# OPERATIONAL REDESIGN THROUGH WORKFLOW ANALYSIS

Workbook

# Analysis of Patient Registration

## New Patient Pre-Registration

What type of information is obtained when patient calls to schedule an appointment?

| | |
|---|---|
| Demographic information | Type of appointment |
| Employer information | Nature of complaint |
| Insurance Information | Reminder to bring copy of insurance card |
| Name of insurance company | Reminder that co-pay is due at time of visit |
| Plan Type (PPO, POS, HMO) | Other |
| If POS or HMO, name of PCP & Site # | |

What is the procedure to create new patient charts?

## Existing Patient

What type of information is obtained when existing patient calls to schedule an appointment?

| | |
|---|---|
| Verification of demographic information | Type of appointment |
| Employer information | Nature of complaint |
| Verification of insurance information | Reminder to bring copy of insurance card |
| Name of insurance company | Reminder that co-pay is due at time of visit |
| Plan Type (PPO, POS, HMO) | Other |
| If POS or HMO, name of PCP & Site # | |

# Analysis of the Provider Visit

## Check-In

What type of information does the front desk collect at time of check-in?

| | |
|---|---|
| Verification of demographic information | Patient Hx |
| Verification of insurance information | Forms requiring patient signature: |
| Copy of insurance card | HIPAA Consent & Release Forms |
| | Other |

If using a PMS, is this information updated at the time of check in? Yes No

Do you collect co-pays at time of check-in? Yes No

Is chart checked for any needed forms? Yes No

List any information that goes forward with the chart after check-in.
Superbill Extra labels Patient Hx
Other:

How does the clinical staff know that the patient has arrived?

<table>
<tr><th colspan="2">Rooming the Patient</th></tr>
<tr><td colspan="2">Who takes the patient to the exam room? MA MD Nurse<br>Other:</td></tr>
<tr><td colspan="2">Is the chart reviewed for outstanding tasks by the rooming staff? Yes No<br>How is this information communicated to the provider for action?</td></tr>
<tr><td colspan="2">What information is gathered before the provider sees the patient?</td></tr>
<tr><td>Reason for visit<br>Vital signs<br>Weight</td><td>Medications reviewed<br>Allergies reviewed<br>Other</td></tr>
<tr><td colspan="2">Are any tests and/or services performed by the MA/Nurse prior to patient seeing the provider? Yes No<br>If yes, please list:</td></tr>
<tr><td colspan="2">Is the information gathered written on a specific type of form? Yes No</td></tr>
<tr><td colspan="2">If yes, is the form specific to a type of visit? Yes No</td></tr>
<tr><td colspan="2">How does the provider know that the patient is ready to be seen?<br>Describe:</td></tr>
</table>

| Provider Seeing the Patient |
|---|
| What information does the provider review prior to entering the exam room? |
| Where is this information located/accessed? |
| Where are medications and diagnoses lists maintained? |
| What forms (if any) are used during a visit? |
| Where are the charges/diagnoses captured for the visit? |
| Who delivers services like the immunizations, ear irrigations, etc.?<br>Provider MA Nurse Other |
| If not the provider, how does that person know that the patient needs these services and is ready for them?<br>Describe: |
| If the patient requires specific follow-up (an appointment, a referral to a specialist, or a test), how does the provider communicate this to MA/Nurse? |
| Describe how the patient obtains a referral (e.g. MA makes call, MD fills out form, etc.) |
| How do you know the patient actually completes the referral? |
| How are test results returned to the provider, reviewed and communicated to the patient?<br>*Describe process:* |
| How do you know that tests were ordered, done, results returned, reviewed by MD and communicated to the patient?<br>*Describe tracking process:* |

| Patient Visit Conclusion | |
|---|---|
| When is the visit documentation completed? | |
| At the conclusion of the visit<br>Between visits when the MD has time | At the end of the day<br>Usually within ___ hrs. |
| Describe process for providing the patient with educational handouts: | |
| What happens to the patient chart?<br>Goes with patient to check out<br>Goes to the doctors office<br>Sits in the work area for MD to complete as he has time. | |

