, the bot will continue to Step #9.
- 9. Are the results PT INR results?
 - a. Yes →
 - i. If the INR result is between 1.5 to 3.9 ($1.5 \geq \#\# \leq 3.9$), the patient will need to be scheduled or have an appointment the same or next business day. Proceed to Step #11.
 - ii. If the INR result is NOT between 1.5 to 3.9, the patient will need to be scheduled or have an appointment the same business day or the first business day that follows. Proceed to Step #11.
 - b. No →
 - i. Bot will continue to Step #10.
- 10. Are the results Heparin, Low Molecular Weight results?
 - a. Yes →
 - i. If the Heparin, Low Molecular Weight result is less than 2.2, the patient will need to be scheduled or have an appointment the same or next business day. Proceed to next step.
 - ii. If the Heparin, Low Molecular Weight value is 2.2 or greater, the patient will need to have an appointment the same business day or the first business day that follows. Proceed to next step.
 - b. No →
 - i. Bot will document as a business exception and continue with processing the next queue transaction with Step #5.
- 11. Bot will click Chart Review.
 - a. Did BTG pop up?
 - i. If yes, Bot will mark it as 'New', document it as a business exception, and continue processing the next transaction beginning with Step #5.
 - ii. If no, Bot will continue to Step #12.
- 12. Does the patient need a future appointment cancelled?
 - a. If yes, Bot will cancel the appointment.

- b. If no, Bot will continue to Step #13.
- 13. Does the patient have any past appointment or future appointment with inclusion departments?
 - a. If no, Bot will exit the chart, mark it as new, and return to Step #5 to process the next transaction.
 - b. If yes, Bot will continue to Step #14.
- 14. Does the patient have a future appointment to be made?
 - a. If yes, Bot will schedule the appointment.
 - b. If no, Bot will return to Step #5 to process the next transaction.

Bot Automation Process & Workflow Diagram (Future State)



4.2 IN SCOPE FOR RPA

95% of current state process is in scope for RPA.

4.3 OUT OF SCOPE FOR RPA

The actions out of scope for RPA should be listed in the table below together with the reasoning.

Activity/Action	Reason for out of scope	Future State solution	Measures to be taken for future automation
Results other than 'PT INR' or 'Heparin, Low Molecular Weight'	Not an inclusion results type	N/A	N/A

4.4 FUTURE STATE DETAILED STEPS

Step	Short description of key process steps	Screenshot for reference
1.	Bot will launch Epic Production.	
2.	Bot will type its User ID.	
3.	Bot will type its password.	

4.	Bot will click 'Log In'.	
5.	Bot will click in the 'Department' field.	
6.	Bot will type 103587 for 'CENTRALIZED CLINICAL PHARMACY SERVICES WB [103587]'.	
7.	Bot will click 'Continue'.	
8.	Bot will click on 'My Reports'.	
9.	Bot will click in the 'Search for reporting content' field.	
10.	Bot will type '35407104' and press Enter.	
11.	Bot will click the star icon to favorite the "Bot TeleRx Anticoag InBasket Messages" report. <i>Note: Once favorited, bot can click 'My Favorites' instead of manually searching for report each run.</i>	
12.	Bot will click on the pencil icon.	
13.	Bot will click 'Run'. Note: Report settings and criteria, including the list of Pharmacists ("Recipients"), are maintained by the business. N.B. ~ Within the report settings, the business also manages a patient exclusion list, by Name/MRN, that prevents them from appearing on the report. These patients are excluded due to a variety of reasons (e.g., indication for treatment, alternative treatment goal(s), patient preference for same day call, etc.) It is presumed the excluded patients will otherwise appear on this report if they meet the general principles outlined in this PDD.	
14.	Bot will click the vertical ellipses near the upper right corner of the report window.	

