

# IMPROVING YOUR OFFICE TESTING PROCESS

Toolkit for Rapid-Cycle Patient Safety and Quality Improvement



Agency for Healthcare Research and Quality  
Advancing Excellence in Health Care • [www.ahrq.gov](http://www.ahrq.gov)

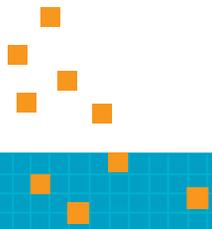
PATIENT  
SAFETY

This publication is in the public domain and may be used and reprinted without permission.

Suggested citation:

Eder M, Smith SG, Cappelman J, et al. Improving Your Office Testing Process. A Toolkit for Rapid-Cycle Patient Safety and Quality Improvement. AHRQ Publication No. 13-0035. Rockville, MD: Agency for Healthcare Research and Quality; August 2013.

These materials were developed with grant support from the Agency for Healthcare Research and Quality (AHRQ grant HS17911). The opinions presented in this toolkit are those of the authors, who are responsible for its content, and do not necessarily reflect the position of the U.S. Department of Health and Human Services or the Agency for Healthcare Research and Quality.



# IMPROVING YOUR OFFICE TESTING PROCESS

**Toolkit for Rapid-Cycle Patient Safety and Quality  
Improvements**

## **Project Team**

Milton "Mickey" Eder, PhD, Principal Investigator  
Director of Research & Evaluation  
Access Community Health Network  
Chicago, IL

Sandy G. Smith, PhD  
University of Chicago  
Access Community Health Network

James Cappleman, MSW

John Hickner, MD, MSc  
Chairman, Department of Family Medicine  
Cleveland Clinic

Nancy Elder, MD  
Associate Professor, Department of Family Medicine  
University of Cincinnati

Gurdev Singh, MScEng, PhD  
Director, University of Buffalo Patient Safety Research Center  
SUNY University at Buffalo

## **Consultants**

Bruce Bagley, MD  
American Academy of Family Physicians

Terry McGeeney, MD  
TransforMED

James Meisel, MD, FACP  
Boston University

John Orzano, MD, MPH  
Concord Hospital

Eric Poon, MD, MPH  
Brigham and Women's Hospital  
Harvard Medical School

Glen Seils, BE  
GSeils Consulting

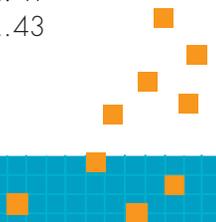
Leif Solberg, MD  
HealthPartners Research Foundation



# CONTENTS

---

User Guide .....	1
Using the Toolkit .....	3
Starting the Improvement Process in Your Office .....	5
Assessing Office Readiness.....	7
Office Readiness Survey .....	9
Office Readiness Survey Scoring Sheet .....	11
Planning for Improvements .....	13
Planning for Improvements Tool .....	15
Assessing Your Testing Process .....	17
Assessing Your Testing Process Survey .....	19
Assessing Your Testing Process Survey Scoring Sheet .....	21
Patient Engagement .....	23
Patient Engagement Survey .....	25
Encuesta sobre participación de pacientes (Spanish version) .....	27
Using the Patient Handout .....	29
Patient Handout .....	31
Formulario para el Paciente (Spanish version) .....	33
Chart Audits .....	35
Chart Audit Tool .....	39
Electronic Health Record Evaluation .....	41
Electronic Health Record Evaluation Tool.....	43





# USER GUIDE

## Toolkit for Improving Your Office Testing Process

The purpose of this toolkit is to make your office a safer place for patients by increasing the reliability of your office testing process.

You and your staff can use materials from this toolkit to take manageable steps to improve office safety and quality.

### Introduction

About 40 percent of patient encounters in primary care offices involve some form of medical test. Studies of primary care offices consistently show that the process for managing tests is a significant source of error and patient harm. Some errors can have devastating results, as described in this patient vignette.

A routine PSA test was ordered, along with other tests, for a 55-year-old patient. The other tests came back, but the PSA test results were lost in communications with the lab and were forgotten. The physician first noticed that the PSA test had not come back when the patient returned a year later. A new PSA test was ordered, and it returned a value of 20, indicating the patient now had metastatic prostate cancer.

Maybe you have had a similar experience in your office or know of a similar story. Errors in managing tests are more common than most of us realize.

This toolkit can help you increase the reliability of the testing process in your office. The tools will help you examine how tests are managed in your office, from the moment tests are ordered until the patient is notified of the test results and the appropriate followup is determined.

Successful practice improvement requires:

- The desire to improve.
- Support of office leadership for improving quality and safety.
- Teamwork—everyone should be involved in the improvement process.
- Commitment to honest and open communication.
- Regular discussion of performance improvement at staff meetings.
- A focus on office systems rather than individual performance.
- Persistence—a promise to stick with it.



# USING THE TOOLKIT



**Every office is unique.** No two offices are alike, and offices can change over time, so no single system for managing the testing process will work in every office. This toolkit will support you in the development and implementation of projects you design to improve how your office manages the testing process.

**Choosing a leader for the project.** We understand that the job titles of those leading a project can vary widely, so we will use the generic title of “Project Leader” throughout this toolkit user guide. The project leader can be a physician, a nurse, an administrator, or anyone else who has the skills and the desire to lead the project.

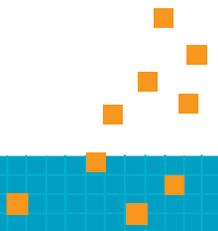
**The toolkit user guide is meant primarily for project leaders.** The toolkit contains more information and resources than would be needed for any one project. It is the project leader’s role to identify which tools are relevant for a project and to understand how to use them.