| Check-Out Process |
|---|
| What information does the patient bring back to the front desk? |
| How do you handle future appointments:<br>Have patient complete a postcard that we file and then send as a notice<br>Make a future appointment but only if less than 6 months out<br>Other: |
| Do you schedule appointments for referrals to other providers or for tests? Yes No<br>If yes, how do you do this?<br>Phone Fax Provide Patient with Contact Information or Form Through an Interface |
| Do you collect co-pays at checkout? Yes No |

| Super Bill/Encounter Form |
|---|
| Who documents on the super bill? |
| Where does it go at the end of the visit and how does it get there? |
| Do the coders have the information they need?<br>How do they get their questions answered? |
| What are the steps until a bill is dropped? |

| Patient No Shows and Tardiness |
|---|
| Describe your procedure for patient no-shows: |
| Describe your procedure for tardy patients: |

# Labs and Diagnostic Test Visits

| Lab/Clinical |
| --- |
| Is there a separate draw station/room? Yes No<br>If no, describe how this is handled. |
| Who can perform the lab draws or in-office tests?<br>Any trained staff can perform<br>Only specific staff trained Other (describe): |
| What labs/tests are done in the office? |
| What labs/tests are resulted in the office: |
| What information is documented in the chart? |
| Does the provider have any involvement with these visits? Yes No<br>If yes, describe how the provider is notified of the need for to see this patient. |
| Where are charges/diagnoses captured for this visit? |
| Are any paper logs kept for specimens gathered? Yes No<br>If yes, describe: |
| **Check-Out** |
| Are there any changes from the provider visit? Yes No<br>If yes, describe: |

# Vision and Goals

To be successful, you have to have a vision of what you want the practice to look like after the EHR is implemented. Describe what you think the goals could be for the practice.

### Discussion questions

- **Is the practice adopting an EHR to improve patient flow throughout the office?**
  - What "vision" did you get from the physician leaders?
  - What specific problems do you think the EHR can help them with?
- **Any time a new system is implemented, a somewhat painful transition period can be expected.**
  - What do you think the staff is most concerned about during this transition?
  - Are there any issues that would be deal-breakers?

## Description of the Vision and Goals:

**Check-In:**

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**Rooming Patients:**

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______________________________________________

**Provider Visit:**

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**Check-out:**

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**Lab/test visits:**

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______________________________________________

**General:**

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# Assessment

The most important change in the office workflow will be the advent of EHR. All patient care will be handled in the EHR. This represents a fundamental change to the way the office operates and interacts with the patient. Our primary concern is for patient safety and satisfaction, so you will see that many suggestions err on the side of caution. The most important thing to remember when implementing an EHR, is that **the computer does not take the place of common sense.**

For each workflow that you change, remember that the same systems you had before for urgent issues can still be used. They just need to incorporate an electronic way of documenting that care.

# Best Practices

Below, we will look at some options for incorporating EHR into your office.

## Best Practices Check In

The best practice would be to have your practice management system sending demographic and scheduling information into the EHR. The EHR would then send billing information back to the practice management system.

> If billing information is sent back to the practice management system, there is no need for a paper encounter form/superbill. This form is generally a trigger in the paper environment to notify staff that a patient is checked-in. Most EHRs have a trigger that notifies clinical staff when the patient has been "arrived" in the practice management system. It is important to verify that there is a trigger in place, and that the process is covered in your policies and procedures.

It's also important to consider any forms you give the patient to complete. You need to determine if and how those fit into the EHR. If the patient is given a review of systems or past medical history form, can this be entered into the EHR by nurse/provider when they see the patient? There may not be a need for this form if a clinical person can review the forms within the EHR.

Co-pays should be collected at the time of visit. Check-in is usually the best place to capture the co-pays.

Cross-training of staff for eligibility checking eliminates bottlenecks around this process. New patient eligibility should be verified when patient schedules appointment (prior to patient visit).

Establish a policy/procedure for rechecking of data on a regular basis.