15.	Bot will click 'Export Results' from the drop-down menu.	
16.	Bot will click 'Browse'.	
17.	Bot will enter network path for project input folder.	
18.	Bot will click 'Save'.	
19.	Bot will create and enter a password in the File Password field that satisfies the displayed File Password Requirements.	
20.	Bot will click in the 'Verify File Password' field and will reenter the file password created and entered in the previous step.	
21.	Bot will enter/select an Export Reason of 'Other'.	
22.	Bot will click in the 'Comment' field and type 'IAH CCPS Anticoag Results Automation Input'.	
23.	Bot will click Accept.	
24.	Bot will click on the Folder icon in the taskbar.	
25.	Bot will navigate to the network folder housing the exported project input file.	
26.	Bot will load input file to automation queue for processing.	
27.	Bot will return to active Epic Production session by clicking the Epic icon in the Windows taskbar.	
28.	Bot will click 'X' to close the report.	
29.	Bot will click on the InBasket icon.	

30.	Bot will open a browser and type: https://geisinger.sharepoint.com/sites/Gen/Telepharmacy/Shared%20Documents/Forms/AllItems.aspx?viewpath=%2Fsites%2FGen%2FTelepharmacy%2FShared%20Documents%2FForms%2FAllItems%2Easpx&id=%2Fsites%2FGen%2FTelepharmacy%2FShared%20Documents%2FBot%2FAnticoagulation&viewid=28f0ad1b%2D73ac%2D4bc1%2Dbe58%2Daf4434ce8358 then press Enter.	
31.	Bot will click on the document labeled 'Attached Pharmacists'.	
32.	Bot will scrape the Epic ID's listed in column B of the 'Attached Pharmacists' document.	
33.	Bot will scrape the Pharmacist Names listed in Column A of the 'Attached Pharmacists' document to provide information in the output file.	
34.	Bot will return to Epic and click 'Attach'.	
35.	Bot will click in the 'Search for user to add' field.	
36.	Bot will type the first Epic ID scraped from the 'Attached Pharmacists' Excel file. Note: Steps 35 → 39 are repeated for each Epic ID scraped from the 'Attached Pharmacists' Excel file.	
37.	Bot will click on the magnifying glass.	
38.	Bot will click on Add.	
39.	Once the bot clicks add in Step 38, the Pharmacist name will appear in the attach section, above the search field, with a check mark next to it.	

	As noted in Step 36, the bot will repeat this step until all Epic ID's are added from the 'Attached Pharmacists' Excel file.	
40.	If any of the Epic ID's are not found, the bot will put in the output file that the Epic ID was not found. Bot will document as Business Exception and continue with the next RPh on the list.	
41.	Bot will delete the number entered with 'no match' and continue with the next Epic ID from the 'Attached Pharmacists' Excel file.	
42.	When all Epic IDs from the 'Attached Pharmacists' Excel file have been addressed (added or documented as 'no match'), the bot will click on Accept.	
43.	All attached Pharmacists will show up under 'Attached Users'.	
44.	Bot will click 'Search' in the Epic InBasket header menu. Note: Steps 44 → 120 are repeated, as necessary, for each MRN / transaction added to the queue from the Epic RWB 'TeleRx Anticoag InBasket Messages' report input file loaded in Step 26.	
45.	Bot will click in the 'Select a patient' field.	
46.	Bot will enter the MRN from the first transaction in queue to be processed in the 'Select a patient' field.	
47.	Bot will click 'Run'.	
48.	Bot will confirm the MRN exhibited under 'Search for a Patient' is a 1:1 match to the MRN of the patient listed under 'Results'. If it does not match, bot will click Cancel, report it as a business exception, and loop back to Step 44 to process the next transaction in queue.	

	<i>Business Exception: Patient Mismatch</i>	
49.	If the MRN entered and listed under 'Search for a Patient' is a 1:1 match to the MRN of the patient listed under 'Results', bot will click 'Accept'.	
50.	Bot will click on 'Results' in the Search submenu in the left sidebar.	
51.	Once the bot clicks 'Results', the patient messages will display in the InBasket.	
52.	Bot will address the most recent result, listed at the top of the InBasket, that correlates to the queue transaction item. Status (1st Column) = New or Read Visit Date (2nd Column) = Creation Date from Input File Test (Last (6th) Column) = one of the following: PT INR (only) (PT INR; PT INR) (PT INR; PT INR; PT INR) PT INR and Heparin Low Molecular Weight Heparin, Low Molecular Weight Note: If the message does not pertain to one of the pre-defined tests, bot will mark it as a business exception and return to Step 44 to continue with the next transaction. <i>Business Exception: Unable to Validate Test (Results Not Inclusion Result)</i>	
53.	Bot will click on the message. (Bot will obtain the attached pharmacist (i.e., Recipient) Name, Patient MRN, Provider, Test Name, and Result Date for the output file)	