**A video is available.** The support of your staff is crucial to the success of the project. The 10-minute video “Testing, Testing, Testing” is available (<http://youtu.be/PaZvalKtC-g>) to introduce the testing process and quality improvement to your staff. It can provide a jumping-off point for staff discussion and action.

**This toolkit presents a simple model of the testing process.** Although the eight tasks discussed in this toolkit are common to all offices, your office may not perform the tasks in the order described in the model.

**The testing process is an office system.** A good office system facilitates communication and coordination between people and tasks. It is documented with clear and well-understood policies and procedures. Office systems should not depend on the knowledge or efforts of any one individual. This toolkit will help you focus on your office system rather than on the performance of individual staff members.

**Keep your project modest and manageable.** Be realistic about what you can achieve in a busy office environment. Even a small change can take a lot of effort, but it also can make a big difference.



# USING THE TOOLKIT

---

**You don't have to use all the tools in the toolkit.** These tools were designed for specific purposes. Some of the tools can help you identify error-prone aspects of your testing process, and others can help you measure your progress in improving the process. Choose the tool(s) you think will be most useful to help you achieve your goals.

**Involve your entire staff in patient safety and quality improvement.** Each tool has a "What we know about" section, with themes for staff discussion and project development.

**Detailed descriptions and instructions accompany each tool.** The tools can be used in a variety of ways. An outline of these uses is provided in the detailed description of each tool.

**The tools can be adapted for your office and your project.** Because each office is unique, it is okay to modify a tool to meet your needs.

**Measure your performance before and after implementing a change.** Measurement is essential for determining whether the change in your office system actually improves the reliability of your testing process.

**Use the same tool to measure your performance before and after implementing a change.** Use the same tool and the same method each time you collect information (e.g., how charts were selected to audit; how patients were selected to survey). Consistent data collection will allow an accurate before and after comparison and enable you to determine if the changes you have made are producing improvements.

**Stay positive.** Recognizing a problem is a valuable step; it may take several attempts to put a workable solution into place in your office.

**No matter how small, celebrate your successes!**

# STARTING THE IMPROVEMENT PROCESS IN YOUR OFFICE

You can begin the improvement process by setting aside some time during a regularly scheduled staff meeting for a discussion of laboratory testing policies and procedures in place in your office. A staff meeting presents a convenient opportunity to engage all staff members in your improvement efforts. Begin by having your staff watch the 10-minute video, which can be found at <http://youtu.be/PaZvalKtC-g>. Engage your staff in discussion about the video. Ask them to describe the testing process in place at your office and their respective roles in that process. Some discussion topics follow.

## Part 1: A Model of the Testing Process

1. Figure 1 presents an example of the testing process. Using the example as a guide, ask staff members to describe their roles in relation to the tasks in the testing model.
2. Ask staff to discuss how the tasks within your office's testing process are organized into a system. To stimulate discussion, you might want to create a diagram or model of your office testing process on a whiteboard.
3. Within your office testing process, can staff identify where errors are likely to occur?

