

Primary Care Practice Facilitation Curriculum

Module 10: Mapping and Redesigning Workflow



Agency for Healthcare Research and Quality

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Primary Care Practice Facilitation Curriculum

MODULE 10. Mapping and Redesigning Workflow

Prepared for:

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Contents

- Instructor’s Guide 1
 - Time 1
 - Objectives 1
 - Exercises and Activities To Complete Before and During the Session 1
- Module 10. 3
 - Workflow Maps 3
 - Important Workflows in Primary Care Practices 6
 - Reference 10

Module 10. Mapping and Redesigning Workflow

Instructor's Guide

Practice facilitator (PF) competencies addressed in this module:

- General skills in basic quality improvement and coaching

Time

- Pre-session preparation for learners: 45 minutes
- Session: 85 minutes

Objectives

After completing this module, learners will be able to:

1. Describe the purpose and process for mapping workflow.
2. Identify activities that take place in a primary care practice setting that may be important to map.
3. Create a workflow map of common and complex activities.
4. Use the redesign reflection questions to help a practice redesign a workflow.

Exercises and Activities To Complete Before and During the Session

Pre-session preparation. Ask the learners to review information in item 1 and access item 2. (45 minutes)

1. The content of this module.
2. AHRQ's workflow or process mapping tools. Available at:
http://healthit.ahrq.gov/portal/server.pt/community/health_it_tools_and_resources/919/workflow_assessment_for_health_it_toolkit/27865.

During the session. Presentation (30 minutes)

1. Present key concepts of this module.
2. Guide on Workflow Mapping. L.A. Net Community Health Resource Network; 2013. See Appendix.

Activity for learners. (20 minutes)

1. Break into pairs or small groups. Ask learners to assign roles: practice facilitator and participant(s) (optional).
2. Provide learners with large paper, pencils, and sticky notes for mapping.
3. Exercise 1. Map a simple process. Ask learners to: create a workflow map from memory of the participant making a call with his or her cell phone.
4. Map the same workflow a second time while the practice facilitator observes the process and corrects the map.
5. Exercise 2. Create a Swimlane workflow map of a complex process from a practice. Ask learners to map handling patient calls to clinicians (or another multi-individual, multistage process with which the learners are familiar).
6. Create a workflow map of handling patient calls to clinicians (or another multistage, multi-individual process with which the learners are familiar).

Discussion. Ask questions and explore answers with learners. (10 minutes)

1. What did you learn from the mapping exercise?
 - a. Highlight lessons such as:
 - i. Mapping the process as it is, rather than what you think it is or think it should be.
 - ii. Having the person who owns the process map their part of the process.
 - iii. Understanding the role of the facilitator in supporting the mapping process.

Activity for learners. (15 minutes)

1. Reconvene pairs or small groups. Have learners evaluate and redesign a workflow from Exercise 1 or 2.
 - Use Redesign Reflection questions from Table 10.1 in module to redesign workflow.

Discussion. Ask questions and explore answers with learners (10 minutes)

1. What changes did you make to your workflows and why?
2. What did you learn about working with a group to redesign a workflow?
3. How will you use this with a practice?

Module 10.

Workflow is defined as a series of steps, frequently performed by different staff members and often dependent on related workflows, that accomplishes a particular task.

Workflows represent how work actually gets done, not the protocols that have been established to do the work.

Clinicians and staff in busy practices suggest that one of the most helpful things a facilitator can do for them is help them map key workflows. Workflow mapping is a way of making the invisible “visible” to a practice so they can look for ways to improve their processes to increase efficiency, reduce errors, and improve outcomes. As a facilitator, you will have the skill, time, and vantage point to help a practice map its key workflows and then to lead discussions about improving them.

While many practices will have participated in workflow mapping for implementing electronic health records, many will not have used these processes with the idea of improving quality and outcomes. Workflow mapping is the process of documenting the specific steps and actions that take place in completing a particular task. Creating a workflow map enables you and the practice to see what is currently happening, identify opportunities for improvement or change, and design new, more effective processes.

You and the quality improvement (QI) team will need to consider workflows associated with the following three processes:

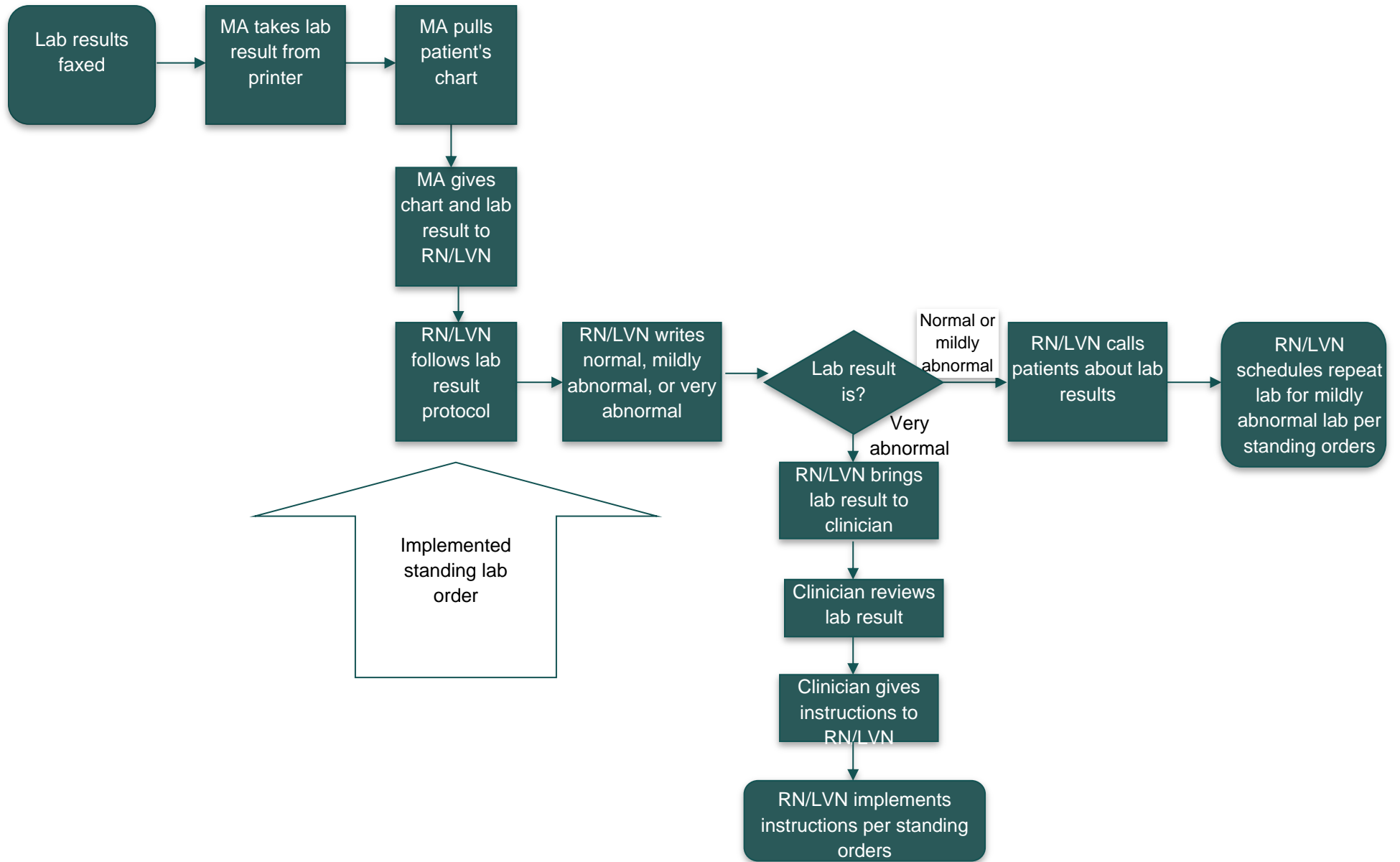
- Perceived process (what we think is happening);
- Reality process (what the process actually is); and
- Ideal process (what the process could be).

The perceived process can be obtained by having the group map what they believe the current process is. The reality process is obtained by having various group members validate the former through direct observation; the ideal process should reflect the workflow the improvement group aspires to and wants to implement.

Workflow Maps

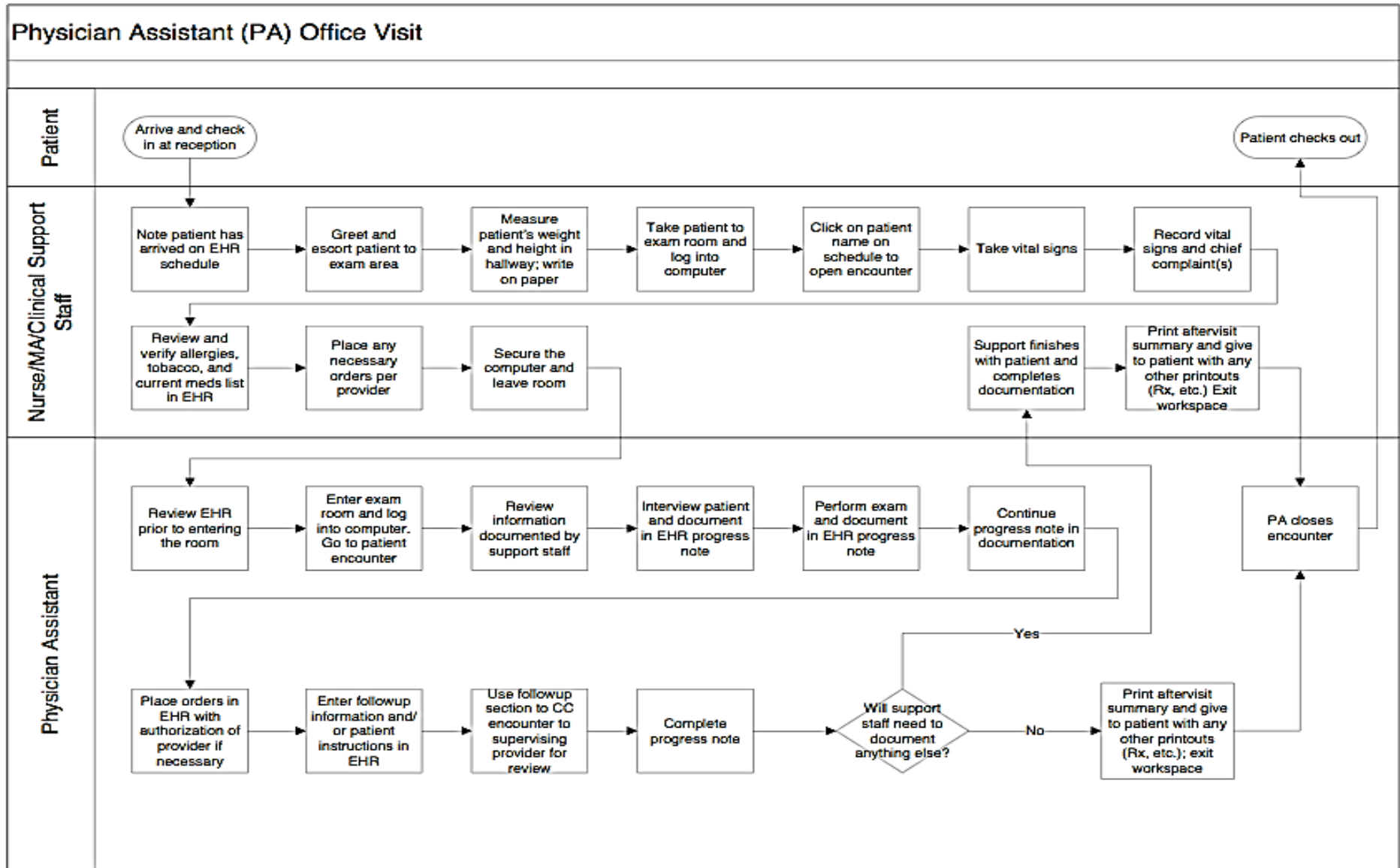
Creating a workflow map is not difficult. However, it is very important to map what is *actually* happening, not what the practice “thinks” is happening or wants to happen. Figure 10.1 shows an example of a detailed workflow map. You will need to identify every step of the activity and who performs it. It is important that each individual involved in a process can describe how a particular activity takes place. In addition to a traditional form of detailed workflows, Swimlane workflows are also an option. Swimlane mapping is performed when you want to illustrate a single process that involves more than two roles simultaneously across time. Figure 10.2 is an example of a Swimlane workflow. When mapping a workflow, you should not rely on a single person to describe a process unless that person controls and executes all steps of the process being mapped.