Tracking of HIPAA forms should be possible in the EHR.

## Best Practices – Clinical

The flow of the screens should enhance the workflow of the provider and the nurse/MA working with the provider.

Electronic communication should be in place to inform staff of the patient's readiness for whatever the next step is in the visit process.

Templates should exist for the most common visit types seen in the practice.

Validation of medications and allergies should be done at each visit.

Drop-downs or pick lists should exist for commonly used data entry fields.

Preference lists should exist for fields commonly entered such as: **diagnosis, chief complaint/reason for visit, orderable lab test, and orderable procedures.**

## Best Practices – Check Out

Staff responsible for check-out should verify the charges as the patient visit concludes.

Providers should communicate electronically to the check-out staff as much information as possible about follow-up needs such as **referrals, appointments and tests.**

Electric documentation of referrals can speed up this process and provide a tracking mechanism.

The practice should have an established nightly reconciliation of appointments and Charges.

## Best Practices – Lab Visit Only

There should be an interface between the practice and the major laboratories and radiology centers used by the office.

EHR should have a structured template or screen for the lab staff to enter results done at the office (if there isn't an interface for the on-site lab).

Results should be flexibly routed to the provider or a group.

EHR should facilitate the auto-collection of charges based on the lab/radiology orders.

EHR should provide a mechanism for the tracking of specimens being sent to an outside lab – Quest or the hospital lab.

Using the current state workflows, the goals of the practice, and the best practice recommendations, analyze and discuss the workflow processes and identify the problem areas and possible solutions for the practice.

**Notes:**

## Plan

Based on your assessment of the needs of the practice, design a new process map for a **Provider Visit**.

## Plan

Based on your assessment of the needs of the practice, design a new process map for a **Lab-Only Visit**.

# Point of Care Documentation

## Introduction

Most documentation in a practice is done on paper at the point of care (POC). Anyone who sees the patient brings a sheet of paper into the exam room (or triage room or waiting room) onto which they document the visit. These documentation procedures have evolved over time, and they work well. But one of the most obvious changes in an office with an electronic health record (EHR) is that a computer replaces the paper. The processes that evolved around paper will need to be changed, and in the following section we will examine these changes. Through careful planning, you can make the EHR a positive influence on the documentation of visits, provider quality of life, and provider-patient interaction.

## Documentation Responsibilities and Common Practices by Role

You want to have a picture of the current documentation “culture” at the practice. This analysis will help you determine staff preferences and patterns that will help you determine where devices should go and what types of devices should be used in different areas.

In the table below, detail each role’s documentation responsibilities at the practice.

- Who documents patient information?
- What parts of the visit do they document?
- Where in the office do they document?
- At what point in the visit (or during the day) do they complete their documentation?

| Role | What | Where | When |
|---|---|---|---|
| MD | | | |
| NP | | | |
| RN | | | |
| MA | | | |
| Secretary | | | |
| Phlebotomist | | | |

## Discussion Questions

1. Are finances something that will limit the practice's ability to purchase POC solutions (wireless network, tablets, pocket PCs, etc.)?

2. Are providers (MD, NP, PA) expecting changes to the way they interact with patients? How do they feel about these changes?

3. Are staff members (RN, MA, secretaries) expecting changes to the way they interact with patients? How do they feel about these changes?

4. What roles could be expanded to facilitate documentation in patients' charts?

5. How do you think patients will react to having a computer in the exam room? How might you encourage patient acceptance of the EHR?

6. What questions will need to be answered and/or what issues need to be addressed before the office agrees to document using computers in exam rooms?

7. What patient scenarios do you see as being inappropriate for POC documentation? What might be an acceptable approach to using the EHR in these situations (even in a limited manner)?

8. Some practices operate well without documenting the entire visit at the POC. What parts of the visit do you feel would be easiest to document at the POC, and what might be left for providers' offices?

## Tracking Chart Movement in the Office

You can use this type of tool to demonstrate the spatial aspect of a medical record workflow. Using a spaghetti diagram, you can track physically who had the chart and where it has traveled in the office from the start of a patient encounter to the production of a bill. Using a map of the office, draw a spaghetti diagram that shows the movement of the paper chart through the office during a patient encounter.