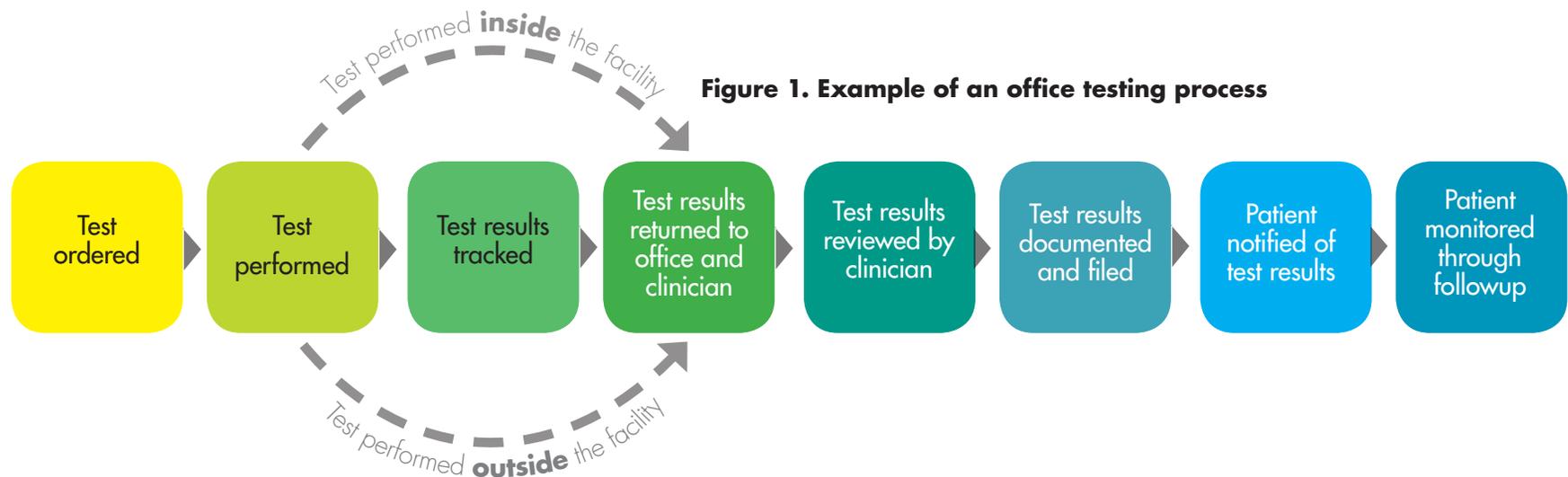


Figure 1. Example of an office testing process

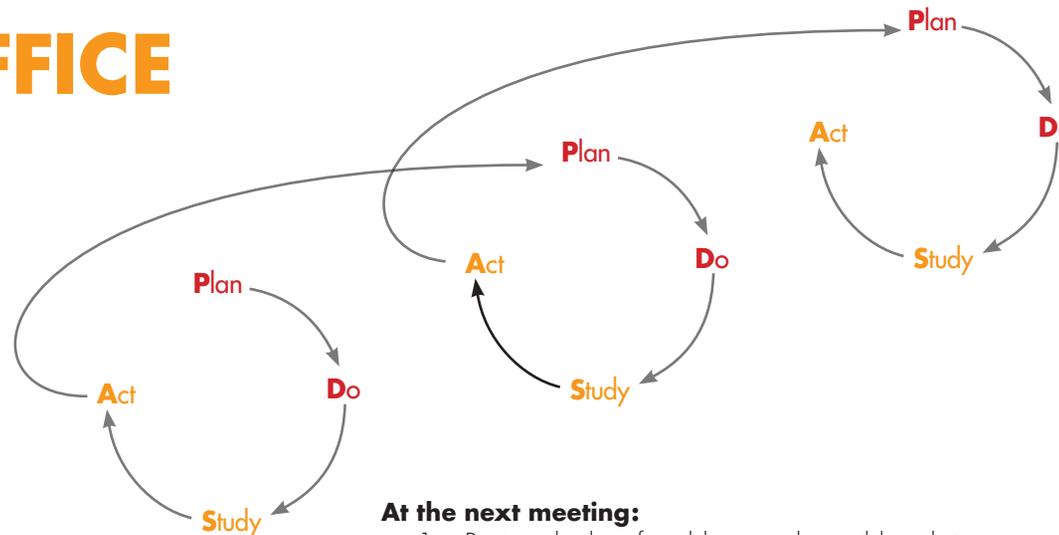
# STARTING THE IMPROVEMENT PROCESS IN YOUR OFFICE

## Part 2: Using the Plan-Do-Study-Act (PDSA) Method for Practice Improvement

### At the first meeting:

1. Discuss why the entire staff should be involved in all patient safety projects, and describe the PDSA approach to practice improvement (see Figure 2).
2. Have staff describe their work using data and information and their experience with data collection forms.
3. Ask staff to identify problems or workarounds in the testing process that consume time and effort.
  - Ask staff to identify possible solutions. Be sure to record and keep this information for future meetings.
  - Promise to bring relevant practice improvement tools to the next meeting.

Figure 2. The plan-do-study-act approach to practice improvement



### At the next meeting:

1. Review the list of problems and possible solutions.
2. Work with your staff to clearly define how roles and responsibilities might change and how improvements will be measured. This may be an opportunity to introduce the Planning for Improvements Tool (see page 15).
3. Design a change in your testing process that includes simple and quick data collection.

# ASSESSING OFFICE READINESS



The Office Readiness Survey will help you assess staff and physician attitudes about working together. It will also show how well staff and physicians recognize and use office policies and procedures for managing the testing process.

Use this survey to assess changes in staff attitudes by comparing responses before and after implementing a change in your office. You will find the survey at the end of this section.

## Using the Survey

- We recommend that offices with little or no quality improvement experience start with this survey.
- You can administer the survey, rapidly score it, and present and discuss the results at an office meeting.
- You should have everyone in your office (e.g., clinician, case manager, receptionist, medical assistant, nurse) complete the survey anonymously.
- Be sure to set a deadline for staff to complete the survey. Give the scorer enough time to compile the responses and prepare the results, including a summary of any handwritten comments, for presentation at a staff meeting.

## Scoring the Responses

Number each completed survey.

1. Place each survey over the scoring sheet provided in this toolkit (see page 11) and line up the tops of the two pages.
2. Align the right edge of the survey sheet to the scoring sheet column with the matching survey number.
3. Put a check mark in each box in the column when the survey response is 1, 2, or 3 (see Figure 3).
4. Repeat for each survey.
5. Count the number of checked boxes in each row and put the total in the right hand column.
6. Highlight those items where the number of checked boxes is more than half the number of completed surveys.
7. Check for handwritten comments; compile comments and look for recurring issues.

# ASSESSING OFFICE READINESS

Figure 3. Using the Office Readiness Survey and Scoring Sheet

**Office Readiness Survey** Date: 3-28-2013 Survey No. 16

This tool can be used to assess your office's readiness for quality and safety improvement. Circle the number between 1 and 5 that most accurately describes how you feel about your office.

Practice Improvement	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
1. The leadership (medical director, office manager, hospital exec, etc.) in the office demonstrates a commitment to quality and patient safety.	1	2	3	4	5
2. Communication among staff, physicians, and leadership promotes mutual respect and trust.	1	2	3	4	5
3. All staff in the office work as a team.	1	2	3	4	5
4. All staff are able to provide input on decisions about office processes.	1	2	3	4	5
5. Monthly meetings are held, and quality of care is a regular item on the agenda.	1	2	3	4	5
Comments:					
Quality and Safety of the Testing Process	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
6. The office has written procedures describing how to handle testing and test results.	1	2	3	4	5
7. Everyone in the office has read and follows the testing procedures.	1	2	3	4	5
8. Medical testing errors in the office do not harm patients.	1	2	3	4	5
9. Results and test errors discuss reasons and effects of errors.	1	2	3	4	5
10. The office has systems to prevent, capture, and to correct problems in the testing process.	1	2	3	4	5
Comments:					

Survey No. 16

Total of checked scores: 16

## Interpreting the Results

- Highlighted **practice improvement** items (items 1-5) point to areas where staff have identified a problem in working together.
- Highlighted **quality and safety** items (items 6-10) point to areas with a potential quality or safety problem.
- When responses indicate a problem for either practice improvement or quality and safety, you should take the time to explore the issues as a group before undertaking a specific practice improvement project.
- To obtain a more detailed assessment of staff attitudes, consider using AHRQ's Medical Office Survey on Patient Safety Culture at <http://www.ahrq.gov/professionals/quality-patient-safety/patientsafetyculture/medical-office/>.

