“Name of study”

Data Collection Hand Book for Chart Abstractors (CAs*)*

INDEX

1. Overview

There are several models of primary health care services delivery. Some family physicians practice in a site that uses a Fee For Service (FFS) model, others work in Health Services Organizations (HSOs), Family Health Networks (FHNs) or Community Health Centres (CHCs). We have undertaken a research project to compare the performance of these four different models. The researchers will use several tools to identify differences in the models. These tools include the Patient Survey, the Provider Survey, the Practice Survey and the Chart Abstraction. The **Chart Abstractor (CA)** will be responsible for implementing the Provider Surveys and Practice Survey and performing the chart audit. A second member of the research team, the **Survey Administrator (SA)** will also participate in the data collection in a separate visit to the Practice Site involving interviews with patients.

This handbook is a guide for the CA in performing the Chart Abstraction and conducting the Provider Surveys and Practice Surveys. CAs will receive 2 days of training on their responsibilities.

2. Implementation and Contact

A total of 160 practice sites will be recruited to participate in this study. The 160 practice sites will be divided into 40 practice sites per model: 1. Fee For Service (FFS), 2. Health Services Organizations (HSOs),3. Family Health Networks (FHNs) and 4. Community Health Centres (CHCs). These sites will participate in all facets of the study described above (Patient Survey, Practice Survey, Provider Survey and Chart abstraction). A small number of selected sites will also be invited to participate in qualitative interviews and focus groups. These will involve the participation of patients, providers and staff members. This manual focuses on the procedures for Practice Survey, Provider Survey and Chart Abstraction.

2.1 Site assignment

Both **CAs** and **SAs** will be assigned to practice sites shortly after the Ottawa office has confirmed their participation. For each site, the CA and SA will receive a form that provides relevant information about that site, including type of facility, contact information, participating clinicians, best day and time to call, and other pertinent information (see Appendix A: Chart Abstractor Information Sheet).

2.2 Initial contact

The CA will call the contact person of the practice site at a time that was indicated on the Chart Abstractor Information sheet and set up a schedule for implementing the surveys and chart abstraction.

Note that the SA will also, independently, be making contact with the site to establish the schedule for chart abstractions. To present a cohesive image, the CA will collaborate with the SA responsible for that site prior to their contact with the practice site to find out whether the SA has already contacted the site.

Two scripts have been designed to introduce the study and inform the lead contact person at the practice site (i.e. office manager or lead physician) of their participation. The first is to be delivered if the CA is the first member of the research team to make contact with the site (i.e. the SA has not spoken with the practice site). The second is to be used if the SA had made prior contact.

2.2.1 CA is first contact with site

In the case where the CA is the first member of the team to make contact with the practice site, the following script should be used.

My name is _____. I have been given your name as the contact regarding a study we are performing called "study name". It is being conducted by researchers of the University of Ottawa and your practice is one of the 160 participating sites. At your practice, Dr(s) _____ (*list doctors and nurse practitioners*) is/are participating in the study.

The study has 3 components. The first involves administering survey questionnaires to patients. _____ _____(*name SA*) will be contacting you regarding that aspect of the study. The other two components are a chart abstraction (i.e. a review of patient charts) and surveys administered to the participating physicians and office manager (or other designated person if no office manager). I am responsible for conducting these components of the study at your practice site.

I am calling to schedule my visits to the practice for performing this chart abstraction. I will be reviewing 30 charts which I expect to take approximately 3 days. On the first day, I will need to meet for approximately 30-60 minutes to help orient me to your filing system and inform you of the procedures for chart abstraction. I would also like to determine with the practice the best method for distributing and returning the survey forms. If possible, with the Practice Level Survey it is recommended that I book in 10-15 mins with the lead physician to point out / discuss some of the more complex questions. What would be the most convenient day for me to begin performing the chart abstraction?

What type of charting system is your site using, traditional paper or electronic medical records (EMR)? ***(If EMR, go to section 2.24).***

2.2.2 Contact with site already made by SA

In the case where the SA had made prior contact with the practice site, the following script should be used.

My name is _____. I have been given your name to contact regarding a study we are performing called "the Comparison of Models of Primary Health Care in Ontario". It is being conducted by researchers of the University of Ottawa and your practice is one the 160 participating sites. At your practice, Dr(s) _____ (*list doctors and nurse practitioners*) is/are participating in the study

You have already met or spoken to my colleague _____(*name SA*). So, as you probably know, the study has 3 components. I am the chart abstractor and am responsible for performing the chart reviews, as well as distributing the surveys in your practice site. I am calling to schedule my visits to the practice for performing the chart abstractions. I will be reviewing 30 charts which I expect to take approximately 3 days. On the first day, I will need to meet for approximately 30-60 minutes with you to help orient me to your filing system and inform you of the procedures for chart abstraction. I would also like to determine with the practice the best method for distributing the survey forms amongst the participating providers (*list the consenting providers)* and determine the best person to complete the practice survey. If possible, with the Practice Level Survey it is recommended that I book in 10-15 mins with the lead physician to point out / discuss some of the more complex questions. What would be the most convenient day for me to begin performing the chart abstraction?

What type of charting system is your site using, traditional paper or electronic medical records (EMR)? **(*If EMR, go to section 2.24)***

2.2.3. Request for more information

If the contact person asks for more information about the study, use the following script to refresh his/her memory.

The study seeks to describe and compare four organizational models of primary health care in Ontario. The_____ (*name their model*) primary health care model, in which your practice is a part of, is one of the organization types we are studying. The objective of the study is to compare such things as the performance of the models on health care accessibility, continuity, comprehensiveness and coordination.
The information that we will collect from your patients, physicians and manager is absolutely confidential. No practice or patient identifier information will be recorded. The chart abstraction component of the study does not require patient consent and is completely separate from the patient survey component (where patients have consented).
Your practice will be compensated for taking part in the study.

If more information is required, the CA should offer that a senior member of research team call the practice *(give managers name and let them know he/she will contact them directly).*

2.2.4 Electronic medical records

For sites where an electronic medical record (EMR) system is in place, the CA should notify the practice that _____ (name Research Associate) will contact them, prior to the date of commencement, to work with them on the best way to obtain a random sample for the CA. *(Some examples of how this might be achieved is to use the practices own patient ID numbers, or the last 4 digits of patient OHIP numbers).*

It may also be a good idea to ask the practice how long they have been using EMR. This will give the CA an idea how long the practice is going to take them e.g. if only computerized for one year, the CA will need pull patient charts also for the second year of the required time-frame.

The CA should mention to the contact person that on their first day in the practice they would need someone to orientate them to the EMR system.

NOTE: The CA can also use this first contact as an opportunity to ask for directions to the practice if needed, and inquire as to parking options.

2.3 The first visit

2.3.1 What to bring

The CA should bring the following items to their practice site visits.