54.	If the patient is deceased, the bot will mark the selected message as new, and loop back to Step 44 to continue with the next transaction. <i>Business Exception:</i> <i>Patient Deceased</i>	
55.	After clicking on the InBasket message AND confirming the patient did NOT pass away, the bot will find the inclusion results on the right-hand side of the screen. PT INR or Heparin, low molecular weight	
56.	The most recent test results are displayed in the first (1st) column of the results table. Adjacent Screenshot illustrates PT INR result. (Bot will scrape the Test Name, Result Date, and Result Value for the output file)	
57.	<i>Revisualization of Step 56 for illustration of Heparin, Low Molecular Weight results.</i> The most recent test results display in the first (1st) column of the results table. Adjacent Screenshot illustrates Heparin, Low Molecular Weight. (Bot will scrape the Test Name, Result Date, and Result Value for the output file)	
58.	<i>PT INR</i> If the INR result is between 1.5 to 3.9 ($1.5 \geq \text{##} \leq 3.9$), the patient will need to be scheduled or have an appointment <i>the same or next available business day</i>.	B o t o c

	Note: This pertains to labs that are within or near the patient's therapeutic range. In general, most people in this range are contacted on the next business day (unless an appt is already scheduled for the same business day). Additionally, the bot should avoid moving a same day call to a next day call unless the appointment status on the future tab is already listed as 'No Show'. If the INR is NOT between 1.5 to 3.9, the patient will need to be scheduled or have an appointment the <i>same business day or the first business day that follows</i>. Note: This is for patients with labs outside of the pre-defined therapeutic range. We need to contact them on the same day unless the results are received over the weekend, or in the evening after we have concluded for the day. For example, if we get a result of 1.3 at 6pm on a Thursday and the patient can't be scheduled for the same business day as business has concluded. So, the patient would need an appointment scheduled for the first available business day (aka Friday in this example). Heparin, Low Molecular Weight If the Heparin, Low Molecular Weight result value is less than 2.2, the patient will need to be scheduled or have an appointment the same or next business day. Note: This pertains to labs that are within or near the patient's therapeutic range. The contact and scheduling guidelines outlined under PT INR for this subset apply here. If the Heparin, Low Molecular Weight value is 2.2 or greater, the patient will need to have an appointment the same business day or the first business day. Note: This pertains to patients with labs outside of the pre-defined therapeutic range. The contact and scheduling guidelines outlined under PT INR for this subset apply here.	om m p a r e t e s t r e s u l t s (i . e . , P T I N R / H e p a r i n , L o w
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		t s c h e d u l i n g .
59.	Appointment Scheduling If the patient has a future appointment that needs to be moved – use the same dept, same provider, same visit type (using inclusion list) If the patient has NO future appointment, the bot will use the previous dept, provider, and visit type (look back 13 weeks).	
60.	<i>Informational – No Action Taken in Step 60</i> Department 103587 Visit Type 32584 Providers (will be used from past or future appointment info): CCPS, Central Region MTM 229845 CCPS, Northeast Region MTM 227483 CCPS, West Region MTM 229846	
61.	Bot will click on the patient's name to enter Chart Review.	

62.	If a BTG (Break-the -Glass) warning pops up, the bot will click Cancel, mark the message as new, and move on to the next transaction. <i>Business Exception: BTG</i>	
63.	If no BTG pop-up occurs, the bot will make sure it landed on the Chart Review tab.	
64.	Bot will ensure it landed on the 'Encounters' tab within Chart Review.	
65.	Bot will check for the date, visit type, department, and provider to see if the patient had a past or future appointments with departments: Pharmacy Call Center WB, and one of the inclusion providers from Step 60.	
66.	If the <i>patient has an appointment that needs to be canceled</i>, the bot will use the same visit type, department, and provider to schedule (using the inclusion list). If the bot needs to make a new appointment (<i>patient does not have future one</i>), Bot will use the most recent past appointment visit type, department, and provider (look back 13 weeks). If the bot needs to make a new appointment (<i>patient does not have a past or future one OR past appointment is >13 weeks</i>), the bot will leave these messages in the InBasket and report as business exception.	
67.	If the patient is a business exception, the bot will exit the chart, mark the message as new, and go to the next transaction. <i>Business Exception: Unable to Schedule</i>	