Figure 10.1. Sample workflow map: lab result follow-up



Source: Bodenheimer T. Workflow mapping: a tool for achieving meaningful use. University of California San Francisco, Department of Family and Community Medicine, Center for Excellence in Primary Care. Reprinted with permission. See Appendix 8.

Figure 10.2. Sample Swimlane workflow map: office visit



Adapted from "Physician Assistant (PA) Office Visit," Health Resources and Services Administration.

To be effective in helping your practice map and redesign workflow, you will need a good working knowledge of the practice's electronic health record and information technology systems so that you can assist them in redesigning workflows that use these systems. A good way to map complex processes is to observe the process in action. You may find that there is not a single process for carrying out a particular task, but several variations in how the activity takes place.

An important rule of thumb when mapping a process is “the person who controls the process controls the pen.” This means the person who actually carries out a particular process is the one who maps that step of the process.

Important Workflows in Primary Care Practices

Important processes that you will need to be prepared to help a practice map include:

- Answering phones
- Making appointments
- Scheduling procedures
- Making referrals
- Providing health advice by phone or e-mail
- Assigning patients to panels
- Completing new patient workups
- Educating patients and family
- Managing patient panels
- Planning patient visits
- Coordinating referrals
- Conducting patient outreach
- Checking formularies
- Entering lab results into the information systems
- Making referrals for specialty care and community services
- Consulting with specialists

Many additional activities carried out by a practice will need to be redesigned when it transitions to team-based care. These include:

- Registration
- Appointment scheduling
- Medical assistant role (pre-visit, vitals, agenda setting, checking chronic and preventive care needs, ordering)
- Receipt of test results by clinician (lab, x ray, other)
- Receipt of test results by patient (normal, slightly abnormal, very abnormal)
- Internal messaging (which messages go to whom, what action is required)
- Prescription refills (chronic meds, acute meds, secure script meds)

- Billing workflow
- Form completion (clinician role, other team member role)

You should also be prepared to assist in mapping and redesigning clinical care processes for specific patient groups:

- Preventive care
- Acute problems (major/minor)
- Chronic conditions (diabetes, hypertension, asthma)
- Complex care needs
- Mental health
- Chronic pain
- Women's health
- Pregnancy
- Well child care
- Palliative/end-of-life care

Many resources available online for free or at a small cost can assist you in preparing polished maps. Maps can also be handwritten or constructed with sticky notes to allow a practice to move activities around and redesign workflow. These types of maps are better during the active mapping stage. Your program may provide these resources or ask that you use them, or you may want to explore them on your own.

Helping practices redesign workflows. Redesigning workflows has two goals: improving performance and increasing efficiency. Once you document the reality process, you will need to assist the QI team and other members of a practice to redesign the workflow to incorporate the desired improvements and then test these changes using the Plan Do Study Act (PDSA) process.

When redesigning workflow, it is essential to have all key players involved in the process. The frontline staff who are currently or will be implementing the workflow will have recommendations and ideas for how to maximize efficiency and effectiveness.

It is rare that a workflow is completely independent of other processes in the practice. In most cases, workflows for one activity will overlap or depend on the execution of another activity or process. It is important to identify and consider these dependencies when redesigning workflow, as the effects of redesigning a workflow can be positive or negative.

It will be important for the team to be able to determine the potential peripheral effects of redesigning workflows. The Model for Improvement and PDSA can help a practice identify unanticipated effects of redesigned processes and correct them before taking them to scale.

New workflows will often require realigning jobs, changing staff time allocation, roles, and responsibilities to fit the redesigned workflows. This in turn will require changes to policies and procedures, job descriptions, training, and accountability/reporting systems for ensuring tasks are completed.

When working with a QI team and practice staff on redesigning workflow, you will need to provide them with a copy of the existing workflow. This should be large enough for everyone on the team to view together and to mark up as they design new processes. Table 10.1 contains some questions that can be useful in starting a team on the redesign process. Review the following questions with the practice:

Table 10.1. Redesign reflection questions

- Is there a problem with current performance? Do you need better results?
- Have you been skipping any critical steps?
- Are all steps necessary? Are there areas of unnecessary duplication or redundancy?
- How often do you have to do each step?
- Are there areas that rely on an individual to remember to do something? Any process that relies on memory is prone to error.
- What happens if the process breaks down? Do you need a fail-safe mechanism?
- Can some steps be done simultaneously?
- Is there a more logical way to sequence the steps?
- What skills are necessary to perform each step?
 - If more skills are required, can current staff be trained or do duties need to be shifted to more qualified staff?
 - Could someone with fewer skills perform this step? Would they need training or support?
 - Could someone be hired to perform this step?
 - Could this step be outsourced?
- Is there any technology that would make this process more efficient or easier to do? Are you thinking outside the box? Is there an entirely different way to get this done?
- Who do you know that handles this task very well (an exemplar)? Can you study their workflow?

Implementing and sustaining new workflows. Once the team has developed a new workflow, it will need to be implemented and evaluated. The PDSA process from the Model for Improvement can be a good way to test the effectiveness of a new workflow. You will need to be prepared to assist the QI team in implementing and evaluating the impact of a new workflow as part of the PDSA cycle. You also need to include them in thinking through the different administrative changes that will be required to fully implement and sustain newly redesigned workflows.

Throughout this process, your goal as a facilitator will be to build the team and practice's capacity to engage in these processes in the future, as understanding and modifying existing workflows is an essential component of any improvement process. AHRQ's *Integrating Chronic Care and Business Strategies in the Safety Net* toolkit contains resources from Clinical

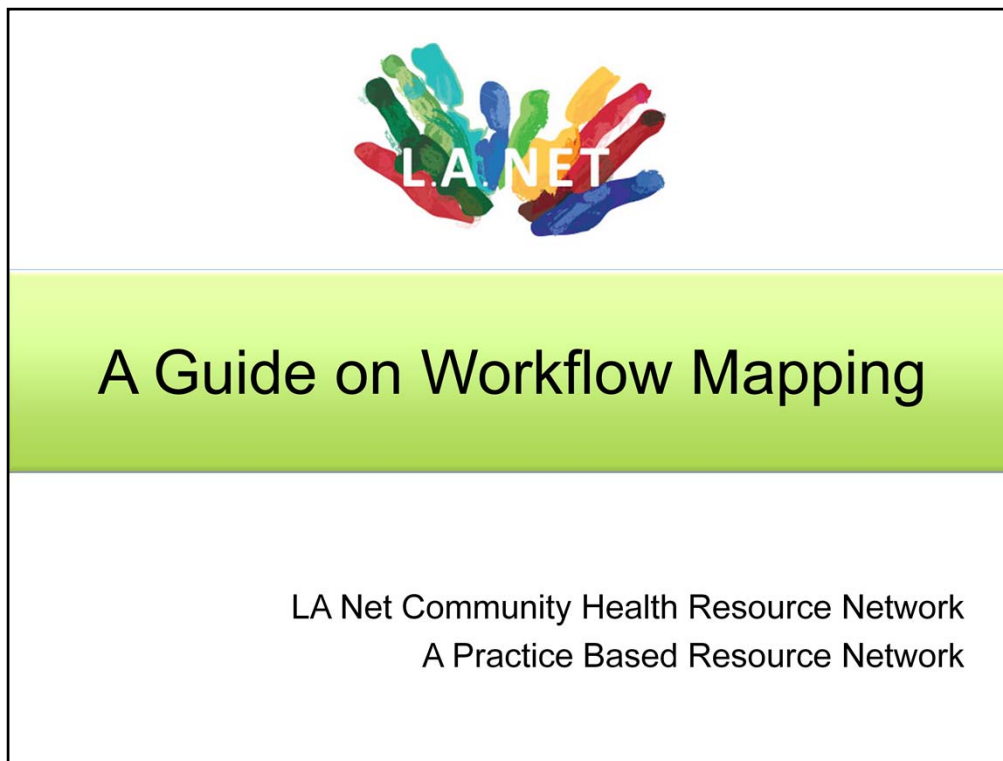
Microsystems for training practices in workflow mapping. This toolkit is available at:
<http://www.ahrq.gov/populations/businessstrategies/>.

Note: this module is based on Module 5 of AHRQ's 2013 Practice Facilitation Handbook.
Available at: <http://www.ahrq.gov/professionals/prevention-chronic-care/improve/system/pfhandbook/>

Reference

Sample flowcharts related to primary care services. Available at <http://healthit.ahrq.gov/health-it-tools-and-resources/workflow-assessment-health-it-toolkit/all-workflow-tools/flowchart>.

Appendix 10A. A Guide to Workflow Mapping



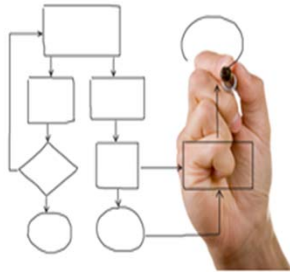
This is an introductory course on workflow mapping. This session is meant to provide basic knowledge in workflow mapping, while demystifying the process.

Learning Objectives

- Identify the three types of flowcharts
- Explain the use for flowcharts
- Apply the 6 steps used to produce a flowchart
- Evaluate an organizational process using your flowchart



Workflow Mapping



- Workflow maps are also referred to as flowcharts, flow maps, flow diagrams, flow sheets, and process maps
- A workflow map is defined as a visual representation of a process
- A process considers a sequence of operations with a start and end point



Use for Workflow Maps

- To map current practice flow
Are we really doing what we say we do?
- Begin to identify areas for process improvement
- Visual aid and representation of roles and responsibilities
- Add-on to an organization's policies and procedures
- Process maintenance

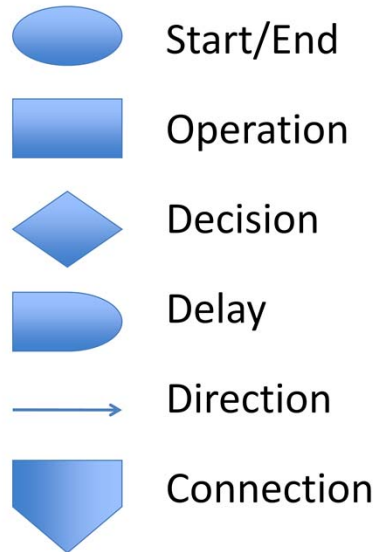


Types of Flowcharts

1. **High-Level flowchart:** is a diagram that provides a brief overview of a process only highlighting major events in the process
2. **Detailed flowchart:** is a map that marks every step in a process, which includes decision points, waiting periods, and feedback loops
3. **Swimlane flowchart:** is a map that displays processes carried out for multiple roles across multiple stages



Common Symbols



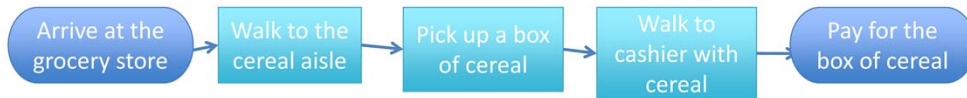
Become familiar with the following symbols. Your team will want to construct its workflow diagram to include these. The symbols offer an immediate visual representation of: start/end, decision point, delay, and direction.