## Office Readiness and Patient Safety

### We know that:

- Offices and systems vary, so there is no single "best" office system. Effective systems must function within each office's environment.
- Offices with a team approach to patient care, good communication among all staff, mutual trust and support, and a commitment to patient safety are more likely to discuss mistakes and problems.
- Offices with fewer testing errors and greater patient safety have:
  - o Written procedures that are readily available to all staff.
  - o A process for updating and informing staff of changes in office procedures.
  - o Office systems that focus on and support collaboration among staff rather than individual performance.

# Office Readiness Survey

Date \_\_\_\_\_ Survey No. \_\_\_\_\_

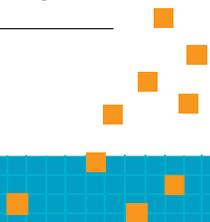
This tool can be used to assess your office's readiness for quality and safety improvement. Circle the number between 1 and 5 that most accurately describes how you feel about your office.

Practice Improvement	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. The leadership (e.g., medical director, office manager, head nurse, or other leader) at this office demonstrates a commitment to quality and patient safety.	1	2	3	4	5
2. Communication among staff, physicians, and leadership promotes mutual respect and trust.	1	2	3	4	5
3. All staff in this office work as a team.	1	2	3	4	5
4. All staff are asked to provide input on decisions about office processes.	1	2	3	4	5
5. Monthly meetings are held, and quality of care is a regular item on the agenda.	1	2	3	4	5

Comments:

Quality and Safety of the Testing Process					
6. This office has written procedures describing how to handle testing and test results.	1	2	3	4	5
7. Everyone in this office has read and follows the testing procedures.	1	2	3	4	5
8. Medical testing errors in this office do not harm patients.	1	2	3	4	5
9. Providers and staff openly discuss causes and effects of errors.	1	2	3	4	5
10. This office has systems to prevent, catch, and/or correct problems in the testing process.	1	2	3	4	5

Comments:





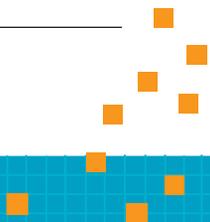
# Office Readiness Survey Scoring Sheet

Instructions:

1. Number each survey.
2. Place each survey over the scoring sheet and line up the tops of the two pages.
3. Align the right edge of the survey sheet to the column with the same survey number.
4. Put a check in each box of the column when the response selected was 1, 2, or 3.
5. Repeat for each completed survey.
6. Count the number of checked boxes in each row, and put the total in the right hand column.
7. Highlight those items where the number of checked boxes is more than half the number of completed surveys.
8. Refer to the instructions on page 8 of this toolkit to interpret results.

Survey No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total of checked boxes
<b>Practice Improvement</b>																	
1.																	
2.																	
3.																	
4.																	
5.																	

Survey No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total of checked boxes
<b>Quality and Safety of the Testing Process</b>																	
6.																	
7.																	
8.																	
9.																	
10.																	





# PLANNING FOR IMPROVEMENTS



You will find the Planning for Improvements Tool on page 15. It will help you and your staff to develop a plan to make your office testing process safer.

You can use the tool to design and document changes in your office system for managing lab test ordering, tracking, and followup on results and referrals.

## Using the Tool

You should set aside 30 minutes during a staff meeting for this exercise. Your office may need more than one meeting to complete all the steps.

- Have a discussion with staff about where errors can occur in the testing process.
- Brainstorm suggestions for changing the process to reduce errors.
- Write all the suggestions on a large surface (i.e., whiteboard, poster paper) so the entire staff can see them.
- Try to discuss the suggestions one at a time.
- Prioritize the suggestions and work to achieve staff consensus about which areas to address.
- Identify small, clear actions your staff will take, and record each action on the Planning for Improvements Tool. Listing each step in an ordered process will enable you to plan thoroughly.
- Identify which staff member(s) will perform each action, and designate back-up staff to fill in when primary staff are absent.
- Maintain the list of suggestions and the completed Planning for Improvements Tool for ongoing review.

## Preparing to Implement a Change

- Select another tool from this toolkit to measure the changes you plan to implement.
- Collect baseline data and, using that information, specify a goal for reducing errors.
- Implement the office system changes you have identified.
- Use the same tool to collect data after you make a change so you can assess any differences your change has made.

# PLANNING FOR IMPROVEMENTS

## Interpreting the Results

At a staff meeting, encourage your staff to discuss the implementation. Present the data from before and after you implemented the change.

- If your performance improved and you reached your goal:
  - Make the change permanent and write the change(s) into your office procedures and policy.
- If you improved but expected to do better:
  - Decide on how to further modify the testing process, and revise the Planning for Improvements Tool.
- If your error rates did not change or got worse:
  - Review the changes that were planned.
    - If planned changes did not occur, consider whether the changes are practical.
      - ◆ If practical: Consider trying again; collect additional data.
      - ◆ If impractical: Revise the Planning for Improvements Tool.
    - If planned changes did occur:
      - ◆ Continue and collect additional data.
      - ◆ Or: Develop a new change to test and measure.

**Remember, it often takes a few tries to create real, measurable improvement!**

## Planning to Improve Patient Safety

### We know that:

- Well-designed office systems make errors less likely.
- Breaking complex processes into parts will help you decide where a change might make a difference. One change can impact many parts of the testing process.
- Regular staff meetings can improve communication and collaboration and promote shared responsibility for office processes.
- Even if an improvement involves changes for only a few people, it is important to include everyone in the improvement process to foster a culture of safety in your office.





# ASSESSING YOUR TESTING PROCESS



You will find the Assessing Your Testing Process Survey and scoring on pages 19 and 21. The survey will help staff and physicians to share their perceptions about problems in your office system for managing tests. The survey also asks staff and physicians to consider the potential harm caused by problems with your office testing system and errors related to the testing process.