## Physical Analysis of Space

You will need to examine and evaluate your physical space before you begin your EHR implementation. This is a good time to evaluate the layout of the offices, exam rooms, as well as the staff work areas with an eye towards optimizing your space. In addition, you will need to look at the following areas:

1. Electrical power needs - new devices may need to power
2. Office furniture requirements – new devices may need to be mounted or placed on a cart or table
3. Storage/computer room requirements – storage will be needed for extra devices and you will need to have a place to house your server and network equipment

Using the office blueprint and the sample exam room layout, what recommendations would you make for:

**The overall lay out of the practice's space?**

______________________________________________

______________________________________________

______________________________________________

______________________________________________

**The overall layout of the exam rooms?**

______________________________________________

______________________________________________

______________________________________________

______________________________________________

**Possible location of a storage area and/or a computer room?**

______________________________________________

______________________________________________

______________________________________________

______________________________________________

## Vision and Goals

Before we set goals for POC documentation, we need to first build the case for its implementation. Is it in the practice's best interest to document at the point of care?

How might the clinical interaction with the patient be improved by documenting visits at the POC with a computer?

______________________________________________
______________________________________________
______________________________________________

How might providers' quality of life be improved by documenting visits at the POC with a computer?

______________________________________________
______________________________________________
______________________________________________

How might office efficiency improve from POC documentation?

______________________________________________
______________________________________________
______________________________________________

Describe a perfect experience for both patient and provider. Think of things that each person might have access to, what information their conversation would cover, and what would make the situation most satisfying.

Patient experience

______________________________________________
______________________________________________
______________________________________________

Provider experience

______________________________________________
______________________________________________
______________________________________________

Describe what you think the vision and goals could be for the practice for point of care documentation.

______________________________________________
______________________________________________
______________________________________________
______________________________________________
______________________________________________
______________________________________________
______________________________________________
______________________________________________
______________________________________________

## Assessment

Point of care documentation with a computer is a fundamental change to the way that providers care for patients. The computer introduces new challenges to the patient-provider relationship for the practice. Practices must devise new strategies to cope with these challenges.

- “Paperless offices can increase patient satisfaction by reducing patient waiting times because doctors spend less time on paperwork and retrieving medical data. Patient registration information and patient history data can be filled out online even before a patient visits the office, freeing up the patient encounter with the physician so the physician can focus on the presenting problems and treatments. Physicians can quickly supplement their advice to patients with the wealth of patient education material software vendors include with their packages, as well as Internet health-related Web links. Physicians can click on the desired information and have it printed out for patients to take home with them. These disease and treatment specific printouts help patients understand their illnesses, the plan of treatment, and the proper use of medications—all aimed at making the patient an active participant in his or her care and boosting patient care compliance.

- Patients can even self-educate themselves in the office waiting areas with available computer terminals, which can query Web sites about their specific conditions. After an office visit, to help ensure a higher level of patient compliance, the system can send out automatic reminders to patients (by e-mail or letter) of forthcoming appointments; needed lab tests; and preventive therapy, such as flu shots.” - American College of Physicians. The Paperless Medical Office: Digital Technology’s Potential for the Internist

- “While exam room computing may provide benefit to clinician, patient, and health system, there are potential adverse impacts as well. In a review of research on exam room computing, Sullivan and Mitchell noted that doctors tend to talk slightly more while patients talk slightly less in the presence of a computer, a situation that could lead to decreased patient involvement in their health care. Further, using the EMR during the visit can interrupt the flow of conversation between clinician and patient. In addition, patients have concerns about the confidentiality of the EMR. With regard to exam room computing, patients have 2 critical questions: What are you doing (and what does it have to do with me)? And will my medical information be kept safe from prying eyes? Although these questions usually go unasked, the physician must anticipate and answer them.” – Laurence H Baker, PhD, and Vaughn Keller, EdD. Connected: Communicating and Computing in the Examination Room

- Tablets can be great tools for the clinic, but they do present a few unique challenges. Most tablets rely on some handwriting recognition to input data. While the handwriting recognition software is quite good, it can be tricky for some users. They also can be awkward at first. In our experience, you should consider purchasing the tablets well before you need to begin using them. Loan the tablets out to everyone who will be using them regularly so that they have a chance to adapt to this unique way of entering data.

