

Increase your practice's efficiency – without blowing your budget

HIPAA-compliant, inexpensive tech hacks to improve data workflows

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Data-heavy workflows often cause grief

Internal/staff-facing	External/patient-facing
Prior authorizations for medications, labs, and studies	Chasing patients to get lab orders completed
Formulary tracking	Collections
Responses to claim rejections	Getting accurate demographic data (especially phone numbers)
Running practice metrics manually	Completing forms for patients (FMLA, sports physicals, asthma action plan)
Auditing charts for QI projects	
Reviewing quality reports for accuracy	
Responding to record requests / Getting records from other practices	

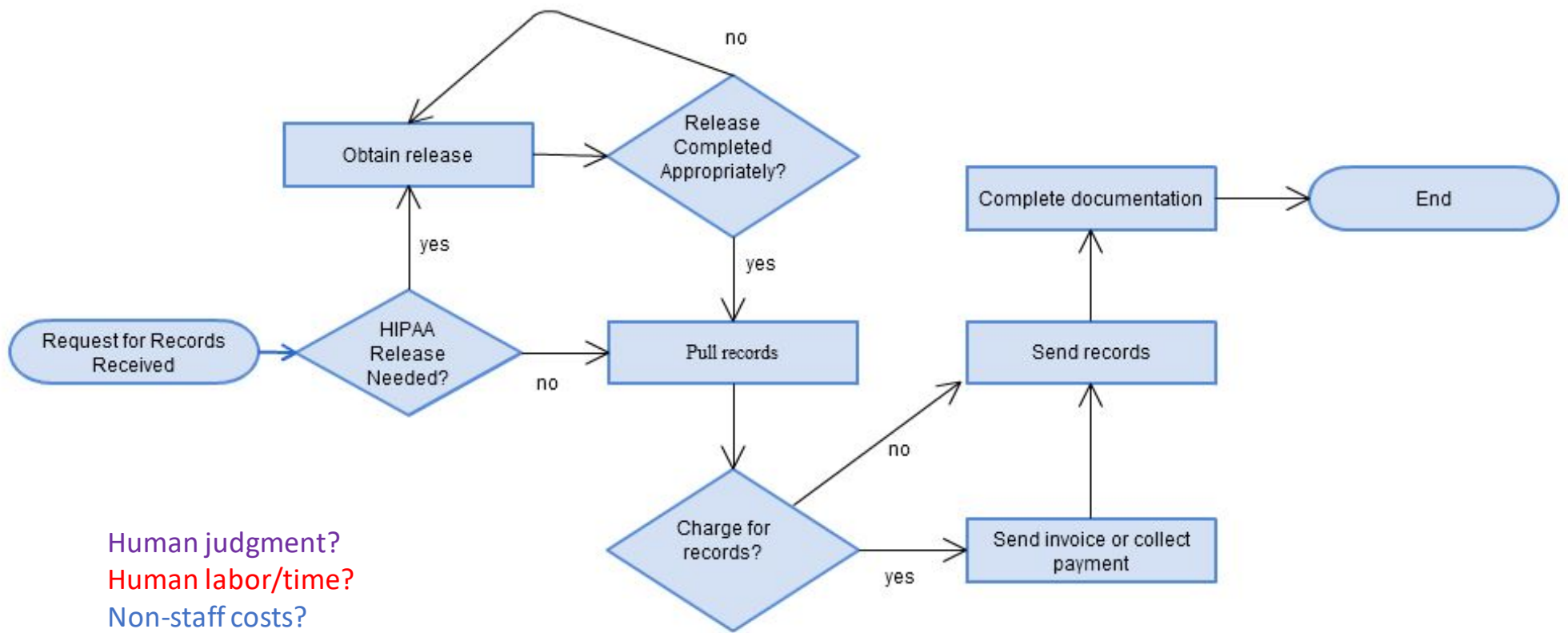
Speed and accuracy of workflows affected by:

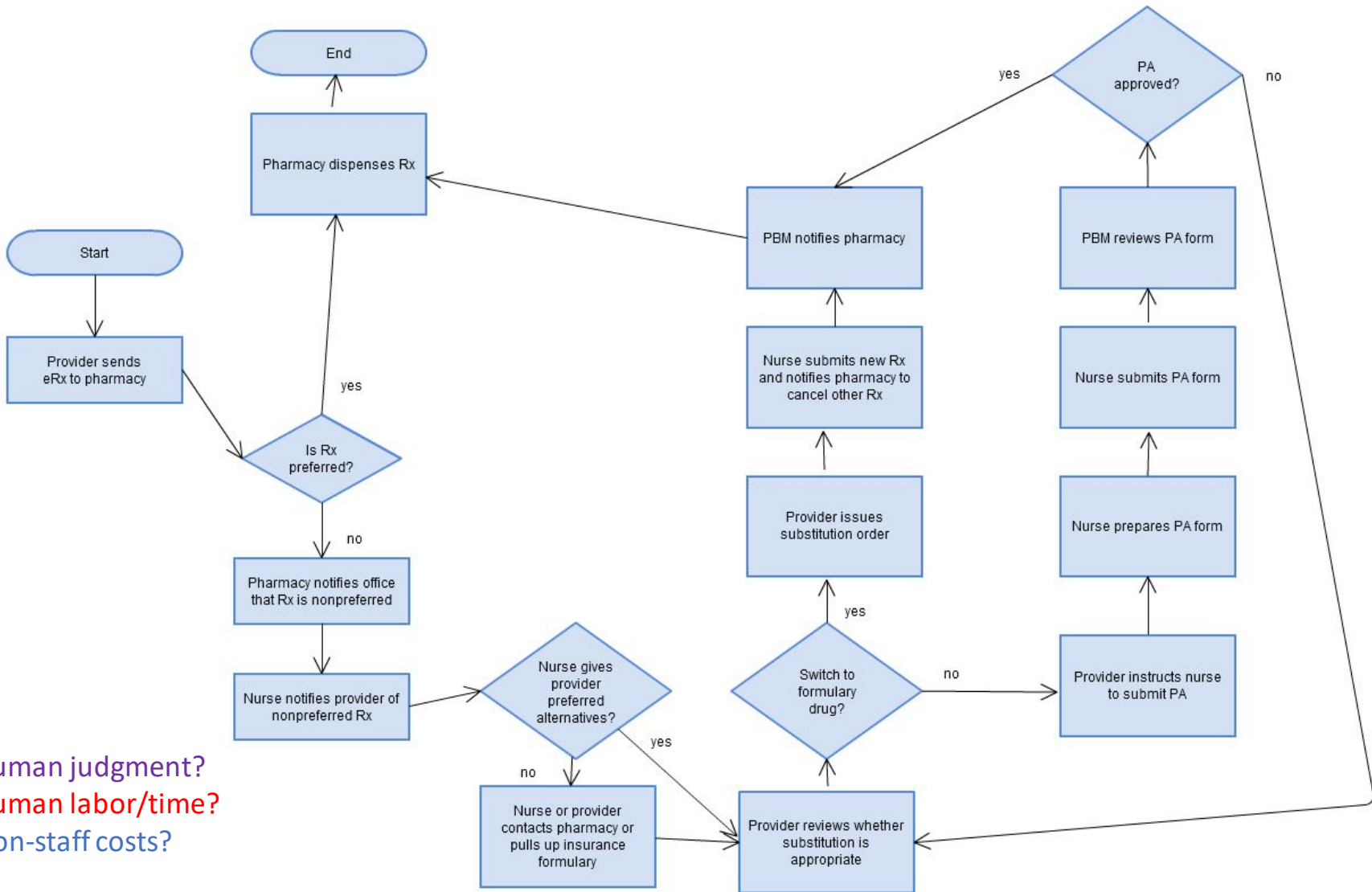
- Proper knowledge, training, and experience
- Proper tools and materials
- Proper/reliable inputs
- “Series only” vs. parallelability
- Batchability
- Scalability
- Lack of interruptions
- Supervisor support

Steps in evaluating your workflows

- Get input from key users of the workflow as well as key users of the workflow's output
- Diagram the workflow
- Study the workflow in action:

Assumptions	Bottlenecks
Variability	Delays
Decision points	Resources
Interruptions	





Human judgment?
 Human labor/time?
 Non-staff costs?

Steps in improving workflows

In the workflow you're dissatisfied with, what can be:

- **Automated**: What are you doing by hand that a computer can do faster and better?
- **Batched**: Must each request be handled at the time it comes in, or is batching permissible?
- **Choice reduction**: Do I really need a decision step here when 98.5% of the time, the answer is the same?
- **Delegated**: Can a direct, or someone outside the practice, take this over?
- **Eliminated**: What does each step add? Are any steps completely unnecessary?

Why don't we improve more workflows?



Why don't we improve more workflows?