- 1) Indicates the start or end of a process
- 2) A specific task or activity performed
- 3) A point in the process where a decision needs to be made to determine the path in the process
- 4) Indicates a point in the process where there is delay or wait in line
- 5) Arrows indicate the direction of flow
- 6) Use this as a cross reference from a process on another page

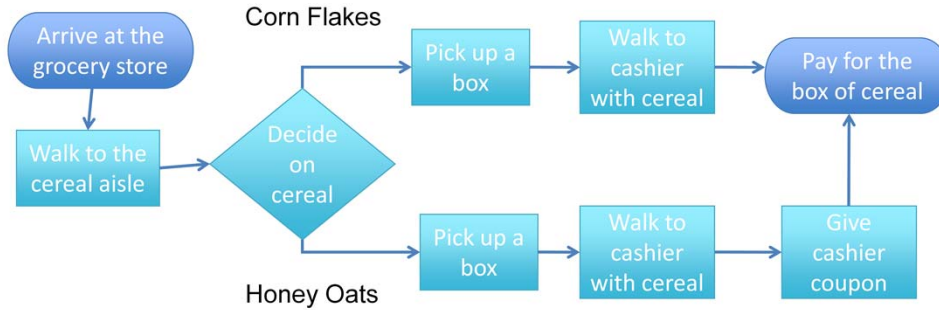
What it looks like

Example: The process of buying a box of cereal.

High-Level Flowchart

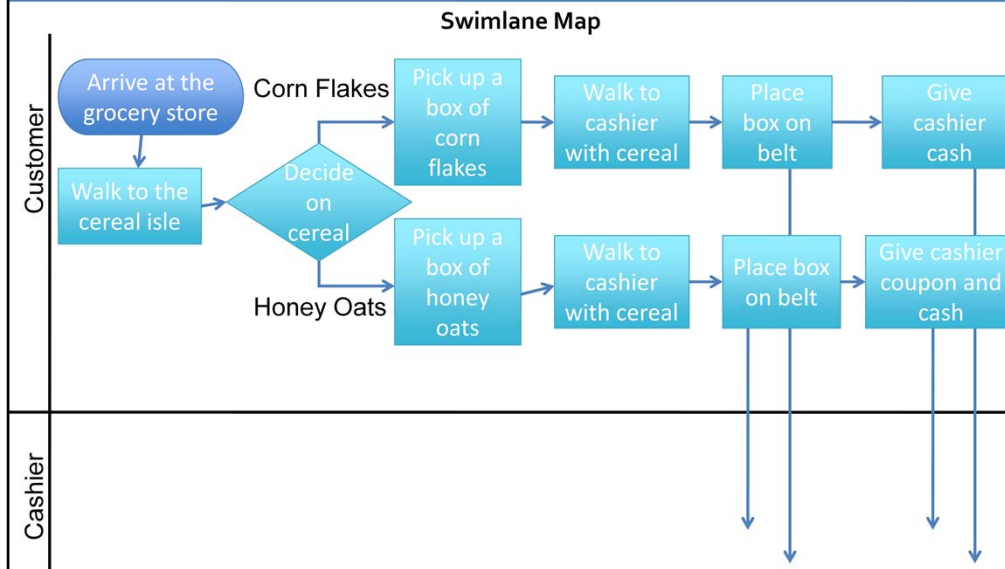


Detailed Flowchart



What it looks like

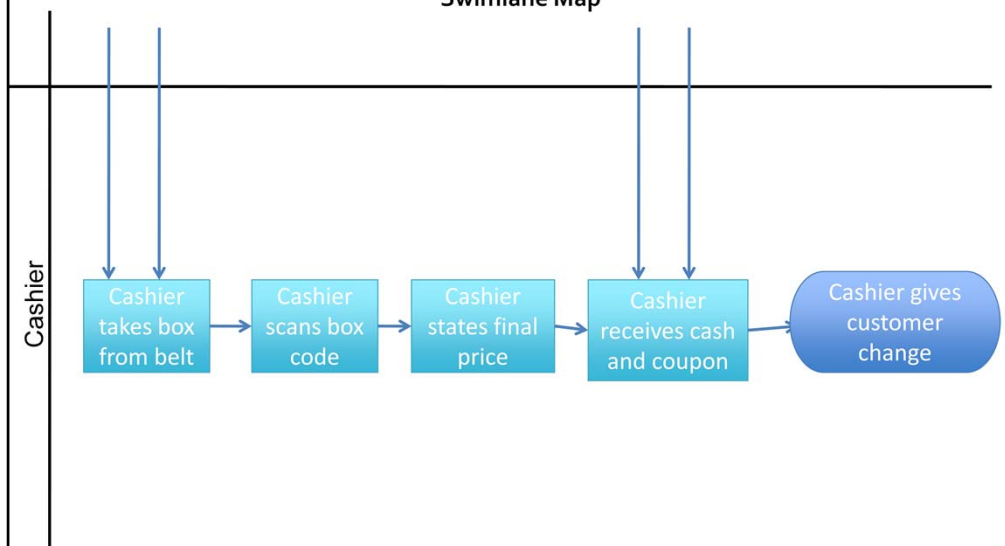
Example: The process of buying a box of cereal.

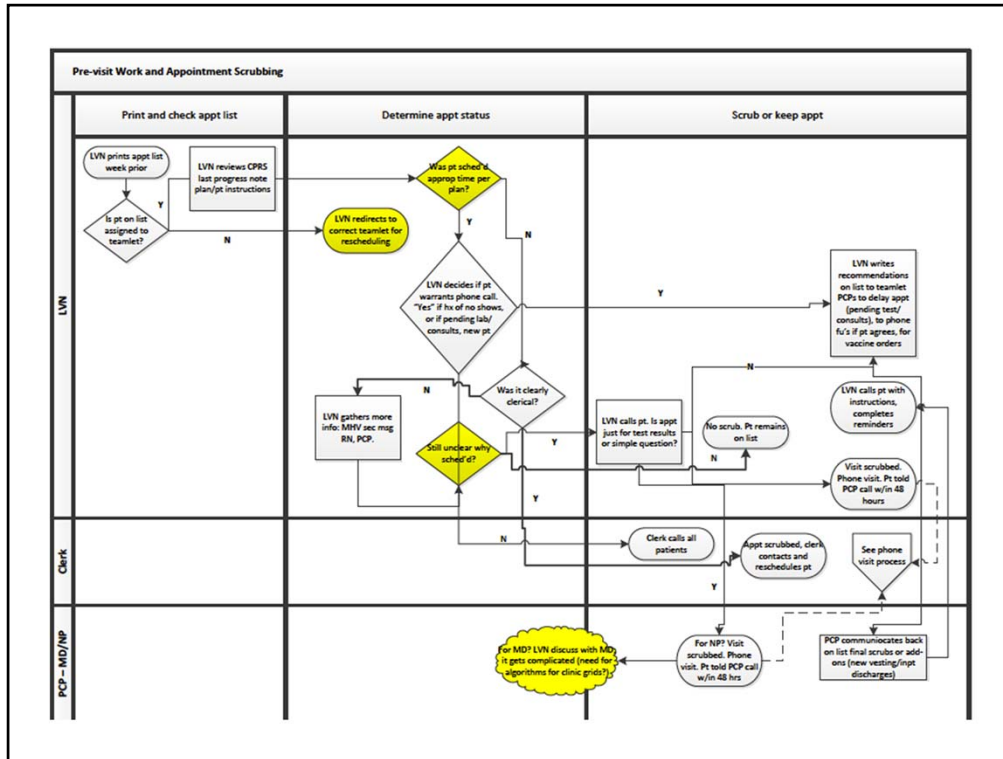


What it looks like

Example: The process of buying a box of cereal.

Swimlane Map





This is an example of what is referred to as a “swim lane map.” A swim lane map displays processes that are carried out for multiple roles across multiple stages.

Each swim lane is representative of a role, in this case: PCP, Clerk, LVN.

The stretch of each lane is marked by the stages in the process. Here they are marked in the following order: 1) Appointment list review, 2) Appointment status, 3) scrubbing

Who is involved?

Involve all those who play a part in the process.

Tips:

- Start with a small group if it's a challenge to start with the entire group
- Pick a champion for this group
- Be sure to have all materials on-hand
- Provide the team with an overview of what the mapping process looks like
- Clearly state the objective and process selected for this exercise



The 6-Step Process

Step 1: Identify a process to map (use the Know Your Process template)

Step 2: Begin with a high-level flowchart

Step 3: Move into a detailed flowchart

Step 4: Walk through the process once or twice

Step 5: Validate the maps to ensure they truly reflect the current process

Step 6: Identify quick fixes and distinguish them from larger fixes (use LA Net's Impact & Complexity Grid)

(REMEMBER: A flowchart captures the process AS IS, not how it is supposed to be)



After Step 6 Your next step will be to PDSA one of the identified fixes for improvement

Step 1: Agree on a process to map: (HAVE A PLAN) Consider surveying your staff, patients, or others on which processes are the biggest problems Process that are the most time consuming, most labor-intensive, have the most complaints, etc.

Refer to your “Know Your Processes” assessment template for guidance.

Step 2: Agree on a beginning and end - IMPORTANT when you start high-level flowchart

Know Your Process Template

12 Know Your Processes- Practice Core and Supporting Processes Assessment: Ask each member of the staff to rate the core and supporting processes using this worksheet. Based on these findings, staff members choose what to work on improving. Rate each process by putting a tic mark under the heading which most closely matches your understanding of the process. Also mark if the process is a source of patient complaints. (See Appendix, page A14-A16 for the Pareto worksheet and example to help you analyze the data.)
Steps for Improvement: Each of the processes below should be flowcharted in their current state. Explore improvements for each process based on the outcomes of the assessment tool. Once you have flowcharted the current state of your processes and determined your change ideas use the PDSA Cycle Worksheet on page 26 to run tests of change and to measure. The collection of flowcharts will create your Practice Playbook (see page 29).

Processes	Works Well	Not a Problem	Small Problem	Real Problem	Totally Broken	Cannot Rate	We're Working On It	Source of Patient Complaint
Answering phones								
Appointment system								
Messaging								
Scheduling procedures								
Reporting diagnostic test results								
Prescription renewals								
Making referrals								
Pre-authorization for services								
Billing/Coding								
Phone advice								
Assignment of patients to your practice								
Orientation of patients to your practice								
New patient work ups								
Education for patients/families								
Prevention assessment/activities								
Chronic disease management								

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Page 19

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Ask each member of the staff to rate the core and supporting processes using this worksheet.

Based on these findings, staff members chose what to work on improving.

Rate each process by putting a tic mark under the heading which most closely matches your understanding of the process.