68.	If the bot has an appointment to make or cancel, the bot will obtain the DOB and MRN, and then Bot will click on 'Appts'.	
69.	The bot will click on the 'Currently Open' patients' name after verifying the MRN and DOB.	
70.	The bot will land on the Appointment Desk.	
71.	The bot will look under Future tab in the Appointment Desk.	
72.	If the patient has an appointment to cancel, the bot will click on the appointment once. If the patient has more than one future appointment under the qualified department, provider, and visit type, the bot will not cancel these appointments but will report them in the output file as multiple qualifying appointments. If the future appointment is not today or next business day, the bot will schedule a new appointment <i>using the scheduling logic from Step 58</i>. If the patient has one future appointment under the qualified department, provider, and visit type, and it is not today or next business day, the bot will cancel and reschedule <i>using the scheduling logic from Step 58</i>.	
73.	Bot will click on 'Cancel/ Reschedule' button.	
74.	Bot will type '133' in the 'Cancel/ Reschedule Reason' box.	
75.	Bot will pick the reason 'Patient not Involved in Scheduling Proc' from the drop-down menu.	
76.	Bot will click 'Cancel Appts'. (Bot will provide MRN, DOB, Cancelled Appt Time, Date, Dept, Provider and Visit Type in success tab)	

77.	If the bot needs to make a new appointment, and cancel a future appointment, it will use the same provider, department and visit type when rescheduling the appointment. Bot will confirm that appointment is cancelled under the future tab.	
78.	If the bot needs to make a new appointment, and did not cancel a future appointment, it will click 'Past' and look under past visits to find the appropriate provider, department, and visit type to schedule.	
79.	Bot will obtain the department number, provider number, and visit type number from the past visit. (Lookback period is 13 weeks)	
80.	Bot will click on 'Book It'.	
81.	If the bot encounters Same Day Appt Pop-Up, bot will click "OK".	
82.	If this window shows up, Bot will click on Let's Get to Work!	
83.	Bot will click in the 'Department' field.	
84.	Bot will type the department number "104500" and click on the magnifying glass. (It is <i>always</i> 104500)	
85.	Bot will click on 'Notes' under the 'New Visit' heading.	
86.	Bot will type "IAH" in the notes field and click on the check mark.	
87.	Under 'Add Visit', the bot will click on 'Add a Visit Type'.	
88.	The bot will type '32584'.	

	(It is <i>always</i> 32584.)	
89.	Bot will click on the magnifying glass.	
90.	Under 'Add Visit', the bot will click on 'Add a provider'.	
91.	Bot will type the provider number in the search for 'Providers' box. (Provider number is determined by the past / or future visit provider) See: Step 60	
92.	Bot will click on the magnifying glass.	
93.	Bot will click on the Provider name from the provider selection window.	
94.	Bot will click on Accept.	
95.	Bot will click on Schedules.	
96.	Bot will click on 'Select a time'.	
97.	If 'Patient Has Same Day Appointments' pop-up appears, the bot will click OK.	
98.	The 'Select a time' window will open. Bot will click on the calendar icon.	
99.	Bot will use the calendar to click on the appropriate day.	
100.	Bot will click on the clock icon in the 'Time' field.	
101.	Bot will click on Hour: 7, Minutes: 30 and AM.	
102.	Bot will click inside the Length box	

103.	The length will auto populate. Bot will click on the check mark.	
104.	Bot will click on Schedule.	
105.	If Bot sees this 'Appointment Warnings' pop-up, the bot will click 'Continue'.	
106.	Bot will click on Schedule.	
107.	Bot will click on Continue.	
108.	If Bot sees this Out of Network alert, the bot will click Continue.	
109.	Bot will click on Schedule.	
110.	If this red stop sign shows up on the right side of the registration window, the bot will click on the 'Referral Source cannot be blank. Referral Source cannot be Self in an Ancillary department'.	
111.	Bot will click inside the 'Referring Provider' field.	
112.	Bot will type the Epic ID of the inbasket user for the referring provider and click on the magnifying glass. <i>Note: The InBasket user for each transaction is identified in Column F (i.e., "Responsible Users/Pools") of the Epic TeleRx report output.</i>	
113.	The Pharmacist name will auto populate.	
114.	Bot will click on 'Close'.	
115.	Bot will click on Accept.	
116.	If bot sees this warning, it will click on 'Continue Anyway'.	