- Failure to invest time in workflow evaluation
- Lack of understanding on essential components of workflow
- Minimizing/underestimating time and resources required in workflow
- Overestimating time and resources required to improve
- Unwillingness to change or delegate
- Unaware that tool exists, or that it can be applied to a certain problem
- Afraid of losing human touch

Why digitize workflows?

- Free up employee time (searching, reformatting, copying, sorting, documenting)
- Improve accuracy and compliance
- More time for patient care/customer service
- Free up physical space
- Job satisfaction
- Improve overall efficiency of your practice

Make sure your ROI analysis is fair

Excel script for automatically reconciling list	Reconciling patient list by hand
Learning Excel: 20 hours of manager time (@\$35/hr): \$700	
Writing and testing Excel script: 5 hours of manager time \$175	
“Total cost: \$875”	“Status quo: free”

Make sure your ROI analysis is fair

Excel script for automatically reconciling list, once per month	Reconciling patient list by hand, once per month
Learning Excel: 20 hours of manager time (@\$35/hr): \$700	List matching (12 hours, secretary time, @\$15/hr): \$180
Writing and testing Excel script: 5 hours of manager time: \$175	
List matching (5 min, secretary time, @\$15/hr): \$1.25	

In this model, automation actually starts saving money by month 5

Just because you have it doesn't mean you should use it

“If all you have is a hammer,
everything looks like a nail.”

-- Abraham Maslow, The Psychology of Science, 1966

- Choose a tool that does the job YOU need done
- Don't use tools that are unwieldy for the problem you need to have solved

Some workflows are better digitized than others

Better to automate	More difficult/undesirable to automate
Repetitive tasks	New tasks
Frequent tasks	Tasks with widely varying/individualized results
Tasks where results have a digital output (documents, spreadsheets)	
Boring tasks	
Time-sensitive tasks	

Recommended tools for automation: the requirements

- Modest computer proficiency required
- HIPAA-compliant
- PMS/EMR agnostic
- Cost must be substantially less than value

General time savers: tools everyone in your office can use

Reducing distractions in:

- Email: Email snoozer
- Web browsing: with read-it-later apps

Reduce time spent searching for:

- How to do [task/procedure X] – with photos & videocapture
- Where we keep [resource Y] – with synced visual bookmarks
- Login credentials for [website Z] – with password managers
- Projects we're working on – with project management software

Email snoozers and filters

- Emails in your inbox that you can't deal with definitively are distracting
- Keeping your email organized is a time-saver

Email snoozers allow you to:

- Make an email disappear out of your inbox for a predefined period – 1 hour, 1 day, 1 week, 1 month
- Hide CC's to yourself to give the recipient the chance to read and respond
- See all snoozed emails if you want to check something

Email filters allow you to:

- Automatically forward or file messages meeting certain criteria

Email snoozers include: Snooze and Boomerang

Most email clients have prebuilt mail filters (including Outlook and Gmail)

Read-it-later apps

- In the midst of researching a project, you come across an interesting reference. It's too above your head now, but after you do more reading, you want to come back to it.
- **Read it now?** Risks: rabbit trail, wasted time.
- **Browser bookmark?** Risks: bookmark graveyard.
- **Text clipfile?** Risk: lack of descriptors; multiple different clipfiles to keep up with.
- **Read-it-later apps?** From your phone or desktop, send it to your read-it-later file with a click. Read your stored articles on any device when there's time.