Impact & Complexity Grid

- **Build Complexity:**

- ✓ Low Complexity/High Impact
- ✓ Low Complexity/Low Impact

- **Next Stage:**

- ✓ High Complexity/High Impact

- **Avoid Option #4:**

- High Complexity/Low Impact

	Low Impact	High Impact
High Complexity	High Complexity/Low Impact (Option #4)	High Complexity/High Impact (Option #3)
Low Complexity	Low Complexity/Low Impact (Option #2)	Low Complexity/High Impact (Option #1)



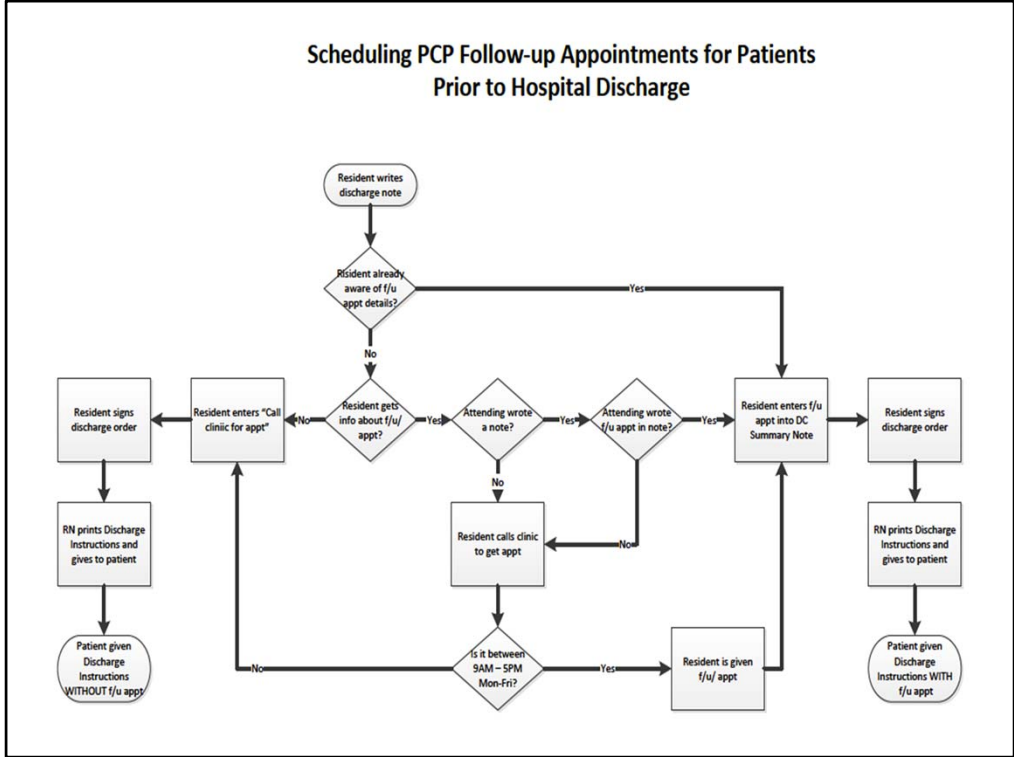
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Give 2 examples from needs assessment to conduct

DO NOT USE WITH TEAMLET. Only one right answer. The reason we are showing this to you, is for you to use it and select low complexity processes. If for some reason, you have a highly functional team, then you might consider jumping into a higher complexity process. But what you do not want is taking on if not ready. Digest this.

To be successful, build hope that they can change something. IC should know that not all processes are created equal. Your job as an IC is to help teams

Scheduling PCP Follow-up Appointments for Patients Prior to Hospital Discharge



How to Analyze my Map

You can use your process map to assess problem areas or potential areas for improvement by examining some of the following:

- ✓ Bottlenecks and other sources of delay
- ✓ Rework due to errors
- ✓ Role ambiguity
- ✓ Duplicated efforts
- ✓ Unnecessary steps
- ✓ Sources of waste
- ✓ Variation
- ✓ Hand-offs



Tips on Mapping

- Be sure to map current process
- Get key players involved and their input
- Recognize that any flowchart will take multiple attempts to complete
- Leverage existing experts and experiences



Workflow Mapping Exercise

- Break into groups of 5 to 6
- Be sure to have:
 - Poster board paper
 - Post-its (or 5x6 index cards)
 - Marker
- Pick a leader and a scribe
- Ground rules:
 - State process: Making coffee
 - Define beginning and end points
 - Assumptions: you already have coffee, a coffee pot, and you do not have a Keurig

Questions to Ask

- Who knows what a workflow map is?
- Who has experience in workflow mapping?
- Did you consider your start and end points?
What were they and how did your team come to this conclusion?
- How did you deal with process agreements/disagreements?
- Did everyone have input? If not, why?

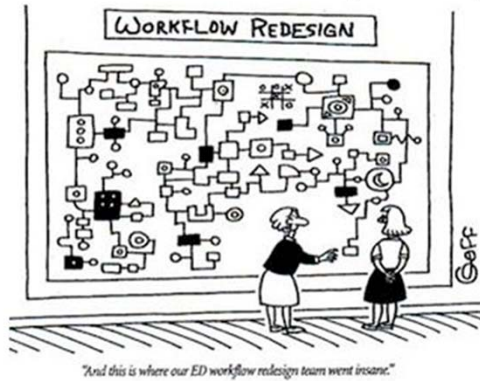
In Conclusion

- The 3 types of flowcharts include: High-level, Detailed, and Swimlane flowcharts
- Flowcharts are used to map current processes, identify barriers and opportunities to increase efficiency, and to train newly hired staff of a process
- There are 6 major steps in mapping a flowchart
- There are a series of questions that need to be discussed after you develop your map that ask about repetition, role maximization, and decision points



Remember

Workflow maps serve as a tool to improve care for patients, improve efficiency in practice, and redistribute work and job responsibilities.



Thank You!



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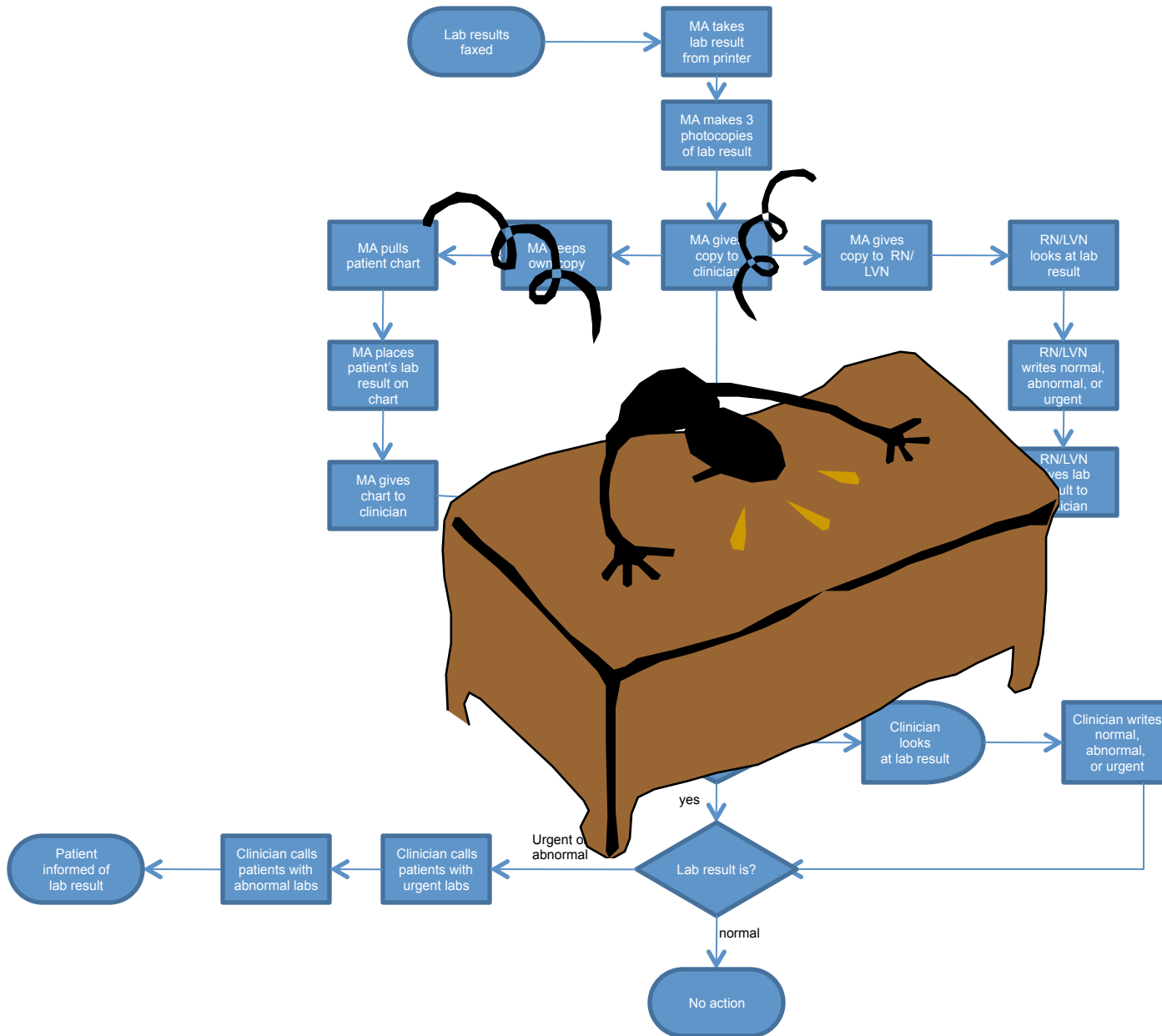
Workflow mapping: a tool for achieving meaningful use

**Center for Excellence in Primary Care
UCSF Department of Family
and Community Medicine**

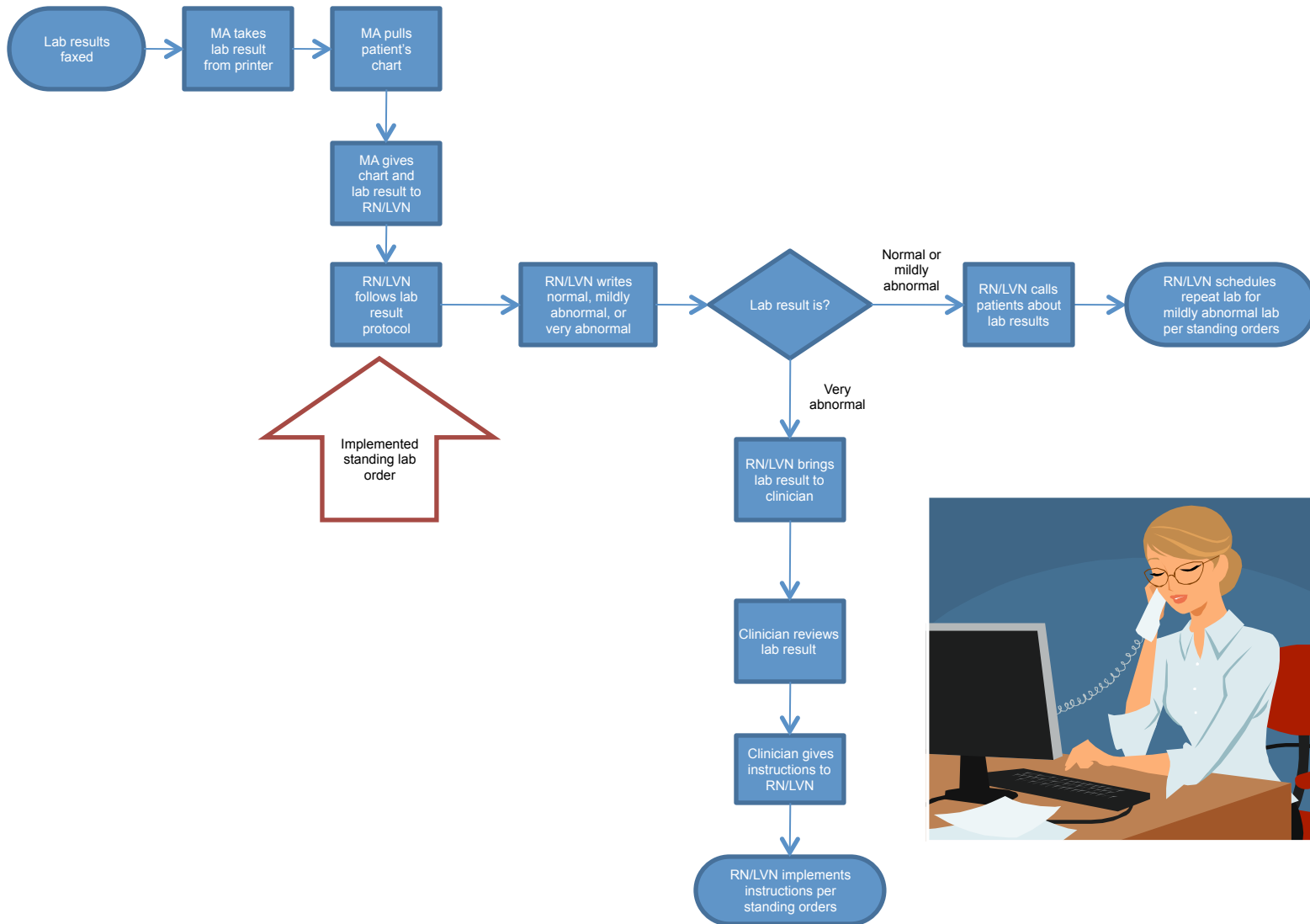
Goals

- **Explain workflow mapping**
- **Discuss why workflow mapping is useful prior to and after EHR implementation**
- **Demonstrate how to create workflow maps**
- **Review some meaningful use workflow examples**