## Using the Tool

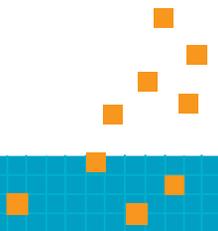
- Everyone in your office should complete this survey anonymously.
- Ask each person to circle the numbers that best indicate his/her view of the frequency and severity of errors in your office.

## Scoring the Responses

- Scoring can be done either by those completing the survey or by a member of the leadership team.
- To score each survey, multiply the “frequency” score by the “harm” score to get a total score for each task.
  - If a respondent fails to indicate a frequency or harm score, substitute a ‘Don’t know/Not applicable’ score of 1 for the missing score.
  - If only ‘Don’t know/Not applicable’ is selected for a task, assign a total score of 1.
- Write the score in the total column on the far right of the survey.

## Using the Scoring Sheet

- Number each survey.
- Put each survey over the scoring sheet and line up the tops of the pages (see Figure 4).
- Copy the total scores from each survey into a single column on the scoring sheet.
- Add all the entries in a row and put that total in the right-hand column of the scoring sheet to represent the office total.



# ASSESSING YOUR TESTING PROCESS

**Figure 4. Using the Assessing Your Testing Process Survey and Scoring Sheet**

**Assessing Your Testing Process Survey** Date: \_\_\_\_\_ Survey No. 16

This survey is used to collect staff estimates of the frequency of errors and their potential degree of harm.

**Describe your experience in the testing process:**

- Circle the number that you feel most accurately describes the frequency of errors for each item.
- Circle the number that you feel most accurately describes the harm associated with the error.

**Flowchart of the Testing Process:**

```

    graph LR
      A[Test ordered] --> B[Test performed correctly/checked the office]
      B --> C[Test results entered]
      C --> D[Test results entered to physician/clinician]
      D --> E[Test results discussed to patient]
      E --> F[Test results discussed to staff]
      F --> G[Patient/physician/physician/clinician/physician/clinician]
  
```

Task, when errors may occur	How often does this happen?			What is the most likely to happen?				Total Score
	1	2	3	None	Minor	Moderate	Severe	
1. Orders not read done	1	2	3	1	2	3	4	4
2. Test performed incorrectly	1	2	3	1	2	3	4	4
3. Test results not logged/checked	1	2	3	1	2	3	4	4
4. Reports not reviewed by the physician	1	2	3	1	2	3	4	6
5. Physician does not review all results	1	2	3	1	2	3	4	6
6. Test results not entered in patient's chart	1	2	3	1	2	3	4	6
7. Reports not notified of all test results	1	2	3	1	2	3	4	6
8. Reports with abnormal results not reviewed through following	1	2	3	1	2	3	4	5

## Interpreting the Results

- The highest scores for “office total” show areas where staff have identified the greatest risks in your office.
- Many staff responses of “Don’t know/ Not applicable” for a specific task may indicate an area for further discussion.
- Share the results and discuss them during a staff meeting.
- Use this information to identify an area that you and your office staff and physicians will address.
- After identifying a problem, you can use the Planning for Improvements Tool to design a change in your testing process.

## Assessing Risk in Testing

### We know that:

- The risk of an event is related to its frequency and the likely severity of harm.
- Balancing these two aspects of risk can be challenging.
  - More common events with less severe harm are easier to overlook, as the risk to patients can be underestimated.
  - The risk to patients of an uncommon event that may cause severe harm (a sentinel event) is often overestimated.
- It is important to stay focused on office systems in managing risk.

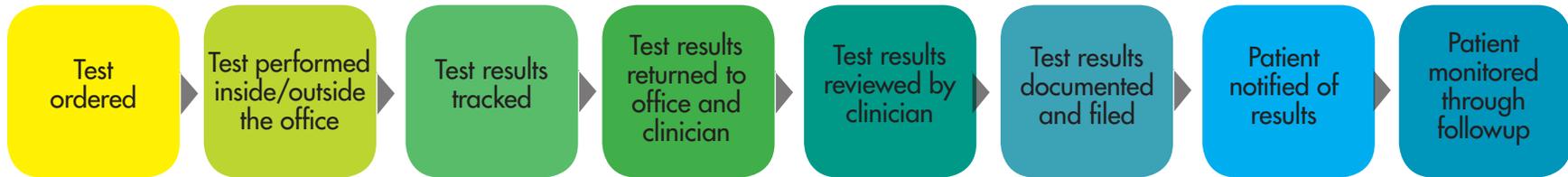
# Assessing Your Testing Process Survey

Date \_\_\_\_\_ Survey No. \_\_\_\_\_

This survey is used to collect staff estimates of the frequency of errors and their potential degree of harm.

## Describe your experience in the testing process:

- Circle the number that you feel most accurately describes the frequency of errors for each step.
- Circle the number that you feel most accurately describes the harm associated with the error.



Tasks where errors may occur	How often does this happen?			What is the usual harm for patients?				Don't know/ Not applicable	Total
	Rarely (Less than once a month)	Occasionally (Once a month)	Frequently (2 or more times per month)	None	Mild	Moderate	Severe		
1. Ordered test not done	1	2	3	1	2	3	4	1	
2. Test performed incorrectly	1	2	3	1	2	3	4	1	
3. Test results not logged/tracked	1	2	3	1	2	3	4	1	
4. Test results not returned to the physician	1	2	3	1	2	3	4	1	
5. Physician does not review all results	1	2	3	1	2	3	4	1	
6. Test results not entered in patient's chart	1	2	3	1	2	3	4	1	
7. Patients not notified of all test results	1	2	3	1	2	3	4	1	
8. Patients with abnormal results not monitored through followup	1	2	3	1	2	3	4	1	







# PATIENT ENGAGEMENT



The Patient Engagement Survey on page 25 can help you to assess your patients' understanding of their tests and their knowledge about what they should do after receiving test results.