- R-I-L apps include Pocket, EverNote, SpringPad, and Instapaper

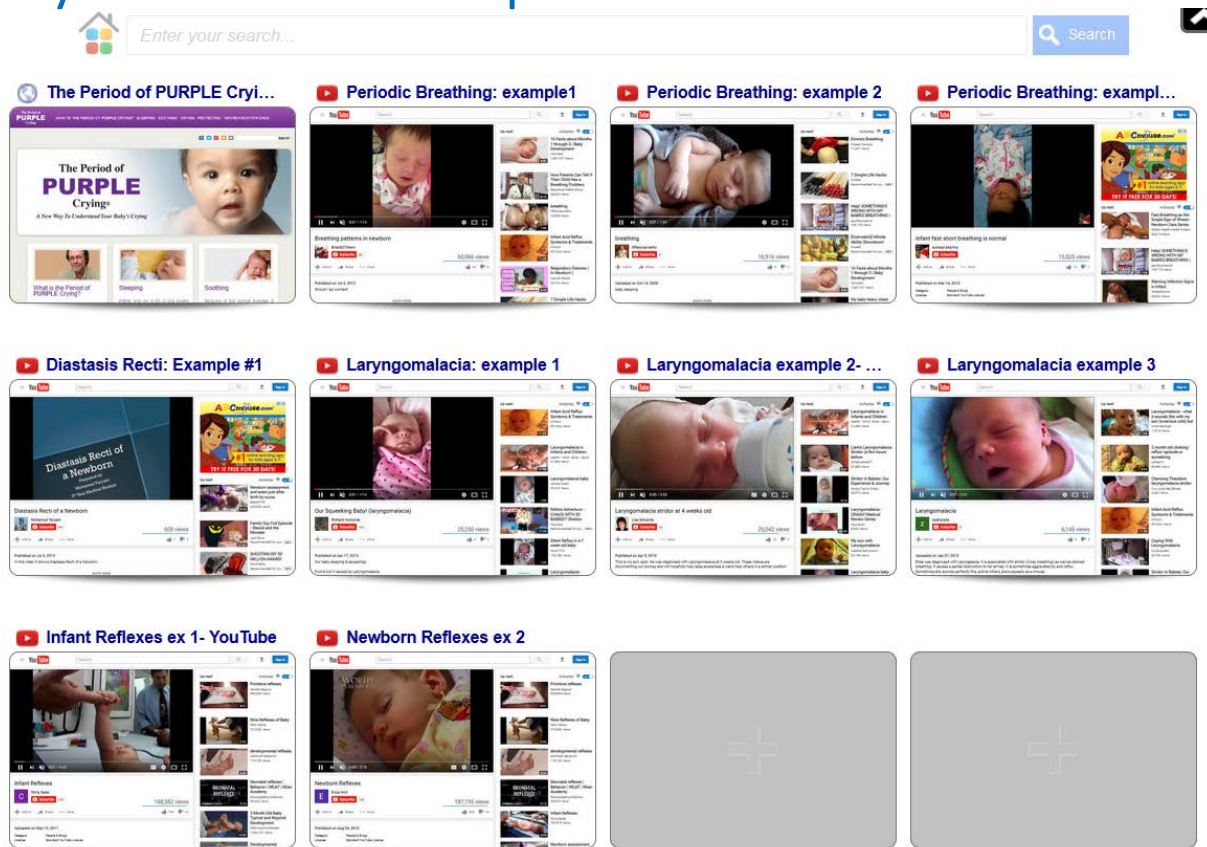
Screenshots, digital photos, videos, & videoshots

- Often used for supporting documentation of IT/EMR problems & NCQA submissions
- Probably underutilized for employee training/cross-training:
 - How to login and download/update a patient's immunization record on the state registry
 - How to do a mail merge of address labels
 - The right way and the wrong way to fill out an employee time-off request
 - The fields that require special tweaks in a Medicare part B claim
 - How to download and set up a 2017 Medicare fee schedule

Synced visual bookmarks

- *“The URL for the login to the state immunization registry has changed. All 23 of you, be sure you update your bookmarks.”*
- *“Cleveland Clinic had a great patient handout for Ehlers-Danlos. I’d like this patient to have it. It’s on the Internet. Somewhere. Go find it.”*
- *“Where on the Internet can my patient order [those chewable fish oil supplements that taste really good] at the best price?”*
- *“A map to Dr. Specialist’s office? Yeah, I think I have a copy of a copy somewhere...”*
- *“My partner Dr. Awesome found that website that estimates the annual cost of asthma medications. I want to look at it now. Today’s her day off, so I will bug her at home.”*

Synced visual bookmarks: rapid multimedia deployment at the point of care



Password headaches

Staff members often:

- Reuse the same (weak) password for multiple sites
- Leave passwords lying around
- Don't change passwords frequently enough
- Don't keep track of their current passwords

Results:

- Frequent password resets required -> lost time
- Employees locked out of key sites -> lost productivity
- Employee sharing usernames and passwords -> more lockouts and resets
- **Lack of security/HIPAA compliance**

Site	Password
BlueCross BlueShield	Cat123
United	Cat123
Anthem	Cat1234
Medicaid portal	123Cat
State immunization registry	Catdog

Password managers

- One single password unlocks your password vault (make it a strong one!)
- Generates unique, strong passwords for each website/account
- Passwords are encrypted & decrypted on your device, not in the cloud

Features include:

- Secure password sharing
- Multiple accounts for same site
- Storage of other frequently-needed info (credit card info, mailing address, NPI list)
- Option to include second-level authentication (biometric, fob)
- Security tools