- ☑ The Data Collection Hand Book for Chart Abstractors (this document)
  - One copy for reference
- ☑ Chart Abstractor "Chart Abstractor Information Sheet" (Appendix A)
  - One copy for reference
- ☑ Pens – including one black out pen to conceal identifying information if necessary.
- ☑ Chart Abstraction Forms
  - 35 to complete the required 30, allowing for losses.
- ☑ A tape measure, preferably in inches, to be used in the sampling of charts.
- ☑ A small pocket calculator to be used in the sampling of charts.
- ☑ Practice-Level Survey (+ one extra copy just in case)
  - To be given to receptionist/office manager in a self-addressed postage paid envelope.
- ☑ Provider Surveys (+ one extra copy just in case)
  - To be given to each consenting provider in self-addressed postage paid envelopes.
- ☑ A Chart Abstraction Tracking Log (Appendix B)
  - One copy to keep record of the selection procedure and track chart audit of ALL patients selected
- ☑ Small Adhesive note pad
  - One, to allow post-it notes to be made on files
- ☑ Name tag
  - Identification of CA and Project
- ☑ Research Project Manager business cards (Melissa Dust)
  - For any additional questions or information requested
- ☑ One copy each of the CA Invoice & Expense Sheet (Appendices E & F)
  - For receiving payment after work completed.
- ☑ Small gift for practice office staff.
  - Laura Secord box of chocolates (provided by Ottawa office) or up $20 gift bought by CA (chocolates, flowers, muffins, etc).
- ☑ Thimble for easy leafing through paper notes
- ☑ List of Acronyms
- ☑ Chart Validation List with Envelope and instructions for practice (Appendix C)

2.3.2 Documents and material provided to CA prior to arrival at practice site.

Prior to entering the practice site, the Chart Abstractor (CA) will be provided with the following from the Ottawa office:

1) A Chart Abstractors information sheet containing the following information:
   - The name and telephone number of the contact person at the practice site (i.e. office manager or receptionist) and the best time to contact the practice.
   - A complete list of the consenting providers at the practice site (i.e. physicians or nurse practitioners that are participating in the surveys).
   - Practice site identifiers (i.e. a code that identifies the practice that is being surveyed and distinguishes it from other practice sites).
   - Information on the practice's charting system (i.e. whether it is a paper, computerized or mixed charting system).
2) 35 copies of the Chart Abstraction Form (or CA can get these photocopied and claim expenses).

3) A customized **Provider Survey** package for each of the participants in at the practice site with a self-addressed stamped envelope.
4) One hard copy of the **Practice Level Survey** with a self-addressed stamped envelope.

2.3.3 What should the CA do upon arrival at the practice site?

On the scheduled day of data collection, the CA will introduce herself/himself to the receptionist and request to speak with the practice site contact person. The CA will explain to the contact person at the practice (i.e. office manager or receptionist) the procedures that are required with respect to the **Chart Abstraction**, **Provider Survey** and **Practice Level Survey**. The CA will answer any questions that physicians, staff or other health professionals may have about the data collection or the study. (Use the above script if needed). If at any time the CA has questions they can call **the manager**. The CA should make every effort to administer the Provider Survey and the Practice Level Survey on the first day at the practice (whether this is directly, or via a designated person in the practice)

This visit meeting should also cover an orientation to the practice site set up, filing system and establish meeting times with the participating providers / Lead Physician / office manager as relevant. The CA may be introduced to a person in charge of the patient charts (if different to the contact person) and may be provided with a password to the computerized system.

3. Provider Survey Implementation

A requirement of the study is that the majority of the providers in the practice must have agreed to participate. As a result, it is important to remember that some providers may not have agreed to participate. At the time the practice site is assigned to the CA, he/she will be provided with a list of providers who have consented to participate in the study and therefore to complete the Provider Survey. With the help of the office manager or receptionist the CA will make arrangements to deliver the Provider Survey to the consenting participants (see 3.1 below).

Only family physicians, a specialist working as a generalist in the practice site and nurse practitioners will complete the Provider Survey. Although the work done by other providers, such as nurses, chiropodists and social workers, is highly valued, this project focuses the comparison of models of primary health care delivery and these other health professionals do not commonly work in all models.

A requirement for a physician to complete the Provider Survey is that they should be affiliated with the model of practice under study (FFS, FHN, HSO, CHC) for a least one year and they should identify that practice as their "principal clinical practice". In addition, they need to practice **comprehensive medicine**. That is, not principally see other provider's patients in consultation or restrict their patients to those with a particular type of problem such as patients needing psychotherapy. Nurse practitioners are eligible for inclusion if they have been an employee of the practice for the last 6 months. All consenting providers (physicians and nurse practitioners) are referred to as the **Provider Survey Participants**.

3.1 How does the CA administer the Provider Surveys?

In each of the 160 recruited practice sites CAs will administer the Provider Survey to all consenting physicians and nurse practitioners. It is the responsibility of the CA to distribute the customized Provider Survey package tailored to each of the Provider Survey Participants during his/her first day at the practice site. The actual method of distribution will be practice specific and will be determined through a discussion with the practice site's manager (the contact person). In many instances, the practice site manager will likely want to distribute the packages himself/herself. This is acceptable. It is essential that the CA avoid any disruption to the provider while distributing the packages. The CA should follow the advice of the office manager or receptionist and distribute the packages accordingly.

Each package will consist of the following:

1) A cover letter, personally addressed to the Provider Survey Participant.
2) The Provider Survey questionnaire tailored with a unique practice identifier code and participant identifier code.
3) A self-addressed, postage-paid return envelope.

Confidentiality and privacy of Provider Survey Participants must be observed at all times. No name and address of the physician, nurse practitioner will be recorded. Provider Survey Participants will be identified only by their unique practice identifier code and individual identifier code.

3.2 CA responsibilities for the return of the completed Provider Surveys

The CA should inform the manager at the Ottawa office by e-mail or by phone the date that they distributed the Provider Surveys. This can be done at a time that is convenient for the CA, such as, at the end of the first day. Contact telephone numbers of the different practitioners (if different from the practice site telephone number) should be provided to the manager, to follow-up non-responders if necessary.

If the CA is able to collect any completed Provider Surveys during their stay, he/she should mail them back to the manager at the Ottawa office immediately. It is important to notify the Ottawa office that the surveys have been completed as the Ottawa office has a role in following up with non-responders.

3.3 Follow-up of a practice site for non-responders.

The following steps will be taken by the project to follow-up with non-responders for the provider surveys. *(These steps will be taken by the Ottawa office and do not have to be done by the CA. It is for information purposes only).*

- **Step 1:** A follow-up phone call one week after the CA has left the practice site or two weeks from the day of delivery of the package, whichever may be earlier.
- **Step 2:** A replacement Provider Survey and a cover letter to non-responders indicating that the survey has not yet been received three weeks after the phone call. Including a self-addressed, stamped reply envelope.
- **Step 3:** A second replacement Provider Survey and cover letter to non-responders by registered mail, three weeks after the first replacement Provider Survey and a cover letter. Including a self-addressed, stamped reply envelope.

Confidentiality and privacy of Provider Survey Participants must be observed at all times. No name and address of the physician, nurse practitioner will be recorded. Provider Survey Participants will be identified only by their unique practice e identifier code and individual identifier code.

4. Practice Level Survey Implementation

In each of the 160 recruited practice sites, the CA will administer the Practice Level Survey. The Practice Level Survey consists of three sections:

(1) General Questions
(2) Clinical Questions
(3) Economic Questions.

The Practice Level Survey includes a list of people (by position type) who may be best suited to answer the questions in the three sections. For example, Section I (General Questions) would likely be best answered by the Office Manager or Receptionist, Section II (Clinical Questions) would likely be best answered by the Lead Physician while Section III (Economic Questions) would likely be best answered by the Finance Manager or Office Manager.

It is important to keep in mind that the practice management and organizational structure varies considerably from one model to another (i.e. FFS versus FHN) as well as between practice sites within a particular model. The best person to answer the questions will vary among practice sites. We offer a guideline to assist the CA in adopting a site-specific strategy that best suits the practice.

The Practice Survey will be provided in an envelope with a letter to the Receptionist/Office Manager and will also contain a self-addressed, postage-paid return envelope. All of this material will be prepared by the Ottawa office and given to the CA prior to arrival at the practice site.