117.	Bot will click on the 'Future' tab.	
118.	Bot will confirm the future appointment is scheduled and put in the output file “Appt Scheduled: Confirmed” or “Appointment Scheduled: Not Confirmed”. (Bot will provide MRN, DOB, Scheduled Appt Time, Date, Dept, Provider and Visit type in success tab)	
119.	Bot will click on ‘x’ to exit patient chart.	
120.	Bot will go back to the same result message by confirming the MRN, DOB, Result Test Type, and Result Value, and then click DONE and start processing the next transaction.	
121.	When all transactions are completed or the bot reaches the end of its runtime, the bot will click ‘Log Out’.	
122.	The bot will click ‘X’ to close out of Epic.	
123.	Bot will go back to the SP folder for Anticoagulation. https://geisinger.sharepoint.com/sites/Gen/Telepharmacy/Shared%20Documents/Forms/AllItems.aspx?id=%2Fsites%2FGen%2FTelepharmacy%2FShared%20Documents%2FBot%2FAnticoagulation&viewid=28f0ad1b%2D73ac%2D4bc1%2Dbe58%2Daf4434ce8358	
124.	Bot will click on the ‘Output Files folder.	
125.	Bot will click on Upload.	
126.	Bot will choose Files.	
127.	Bot will upload the files named:	

	YYYY_MM_DD_IAH_TELEPHARM_ANTICOAG_OUTPUT_FILE	
128.	Bot will click Open.	

4.5 EXCEPTIONS IN THE PROCESS FLOW

Exception	Actions	Comment
Patient Mismatch	Document on output file and move on to the next transaction.	Flag in output file and continue to process next transaction.
Results Not Inclusion Result	Skip the transaction and do not address it	Flag in output file and continue to process next transaction.
BTG (Break-the-Glass)	Skip the message and do not address it	Flag in output file and continue to process next transaction.
Patient Deceased	Mark message as new and move on to the next transaction.	Flag in output file and continue to process next transaction.
Attached RPh Epic ID Not Found	Document on output file and move on to the next Attached Pharmacist on the list.	Flag in output file and continue.
Unable to Schedule (Patients with no past or future Anticoag app)	Skip the message and do not address it	Flag in output file and continue to process next transaction.

4.6 SYSTEM ERRORS

Error	Action	Comment
Application crash (Epic, SP, Excel, Outlook)	Recover and retry 3 times	

Downtime (Epic, SP)	Pause bot if during run time	
Upgrade (Epic, SP)	Review with business and determine what/if any action is necessary	

4.7 PROCESS CONTINUITY

Prevention: Establishing and defining what redundancies and protocols are in place to prevent failures in the process and maintain business continuity. Detection: Defining what protocols are in place for monitoring the process to detect bugs and stop incorrect actions at all points post go-live and escalated monitoring during massive systems changes. Recovery Assessing the level of risk, define strategic stakeholders to be alerted in need of a recovery and outlining the recovery plan to get back to operational state.			
Scenario	Prevention	Detection	Recovery
No message(s) in the InBasket	Business reviews and confirms number of anticipated messages are in the inbasket for the Bot to process to have the expected volumes	Bot scans/inspects for anticipated files/number of files.	- Bot sends notification email to those who are on the distribution list and IAH Prod support team. - Business to resolve the issue and notify IAH regarding next steps. - IAH team to reschedule bot run based on bot's availability.
Input file format changes (Epic RWB export file format changes)	Business to notify IAH regarding upcoming changes. IAH and Business work together to	Bot finds out the unexpected message format and fails to complete the process.	Bot sends notification email to those who are on the distribution list and IAH Prod support team.