High-quality password managers include: LastPass, Dashlane, and StickyPassword

Project management apps

Use project management apps for:

- Tracking complicated projects: multi-level task lists, file version control, deadlines and reminders
- Completing a single large project over an extended period of time
- “Downtime tasks” that can be picked up and worked on by anyone

Project management apps include Basecamp, Wrike, Asana, and Trello
HIPAA-compliant ones include Teamwork.com

How to use Excel for good & awesome

	A	B	C
1	patient #	CPT	DOS
2	10581	90748	7/16/2012
3	8812	90747	5/10/2011
4	10244	90747	10/17/2012
5	10550	90747	8/7/2012
6	10621	90747	9/27/2012
7	10695	90747	12/31/2012
8	10972	90747	3/8/2013
9	11713	90747	9/30/2013
10	7681	90746	2/18/2010
11	8152	90746	11/9/2010
12	8152	90746	3/25/2010
13	8260	90746	1/4/2011
14	8810	90746	2/2/2011
15	8810	90746	9/29/2011
16	8841	90746	11/24/2010
17	8841	90746	5/26/2011
18	8841	90746	3/10/2011
19	8964	90746	1/14/2011
20	8964	90746	9/16/2011
21	9282	90746	4/29/2011
22	9282	90746	6/6/2011
23	9568	90746	10/27/2011
24	9568	90746	8/3/2011
25	9568	90746	12/4/2012
26	9570	90746	10/27/2011
27	9570	90746	9/1/2011
28	10177	90746	3/27/2013
29	10177	90746	1/18/2013
30	10177	90746	7/17/2012
31	10177	90746	8/7/2012
32	10617	90746	7/24/2012
33	11398	90746	4/25/2013
34	11398	90746	9/18/2013

- PivotTables: convert thousands of lines of raw spreadsheet data into nice digestible summaries – in the grouping(s) YOU want



bit.ly/1hvRzTW
bit.ly/1IsIqhU

Count of patie	2010	2011	2012	2013	2014	Grand Total
90632	3	4	4	11	1	23
90633	1273	981	1009	827	387	4477
90648	101	30	172	1003	446	1752
90649	316	364	846	785	287	2598
90655	769	951	883	838	212	3653
90656	539	746	721	707	128	2841
90658	98		42			140
90660	1101	1468	1421	245		4235
90663	886					886
90669	450					450
90670	1358	1416	1255	1196	539	5764
90672				1323	291	1614
90680	785	873	859	812	353	3682
90691			2	5		7
90698	1090	1226	1067	184	85	3652
90700	307	327	433	672	282	2021
90707	585	645	653	633	266	2782
90713	375	318	339	392	139	1563
90714					1	1
90715	250	251	278	235	91	1105
90716	730	743	736	674	274	3157
90718	4		4	1	3	12
90723	10	7	45	662	290	1014
90732		1	1	19	8	29
90734	248	307	440	360	135	1490
90736				1		1
90743		2				2
90744	617	709	648	185	84	2243
90746	4	13	4	6	1	28
90747		1	4	2		7
90748			1			1
Grand Total	11899	11383	11867	11778	4303	51230

COUNTIF(), SUMIF(), AVERAGEIF()

How many Medicaid payments are in this group?

=COUNTIF(B:B, "Medicaid")

What is the sum of the commercial payments in this group?

=SUMIF(B:B, "commercial," C:C)

What is the average Medicaid payment in this group?

=AVERAGEIF(B:B, "Medicaid", C:C)

	A	B	C
1	patient	payer	amount
2	7318	Medicaid	\$33.01
3	5383	commercial	\$150.85
4	2888	Medicaid	\$106.23
5	9142	commercial	\$90.44
6	7092	commercial	\$157.89
7	6744	Medicaid	\$20.22
8	5078	commercial	\$150.11
9	7377	Medicaid	\$97.77
10			

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Transforms using LEFT(), MID(), & RIGHT()

ALEXANDER, SUSAN: 185 WEST 74TH STREET, NEW YORK, NEW YORK
BLACK, SIRIUS: 12 GRIMMAULD PLACE, LONDON W3, UK
BRADY, MIKE AND CAROL: 4222 CLINTON WAY, LOS ANGELES, CALIFORNIA
BURNS, MONTGOMERY: 1000 MAMMON LANE, SPRINGFIELD, ILLINOIS
CUNNINGHAM, RICHARD: 565 NORTH CLINTON DRIVE, MILWAUKEE, WI
FAWLTY, BASIL: FAWLTY TOWERS HOTEL, TORQUAY, TORBAY, UK