4.1 How does the CA administer the Practice Level Survey?

The actual method of implementation will be determined through a discussion with the practice's office manager (the contact person) on the first day. The CA first needs to find out if the office manager is willing and able to complete all sections or if multiple people will be needed to complete the survey. As stated in Section 4 above, the current version of the survey suggests a number of people (by position type) who may be best suited to answer the questions in the three sections. **It needs to be determined who will coordinate this task**. It is preferable that the office manager takes on the role of coordinating the survey but the CA should be willing to arrange to meet with various people in the practice to complete all of the sections.

We strongly recommend that the CA book a short 10-15 minute meeting with the Lead Physician at the practice to point out and discuss several of the more complex questions that will require his/her input. Sections 2 and 3 are the sections that would be the most relevant for the Lead Physician to focus on as they deal with issues such as patient complexity and financial information about the practice. It is possible that some of these selected questions may be answered immediately by the Lead Physician while others may require more time. In any event, the main objective here is to inform the Lead Physician of these questions.

The CA will follow the advice of the office manager. In large practice sites, one person may be able to answer only one section. If the practice manager suggests consulting multiple persons to complete all sections, it may be deemed necessary that the CA approach each person accordingly to discuss this with them. In such cases the CA should make sure to get their name(s), phone numbers(s), their hours of work and the best time to contact them.

It is important that the project receives financial data from most sites. We expect that some sites may not be willing to release their financial information. If the reason for their reluctance is they do not want to spend the time extracting the information from their annual financial statements and filling in this section in the survey, they should be offered the option of providing a photocopy of the financial statement. The CA should specifically address the sensitivity of this part of the data collection and be willing to address any concerns to the Program Manager, _____. **The CA should also stress that all information in the survey, including financial data, will be kept strictly confidential and anonymous and no individual practice or individual provider within the practice will be identified through the disclosure of any information.**

If a photocopy of the financial statement is received by the CA, he/she should staple all pages together with the survey and write the identifier code on them. Any practice specific or personal information such as names, addresses or telephone numbers should be blacked out with a marker before mailing the completed survey to the Ottawa office. If necessary, the CA can show these blacked out sections to the office manager to reinforce to him/her how this information will be kept confidential.

Confidentiality and privacy of practice sites must be observed at all times. Practice sites will be identified only by their unique practice identifier codes - no names or addresses pertaining to the practice site will be recorded.

4.2 CA responsibilities for the return of the completed Practice Survey

The CA should inform the manager at the Ottawa office by e-mail or by phone the date that they distributed the Practice Survey and also provide Peter with the name and telephone number of the designated contact person at the practice for follow-up, should it be necessary. This can be done at a time that is convenient for the CA, such as, at the end of the first day. On the last day, before leaving the practice site, the CA should consult with the practice manager (or the designated contact person) and confirm arrangements for sending the completed survey to the Ottawa office.

If the CA is able to collect all sections of the completed Practice Survey during their stay, he/she should mail them back to the manager at the Ottawa office immediately. It is important to notify the Ottawa office that the surveys have been completed as the Ottawa office has a role in following up with non-responders.

4.3 Follow-up of a practice site for non-responders

The following steps will be taken by the project to follow-up with non-responders for the practice survey. *(These steps will be taken by the Ottawa office and do not have to be done by the CA. It is for information purposes only)***.**

- **Step 1:** A follow-up phone call one week after the CA has left the practice site or two weeks from the day of delivery of the package, whichever may be earlier.
- **Step 2:** A replacement Practice Survey and a cover letter indicating that the survey has not yet been received three weeks after the phone call. Including a self-addressed, stamped reply envelope.
- **Step 3:** A second replacement Practice Survey and cover letter to non-responders by registered mail, three weeks after the first replacement Practice Survey and a cover letter. Including a self-addressed, stamped reply envelope.

5. Chart Abstraction Implementation

In each of the 160 recruited practice sites, the CA will randomly select 30 patient charts and review them as per the instructions below. In most cases the chart abstraction period is two years, from the date that the chart is being abstracted.

5.1 Understanding the Charting System

The organizational structure of charting systems varies considerably from one practice site to another practice site. It is important that the CA understands the organization of the patient chart system in the practice site. On the first day the CA should ask for an orientation to the charting system. In general, the CA will encounter one of the following three major types of charting systems:

1) Pure paper based charting system.
2) Pure electronic charting system.
3) Mixed charting system (some valuable information may be in paper charts and other relevant information may be stored electronically, with varying degrees of mixing).

The following questions can be asked to the person who will provide the orientation to the organization of charting system:

- How is your chart filing system organized?
- Can you describe what short form methods you use or abbreviations that may be peculiar to this practice site?
- Are all lab results in the patient file or is there a separate electronic database of lab results?
- Are Flu shots recorded in the notes or elsewhere?
- Medication List – is this in the chart or on computer?
- Who should I consult with if I have questions during the chart abstraction?
- Can someone review with me how the charts are organized, cover to cover?
- Would you prefer to have someone from the office re-file the charts?
- Where shall I place the charts once I have finished reviewing them?
- How to find the information we need in the computerized record (the CA should ask to be orientated to the practice computer program / EMR system. If the practice is paper-based but with some additional info on computer – the CA should arrange with the practice best times to get on to a computer to obtain this information).
- The CA should also determine if there are any practitioners in the practice site who have **not** consented to participate in the study. This will be important to know when selecting the random sample of charts to abstract.

5.2 Sampling Strategy

The CA will perform data abstraction on 30 randomly selected patient charts in the practice site. There are different strategies for randomly selecting the number of charts, depending on whether the filing system is paper based, a mixed paper and electronic system or a purely electronic system (EMR). The sampling frame is all active patients in the practice. **However, it is very important to observe that charts can only be selected for patients of consenting physicians who are participating in the study**. **Patient charts selected for non-consenting, non-participating physicians will be deemed non eligible.**

5.2.1 Paper Based Charting System.

The Tape Measure Method

In order to randomly select the required number of charts from the rack, the CA will need to first measure the total size of the chart rack in inches. Start at the first shelf unit and measure one of the shelves horizontally from left to right with the tape measure. Multiply this number of inches by the number of full shelves of charts (assuming all shelves are full and of equal length). Any shelves which are not full, measure individually and add separately to the end total. If there are a number of different types of shelf units, you will need to do this for each type and then total the inches of all the different shelf units at the end. Once you have your total, use the calculator to divide the total number of inches by the required number of charts. In order to obtain 30 eligible patient charts, the CA should expect to have to select approx. 60 patient charts (to account for those that will be non-eligible). Therefore, the CA will divide the total number of inches of rack space by 60. This calculation will produce a figure in inches (e.g. 15 inches). The CA will then measure this distance from the start of the first shelf containing patient charts. After this distance is measured, the CA should flag this spot (by pulling the chart out slightly), then count 5 additional charts and pull the fifth chart from the rack. This is the chart that will be audited. The CA should then return to the flagged spot and use this as the starting point for measuring the next 15 inches. Repeat this process until you have the required number of charts (30) pulled from the rack. **However, in order to minimize disruption to the practice, it is important not pull more than 10 charts at a time. Make sure you make a note of the final 'flagged spot' so you can restart the measurements when requiring more charts!** Examine each of the charts to determine which ones meet the eligibility criteria (see 5.3 below). Conduct the audit on the eligible charts and then return to the rack to select 10 more charts. Continue the process until 30 charts have being audited.