The following tool will help you analyze the practice’s state of readiness to adopt electronic point of care documentation.

Will the current facility accommodate changes made to the exam rooms?

Are finances something that will limit your ability to purchase POC solutions (wireless network, tablets, pocket PCs, etc.)?

Are providers (MD, NP, PA) expecting changes to the way they interact with patients? How do they feel about these changes?

Are staff members (RN, MA, secretaries) expecting changes to the way they interact with patients? How do they feel about these changes?

What roles could be expanded to facilitate documentation in patients' charts?

How do you think patients will react to having a computer in the exam room?

How might you encourage patient acceptance of the EHR?

What questions will need to be answered and/or what issues need to be addressed before the office agrees to document using computers in exam rooms?

What patient scenarios do you see as being inappropriate for POC documentation? What might be an acceptable approach to using the EHR in these situations (even in a limited manner)?

Some practices operate well without documenting the entire visit POC. What parts of the visit do you feel would be easiest to document at the POC, and what might be left for providers' offices?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

## Plan

Describe how you would plan for the practice's documentation. Include information on who will use what type of device where in the practice as well as what changes will be needed in the physical space to accommodate your design.

### Physician

Hardware: ______________________________________________________

Parts of the visit documented: ________________________________________

Where/when/how: ____________________________________________________

Challenges: _________________________________________________________

Opportunities: ______________________________________________________

## Nurse

Hardware: _________________________________________________________

Parts of the visit documented: ________________________________________

Where/when/how: ___________________________________________________

Challenges: ________________________________________________________

Opportunities: _____________________________________________________

## Medical Assistant/Intake

Hardware: _________________________________________________________

Parts of the visit documented: ________________________________________

Where/when/how: ___________________________________________________

Challenges: ________________________________________________________

Opportunities: _____________________________________________________

## Front Desk staff

Hardware: ___________________________________________________________

Parts of the visit documented:__________________________________________

Where/when/how: _____________________________________________________

Challenges: ___________________________________________________________

Opportunities: ________________________________________________________

# In-Office Communication

## Introduction

In this part of the workbook, we will look at the ways the EHR will change office communication. This will help you think about the most efficient and safe way to send messages. We will specifically look at phone messages, prescription refills, and lab resulting.

## Document the Current State

| Prescriptions |
| --- |
| How do refills come into the office and what is the volume?<br><br>Phone calls from patient How many? ____<br>Phone calls from pharmacy How many? ____<br>Faxed forms from pharmacy How many? ____ |
| Who is involved in the prescription process?<br>Describe how each phase is completed (including where chart is placed):<br><br>Intake call ____________________<br><br>Chart Pull ____________________<br><br>Authorization ____________________<br><br>Follow-up ____________________<br><br>Other ____________________ |
| Describe the strengths and limitations of the current system: |

| Phone Messages |
|---|
| Do you have a telephone triage system? ☐ Yes ☐ No<br><br>If yes, describe triage tree: |
| How many of each type of phone messages do you receive on a daily basis?<br><br>Lab Results ______________<br><br>Scheduling ______________<br><br>Medical Advice ___________<br><br>Billing __________________<br><br>Other ___________________ |
| Who is involved in the phone message process:<br>Describe how each phase is completed (including where chart is placed):<br><br>Intake Call ___________________________________________________________<br><br>Chart Pull ____________________________________________________________<br><br>Clinical Action ______________________________________________________<br><br>Follow-up ____________________________________________________________<br><br>Other _______________________________________________________________ |
| Describe the strengths and limitations of the current system: |