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tek.io/2iQ0Zkv
bit.ly/2isFij1

Excel's *VLOOKUP* function: list matching

Riverside Pediatrics Roster of PrimeCare Members	PrimeCare MCO Roster of Riverside Patients
Andrews, Abby	Andrews, Abby
Baker, Bill	
Ciegelski, Carla	Ciegelski, Carla
	DiStefano, David
Edwards, Ellen	Edwards, Ellen
Flowers, Francisco	
Garza, Gillian	Garza, Gillian
	Haberman, Helen
Ignacio, Ingrid	
Johnson, Jack	

bit.ly/1m7zFja

Adobe & PDFs in your medical office

- Adobe Reader: read and fill in existing PDFs (free download)
- Adobe Acrobat: create, edit, markup PDFs (\$110, one time license)
- Adobe Sign: web-based tool that allows you to send PDFs for completion and signature (\$30/month+ depending on volume)

Be sure all your staff know how to:

- export to/print to PDF (don't print and rescan!)
- convert between other document types (spreadsheets) and PDF

Ways to use Adobe Acrobat

- **PDF templates: make your own “Form Wizard”**
- For frequent documents you must create, when they can't be easily generated from within your EMR
 - FMLA forms
 - Disability forms
 - Asthma/allergy plans
 - School “OHI” forms

PDF templates can be completed *en masse* with “PDF merge” (like mail merge) feature

PDF mass searching: with one click, search all 300+ EOBs in this folder for all instances of rejection code “B15”

PDF scripting: split PDFs into single pages, delete pages all without text, extract all claim numbers

Learn more at: acrobatusers.com, evermap.com, pdfscripting.com

Adobe Sign – get signed forms

“All our active patients need to complete and sign an updated Financial Responsibility Form beginning 1/1/2017.”

New workflow:

- 1) Post form on website, send email link, or have iPad/laptop kiosk in office
- 2) Parents complete form digitally
- 3) You can require authentication through social media sign-on, individual emailed password, knowledge base verification, or text/SMS verification
- 4) Completed/signed form arrives in Box, Google Drive, or by email (no scanning needed)

Other solutions: employee HR forms, teacher ADHD/behavioral forms

Now possible: custom scripting

What if you could automatically (*and in a HIPAA-compliant way*):

- Check the Medicaid portal for all “no insurance” kids in your practice, and download the results into another spreadsheet?
- Fax a “friendly-reminder” note to specialists about all referral notes that are more than 2 weeks overdue?
- Submit a prior authorization form for every kid in your practice on a nonpreferred stimulant?
- Upload all the newborn hep B doses, nutrition counseling, and BMI results to your insurer’s P4P portal?
- Download all your practice’s BCBS claims in “Rejected for Stupid Reason” status, and auto-generate an appeal letter for each one?

Custom scripts can connect 2 or more of:

Type of application	Examples of HIPAA compliant services
Webapp hosting	Microsoft Azure, Amazon Web Services
Cloud-based files (spreadsheets, PDFs)	Google Suite, Box
Electronic faxing (send and/or receive)	eFax, Interfax
Document creation and signature	Adobe Sign
Websites	
Email	Encrypted clients
Secure IM	TigerText

What's an API?

- Application Programming Interface: structured way to send & receive data from a webservice

When you send...	To the API run by...	The API sends you back...
ID: "24601"	French Second Republic, Bureau of Prisons	last_name: "Valjean" first_name: "Jean" facility: "Toulon" length_of_term: "19 years"
city: "Hobbiton" state: "Shire" mythos: "Middle Earth"	Google Maps	

How would I have a custom script written?

- Freelance developers can write code to your specifications
 - Codementor.io
 - Toptal.com
 - Hackhands.com
 - Ask your EMR or IT vendor for recommendations
 - Developer will need to sign your BAA

Cost: depends on scope of project

- Initial cost: several hundred to many thousand dollars to set up
- Ongoing cost: nothing (if no workflow changes) to a few hundred dollars monthly (if you need subscription services to continue)
- Consider splitting development cost with other practices who need the same service
- Consider total ROI

Summary

- Review your workflows to see which steps can be streamlined or eliminated completely
- Encourage preventive changes in their use of email, web browsing, passwords
- Encourage use of organizational tools for projects and resources
- Invest in finding ways to apply basic office software to your medical practice
- Set goals to find out what tools can automate other steps of your workflow