	prepare and follow change management process.		Business and IAH work together prepare and follows change management process.
Bot not completing as outlined in PDD.	N/A: What was not known was not preventable.	Hypercare Phase: Daily auditing is performed and process logs are monitored.	IAH team adjusts bot design to improve business exceptions.
Higher than expected system exceptions.	N/A: What was not known was not preventable.	Insight Dashboards created during UAT for long term monitoring of volume and exception changes (increases or decreases).	- Alert/pulses identified and notifications sent to IAH Comm Support. - Business and IAH work together if additional phase is needed. - ServiceNOW incident reported and escalated as needed.
Output file errors (timing, format, info, reporting).	N/A: What was not known was not preventable.	Hypercare Phase: Daily auditing is performed and process logs are monitored. Insight Dashboards created during UAT for long term monitoring of volume and exception changes (increases or decreases).	- Business and IAH team adjusts bot design to identify output file errors. - Business and IAH work together if additional phase is needed.
Automated QA Bot.	Bot produces email/confirmation/notification of summary indicating input matches output file/data/action results.	Bot indicates in email either success or failure of input=output comparison.	IAH Support and/or business reviews and determines next steps.

Unknown reasons If the bot fails, how will it continue and resolve issue?	N/A: What was not known was not preventable.	Bot is unable to complete the automated process.	- Bot sends notification email to those who are on the distribution list and IAH Prod support team [iah_rpa_prod_support@geisinger.edu]. - The Bot Controller will then be responsible to triage the bot disruption, fix the issue(s), and either schedule ad hoc processing or resume the bot processing. - Response time confirmed by business.
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5. Technical Details

Item	Description	Comment
Robot Type	Unattended	
Orchestrator Used	Yes	Cloud
UiPath Version	2020.10.4	

6. Reporting

Report Type	Update Frequency	Details	Distribution List
Process Report	Daily	Report status of processed transactions put on SP for business to review: Name of the file: YYYY_MM_DD_IAH_TELEPHARM_ANTICOAG_OUTPUT_FILE Columns: • Attached Pharmacists Name • Patient MRN: • Provider: • Test Name: PT INR or Heparin, Low Molecular Weight • Result Date • Result Value • BTG: Yes/No • Does Patient have future or past appt? Yes/No • Appt Cancelled? Date, Department, Provider, Visit Type • Cancel confirmed? Yes / No • Appt Made? Date, Department, Provider, Visit Type • New Appt confirmed? Yes/No • Outcome: Success/Business Exception/System exception • Message Doned: Yes/No	
Error Logs	At Time of Error	Report of process errors	

		Subject: Bot will email the business to inform of the failure. Body: Bot failed due to system error. Bot will run the same population with next run.	
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7. Environment Details

Application	Development Stage	Environment	Access Type	Access Key/ Credential
Epic	Dev, Test, Prod	SUP, PROD	Mimicking pharmacists' access	User Name: IAHANTICOAG
Outlook	Prod	PROD	Email account and password	Bot user account
SP	PROD	SharePoint PROD	Mimicking pharmacists' access	SP LINK
Excel	PROD	Excel PROD	N/A	N/A
Private DB			SQL	

8. Assumptions

Assumption	Impact
The entire process is automated end to end with no manual intervention.	

The distribution list, email addresses, and/or shared mailbox listed in the PDD for the purpose of process notification through email are to be maintained solely by the line of business.	
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9. ADDITIONAL SOURCES OF PROCESS DOCUMENTATION

Type	Name	Link	Comments
Discovery Assessment	Anticoag Discovery	Anticoag Results Discovery	IAH Teams Folder
Task Capture	Pharmacy Anticoag Task Capture	Pharmacy Anticoag 23.01.09	IAH Teams Folder
UAT Recording (video)			IAH Teams Folder
Executive Summary			IAH Teams Folder

10. Appendix

10.1 GLOSSARY

Acronym/Term	Meaning
PDD	Process Design Document – document that contains information about the process in scope for automation and about the agreed technical solution
RPA	Robotic Process Automation
MRN	Medical Record Number
IAH	Intelligent Automation Hub
BTG	Break-the-Glass

CCPS	Centralized Clinical Pharmacy Services
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