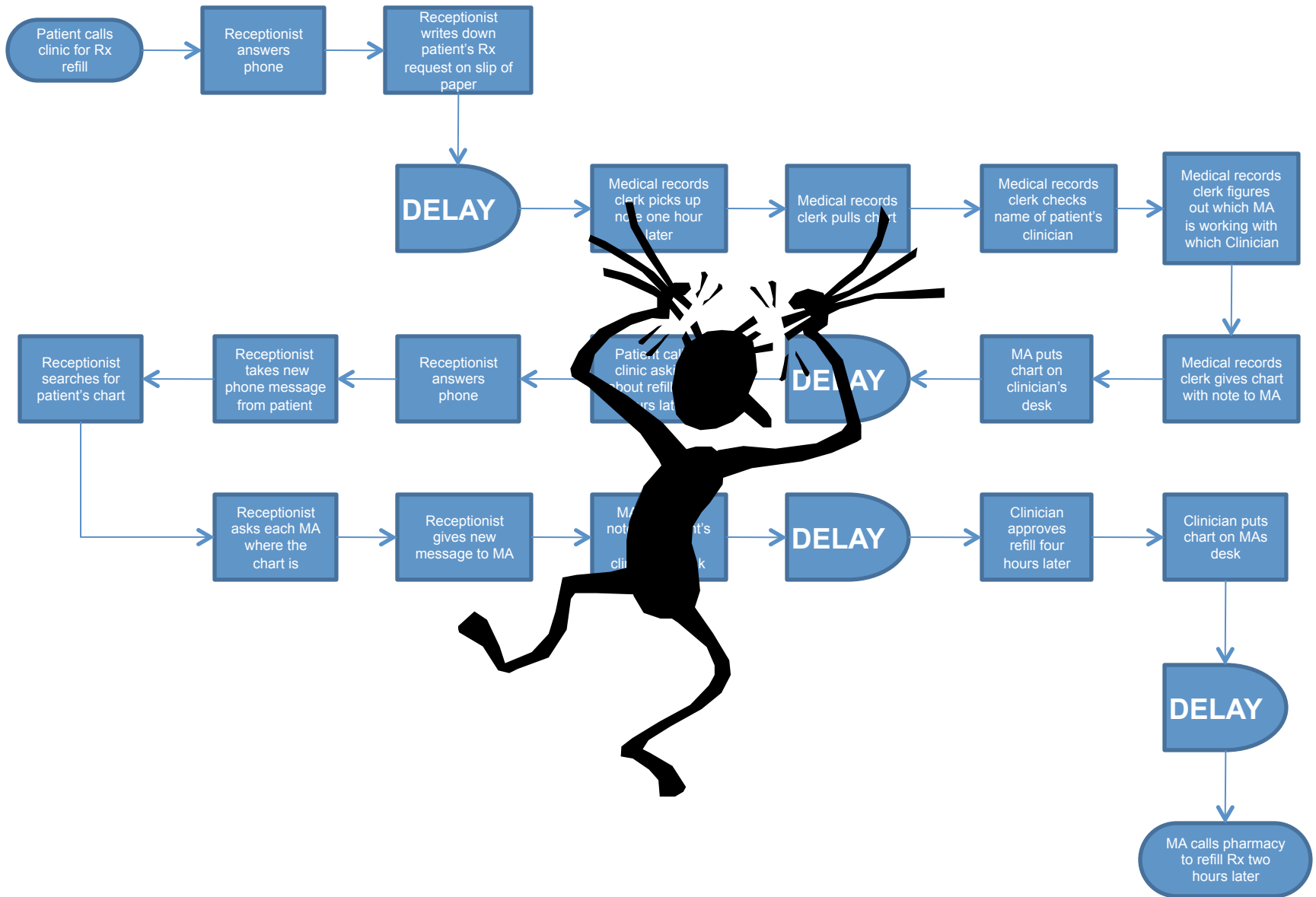
Example 1a: How *not* to provide lab results to your patients



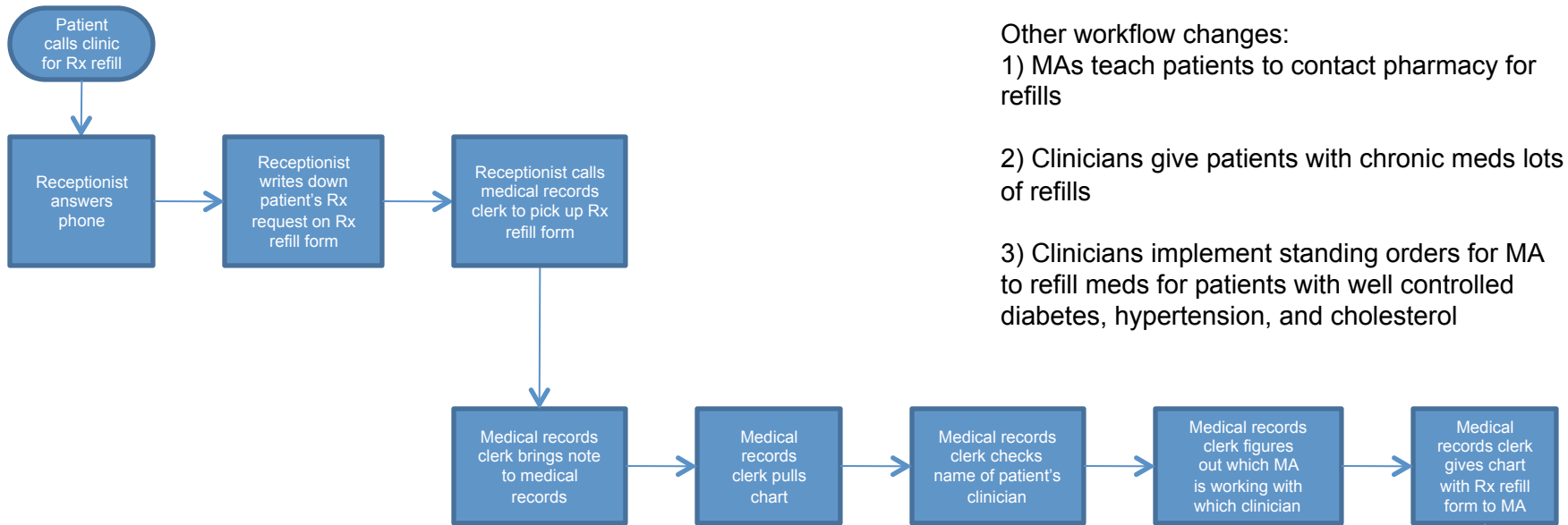
Example 1b: Lab result follow-up after workflow mapping



Example 2a: How *not* to do Rx refills

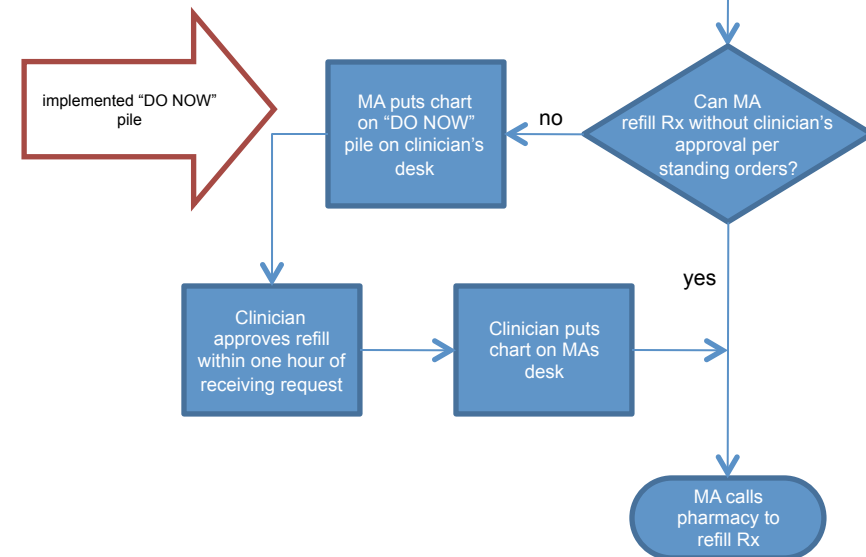


Example 2b: Rx refills after workflow mapping



Other workflow changes:

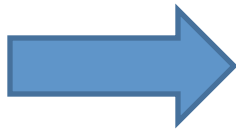
- 1) MAs teach patients to contact pharmacy for refills
- 2) Clinicians give patients with chronic meds lots of refills
- 3) Clinicians implement standing orders for MA to refill meds for patients with well controlled diabetes, hypertension, and cholesterol



What is a workflow map?

- **A visual representation of a process**
 - A process is a series of actions, steps, or tasks performed in a certain order to achieve a certain result
- **Defines the beginning of a process, the end of a process, and all the steps in-between**
- **Defines who does what in the process**
- **A measurement of what /S**

Workflows before implementing EHR are different from those after



EHR adoption



Practice
Manager

Workflow mapping pre-EHR reveals inefficiencies and waste

- **Workflow mapping helps practices**
 - **Identify inefficiencies, waste, and dangers**
 - **Eliminate wasteful steps**
 - **Streamline complicated workflows**
 - **Standardize how work is done**
- **Example 1 (lab results): workflow mapping uncovered unnecessary steps that could easily be eliminated, making life easier for physicians and staff**
- **Example 2 (rx refills): workflow mapping showed that big changes were needed to eliminate waste and reduce patient delays**

Workflow mapping pre-EHR: Tailor EHR to meet practice needs

- **Mapping out processes before EHR implementation helps practices decide how to use the EHR**
- **Workflow mapping demonstrates what protocols and standing orders are needed to redistribute work**
- **Workflow maps help practices work with their EHR vendor so that the vendor understands how each person will use the EHR**
- **Examples 1 and 2: protocols and standing orders written pre-EHR adoption delineate who does what, which facilitates implementation of the EHR**

Workflow mapping post-EHR: EHR is a huge change

- **Going from paper to EHR changes every single thing in a practice**
- **Roles will change**
 - **What will medical records clerks do?**
 - **Medical assistants will enter vital signs electronically and provide more services in the rooming process**
 - **Clinicians will type progress notes and use templates**
 - **E-prescribing often shifts all refill work to Clinicians' inboxes**
- **Example 2 (rx refill): Post-EHR workflow can be set up so that Clinicians do not handle every refill. This depends on pre-EHR workflow redesign**

Workflows post-EHR:

shows practices how best to use EHR

- **EHR implementation tends to push work back onto the Clinician. Workflow mapping can prevent this**
- **Workflow mapping helps staff look at entire process and think how their work fits into a larger system**
- **Workflow maps help practices decide which personnel they need post-EHR**
- **Example 1 (lab results): If a practice does not have a RN or LVN, Clinicians need to review all labs. If the practice wants to delegate lab review to another team member, the practice would need a RN or LVN because MAs cannot review labs. Also, the practice will not need a medical records person.**

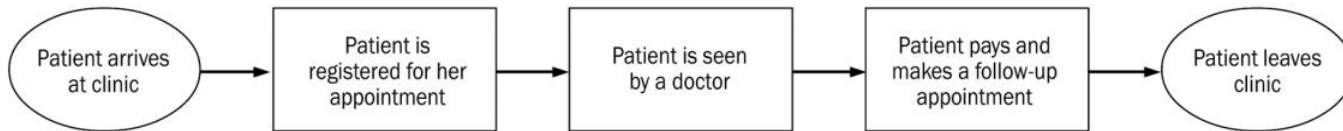
Who's involved with workflow mapping?