Use this tool to measure patient understanding at baseline and again after changes have been implemented.

## Using the Survey

You can administer this survey to assess patient understanding at one of two points in the testing process.

1. After a patient has a test ordered or performed, but before the results are back.
2. After a patient has been notified of their test results. An optional question designed for offices where patient followup is a problem can be used.

## Follow these steps to use the survey:

- Prepare a list of patients to survey. You can identify patients who had a test ordered or those who were notified of test results in several ways, depending on how your office functions. For example, you can look at a lab log, review charts or the electronic health record at the end of a day, or ask staff or physicians to keep a list for a day or two.
- We recommend you collect at least 15-20 surveys to look for patterns in responses.
- You should survey patients within 1-2 days of their visit or notification of results.
- Use a survey form for each patient. If a patient has had multiple tests, select the answer you think best represents the patient's understanding.

## Scoring the Responses

- Add up the responses for each question.
- Identify the questions with the highest proportion of 'no' responses.
- Optional Question: Compare responses to information in the patient record to determine the accuracy of communication with the patient.

# PATIENT ENGAGEMENT

## Interpreting the Results

Many “no” responses to a question indicate:

- An area where errors may occur.
- An area to improve your patients’ knowledge about their tests.

Sample another group of patients after you implement a change to assess whether your change improved their understanding of the role they play in the testing process.

## Patient Engagement and Patient Safety

### We know that:

- Patients often do not know what test has been ordered or why it has been ordered.
- Patients may not know when to expect test results.
- Patients often assume or may be told that “no news is good news” and so may not take the initiative to get their results.
- Patients encounter challenges in following up on abnormal results and may require additional support.

# Patient Engagement Survey

Date \_\_\_\_\_ Survey No. \_\_\_\_\_

## Instructions:

- Ask patients in person or by phone about their experiences. Complete only one section for each patient, depending on where they are in the testing process.
- Tell the patient that this survey will be used to improve patient safety in the office and that his/her responses will not be shared with other staff, including physicians.

## 1. After patients have medical tests:

1. Do you know what medical tests were ordered for you at your last office visit? Yes  No

2. Do you know why the test (or tests) was ordered?  
 Routine check-up or screening  check current condition  identify the cause of symptoms  don't know  other Yes  No

3. Do you know when to expect your test results? Yes  No

4. Do you know what to do if you don't hear from us when your test results are due? Yes  No

5. Did you tell us how you would like to be contacted with your test results? Yes  No   
 office visit  phone call  card/letter  electronic patient portal  email to \_\_\_\_\_

## 2. After patients receive their results:

1. Did you receive your test results? If the answer is "no," the survey is complete. Yes  No

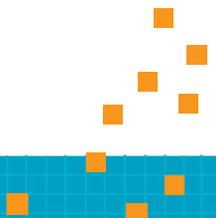
2. Were you given clear instructions, advice, or information about following up on your test result? Yes  No

3. Does the patient's response correspond with his/her medical record? Yes  No

## Optional question if patient followup is problematic:

What were you told about your test result (mark all that apply)?

- the test was normal
- continue the same medication or treatment
- return to the office for more tests
- change medication or treatment
- see a specialist or go to another facility





# Encuesta sobre participación de pacientes

Fecha \_\_\_\_\_ Encuesta No. \_\_\_\_\_

## Instrucciones

- Pregunte al paciente en persona o por teléfono acerca de su experiencia. Complete sólo una sección por paciente y dependiendo de dónde se encuentra en el proceso de los exámenes.
- Dígame al paciente que esta encuesta se usará para mejorar la seguridad de los pacientes en la clínica y que sus respuestas no se compartirán con otros empleados, ni con los médicos.

## 1. Después que los pacientes se hacen los exámenes médicos:

1. ¿ Sabe usted qué exámenes médicos le ordenaron cuando visitó la clínica la última vez? Si  No
2. ¿Sabe usted por qué le ordenaron los exámenes médicos?  
 examen de rutina o de detección  examinar por una condición actual  encontrar la causa de síntomas  no sé  otro Si  No
3. ¿Sabe usted cuándo estarán listos los resultados de sus exámenes Si  No
4. ¿Sabe lo que debe hacer si no le llamamos con los resultados de sus exámenes en la fecha en que deben estar listos? Si  No
5. ¿Nos informó cómo prefiere que nos comuniquemos con usted para darle los resultados de sus exámenes? Si  No   
 visita a la clínica  por teléfono  una carta  portal electrónico para pacientes  correo electrónico a\_\_\_\_\_

## 2. Después que los pacientes reciben sus resultados:

1. ¿Recibió usted el resultado de sus exámenes? Si la respuesta es "no", termine la encuesta. Si  No
2. ¿Le dieron instrucciones, consejos e información clara acerca de cómo dar seguimiento con los resultados de sus exámenes? Si  No
3. ¿Corresponde la respuesta del paciente con su expediente médico? Si  No

## Pregunta opcional si el seguimiento del paciente es problemático:

¿Qué le dijeron sobre los resultados de sus exámenes? (marque todas las respuestas que aplican)

- el resultado del examen fue normal
- cambiar el medicamento o tratamiento
- continuar el mismo medicamento o tratamiento
- ver a un especialista o ir a otra clínica
- regresar a la clínica para más exámenes médicos



# USING THE PATIENT HANDOUT



You will find a sample Patient Handout at the end of this section. This tool can help you to engage patients in the testing process by providing them with information about what to do after having a test.