The following example highlights the process of using the "Tape Measure Method" to select patient charts:

Dr "X" has a chart rack containing 6 shelves each filled to capacity with patient files. Using the tape measure you calculate that each shelf is 60 inches across from left to right. This means that the total shelf space is 360 inches (6 shelves times 60 inches). You need to pull at least 60 charts to find 30 eligible ones. So, you divide 360 inches by 60 charts to obtain the figure of 6 inches. Always round down / up to the nearest inch (e.g. for 6.5 round down, but for 6.51 round up). In this instance you would use 6 inches. Start on the top shelf and measure 6 inches from the left side of the shelf, mark this spot by pulling out slightly the chart at that position, and then count 5 additional charts, pulling the fifth and setting it aside. Return to the chart you pulled out slightly and measure from the end of this chart your next 6 inches, flag that spot, count 5 additional charts and pull the fifth. Continue the process until you have pulled 10 charts. Conduct the chart audit on the eligible charts among the first ten. Once you have finished auditing the eligible charts, re-file them or put them in the designated position and return to the rack. Continue measurements from the last spot that was flagged until another 10 charts have been pulled.

5.2.2 Paper Based System with Computer Linkage

Many practices in Ontario now use a mixed charting system with at least some patient information (e.g. medication lists) contained on computer. In these situations, the CA should continue to use the "Tape Measure Method" on the chart rack. However, when an eligible chart is pulled, the CA needs to access any additional information on this patient that is contained on the practice's computer. Prior to arrival at the site, the CA should speak with the receptionist or office manager about the type of charting system used at the practice and ask for orientation or basic training on how to use the computer system.

5.2.3 Electronic Systems with No Paper Charts (e.g. Electronic Medical Records)

In this case, the CA needs to request a training session from the staff at the practice site on using the electronic system. Since there are no paper charts, the random selection of charts has to be done by some type of patient identifier such as numeric ID or OHIP number. The Ottawa office will work with the CA to obtain from the practice an electronic list of patient IDs and will generate a random list of patients from this field. The random list will be provided to the CA before she/he arrives at the site.

5.3. The Chart Abstraction Process

Remove only 10 charts at a time. Determine if the first of the ten patient charts meets the following inclusion/exclusion criteria for the study. The following criteria are necessary for determining if a chart should be included in the sample for data abstraction.

Patients are eligible for general inclusion if they are:

- Aged 17 or older at the time of the study.
- An 'active' patient of the practice, where 'active' refers to patients **seen** at least once within the past year and who have an overall record in the practice going back at least two years. NOTE: The last one year is calculated by using the date the chart is audited and subtracting exactly one year from that date; This one encounter in the past year can be with any provider and includes consults, home visits as well as vaccines, bloods, prescription renewals etc. However, as they must be **seen,** telephone calls or emails are not counted.
- A regular patient of the practice (not a walk in patient);
- A patient of one of the consenting physicians (e.g. a physician who has agreed to participate in the study). If the patient is new to the MD during the past two years they are eligible for the study provided approx. 75% of their visits in the past two years are with the MD participating in the study, as opposed to their previous MD.

Patients are excluded if they:

- Are not an active patient of the practice (e.g. not seen at least once within the past year);
- Have passed away or have transferred out of the practice in the last 2 years;
- Are a new patient to the practice in the last two years;
- Are not a regular patient of the practice (a walk in patient);
- Are seen at the practice for specialized services only (e.g. foot care only);
- A patient of one of the non-consenting physicians (e.g. a physician who has not agreed to participate in the study);
- Are known to the CA;
- Are staff of the practice site

If the patient is eligible, he/she is assigned a Patient ID number ranging from 01 to 30 in sequential order on the Chart Abstraction Tracking Log (along with a screening ID and the eligible box ticked Yes). This ID number is then entered on the top right-hand corner of the Chart Abstraction Form, along with the Practice ID # (taken from the practice information sheet), the date of the abstraction and your own Chart Abstractor ID #. No other patient identifying information is requested on the chart abstraction form or tracking log.

For validation purposes only, we do need to be able to locate the particular chart a second time. To make this possible, it is necessary to complete the Chart Abstractors Validation List with names and unique numbers of those 30 eligible patient charts abstracted. At the end of the CAs visit, this list is then left, in a sealed envelope,

at with the contact person at the practice site. **Note; this should also be left at the practice overnight as it is confidential information and should not leave the practice.** Instructions should be given for its safekeeping until the validator contacts them. If the validator has not contacted them within a two-month period of the CAs visit, it can be assumed by the practice that they have not been randomly chosen for a validation, and the envelope and contents can be shredded.

If the patient does not meet the above inclusion criteria, record this on the Chart Abstraction Tracking Log (giving them a screening ID and indicating their non-eligibility and the reason for it) and take the next chart of the ten charts you originally selected. Proceed until an eligible chart is found and then complete the chart abstraction. The chart is abstracted using the specific Chart Abstraction Form that contains all of the variables for which chart data will be collected. Once you have finished with the 10 charts, including recording them on the Tracking Log and Validation List, return them to their original space on the rack / designated place, and randomly select 10 more charts. Proceed until you have abstracted the required number of 30 charts that meet the inclusion criteria. Note; If a chart is not completed on the first day the CA is reviewing it, the CA should continue to use this first date as the date of the chart abstraction, not the date they completed the chart. If using EMR, you can call the Ottawa office to generate more random numbers if required.

The Chart Abstraction Form is divided into 5 sections. CAs should complete each section with careful reference to the CA manual regarding timescales, guiding principles and the pertinent information required. Where relevant, each section has a *NOTE* sub-section with important information / tips on how to code things, where to find them in the chart etc.). **Please refer to the manual frequently**.

Confidentiality of patient medical records must be observed at all times.

5.4 Software data entry

The software _____ will be used for the direct input of data abstracted from the charts. However the initial recording of information at the practice sites will be entered on to the Chart Abstraction Forms. This will prevent possible difficulties with the software in the early stages of the project. The transfer of this information (from form to computer) will be done by the CA, at their earliest convenience (at the end of each day, or each practice), directly on to the _____ website. A lap-top computer will be provided to the CA for this purpose for the duration of the project. Please refer to the _____ instruction manual (Appendix E) for further details / instructions.

6. Validation

Another CA acting as a Validator will independently review a random sample of charts that have been abstracted by the original CA. This validation is performed to check for accuracy and data entry error. It also provides a basis for working with CAs to improve instructions or provide further information / training as necessary. Validations will be done at the first two practices of each CA, followed by a 10% random sample of sites throughout the course of the study. The Validator will visit as soon as possible after the review has been completed. He/she will be provided with the original abstraction forms and a random sample of the charts to be validated by the Ottawa office. He/she will identify the charts to be checked using the Validation form held in a sealed envelope at the practice site

Each chart is to be verified by assessing each answer, in each section, against information found in the chart. Using a red pen, errors should be noted directly on the abstraction form. Errors should not be corrected - simply a note made next to the original answer. The Validator may need to discuss entry decisions with Samantha Ward (CA Supervisor) in order to reach a decision regarding the coding of a particular chart. A summary of overall error rates, plus the abstraction forms, is then returned to Peter Kitchen at the Ottawa office.

Approx. 25% of the original 30 abstracted charts will be validated (8 charts). For an individual chart to 'fail', one **super** error should be identified, or two or more **major** errors must be identified. If more than 25% (3 or more charts out of the 8) are found to have 'failed', the Validator proceeds to review as many charts as possible on the day that he/she is at the practice. Only one day will be spent validating a practice, therefore it is not expected that all 30 charts will be reviewed – only what is feasible.

Below are some guidelines for what constitutes a **super**, **major** and **minor** error in each section:

Section 1 (Background Info & chart Organization)
Super: AGE is a super error only when it impacts Section III (I.e. the age-related screening maneuvers) and a question is missed due to age being miscalculated. For the other sections Age is a major error.
Major: DOB / AGE / SEX

Minor: OHIP # / Postal Code / Medication and Diagnosis Lists

Section II (Patient Visits)
Major: Encounters in past one month / Date of encounter(s)

Minor: In-office, face-to-face meeting with MD, RN, NP / Activities & referrals performed / discrepancies between **which kind** of referral was found (e.g. dietician ticked rather than dermatologist) Number of visits in one year.