- **One designated person**
 - Oversees the team and keeps tasks on track
 - Understands all aspects of the process in detail
 - Drafts the initial workflow map
- **The team**
 - Decides what processes to map
 - Everyone involved in a workflow should be part of the mapping process
 - Discusses accuracy of the workflow map after it's been drafted
 - Perfects the process and maps it out

Types of workflow maps

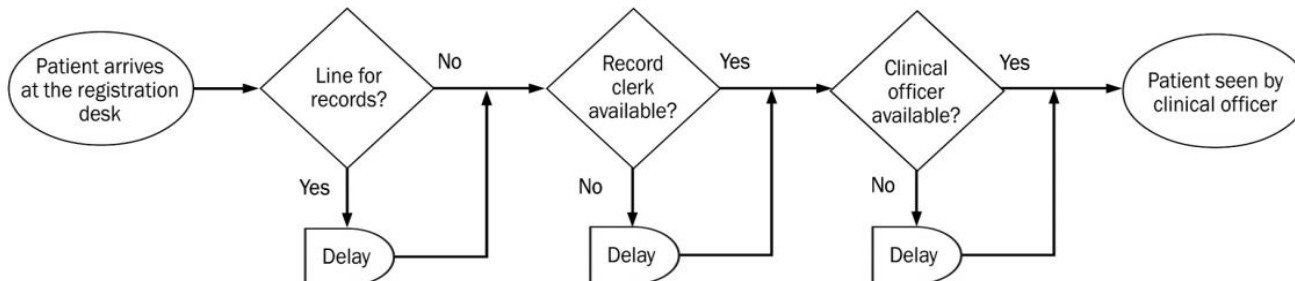
High-Level Flowchart: Shows the major steps of a process. A high-level (also called first-level or top-down) flowchart illustrates a "birds-eye view" of a process.

High-Level Flowchart of Prenatal Care

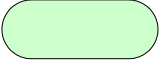

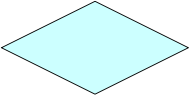







Detailed Flowchart: Provides a detailed picture of a process by mapping all of the steps and activities that occur in the process. This type of flowchart includes such things as decision points, waiting periods, tasks that frequently must be redone (rework), and feedback loops. This type of flowchart is useful for examining areas of the process in detail and for looking for problems or areas of inefficiency.

Detailed Flowchart of Patient Registration



Know your symbols

	START/END: Indicates the start and end points of a process
	OPERATION: A specific task or activity that is performed
	DECISION POINT: A point in the process where a yes/no question or a decision is required before moving on to the next step
	DIRECTION: Arrows connect steps in the process and direct flow of information
	DELAY: Indicates the workflow goes into a wait
	OFF-PAGE CONNECTOR: Refers to a process located on another page
	ON-PAGE REFERENCE: Refers to a step in the process located on the same page
	UNCLEAR: Use this when a step in the process is unknown or not clear

Note: There are many more symbols than those listed, but these are the most commonly used ones

Simple steps for workflow mapping

- **Step 1. Pick a process to map out, pick which type of workflow to use, and agree on its purpose**
- **Step 2. Determine the beginning and end points**
- **Step 3. Identify each step in the process**
- **Step 4. Put the steps in order**
- **Step 5. Review and edit the first draft**
- **Step 6. After a day or two, review the flowchart with the team for input**

What to do with your workflow map

- **Look at your workflow map and examine it**
 - Beginning and end points
 - Each activity and wait symbol
 - Decision points
 - Hand-offs (where one person finishes his or her part of the process and another person picks it up)
- **Ask questions about the workflow map**
 - Does that step really need to be there?
- **Map out the improved process**

How *not* to do workflow mapping

- Map out the processes you *wish* you had
- Interview a few key informants to understand the process instead of shadowing everyone involved in the process
- Ignore the opinions of those people who know the process best
- Put your workflow map on the shelf and don't look at it again

Achieving meaningful use requires workflow change

- **Meeting meaningful use requires practice staff to perform functions they may not have performed before**
 - **Example: Practices will need to provide patients with an after visit summary**
- **Meeting meaningful use requires efficient high-quality and patient-centered use, not just any use, of the EHR**

Meaningful use criteria: Stage 1

Core requirement	Workflow changes needed?	Workflow change ideas
Record patient demographics	Yes	Someone in the practice needs to enter and update demographics
Record vital signs electronically	Yes	Medical assistant adds to rooming tasks: calculating BMI, entering height, weight, BP, growth charts into EHR
Maintain up-to-date problem list	Yes	Clinicians often fail to keep problem lists updated. MA reviews problem list during rooming and reminds clinician to update. MA does not make updates in EHR
Maintain active med list	Yes	MA does med-rec during rooming and makes or pends updates in EHR
Maintain active allergy list	Yes	MA has series of questions about allergies and is responsible for this task
Record smoking status	Yes	MA adds this to rooming task and could do brief counseling (readiness to change, perhaps call state quit line)

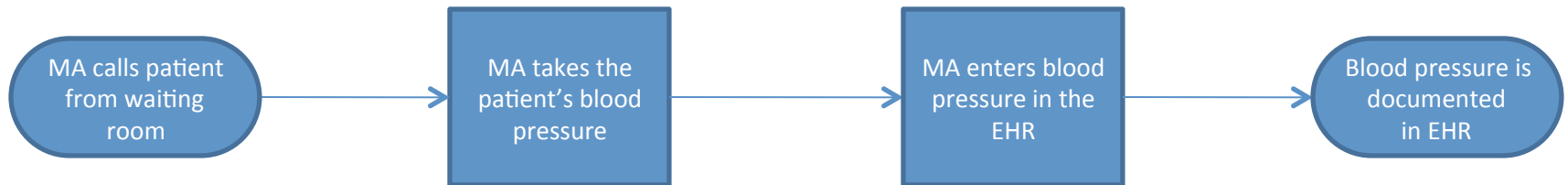
Core requirement	Workflow changes needed?	Workflow change ideas
Provide patients with clinical summaries for each office visit	Yes	The clinician does this and trains MA to carry it out
E-prescribing	Yes	For initial prescriptions, clinicians do the e-prescribing, but for some chronic refills, MA could do the refill based on standing orders from clinician
Drug-drug and drug-allergy interaction checks	No	
Exchanging electronic information with other sites of care	Yes	Care coordinator (probably RN) can assist clinicians with this, particularly tracking/follow-up. If there is no RN, a workflow map would show which steps could be performed by a non-clinician staff person
Implement a decision support rule and track compliance with the rule	Yes	Tracking compliance could be done by RN care manager
Systems to protect privacy and security of patient data	No	
Report clinical quality measures to CMS or states	Yes	Someone would be responsible, perhaps practice manager. The responsible person would need training in CQI, numerators and denominators, measures, etc.

Menu of additional tasks (choose 5 out of 10)	Workflow changes needed?	Workflow change ideas
Drug formulary check system	No	
Lab results into EHR	No	
Generate lists of patients for QI or outreach (registry)	Yes	The generation of the lists is a technical issues, but panel managers will be needed to work the lists to see which patients need which services, and provide outreach or in-reach. MAs could be the panel managers except their workload is becoming excessive. MAs would do in-reach.
Electronic health education resources	Yes	Health educator is responsible (if available), but clinicians/MAs would also provide the information to patients
Med reconciliation between care settings	Yes	Between settings is complex, but within the primary care practice, MA can do med-rec as part of rooming
Summary of care record for referrals and transitions	Yes	This is mainly a clinician function but it also needs to be tracked and reminders done (MA and/or RN care coordinator)
Immunization data to regional registries	Yes	Someone on team responsible
Surveillance data to public health agencies	Yes	Someone on team responsible
Patient reminders for prevention/ chronic care	Yes	This is a panel manager task
Patient access to lab results, problem and med lists, allergies	Yes	Creating a secure patient portal is technical issue, but actually providing the information would be an MA task

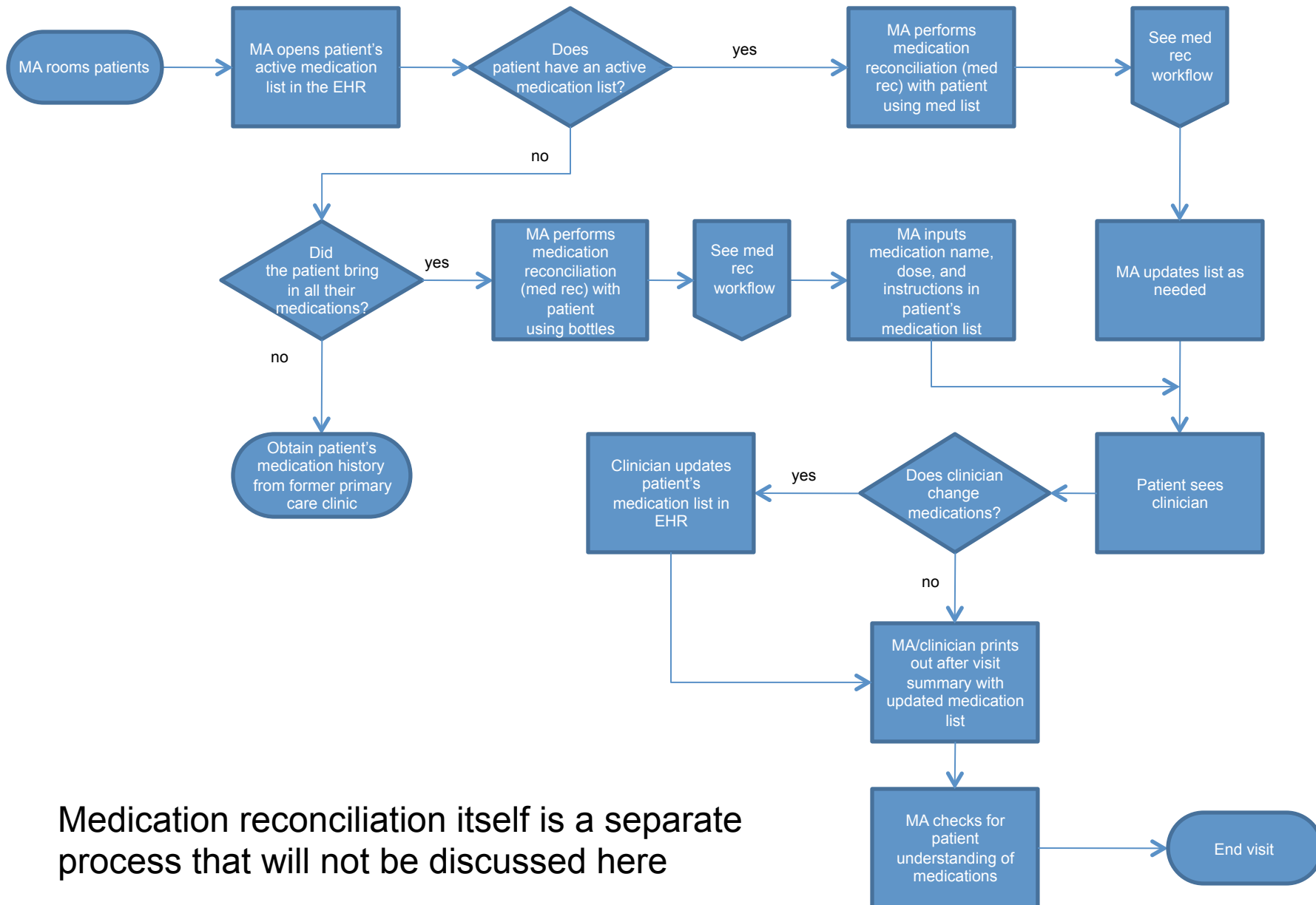
Suggested workflows for meaningful use

- **The following workflow are examples**
- **How your practice works may be different**
- **Pilot the EHR workflows with one MA or one receptionist and one clinician and a couple of patients to see if they work**

Example flowchart: documenting vital signs (example, blood pressure)