First, use the Patient Engagement Survey to determine how well patients understand their medical tests, their test results, and the need for followup. Then give patients the completed handout.

Encouraging patients to be more engaged in their care is a long-term project. You may need to use this handout for 3-6 months in order to reach a sufficient number of patients in your office.

## Using the Handout

This handout has two parts. It is to be filled out by staff and given to patients at one of two points in the testing process.

Point 1. Complete the handout after an office visit during which a test is ordered. Give the handout to the patient to remind them of their role in making sure they get their test result.

Point 2. Complete the handout after the patient has received his/her test result.

- Confirm that the patient received the test result.
  - If he/she did not receive the result:
    - ◆ Arrange for the patient to get the result.
    - ◆ Note the error and examine your office system to determine why he/she did not receive the result.
  - If he/she has received the result, complete Part 2 of the handout to remind the patient of his/her role in following up on the test result.

## Patient Education and Medical Tests

### We know that:

- Many patients will not follow up to obtain their test results without notification or encouragement from the office.
- Patients have better outcomes when they know the reasons for their tests, take some responsibility for making sure they get their test results, and understand what the results mean.
- The teach-back method in which a patient repeats what they have been told has been shown to enhance patient understanding.







# Formulario para el Paciente

Nombre del paciente \_\_\_\_\_

Instrucciones: Complete la sección apropiada de esta formulario y entréguelo al paciente.

## Razón del examen médico

- examen de rutina       control de mi salud       entender la causa de mis síntomas

## 1. Después de hacerme el exámen médico:

La clínica me va a contactar con el resultado el \_\_\_\_\_  
(fecha)

Si no me contactan, debo llamar al \_\_\_\_\_ y preguntar por \_\_\_\_\_  
(teléfono) (persona de contacto en la clínica)

## 2. Después de recibir el resultado de un examen:

Cuando recibí mi resultado me dijeron (marque todas las respuestas que aplican):

- No hacer nada  
 El resultado fue normal  
 Continuar el mismo medicamento o tratamiento  
 Cambiar mi medicamento o tratamiento  
 Regresar a la clínica para más exámenes médicos \_\_\_\_\_  
(fecha y hora)  
 Ver a un especialista o ir a otra clínica \_\_\_\_\_  
(nombre/dirección/teléfono)

Si tengo preguntas y la situación no es una emergencia, debo llamar a: \_\_\_\_\_  
(teléfono) (persona de contacto en la clínica)



# CHART AUDITS



The Chart Audit Tool on page 39 can help you assess how well your office enters information about tests and test results in the patient's medical record. Good documentation makes information readily available.

Use this tool to collect data to track different tasks throughout the testing process, including how well abnormal results are managed.

## Using the Tool

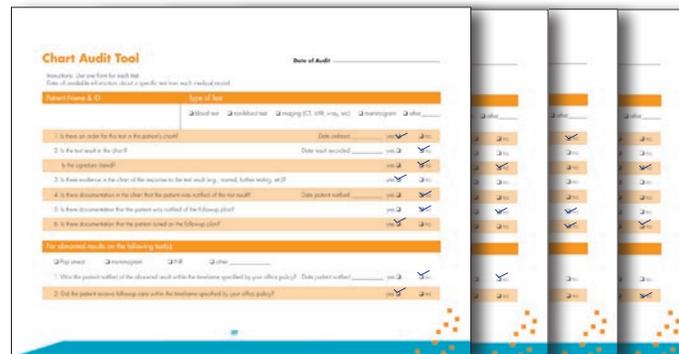
- You should be selective in how you use this tool. The way you use the Chart Audit Tool will depend on the information you need to collect for your project. This tool will help you collect data on:
  - Documentation.
  - The time it takes to move through tasks in the testing process.
  - Reporting normal and abnormal results to patients.
- You need to identify the problem you want to investigate and adapt the audit tool to suit your needs.
- Staff may choose to focus on a particular type of test or the performance of a particular laboratory.
- The number of charts you audit will depend on:
  - How easy it is to identify patients with tests and/or critical abnormal results.
  - How much time your staff can devote to identifying charts, auditing charts, and compiling and interpreting results.
- A minimum of 10 audits is recommended for both before and after testing; 20 audits will provide a more reliable measurement.
- You will complete the appropriate sections of the audit form for each patient's medical record.
- It is important to record the patient's name/ID number and the type of test, as this information may be needed if you discover a patient safety problem.
- You may find it useful to know the type of test performed, particularly if your office uses different labs.

# CHART AUDITS

## For projects about documentation:

- Check the “yes” and “no” options to indicate whether information is recorded in the patient record. If you are uncertain, the accepted practice is to check the “no” option.
- Place (overlap) the completed audits so the “no” responses are visible on multiple pages (see Figure 5).
- Many “no” responses to the same question point to an area where tasks are incomplete, and errors are more likely to occur.
- Design a change to reduce error in your office system by using the Planning for Improvements Tool. After implementing the change, use the Chart Audit Tool again to determine if your office system has improved.

Figure 5. Aligning data sheets for review



# CHART AUDITS

## For projects concerned with time intervals within the testing process:

- Fill in the appropriate dates as recorded in the medical record.
- Be consistent in how you count the number of days. Decide whether or not to include weekends in the total number of days.
- For each audit form:
  - Calculate the number of days between the date of test order and the date the result was recorded in the chart.
  - Calculate the number of days between the date the result was recorded in the chart and the date the patient was notified.
- Compile the intervals from all forms and calculate the averages.
- Identify any specific results within an interval that are greater than the average.
- Discuss these results with your staff, and determine if they are acceptable or whether the variation reflects a problem with the office system.
- Design a change to reduce error in your office system by using the Planning for Improvements Tool. After implementing the change, use the Chart Audit Tool again to determine if your office system has improved.
- Results from different tests may arrive on different days, so you may want to focus on a specific test.