Section III (Preventative Maneuvers)
Major: Any response category where YES has been coded incorrectly for a patient being eligible for maneuver, for being at risk, or for having had the maneuver performed

Minor: Whether a field should be coded NO or OTHER or FOLLOW-UP DIAGNOSIS / Which high-risk group for Flu

Section IV (Management of Chronic Disease)
Super: Any missed Chronic Disease diagnosis

Major: Any response category where YES for being on a medication has been coded incorrectly. Also questions referring to the ophthalmologist / chiropodist / HBAIC in past 1yr / BP recordings

Minor: Whether the actual med / problem is on the problem list, the actual HBA1C result / presence of Diabetic flow sheet and if entry made in past year.

Section V (Management of Acute Disease)
Super: Any missed Acute Disease diagnosis

Major: All sub-questions related to each acute disease **except for**;

Minor: The actual names of antibiotics / Qu. 2.7 in the UTI section. Note that for Qu. 2.5 in the UTI section, if the response category for "None of the Above" is coded incorrectly, this is **major**, but if it involves discrepancies between the other options it is **minor**).

7. Confidentiality

Confidentiality of the patient medical records must be observed at all times. The chart of a patient that may be known by the person conducting the chart review must be reviewed by another team member or, if known to both members of the team, omitted. Patient charts that are actual staff members of the practice or members of their family are to be omitted.

8. Ottawa Office / CA Contacts

Name
Title
Institution
Address
City, Province
Postal
email address
Phone
Fax
Toll Free number:

Name
Title
Institution
Address
City, Province
Postal
email address
Phone
Fax

Name
CA Supervisor
Tel:
Cell:
Email:

Chart Abstraction Form: Organization and Data Entry

Section I : Background Information and Chart Organization

The first section of the chart audit is devoted to collecting basic data on the patient and on chart organization.

1. Date of birth: |__|__| |__|__| |__|__|
M M D D Y Y

2. Age: ____

3. Sex: ❑ Male ❑ Female

4. Does the patient have an OHIP number? ❑ **YES** ❑ **NO**

5. First three digits of patient's postal code (e.g. K1N for K1N 9J8) _____

6. Chart Organization:

6.1 Is there a problem / diagnosis list in the patient's records? ❑ **YES** ❑ **NO**

6.2 Is there a medication list in the patient's records? ❑ **YES** ❑ **NO**

NOTE:

What is a Problem List (CPP)?

A separate form (usually at front of chart): *used specifically to list problems, or a subsection of a form that has other subsections too e.g. social history, meds etc.: Such a form is accepted as a Problem List if there is mention of one or more of the following:*

- o *A surgery, an acute / chronic medical condition*
- o *An allergy*
- o *Mention of a patients' family history*
- o *A line through any of the sections mentioned above or some other way of indicating that these are non applicable (e.g. No, None, N/A, Ø)*
- o *If the word "healthy" appears in relation to Past Medical History (PMHx)*

If this Problem List has none of the above entries on it, code NO (no list)*. If the only information on the sheet relates to vaccines, social history or preventative maneuvers performed, it is not counted as a Problem List.*

On a CPX: *A CPX may be on a separate form or be part of the MDs' notes. To be a classified as a Problem List, a CPX must first clearly state that it is a CPX (annual physical) either by the MD noting this, the billing code (code A003) or a full systems review (beware – some MDs write these system reviews for ordinary visits too. If in doubt, check with the practice how the MD identifies these). Apart from the problems addressed on the day of the CPX, for the CPX to be classified as a Problem List, there should also be at least a mention of one of the list above (it doesn't matter where on the CPX these are mentioned). Note that for the word "healthy" to be accepted in this type of Problem List it should be stated in the context of the past medical history (as opposed to the problems addressed on the day of the CPX).*

If this CPX has only the issues addressed that day and none of the past medical history outlined above, code NO there is no problem list.

What is a Medication List?

On a separate sheet (usually at the front of the chart) or on computer: *For a Med List to be accepted it should have one of the following on it:*

- o *At least one medication*
- o *A line through the medication section or some other way of indicating that there is no meds (e.g. N/A, Ø)*

If there is no medication list, or there is a specific med. form but it is empty, code NO (even if you are not sure that the patient is on meds or not). Specific medication flow sheets (eg. for Coumadin or Vit B12) are not counted as medication lists unless at least one other medication is also recorded on it.

On a CPX: *To be considered a Med List on a CPX first, it must be clear that it is a CPX. There must then be at least one medication noted or the MD indicates that the patient is not on any meds.*

If there are no meds mentioned on the CPX, or the meds are written elsewhere within the MD notes, but are not part of a CPX – Code NO. It is also not a med list if the meds are outlined in a specialist report or

Section II: Patient Visits

All questions in this section refer to visits / encounters by the patient to any practitioner / provider at their practice (this is especially applicable to CHC's where other types of providers work within the team at the practice site). The only time this does not apply is in the sub-question of 1.2 where it specifically asks if the visit was a face-to-face meeting with a Nurse, Nurse Practitioner or Physician. The sub-question of 1.2 referring to activities performed at visits in the past month again refers to **any** practitioner / provider at their practice.

In this section we are looking for any type of visit or encounter that appears in the chart including in-office visits, phone / email consultations or home visits. Correspondence between providers (e.g. physician to specialist or nurse) or with relatives about the patient does not count as a visit. Visits for taking bloods, prescription renewals or vaccines are counted. Walk-in / After Hours clinic visits are only counted if they occurred at the patients' usual practice site by their usual team of practitioners.

Guiding Principles

- **Doctors Intent** is the main guiding principle to help with decision-making when the coding becomes unclear to the CA. Doctor's Intent i.e. measuring the doctor's intentions implies giving the doctor the benefit of the doubt. For example doctor may recommend at a visit that a statin be commenced. This would be coded as an activity (prescription) performed during this visit whether the patient actually had the prescription filled or not. Measuring doctors' behavior is what is important (i.e. in this case what was recommended or prescribed), not whether the patient filled the prescription or not, or any other extenuating circumstances which may prevent the activity from actually taking place.

Section II: Patient Visits

1. Were there any patient encounters in the past **ONE MONTH** (from the date the chart is being audited)?

❑ **YES** ❑ **NO** (proceed to question 2)

1.2 If **YES**, please indicate whether any of the activities below were performed at each visit (check all boxes that apply). Please include activities that were performed at the practice **during** each visit, as well as any activities that have been ordered / recommended to take place in the near future (may be up to one year).