| Test Results | |
|---|---|
| Do you offer testing (lab/rad) in your office? ☐ Yes ☐ No | |
| What primary testing facilities do your patient use? Please list. | |
| ☐ Hospital<br>☐ Radiology & Imaging Center<br>☐ Other | ☐ Quest<br>☐ Lab Core<br>☐ ACL |
| How are test results received from the primary locations?<br><br>☐ Direct print ☐ Fax ☐ Mail ☐ Other ________________________________ | |
| How do test results get to the provider? | |
| How are results communicated to the patient?<br><br>☐ Phone call ☐ Email ☐ Letter ☐ Visit ☐ Other _________________________ | |
| Describe the strengths and limitations of the current system:<br>______________________________________________<br>______________________________________________<br>______________________________________________<br>______________________________________________<br>______________________________________________<br>______________________________________________<br>______________________________________________ | |

# Vision and Goals

To be successful, you have to have a vision of what you want the practice to look like after the EHR is implemented. Describe what you think the goals could be for the practice.

## Discussion questions

- Is the practice adopting an EHR to improve communication throughout the office?
- What “vision” do you get from the physician leaders?
- What specific problems do you think the EHR can help them with?
- Any time a new system is implemented, a somewhat painful transition period can be expected.
- What do you think the staff is most concerned about during this transition?
- Are there any issues that would-be deal-breakers?

### Description of the Goals:

Prescriptions:

Intake ____________________________________________
Chart Pull ____________________________________________
Authorization ____________________________________________
Follow-Up ____________________________________________

Phone Message:

Intake ____________________________________________
Chart Pull
____________________________________________
Clinical Action
____________________________________________
Follow-Up
____________________________________________

Test Results:

Incoming
____________________________________________
Review
____________________________________________

## Assessment

The most important change in the office workflow will be the advent of electronic communication. All messaging related to patient care will be handled in the EHR. This represents a fundamental change to the way the office operates.  Our primary concern is for patient safety and satisfaction, so you will see that many suggestions err on the side of caution. The most important thing to remember when implementing electronic messaging is that the computer does not take the place of common sense or the need to verbally communicate with one another. For each workflow that you change, remember that the same systems you had for urgent issues before can still be used. They just need to incorporate an electronic way of documenting that care.

## Best Practices

- The best practice would be to utilize electronic prescribing for refilling and writing new prescriptions. This will greatly decrease the amount of time spent pulling charts and contacting pharmacies by allowing clinical staff to send and receive prescriptions directly to/from the EHR.

  **Other options/considerations:**
  - Electronic faxing is also an option if the vendor does not offer electronic prescribing. This method also greatly decreases the amount of time spent pulling charts and contacting pharmacies. This allows you to fax prescriptions from the EHR directly to the pharmacy.

  - Entering medications in a "field" format is imperative for the electronic prescribing or electronic faxing workflow.

- The best practice would be to capture all incoming phone messages in the electronic chart. The notes should be sent electronically with no chart pull (*See Transition period note). Policies and Procedures should be in place to clarify who is responsible for follow up on any electronic messages left at the end of day.

  **Other options/considerations:**
  - The implementation of electronic phone call messaging fundamentally changes the way secretaries deliver information. How can you alleviate their transition pains while keeping the implementation moving?

- For urgent phone calls, make sure to follow-up on urgent calls with the phone call recipient. For instance, if an urgent call comes in, the secretary should document the call in the system, then track down the

physician/nurse to handle the call. The documentation can still be done in the system, but notification should be done to ensure safety.

- *There will be a transition period where secretaries will need to complete the message in the EHR but also pull the paper chart for physician review. It's important to consider this as part of the EHR workflow. Will all messages require a chart pull along with the electronic message?

- The best practice would be to have a lab results interface from the hospital lab in which they were processed to the EHR. The most important thing when working with interfaced lab results is to structure the workflow such that results are always reviewed. Interfaced lab results come into the system via electronic reminders.

- Communication of lab results back to the patient is a great tool for increasing contacts with patients and improving satisfaction. Some clinics have implemented a 'lab letter', generated in the EHR, to achieve this goal. How might you implement the lab letter in your practice?

