Fundamentals of Workflow Analysis and Process Redesign

Unit 10.4c
Acquiring Clinical Process Knowledge

This is the third and final lecture of the Acquiring Clinical Process Knowledge Unit.

Common Clinic Processes

- Patient check-in
- Patient visit
- Prescriptions
- Assimilating received documentation
- Labs
- Other Diagnostic Tests
- Referral / consult
- Disease Management
- Billing

A process inventory is a list of the main processes used by a practice. You can always start from this list of common processes and add to them with others that are specific to the practice you are working with. If there are more than 20 or 30 processes on your inventory for a practice, you may be working at too detailed of a level. If the practice consists of multiple specialties, you will have a larger number of processes on the inventory, and the analysis will take longer.

Identifying Practice Processes Example

By Phone Appointment Scheduling

New Patient Intake and Registration – using paper chart

Receiving and Communicating Lab Results – using a paper chart

Routine Prescription Re-fill – no EMR

After these instructions, pause the slides. Read the scenarios listed on the slide. They should be included in your course materials. Pretend that these scenarios represent all of the services that a clinic performs. Make a list of the processes. After you have finished, restart the slides and on the next slide, we will go over the results. Pause the slides now.

Identifying Practice Processes
Example: Answers and Discussion

- Appointment Scheduling
- Patient check-in
- Patient visit
- Prescriptions
- Assimilating received documentation
- Labs

In a real clinic setting, you will have your list of common processes and can make a list or quick 1 page diagram of all of the functions the clinic performs. In this exercise, you did not have that opportunity, and had to go by what was explicitly stated in the scenario, and what other processes are implied. For example, Patient visit was implied because the patient came to the clinic. Similarly, billing was implied because there is usually a bill where a service is performed. Even in a real clinic setting, you will need to follow-up on implied processes to find out if they should be a part of your analysis.

For each process

- Process variations used by the clinic
- For each of these
  - main activities
  - Roles
  - locations
  - flow
  - Information needs
  - likely exceptions

For each process, the main activities, roles, locations, flow, and information needs are identified, i.e., this is the knowledge that needs to be acquired. Further, knowledge acquisition and analysis (covered in a separate unit) are intertwined. To analyze a process with the goal of health IT implementation, you will need to identify which of several common process variations are in use at a clinic, and what the likely exceptions are. This information is elicited during knowledge acquisition. Exercised on doing this are in the process analysis unit.

A complete analysis of a process is one that takes into account each process participant's point of view, patients especially !

The act of acquiring the knowledge is just as important as the resulting diagrams.

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The act of acquiring the knowledge is just as important as the resulting diagrams or other process documentation. An analyst goes through a period of learning when they seek the information to create process diagrams. Delineating the process steps, their sequence, how that sequence is decided, who or what performs process steps, where they are performed, and what the information needs are is a structured way for analysts and practice staff alike to view the process from a different perspective. The act of reducing a process down to these aspects prompts questions about why the process is done that way, or why a task is done at all. The act of acquiring knowledge is often where process problems or opportunities for improvement are identified.

A simple story illustrates this. I met a process analyst at a recent meeting. The analyst told a story about a visit that he made to a clinical practice for the purpose of process analysts. He observed different members of the practice as they performed their jobs. The analyst noticed that the receptionist made a copy of each patient's insurance card for their chart. For every one, about 50 per day, she went to the copier at the opposite end of the office. Upon observation, it was obvious that getting a small copier for the front desk would save a lot of time, time that could be used by the receptionist to return patient calls, or respond to calls for appointments faster. The analyst made this simple suggestion based on his observations, i.e., in the process of gathering information to create process diagrams.

The diagrams do not in themselves impart any magic. The magic happens when we use a structured way to think about processes, and there are many such ways. The diagrams are a good way to document and communicate the results of this process.

Where to get the information

- Process participants
- Facility procedure manual
- Information used and produced in the process

For each process in your inventory, identify

•Process participants

•Facility procedure manual

•Information used and produced in the process

Process Participants

- Clinic providers and staff that take part in a process at a healthcare facility are a main source of knowledge about the processes
- The process owner and individuals who perform the process are the most important
- These are the individuals that you should observe or interview to acquire process knowledge.

Clinic leadership and staff that take part in a process at a healthcare facility are a main source of knowledge about the clinic processes. The process owner and individuals who perform the process are the most important. These are the individuals that you should observe or interview to acquire process knowledge. At a minimum, talk to the process owner, i.e., the individual ultimately responsible and accountable for the proper working of each process.

Identifying Process Participants Example

Scenario: By Phone Appointment Scheduling

Patient Patty wakes up at 5:30 am for the third day in a row feeling awful, she has a roaring headache and a fever. She decides that it is time to see her primary care provider, Doctor Dan at Suburban Family Clinic. She thinks they open at 8:00 am, and sets her alarm clock for 8:00 am and goes back to sleep.