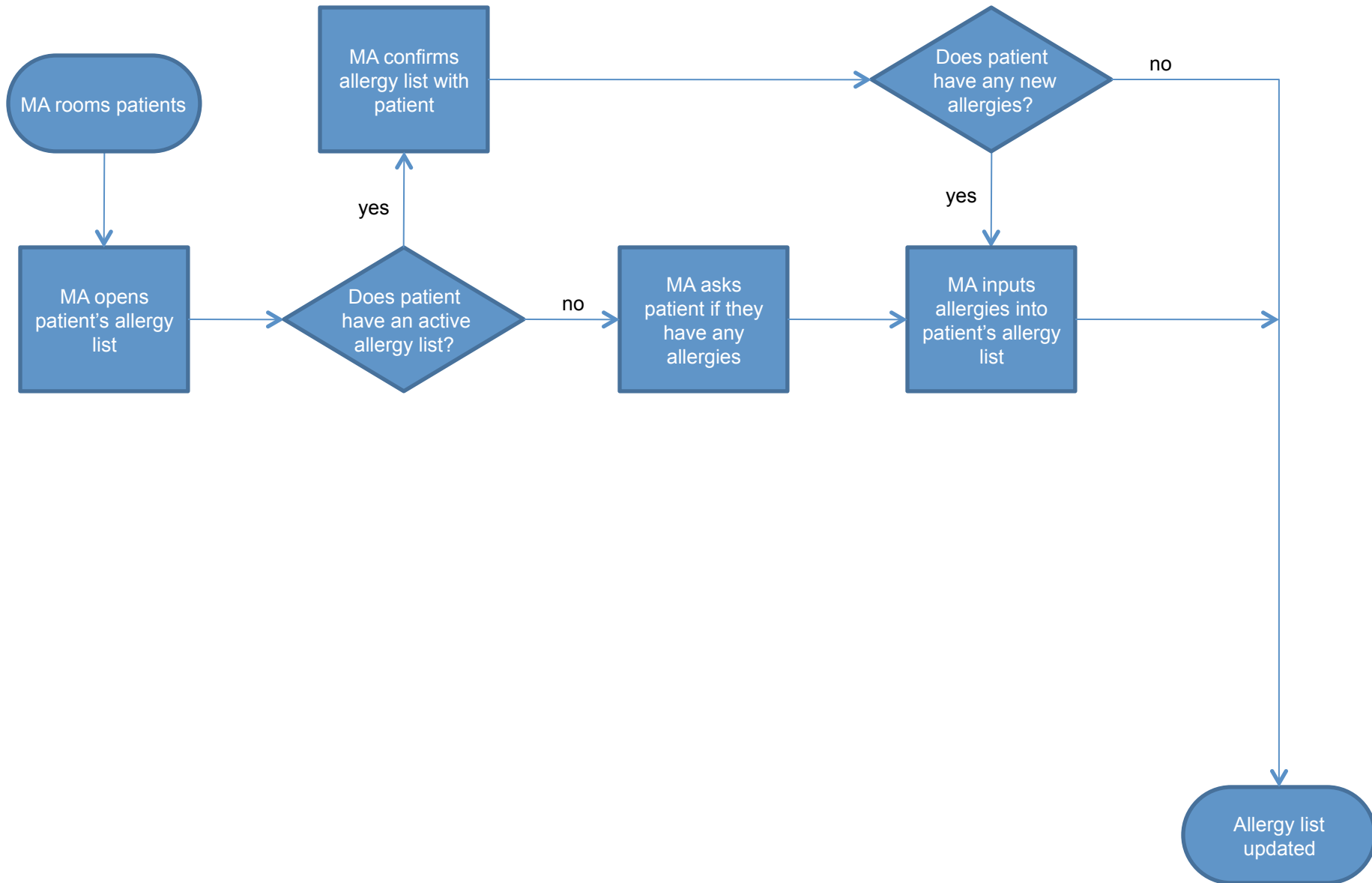


Example flowchart: maintaining active medication lists

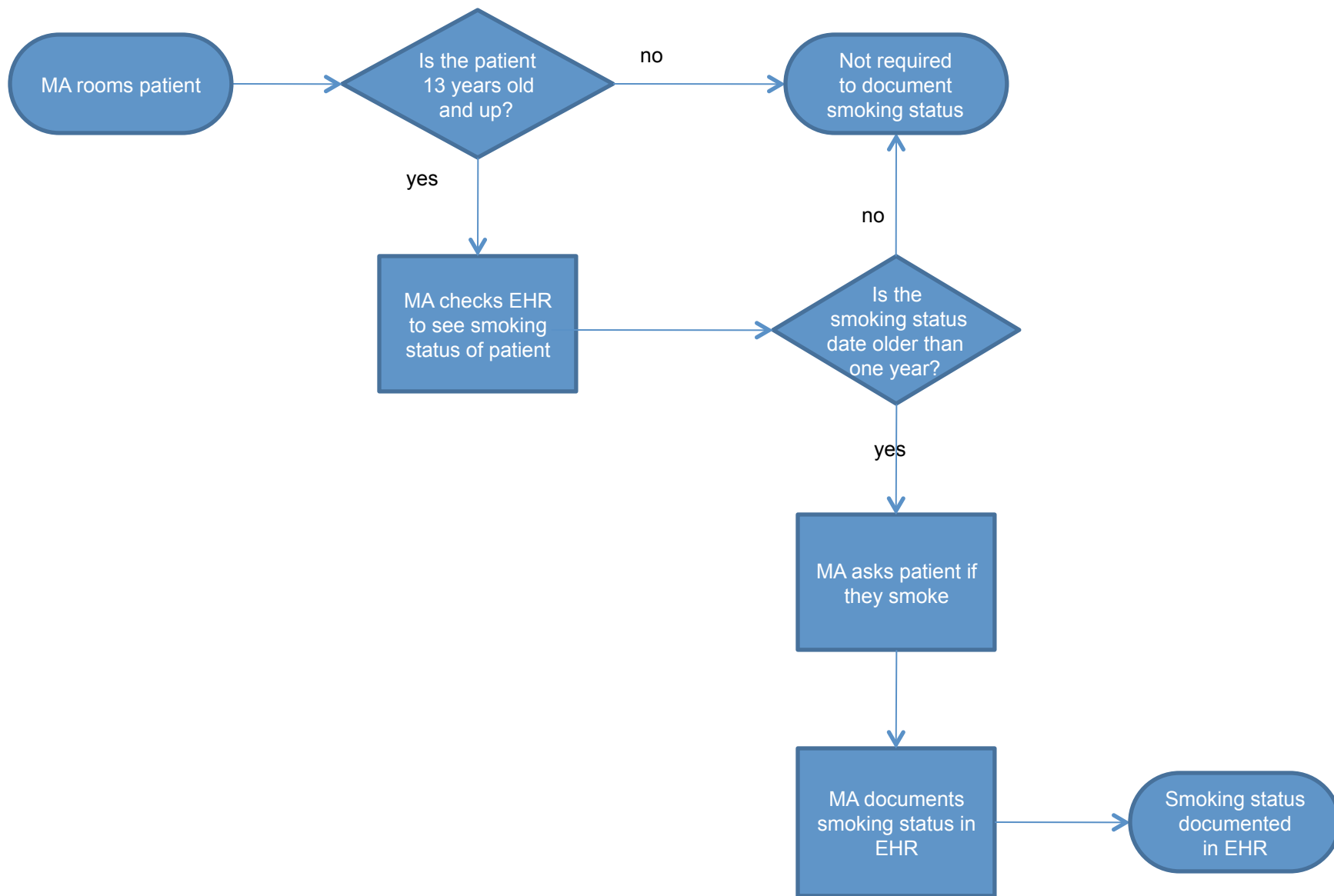


Medication reconciliation itself is a separate process that will not be discussed here

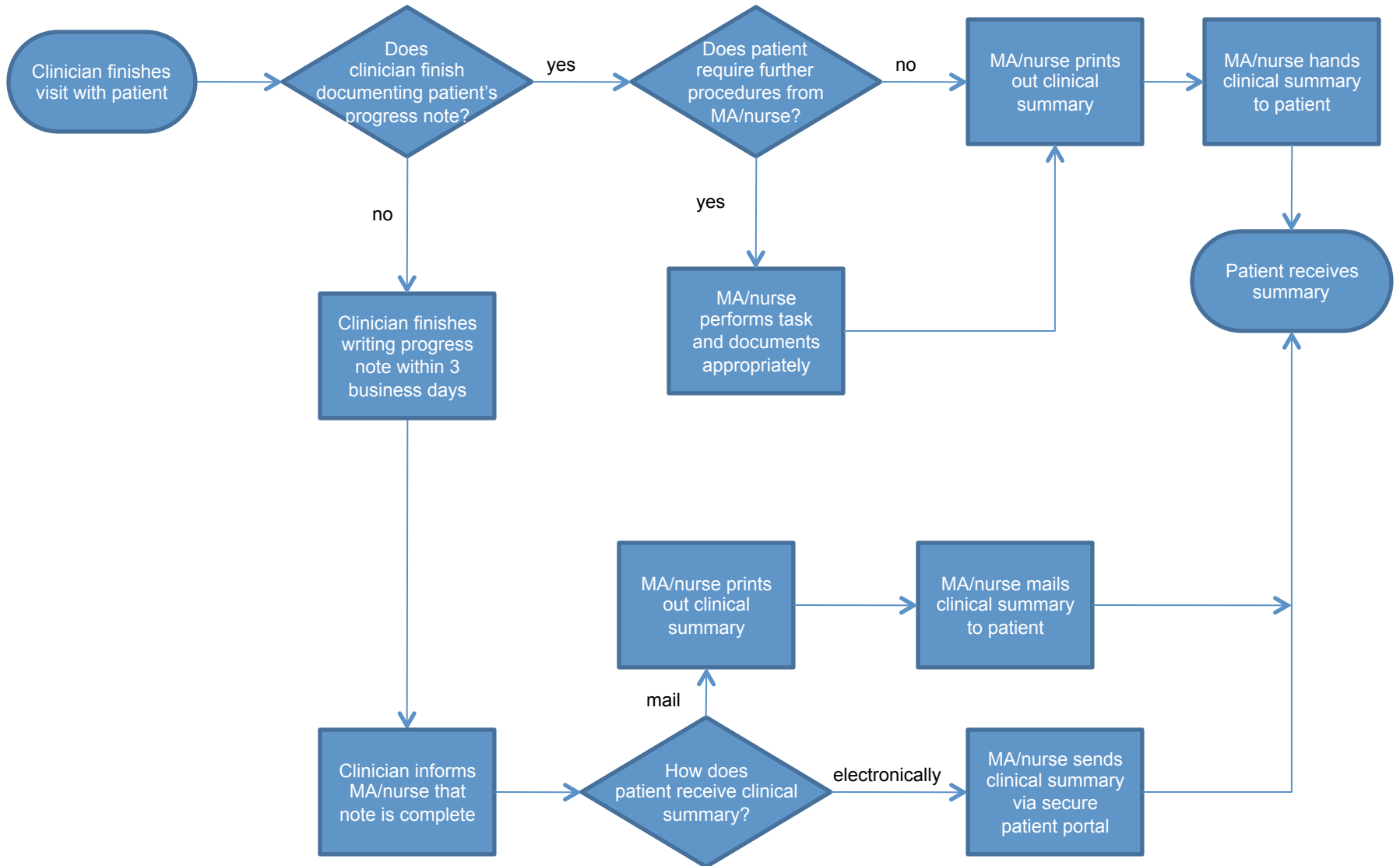
Example flowchart: maintaining active allergy lists