- In the beginning, you may want to set up an auditing system to ensure that all results are reviewed and signed off. Can your vendor develop this report?

- Are there situations where the person who submits the lab order is not the patient's primary physician? How will you deal with this in the EHR?

**Other options/considerations:**

- Some labs will not be interfaced. If you have an interface with your primary lab, there will still be labs from specialists (or PCPs) that were not electronically directed to your lab.

- These labs are often treated like other outside documents that need to be scanned into the system. Will your new scanning workflow be efficient enough to deliver lab results in the timely manner?

- Are there paper lab values that need to be electronically stored? HgbA C for diabetics, EF for CHF patients, amylase/lipase for liver patients, BUN and creatinines for renal patients.

- There may also be labs done in your office. The results of these labs also need to get into the EHR and to the ordering provider.

- For sites that only perform a minimum number of labs, the most common entry method is to have a template available for the lab tech to enter the results. This template should link to specific values in the system. This will significantly impact the lab workflow. Will the staff in the lab have time to complete this information? If not, what will the process be?

Using the current state workflows, the goals of the practice, and the best practice recommendations, analyze and discuss the workflow processes and identify the problem areas and possible solutions for the practice.

In addition to the technology and functionality described so far in this section, there are other technologies that you may want to consider to help improve the flow of communications in the office.

| | |
|---|---|
| **Patient Portals** | A patient portal is a web-based way for your patients to interact with the practice. This is a module for some EHRs or it can be purchased from a separate vendor and interfaced to your EHR. Patient portals usually allow patients to request appointments and refills electronically, get results, and review patient education materials. More advanced patient portals allow patients to actually schedule their own appointments, view or print selected parts of their charts, and email their provider. A patient portal, properly configured, can decrease the patient telephone calls for information and help fielded by the office staff. |
| **Expanded Telephone Systems** | Many offices now use a telephone strategy to help route incoming calls so that the appointments go to a particular line, refills to another, and so on. These telephony “trees” do help triage the incoming calls. One other concept is the use of “Voice Over IP” technology. In its simplest terms, this technology uses your computer network to handle your telephony needs. This may be helpful with larger practices. |
| **Voice Paging Systems** | Voice paging systems allow the entire office staff to be reached in real time by a voice page. Each person has a device about 1” by 3” that they wear that acts as a receiver/microphone. There is no overhead paging or “hunt and find” to locate an individual. The system also can handle “voice-activated calling” for outside calls so a nurse or physician can make a call from anywhere in the office – no physical phone is needed. If you have a large staff or are located on multiple floors of a building, this might be a technology to consider. |

## Plan

Based on your assessment of the needs of the practice, design a new process map for a **prescription refill**.

## Plan

Based on your assessment of the needs of the practice, design a new process map for a **phone message**.

## Plan

Based on your assessment of the needs of the practice, design a new process map for **test result communication**

# Document Management

## Introduction

In your current office, document management only involves the flow of paper around the office and into the chart. When you implement an EHR, many of these documents will be stored, transferred, and/or reviewed in an electronic format. This will result in a fundamental change in the way the office manages documents. We often hear practices say that they wish they had spent more time examining the issues around document management, so this section should be useful as you move forward.

## What are the key components of a document image management system (DIM)?

A document image management system indexes, stores, and manages all scanned and faxed documents within your EHR. Ideally, this is an integrated part of your EHR. The system includes hardware (scanners, faxes (fax server), software, and the staff that manage the process.

This part of the workbook will consider the workflow process around document image management by taking into account the goals for implementation, current document processing, and scanning. We will also consider the role of scanning as part of your chart abstraction process.

## Document the Current State

In order to develop a document management plan for a practice, you have to record the current process of receiving, organizing, and processing documents. In many practices, this step results in many statements like “I never knew you did that” or “why is (staff member) the only person able to do this?”

# Ongoing Document Processing

In order to understand more about the practice's capacity to handle workloads, we need to quantify the current document processing. The following tool will help us collect the necessary information about the practice:

## Document Management Data Gathering Tool

1. Is there dedicated medical records staff or are those responsibilities split over multiple staff roles? ________________________________________________
2. How many outside documents come into the practice every week?