At 8:00, she awakes and finds the office phone number. Receptionist Ronald answers. Patient Patty asks Receptionist Ronald for the soonest appointment with Doctor Dan. Receptionist Ronald states that 9:30 is the earliest. Patient Patty says that 9:30 is fine. Receptionist Ronald adds her to the schedule for 9:30.

After these instructions, pause the slides. Read the scenario on the slide and make a list of the process participants. Indicate which individual or individuals you would interview or observe to gather information about the process. After you have finished, restart the slides and on the next slide, we will go over the results. Pause the slides now.

Identifying Process Participants
Example: answers and discussion

Process participants:

- ✖ Patient Patty
- ✖ Doctor Dan
- ✔ Receptionist Ronald
- ✔ Receptionist Ronald's manager

The process participants that are explicitly mentioned in the scenario include Patient Patty, Doctor Dan, and Receptionist Ronald. Patient Patty is not appropriate to interview because although she interacts with the appointment scheduling process, she has no knowledge of the clinic's procedures for appointment scheduling, i.e., what is supposed to happen, how long should it take, and regulatory or other constraints that may help form the clinic's procedures. While the voice of the customer is very necessary for process improvement, customers are not a source from which to acquire organizational knowledge. Doctor Dan is also not a good choice. He may or may not have the process knowledge, and important, providers are very busy, if there is a equally knowledgeable source, the less busy source should be used. Receptionist Ronald should definitely be interviewed to acquire information about the process. Importantly, there is a process owner, someone who is responsible for the proper operation and management of the process. This is likely Receptionist Ronald's manager. The process owner will be the most knowledgeable source of information. Further, if this clinic is at a high CMM level, they will have documented procedures. Where documented procedures exist, they should be used to minimize the time required of clinic staff for interviews and observation.

In addition to identifying the people that you need to get information from, you will need to decide how, i.e., by what methodology you will obtain the information. We will cover four main ways of obtaining process information from clinic providers and staff. The four ways are:

1. Observation – watching people do the process

2. Process walkthrough (I call this structured observation) – a walkthrough means that you pretend you are the object of the process and you literally move through the organization as the object would. For example, if it is appointment scheduling, you act as the patient (role play is ok) and go through the scheduling part. When it comes to the steps performed by the receptionist, you go to their workstation and see what they do. The point is that in a walkthrough, you experience the process. The structure of you following the process helps assures that nothing is left out. This is personally my favorite. Because with interview methods, it is hard to ask the questions to elicit all the information tyou need, and it is easy to leave things out.

3. Interviews including
    - Structured *versus* unstructured interviews, as well as
    - Interviews or interactions with groups *versus* individuals

4. Reading documents

What Questions to Ask

I keep six honest serving men
(They taught me all I knew);
Their names are What and Why and When
And How and Where and Who.

– Rudyard Kipling

I keep six honest serving men

(They taught me all I knew);

Their names are What and Why and When And How and Where and Who. By Rudyard Kipling

Poetry aside, questions are at the heart of knowledge acquisition. Although it might seem like the most important question is, "What questions should I ask?" the **More Informative question** for the analyst to ask is actually, "What do I need to know?"

The <u>First</u> Questions

Should concentrate on getting the list of core process that a clinic performs, and which ones are:

- Critical to patient care
- High volume
- Could be greatly improved by Health IT

Ask the questions that help you complete the Context Diagram

The first questions you ask, i.e., during your initial meeting with a clinic Should concentrate on getting the list of core process that a clinic performs, and which ones are:

•Critical to patient care

•High volume

•Could be greatly improved by Health IT

Think about what information you need to know to complete a one page diagram with the name of each of the clinic functions / services. This will come naturally if you take out a sheet of paper during the meeting and work on the diagram with the practice providers and staff.

For Each Process, the Analyst
Needs to Know:

Who (what role) performs the process

What the steps of the process are, what
exceptions occur, what information
is needed for each step

When the process starts

Where the steps take place

How each step of the process is performed
and in what order things happen

After you have identified the important processes, and expanded this list to include major process variations (this is discussed in detail in the Process Analysis Unit) you can turn attention to each process. For Each Process, the Analyst Needs to Know:

Who (what role) performs the process

What the steps of the process are, what exceptions occur, what information is needed for each step

When the process starts

Where the steps take place

How each step of the process is performed and in what order things happen

A process walkthrough lets you experience this information, and questions come naturally, when at each step, you make sure you understand the who, what, when, where and how, and even why ! In a walkthrough, you easily identify the process participants, this alerts the analyst to consider the perspective of each participant, for example, what the patient experience is in scheduling versus what the receptionist experience is.