## Chart Audits and Patient Safety

### We know that:

- Chart audits are widely used to provide information about office systems.
- Chart audits rely on documentation, which may not accurately reflect actual care or practice.
- Electronic health records automate many processes but do not eliminate all errors.
- A failure to monitor automated processes may introduce patient safety risks.



# Chart Audit Tool

Date of Audit \_\_\_\_\_

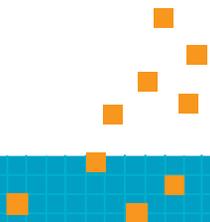
Instructions: Use one form for each test.  
Enter all available information about a specific test from each medical record.

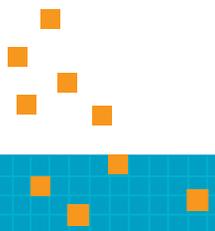
Patient Name & ID	Type of Test
	<input type="checkbox"/> blood test <input type="checkbox"/> non-blood test <input type="checkbox"/> imaging (CT, MRI, x-ray, etc) <input type="checkbox"/> mammogram <input type="checkbox"/> other_____
1. Is there an order for this test in the patient's chart?	Date ordered _____ yes <input type="checkbox"/> <input type="checkbox"/> no
2. Is the test result in the chart?	Date result recorded _____ yes <input type="checkbox"/> <input type="checkbox"/> no
Is the signature dated?	yes <input type="checkbox"/> <input type="checkbox"/> no
3. Is there evidence in the chart of the response to the test result (e.g., normal, further testing, etc)?	yes <input type="checkbox"/> <input type="checkbox"/> no
4. Is there documentation in the chart that the patient was notified of the test result?	Date patient notified _____ yes <input type="checkbox"/> <input type="checkbox"/> no
5. Is there documentation that the patient was notified of the followup plan?	yes <input type="checkbox"/> <input type="checkbox"/> no
6. Is there documentation that the patient acted on the followup plan?	yes <input type="checkbox"/> <input type="checkbox"/> no

## For abnormal results on the following test(s):

Pap smear   
  mammogram   
  INR   
  other \_\_\_\_\_

1. Was the patient notified of the abnormal result within the timeframe specified by your office policy?	Date patient notified _____ yes <input type="checkbox"/> <input type="checkbox"/> no
2. Did the patient receive followup care within the timeframe specified by your office policy?	yes <input type="checkbox"/> <input type="checkbox"/> no





# ELECTRONIC HEALTH RECORD EVALUATION



The Electronic Health Record Evaluation Tool can help you identify how your electronic health record (EHR) can support you and your office staff in monitoring the safety of your testing process.

## Using the Tool

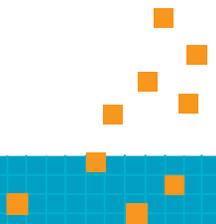
- Identify the individuals who prepare or use reports and ask them to complete the tool.
- A “No” answer to any shaded question indicates either:
  - Your EHR cannot provide data on this aspect of patient safety and the testing process.
  - Or, staff are not aware of the EHR’s capacity to provide these data.
- A “Yes” answer to a shaded question followed by “No” answers to the subsidiary questions indicates that the EHR can provide limited support in that area.

## Using EHR Reports for Quality Improvement

- Identify the report(s) that will provide the most helpful information for your project.
- Be sure to consider staff resources needed to generate and review a report.
- Generate the report(s) before a change has been implemented and then a few weeks after the change.
- Note that a reduction in the proportion of problematic results will indicate that the testing process was improved.

## Using EHR Reports to Monitor Your Office System

You should generate the same report regularly to monitor performance and identify any positive or negative trends.



# ELECTRONIC HEALTH RECORD EVALUATION

## EHRs and Patient Safety

### We know that:

- Introducing EHRs into primary care offices can make locating patient records much easier.
- Offices may not document staff responsibilities for using EHR reports to monitor the testing process.
- Offices often struggle with a new system that may not address their specific needs and processes.
- EHRs automatically complete some tasks in the testing process. However, offices with EHRs that automatically document steps in the testing process do not eliminate all errors.
- Most EHRs do not automatically document these tasks:
  - Interpretation of test results by providers.
  - Notification of patients about their results.
  - Followup on abnormal tests.

# Electronic Health Record (EHR) Evaluation Tool

For these questions, a “test” is defined as any type of laboratory or imaging test.

## Which reports are you able to obtain from your EHR?

### 1. A report that identifies all tests ordered during a specific time period?

yes  no

If yes:

Are you able to organize the report by test type?

yes  no

### 2. A report that identifies all outstanding test orders?

yes  no

If yes:

Are you able to organize the report by test type?

yes  no

Are you able to organize the report by lab/imaging center?

yes  no

Does your EHR automatically notify you if test results are not returned within a predetermined timeframe?

yes  no

### 3. A report that identifies the time it takes for results to be returned to your practice?

yes  no

If yes:

Are you able to organize the report by test type?

yes  no

Are you able to organize the report by lab/imaging center?

yes  no

### 4. A report that indicates how long it takes to review results after they are available in the EHR?

yes  no

### 5. A report that identifies those patients who did not receive their results?

yes  no

### 6. A report that identifies all abnormal results for a specific time period?

yes  no

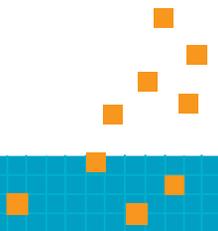
If yes:

Are you able to determine how long it took to notify the patient after the result was received by the office?

yes  no

Are you able to determine whether the patient has followed up appropriately?

yes  no





**U.S. Department of Health and Human Services**

Agency for Healthcare Research and Quality

540 Gaither Road

Rockville, MD 20850



AHRQ Publication No. 13-0035

August 2013