Encounter No.	**1.**	**2.**	**3.**	**4.**	**5.**
Date of Encounter: **MM/DD/YY**					
Was this an in-office face-to-face meeting with a Nurse, Nurse Practitioner or Physician?	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No	❑ Yes ❑ No
What activities were recommended / performed during each encounter?					
• Prescriptions (include new or renewals, dose / time changes and samples to try. Do not include medications discontinued)	❑	❑	❑	❑	❑
• Laboratory test(s) ordered (any lab test: e.g. blood, urine or culture)	❑	❑	❑	❑	❑
• Imaging tests ordered	❑	❑	❑	❑	❑
• Other diagnostic test(s) ordered (e.g. ECG, spirometer, holter monitor)	❑	❑	❑	❑	❑
• A referral to:					
1) Family Physician	❑	❑	❑	❑	❑
2) Nurse Practitioner	❑	❑	❑	❑	❑
3) Specialist	❑	❑	❑	❑	❑
4) Dietitian	❑	❑	❑	❑	❑
5) Psychologist	❑	❑	❑	❑	❑
6) Psychiatrist	❑	❑	❑	❑	❑
7) Social Worker	❑	❑	❑	❑	❑
8) Physiotherapist	❑	❑	❑	❑	❑
9) Occupational Therapist	❑	❑	❑	❑	❑
10) Hospital admission	❑	❑	❑	❑	❑
11) Emergency department	❑	❑	❑	❑	❑
12) Other	❑	❑	❑	❑	❑

NOTE:

- *A face to face meeting with a practitioner can be for any reason provided it is 'in office'.*
- *In cases where the MDs writing is difficult to read, or where the MD has not noted in the actual notes any activities ordered, but the dates of some recent results or prescription sheets match the patient visit dates in the past one month, you can use these to check off prescriptions, lab, imaging and other diagnostic tests ordered.*
- *A referral to a Family physician would be cases where a pts own MD does not do a particular service and therefore the pt is referred to another FP who does (e.g. colonoscopy, weight loss clinic, obstetrics etc). An RN advising a pt to see their own MD / FP is not a referral.*

2. How many visits / consultations did the patient have during the past <u>ONE YEAR</u> (look back in the chart to determine the number of visits the patient had with a provider at the practice)**?**

Number in the office: _____

Number over the phone: _____

Number by E-Mail: _____

Home Visit: _____

Total: _____

NOTE: *Telephone calls are counted as visits provided medical or health advice was given (e.g. prescription renewals, health advice from nurse, test results from nurse, the patient is updating the RN /MD on their condition / progress etc). If the advice was, for example, that they needed to see their MD, or to give them an appt time etc – these are not counted.*

Section III: Preventative Maneuvers

Section III covers six preventative maneuvers to be abstracted **(**flu vaccine, screening for colorectal cancer, screening for breast cancer, screening for cervical cancer, clinical hearing exam and screening for visual impairment). **For this section – look back in the chart <u>TWO YEARS</u> to see if the maneuver has been performed. However, please note that to determine a patient's eligibility, it may be necessary to look back further than this two-year period.**

Guiding Principles
Guiding principles are set to help with decision-making when the coding becomes unclear to the auditor. Refer to them frequently.

- **Up-to-datedness -** The concept of up-to-datedness means that we are measuring whether the patient is up-to-date for the maneuvers they are eligible for. It does not mean that we are measuring only that the family doctor/nurse practitioner performed the maneuver. Preventative maneuvers performed by specialists, other family doctors or health professionals, previous family doctors, or the patient themselves within 2 years are coded as having been done. In addition, if any of these preventive maneuvers are done at the request of a third party[1] (e.g. driver's exam, insurance company, government agency form such as the Antenatal Record), they are coded as having been done for <u>screening</u>.

- **Screening Precedence** - Screening takes precedence over a maneuver having been performed for diagnostic reasons. This means that if there has been a series of tests conducted for diagnostic reasons during the two-year period of eligibility and there is only one test that is determined to have been done for screening purposes, the maneuver is coded as having been done for screening.

- **Doctor's Intent** - Measuring the Doctor's intentions implies giving the doctor the benefit of the doubt. For example, there may be no mammogram result/lab result but notes in the chart may clearly indicate that the doctor recommended a mammogram. In this circumstance, the mammogram would be coded as having been done even without the lab result to support it. Measuring doctors' behavior is what is important, not whether the patient went and got the test or other extenuating circumstances that may prevent the preventive measure from having been received. In the situation where a doctor has done / ordered / recommended performing the maneuver at a visit, it is coded as having been done. Computer reminder systems for the MD to do certain maneuvers in the future are not accepted as proof of intent. They must be seen to have been given / sent.

- **Years of Eligibility & Age at time of Maneuver** - A patient is considered eligible for a maneuver if they meet the minimum age of eligibility at the time of the chart audit. In the case of Flu, if they are in the high-risk group on the day of our abstraction, then they are eligible. Ages of eligibility are indicated in the manual for each applicable maneuver. If the patient is eligible at the time of the abstraction – look back two years to see if the maneuver was performed. If the maneuver was done during that 2 yr period, regardless of age at the time of the maneuver, still code it as being performed. E.g. if a patient is 50 years old at the time of our abstraction and they had a mammogram performed during our 2 yr study period but were 49 or 48 at the time, still code it as being done (as it was performed during our 2 yr study period).

---

[1] A third party refers to an outside administrative body such as an insurance company or the government. It does not refer to other doctors, specialists, medical consultants or health professionals who see the patient.

Section III: Preventative Maneuvers

1. Flu vaccine

1.1 Is the patient in a high-risk group for influenza?

❑ Yes ❑ No (proceed to preventative maneuver # 2)

1.2 If **YES,** please check in box below **any one** of the groups that apply to this patient:

Who is in a high-risk group?

- ❑ **Group # 1 -** Adults with chronic cardiac or pulmonary disorders (including any chronic heart or lung problem such as heart valve disease or emphysema) and bronchopulmonary dysplasia, cystic fibrosis and active asthma.
- ❑ **Group #2 -** People with chronic conditions such as diabetes (NIDDM & IDDM), Lupus, colitis, Crohn's disease, liver disease, Addison's disease and other metabolic diseases
- ❑ **Group #3** – People with immunocompromised state such as (active) cancer, immunodeficiency (including HIV), immunosuppression (including that of transplant recipients), renal disease, anaemia and hemoglobinopathy (i.e., sickle-cell, thalassemia)
- ❑ **Group # 4** – People who are residents of nursing homes or chronic care facilities.
- ❑ **Group # 5** – People with active hepatitis.
- ❑ **Group # 6** – Patients aged 65+.

1.3 If the patient is in a high-risk group, did he/she receive (or was offered) a flu shot in the past 2 years?

❑ Yes ❑ No

NOTE:

* *Qu. 1.2: If the Flu vaccine was given elsewhere, or was offered and refused by the patient, still code this as being given.*
* *Ask if there is a separate list used for flu clinics and the recording of vaccine given to patients. If so, verify that all flu shots recorded on such list were transcribed to the chart. If not, then flu list must be reviewed along with the chart. Check for flu consents filed in any section of chart, usually the back. Check flow sheets, CPP, CPX, immunization boxes and progress notes for flu shot or advice given. Look for "Fluzone" or "Flu shot" or "FI" or "F" with a circle in the chart or color-coded stickers that indicate a flu shot was given. When in doubt, ask the practice how they record flu injections. May also be "Vaxigrip".*
* *The term active asthma refers to individuals who currently have asthma whether exercise induced, chronic or controlled and are prescribed medication.*
* *Proof of immunization, or immunity to hepatitis is not evidence of disease.*
* *If a patient is newly diagnosed with a condition that puts them in the high risk group for Flu (therefore they may not have had Flu shots done in the past two years) – still code them Yes for risk and answer 1.3 accordingly.*
* *Patients with some anemias (e.g. Iron deficiency or Pernicious anemia) vary as to whether they are considered a FLU risk as it depends on their general level of health and whether they are likely immuno-compromised. Check as needed with the CA supervisor.*
* *All chronic heart diseases are considered a FLU risk including chronic AF and other arrhythmias. The term mitral valve prolapse is not considered a risk for flu nor is the term functional or innocent heart murmur. However, heart murmurs that are diagnosed as being caused by mitral insufficiency or stenosis, aortic insufficiency or stenosis are coded as at risk for flu.*
* *Patients with one kidney or those with rheumatic fever (unless there is resulting sequelae from it) are not*

considered a Flu risk.