Knowledge Acquisition Plan

Visit 1 with Practice Manager
1. Complete mission/vision
2. Create clinic context diagram
3. Start process Inventory

Visit 2, process owners & participants
3. List of processes to walkthrough
4. List of process participants / roles to observe and/or question
5. List of questions for each participant/role

Your initial meeting will often be with the practice manager or the individual charged with the EMR selection. This meeting can be short, 2-3 hours, depending on whether or not you add introductions with practice providers and staff. In t his initial meeting, you can:

Complete your collection of mission/vision

Create clinic context diagram

Start process Inventory

For visit 2, you will likely meet with more people, or at least interact with more people in you use process walkthrough or interviews to gather information. For visits 2 – ¾ or more depending on the practice size and number of processes, you will need:

3. List of processes to walkthrough

4. List of process participants / roles to observe and/or question

5. List of questions for each participant/role

- Obtain from your employer a scope of work
- First meeting:
  - Review your scope of work
    - What you will do
    - What you need for clinic to do
    - How long it will take
  - Review what to expect
    - Go over your knowledge acquisition plan
- Provide an agenda in advance of initial meeting
- Use plain language

Initiating a relationship with the clinic is a very important step. Many clinics do not have experience with technology implementations and do not know what to expect. This also means that **you need to use plain everyday language** to explain the process, what you will do, what you need from the clinic and what the clinic should expect. Your employer will likely have information prepared for clinics about what to expect. The following are things that can help your initial meetings with a clinic go well.

•Obtain from your employer a scope of work that you are expected to perform for or with representatives from the clinic. Go over this in detail with the primary clinic representative. You should not expect that they will communicate this information to everyone you will be meeting with. For this reason, when you meet new people from the clinic, it is helpful to have a brief 2-3 sentence "elevator speech" description of what you are doing and how they will be involved.

•First meeting:

    •Review your scope of work with primary clinic representative

        •What you will do

        •What you need for clinic to do – i.e., set aside time for meetings, interruptions or half-Saturday for process walkthroughs

        •How long your work, the project, meetings, interruptions will take

    •Review what the clinic should expect with respect to their time commitment nad what your deliverables are

        •Go over your knowledge acquisition plan

•Provide an agenda in advance of meetings – remember that your work will cause interruptions to the busy clinic schedule.

Common Barriers that you will encounter include:
•Concern about change
•Clinic time and resource constraints
•Your time and resource constraints
•Lack of computer literacy

Concern about change is real and stems from things like fear of job loss, fear of not being "good at" new job responsibilities, fear of computers, fear of not having access to information that they have now in paper form (inability to use a computer well limits access to information). These are real concerns. The way to overcome them is to involve clinic staff in your work and, with clinic leadership, provide them information about what changes to expect, what training or other assistance is available.

Clinic resource constraints are a large barrier. Your knowledge acquisition work will require time from clinic staff. Doing process walkthroughs may require staff to come in after hours. All of these things cost the clinic money or cause inconvenience for the clinic staff. In a busy clinic setting, these resources are scarce.

Analyst resource constraints are also a barrier. Either the clinic is paying for your services, or your employer is funded by the government to provide services, or some combination of both. Either way, there will be more processes to acquire knowledge about and analyze than you have time for. To overcome this, work with the clinic to prioritize the process that are analyzed in the allotted time.

While you might think that **lack of computer literacy** will only be a factor after implementation of an EMR, think again. People with no computer experience will not be able to conceptualize how their workflow will be different with a computer. They will not have an experience base to alert you to process issues that might impact your analysis, and they may not understand some of what you say. When they do not understand, they will later be surprised, and surprises are not good.

Meeting Summary Report

- After meeting with a clinic you will likely need to provide a report to document your work to date: Knowledge Acquisition report
- Should Contain:
  – Information about the meeting
  – Context diagram
  – Process Inventory
  – Process diagrams

After meeting with a clinic you will likely need to provide a report to document your work to date: Knowledge Acquisition report

Should Contain:

Information about the meeting – date(s), participants, processes documented on each date

Context diagram

Process Inventory

Process diagrams

Summary

In unit 4c, we have covered the following:
- creating a process inventory
- Identifying process participants
- Different methods of obtaining information
- Creating questions for knowledge acquisition visits
- Creating a knowledge acquisition plan
- Initiating a relationship with a clinic
- Barriers to knowledge acquisition
- Meeting Summary Report

In unit 4c, we have covered the following:

creating a process inventory

Identifying process participants

Different methods of obtaining information

Creating questions for knowledge acquisition visits

Creating a knowledge acquisition plan

Initiating a relationship with a clinic

Barriers to knowledge acquisition

Meeting Summary Report

References

1. Gaines, Brian R. (n.d.) Organizational Knowledge Acquisition. Accessed August 1, 2010. Available free from http://pages.cpsc.ucalgary.ca/~gaines/reports/KM/OKA/index.html

2. Passive Knowledge Versus Active Knowledge, March 4, 2010. Accessed on August 2, 2010, available from http://www.beyonduni.com/2010/03/passive-knowledge-versus-active-knowledge/

3. Milton, N.R., Knowledge Acquisition in Practice: A step by step guide. Springer, London. 2007