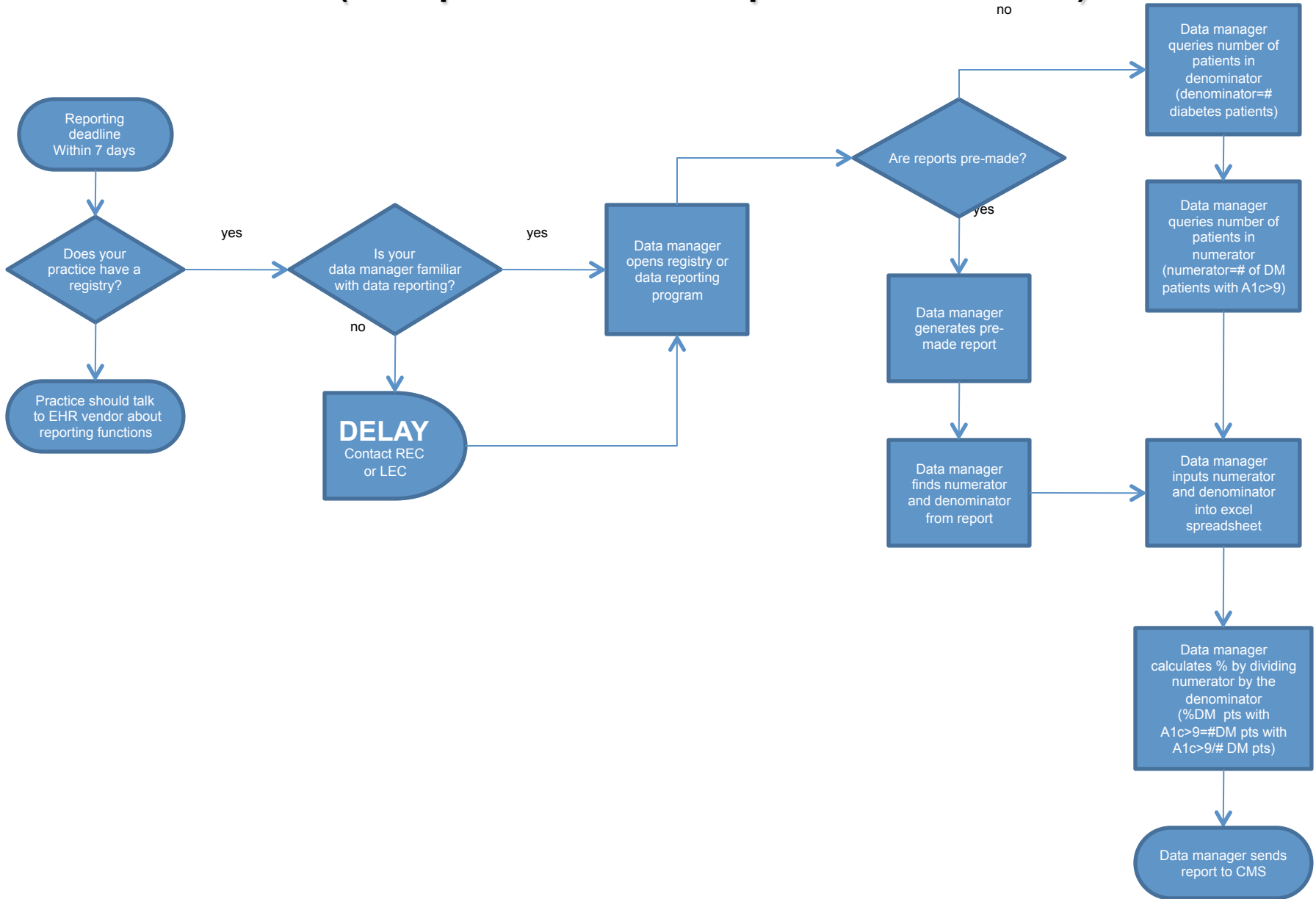
Example flowchart: documenting smoking status for patients 13 and up



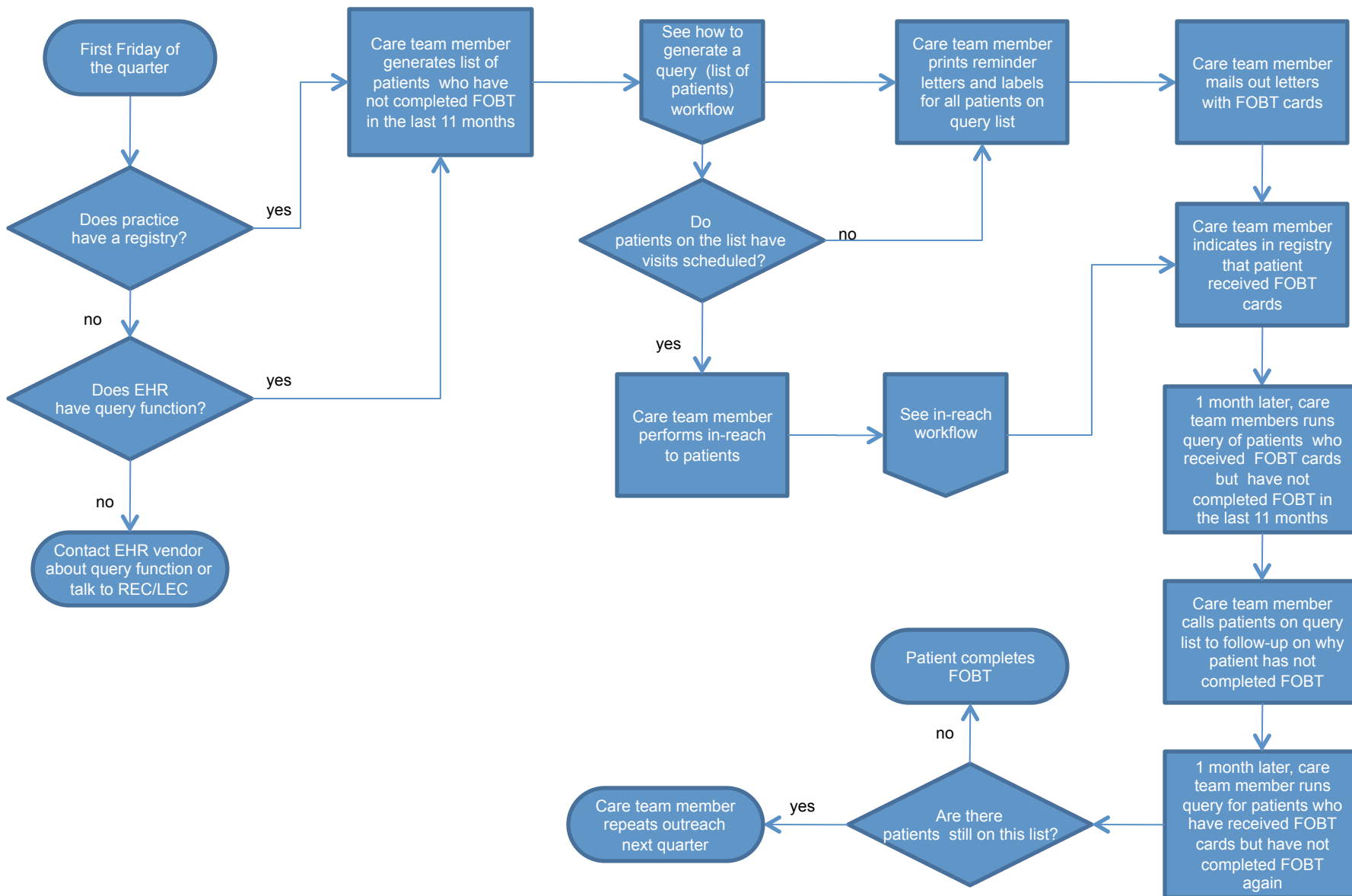
Example flowchart: providing clinical summaries at the conclusion of appointments



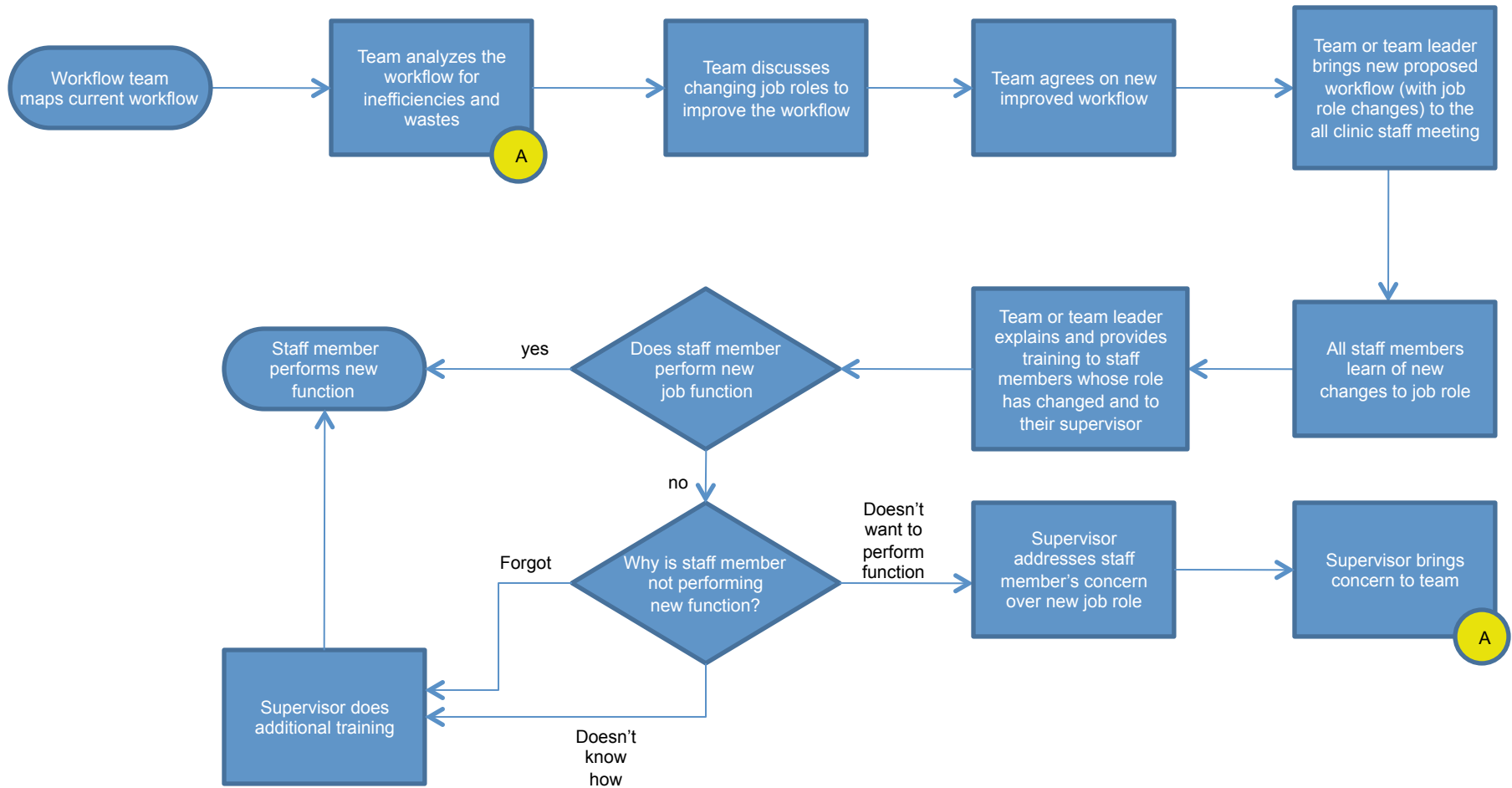
Example flowchart: reporting on clinical quality measures to CMS (example: % of diabetes patients with A1c>9)



Example flowchart: reminders to patients for preventive and follow up care (example: outreach to patients due for annual FOBT)



Example flowchart: how to change a job role using lab result follow up as an example



This is not a meaningful use requirement but will be needed to achieve meaningful use

Conclusion

- **Workflow mapping is a great tool to help implement EHR and achieve meaningful use**
- **EHR adoption does not equal meaningful use**
- **Workflow maps are a tool to improve care for patients, improve efficiency in practice, and redistribute work and job roles**