Section III: Preventative Maneuvers

2. Screening for colorectal cancer using sigmoidoscopy/hemoccult stool test

2.1 Is the patient aged 50 years and older?

❑ Yes ❑ No (proceed to preventative maneuver # 3)

2.2 If **YES**, did the patient have / recommended to have sigmoidoscopy/hemoccult stool test in the past 2 years?

❑ Yes ❑ No ❑ Follow-up/Diagnosis ❑ Other ❑ Screening Colonoscopy

NOTE:
* *Check **YES** if Sigmoidoscopy/Hemoccult stool test is done for screening purposes.*
* *Check **Follow-up/Diagnosis** if Sigmoidoscopy/Hemoccult stool test is done for follow-up or diagnostic reasons.*
* *Check **Other** if patient has had a sigmoidectomy, Ca rectum / colon, ileostomy / colostomy.*
* *For Colonoscopies: Check **Screening Colonoscopy** if the colonoscopy was done for screening.*
  *Check **Other** if the colonoscopy was done for reasons other than screening*
* *Hemoccult stool test or Fecal Occult Blood testing is often recorded as FOBT.*
* *Note that FFS is Flexible Fiberoptic Sigmoidoscopy*

3. Mammogram and Clinical Breast Exam to detect breast cancer

3.1 Is the patient female?

❑ Yes ❑ No (proceed to preventative maneuver # 4)

3.2 Is the female patient aged 50 to 69 years?

❑ Yes ❑ No (proceed to preventative maneuver # 4)

3.3 Did the patient have / recommended to have a mammogram in the past 2 years?

❑ Yes ❑ No ❑ Yes, reasons other than screening

3.4 Did the patient have / recommended to have a clinical breast exam in the past 2 years?

❑ Yes ❑ No ❑ **Bilateral** mastectomy

NOTE:
* *To find the mammogram, look for x-ray reports, Ontario Breast Screening Program reports (usually in the form of a letter), advice or orders in progress note, the letter 'M' circled, abbreviations such as Mamm or Mammo and OBSP referral. Check flow sheets, CPP, CPX and stamps throughout chart for specific boxes checked, dates or initials re maneuver.*
* *Qu. 3.3: check **"Yes, reasons other than screening"** if the patient had a mammogram because of one of the following: a previous history of breast cancer. Also if, at a visit, a lump was detected in the breast, or there was discharge from the breast, or dimpling of the breast, or a fibrocystic breast, and the mammography was ordered by the family doctor or specialist to gather more information.*
* *For clinical breast exam (CBE) – the doctor may write "breast NAD" or "breast – normal / N" . Accept these as the maneuver having been done. Breast exams may be found in notes, CPX, CPP and also on the Ontario*

Breast Screening Program report as an examination performed by their nurse (usually 2nd page).

Section III: Preventative Maneuvers

4. Papanicolaou (PAP) test to detect cervical cancer

4.1 Is the patient female?

❑ Yes ❑ No (proceed to preventative maneuver # 5)

4.2 Is the female patient aged 17 to 69 years?

❑ Yes ❑ No (proceed to preventative maneuver # 5)

4.3 Did the patient have / recommended to have a papanicolaou (PAP) test in the past 2 years?

❑ Yes ❑ No ❑ Other

NOTE:
* *Qu. 4.3: In cases where the PAP may be recommended to be done at a subsequent visit or a requisition for a PAP may be given, check **"Yes"** unless there is evidence that the maneuver was not done at a subsequent visit and there was opportunity to do it.*
* *If the patient has **ever** been sexually active then the patient is eligible for a PAP test. Whether they are currently sexually active or not does not matter.*
* *Check **"Other"** if a patient has **never** been sexually active. "Not sexually active" or abbreviation "not SA" may be indicated by a code. Other indicators for sexual activity may be birth control methods prescribed or discussed, previous pregnancy tests done and marital status.*
* *Check **"Other"** if there is clear evidence that the patient does not have a cervix due to a hysterectomy (TAH). A possible indicator that a cervix is present after a hysterectomy would be endocervical cells on a lab report.*
* *Check **"Other"** if the patient's sexual activity status is unknown i.e. there is information about current boyfriend / girlfriend but without any mention of sexual history.*
* *If pt is in a low-risk category (e.g. monogamous or same sex relationship) and therefore the PAP is required less frequently, code YES for intent only if the MD has outlined this decision in the notes.*

5. Clinical hearing exam

5.1 Is the patient aged 65 years or over?

❑ Yes ❑ No (proceed to preventative maneuver # 6)

5.2 Did the patient have / recommended to have a hearing exam in the past 2 years?

❑ Yes ❑ No ❑ Hearing impaired/Hearing aid

NOTE:
* *Hearing exam can include any of the following: single question test, use of whispered voice, audio scope and "hearing ok".*
* *A clinical hearing exam may also be recorded as being done if some sort of a box with a check mark appears in the chart. For example, in a CPX if the word "hearing" appears, or there is a "hearing" box ❑, with a check mark next to it √, then code the hearing test as being done.*

* *The term "ENT √" is not a hearing exam.*
* *Tinnitus is not considered a hearing impairment.*

6. Screening for visual impairment

6.1 Is the patient aged 65 years or over?

❑ Yes ❑ No (proceed to Section IV)

6.2 Did the patient have / recommended to have a vision exam in the past 2 years?

❑ Yes ❑ No

NOTE:

* *Visual acuity screening includes Snellen sight chart, fundoscopy, retinal photography, perimetry or if referred to, or seen by, an eye doctor or optometrist.*
* *For this maneuver we are looking for evidence of a direct eye / vision test for visual acuity. A question about vision alone (without indication of an actual test or referral for one) should not be accepted as being done. Look for examples of fundoscopy e.g. "fundi normal", look in referral sections of notes, check CPXs for snellen results (e.g.* ***L*** *20/20* ***R*** *20 / 20)," sees opth regularly" written in our 2yr time frame, etc etc.*
* *In cases where the patient has an existing eye problem (e.g. cataracts, or has a degree of blindness) we would still look for evidence that an eye test has been performed in the past two years.*

Section IV: Management of Chronic Disease

There are four chronic diseases to be abstracted: Coronary Artery Disease (CAD), Diabetes, Hypertension and Congestive Heart Failure (CHF). For this section CAs should look back **TWO YEARS** in the chart unless individual maneuvers indicate otherwise**.**

When searching for a diagnosis, there may be cases where something indicates to the CA that the patient might indeed have a chronic disease, yet nothing is written specifically anywhere in the past two years. **In such cases the CA may go back FIVE YEARS to confirm whether they have this diagnosis or not.** If no diagnosis is found in this 5 year period it may be determined that the patient does NOT have that specific disease. Please note that if no evidence is found in the two year period to raise such suspicions, there is no need to go searching back further in the chart.

It is considered to be a diagnosis of a chronic disease if the patient is **ever** recorded as having had it. It does not have to be mentioned that it is just a **current** problem. On occasion a CA may find inconsistencies between doctors / specialists as to whether a patient has a certain diagnosis or not. However, if a patient has ever been mentioned as having one of these chronic diseases (even just once, by one doctor) then it should be accepted as a diagnosis. Note that if the discrepancy is between a MD and non-MD (e.g. RN, lab technician etc), always go with the decision / diagnosis of the doctor.

In this section, when answering questions about whether a chronic disease is on 'the Problem List' it is likely that the CA may identify more than one Problem List in a patients chart that meet our definitions (e.g. there could be one at the front of the chart, one on computer, as well as two CPXs). In such cases the CA should always check for the presence of these diagnoses on the separate problem list and the computer however, they should only refer to **the most recent CPX** (if there is more than one in our 2yr time frame). The chronic disease can then be accepted if it is found in **any one** of these places. The same applies to the question as to whether a medication is on 'the Medication List' (look only on the separate sheet, the computer or the most recent CPX. The medication can be on any one of these).
Please also note that for a problem to be on a CPX Problem List, it can be written in the PMHx section OR be mentioned in the problems addressed on that days visit.