    ____<100 ____101-200 ____201-300 ____301-400 ____401-500+

3. Estimate the time spent filing paper per day: ________ (hrs.)
4. How many days before the visit do you prep charts? _________
5. How much time is devoted to prepping charts per day? _______ (hrs.)
6. Are there higher volumes of documents on certain days? ______
7. Define the documents that come into the practice. Use the following matrix to help organize your data.

**Incoming Document Matrix**

| **Document Type** | **Origin (hospitals, outside labs, other providers patients, etc.)** | **Source (fax, mail, hand delivery by patient)** | **Volume** | **% of total** | **Future source with the EHR in place** |
|---|---|---|---|---|---|
| Lab results | | | | | |
| Consults | | | | | |
| Mammograms | | | | | |
| EKGs | | | | | |
| Letters | | | | | |
| Discharge Summaries | | | | | |
| X-ray results | | | | | |
| Other procedure results | | | | | |

### What is your scanning capacity going to be?

- Based on the # of estimated documents from the Incoming Document Matrix, determine the # of documents to be scanned per day.

- What resources will be dedicated to batch scanning? (# staff x # hours)

  ____________________

- What resources will be dedicated to sorting documents from the batches into patient records? (# staff x # hours)

  ___________________________

- How many scanning workstations will be available?
  _____________________

# Vision and Goals

What are the practice's visions and goals for document image management? To be successful in operational redesign, you need to describe a vision and set clear goals about how the office should function after the implementation.

What additional questions do you need to ask to determine the vision for the practice? Here are some suggestions:

How would they rate the following benefits? ( – low priority; – high priority):

- Moving charts offsite ____
- Eliminating chart pulls for visits ____
- Eliminating chart pulls for telephone calls ____
- Reducing document filing time ____
- Reducing staff count/hours ____

Does their EHR software have an integrated document imaging management (DIM) system?

If so, have they explored the functionality of this DIM?

**Discussion questions:**

Do they plan to become a paperless (or a less-paper) office?

If yes, what gains do they hope to see from the paperless environment?

If yes, are there any paper documents they might allow in the office?

What do they want to change about their current manual document process?

Describe the practice's vision and primary goals for an improved document management workflow.

## Document Management Vision and Goals

## Assessment

Electronic document management represents a significant change for the medical records staff in the practice, as the EHR becomes the legal document of record. When developing a document management plan, you will need to find a good balance between a few key attributes:

- Timeliness of review
- Adaptability of staff
- Reliability of document review process

The following best practices and analysis will guide you through the process of identifying the strengths and weaknesses of the practice.

# Best Practices

- One of the most important dates in your project plan is the day that you decide to consider the EHR the legal document of record. This means that everything before that date is housed in the paper chart, and everything after is in the EHR. It does not mean that every office note has to be completed in the EHR, but that anything completed in paper is scanned, not filed.
- Filing backlogs can significantly complicate the above process of conversion. It will be much easier to locate documents later if you've cleared these documents before go live.
- In our experience, it takes approximately 1/3 as much time to scan and sort documents in the EHR as it does to file and prep in the paper chart. In the beginning, however, as staff members learn the scanning system, it will take longer than your prep time for the charts. Some practices have needed to use overtime or temporary help to clear scanning backlogs
- An incoming fax server can be a very effective tool in streamlining scanning procedures. Instead of pulling paper documents from the fax machine, scanning them into the system, then sorting the documents, a fax server allows you to go straight to the sort process. It requires, however, that physicians review documents electronically, which can be a big change for some physicians.

Each workflow above highlights certain goals and opportunities for each practice. Using what you know about the practice and the workflows described above,

define the key components for a new document management workflow for the practice.

**Document Management Assessment**

## Plan

Discuss the features of a DIM that will make the review and distribution process harder/easier.

Outline the key milestones in your document management transition plans.

Draw the new process map of document processing based on document types, volume, and review procedure.

## Notes

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