Guiding Principles

Guiding principles are set to help with decision-making when the coding becomes unclear to the auditor. Refer to them frequently.

- **Up-to-datedness -** We are measuring whether the patient has had the medication/test ordered for the medication/test they are eligible for. It does not mean that we are measuring only that the family doctor ordered the test/medication. The medication/test is also considered done if the family doctor, previous family doctor, consultant, other specialist, other doctor or health professional orders them.

- **Doctor's Intent** - Measuring the doctor's intentions implies giving the doctor the benefit of the doubt. For example, there may be no HBA_1C result/ lab result but notes in the chart may clearly indicate that the doctor recommended/ordered the test. In this circumstance the HBA_1C would be coded as having been done even without the lab result to support it. Measuring doctors' behaviour is what is important, not whether the patient went and got the test or other extenuating circumstances that may prevent the test from having been received. In the situation where a doctor has recommended performing the test/ordered the medication at a visit, it is coded as having been done.

- **Eligibility** - A patient is considered eligible for the test/medication if they have been diagnosed with that specific chronic illness.

1. Coronary Artery Disease (CAD)

1.1 Does the patient have a diagnosis of Coronary Artery Disease (CAD)?

❑ Yes ❑ No (proceed to chronic disease # 2)

1.2 If **YES**, is CAD included in the "Problem or Diagnosis List"?

❑ Yes ❑ No ❑ No list

1.3 Was aspirin recommended/discussed/prescribed or taken by the patient in the past 2 years?

❑ Yes ❑ No

1.4 If **YES**, is aspirin included in the "List of Medication"?

❑ Yes ❑ No ❑ No list

1.5 Was a beta-blocker recommended/discussed/prescribed or taken by the patient in the past 2 years?

❑ Yes ❑ No

1.6 If **YES**, is the beta-blocker included in the "List of Medication"?

❑ Yes ❑ No ❑ No list

1.7 Was a statin recommended/discussed/prescribed or taken by the patient in the past 2 years?

❑ Yes ❑ No

1.8 If **YES**, was the statin included in the "List of Medication"?

❑ Yes ❑ No ❑ No list

NOTE:
* *Other names for Coronary Artery Disease are: CAD, Coronary heart disease (CHD), heart disease, Ischemic heart disease, Myocardial Infarction (MI), Coronary Artery Bypass Graph (CABG), Stent, Angioplasty, Angina, chest pain of a cardiac nature, Coronary Insufficiency. A patient should be considered to have a diagnosis of CAD if any of the above are noted in the chart.*
* *See Appendix C for common names of Aspirin, Beta Blockers and Statins. Note that Plavix and Coumadin are not accepted as Aspirin substitutes for the purposes of this study.*

2. Diabetes

2.1 Does the patient have a diagnosis of diabetes?

❑ Yes ❑ No (proceed to chronic disease # 3)

2.2 If **YES**, is diabetes included in the "Problem or Diagnosis List"?

❑ Yes ❑ No ❑ No list

2.3 Did the patient have / recommended to have an HBA_1C test in the previous **ONE YEAR**?

❑ No test ❑ One test ❑ Two or more tests

2.4 The most recent HBA_1C test result was: _____ or % _____ (enter NR if no results are found).

2.5 Was an Ace Inhibitor or Angiotensin Receptor Blocker recommended/discussed/prescribed or taken by the patient in the past two years?

❑ Yes ❑ No

2.6 If **YES**, is the Ace Inhibitor or Angiotensin Receptor Blocker included in the "List of Medication"?

❑ Yes ❑ No ❑ No list

2.7 Was the patient referred / recommended to be seen by an ophthalmologist or optometrist during the past two years?

❑ Yes ❑ No

2.8 Did the physician intend to / conduct an examination of the patient's feet during the past two years, or was the patient recommended / referred to a chiropodist/podiatrist?

❑ Yes ❑ No

2.9 Is a diabetes management flow sheet included in the patient's chart?

❑ Yes ❑ No

2.10 If **YES**, has an entry been made in the flow sheet in the past **ONE YEAR**?

❑ Yes ❑ No

NOTE:

* *Much of the diabetic info may be on the flow sheet rather than in the chart. Check both places to complete this section.*
* *Diabetes may include: Diabetes mellitus, Type 1 diabetes, Type 2 diabetes, insulin dependent diabetes IDDM), non-insulin dependent diabetes (NIDDM), adult-onset diabetes (AODM). Diabetes does **NOT** include IGT (impaired glucose tolerance), any borderline cases of diabetes, gestational diabetes or diabetes insipidus.*
* *Qu. 2.3: HBA1C results are found on Biochemistry lab reports. They may also be found on diabetic flow sheets, or endocrinologist reports. Also seen as "Haemoglobin A1C".*
* *Qu. 2.8: It does not matter what the reason for the foot examination / referral was (e.g. could be for orthotics or something seemingly unrelated to diabetes). Foot checks or referrals to non-health professionals are not counted. "Extremeties" ticked, or pedal pulses checked, are accepted as foot checks. Peripheral edema is not counted as this can be seen without removing shoes / socks.*
* *Qu. 2.9: The diabetes management flow sheet may be a single sheet with a grid and parameters. It may only include lab results but may often include other maneuvers and guidelines for the treatment of diabetes. The CA should look for a single sheet on which the results of one (or more) test(s) is/are charted with their dates.*
* *Qu. 2.10: Check the flow sheet to determine if it has been updated within the past year. This can include any date which accompanies a lab result, prescription, inquiry, check-up or examination relating to the treatment of diabetes.*

- *See Appendix C for names of common Ace Inhibitors and Angiotensin Receptor Blockers.*

* *If no diagnosis of Diabetes is seen but the patient is on diabetic drugs – we can assume diabetes for some meds e.g. Diabeta and Insulin. However some meds such as Metformin can be given for pre-diabetic stages and therefore could not be assumed. If such a scenario arises - check the meds individually with the CA supervisor. Note that Glucosamine is for arthritis not for diabetes.*

Section IV: Management of Chronic Disease

3. Hypertension

3.1 Does the patient have a diagnosis of hypertension?

❑ Yes ❑ No (proceed to chronic disease # 4)

3.2 If **YES**, is hypertension included in the "Problem or Diagnosis List"?

❑ Yes ❑ No ❑ No list

3.3 Please record up to the **three** most recent **in-office** blood pressure readings in the past two years. If no results are available, write NR (No Result) in the BP space provided.

1. Date (MM/DD/YY): _____	Bp:_____mmHg
2. Date (MM/DD/YY): _____	Bp:_____mmHg
3. Date (MM/DD/YY): _____	Bp:_____mmHg

NOTE:

- *A patient is considered to be diagnosed with hypertension if any of the following are found:*
  - *The diagnosis of "hypertension" (HTN),*
  - *The doctor writes "high blood pressure" or "high (↑) bp" appears **in the context of a diagnosis,** rather than to describe one elevated reading*
  - *The diagnosis is unambiguously noted (ambiguous notations include those with **questions marks**, the terms **query, possible, probable** or **probably, monitor** etc.)*
  - *The term "isolated systolic hypertension" (ISH) is used to describe a BP>160/90. A reading > 160/90 without "isolated systolic hypertension" noted is not sufficient to accept as a diagnosis.*
  - *A high BP reading or a comment regarding BP is accompanied by an indication of targeted treatment. Treatments include reduction of alcohol and salt intake, weight reduction measures (diet, exercise), or prescription for anti-hypertensive agents.*
  - *The terms Labile or Reactive HTN are to be coded as hypertension (whether on meds or not).*
- *A patient is NOT considered to be diagnosed with hypertension if any of the following are found:*
  - *White coat syndrome / white coat hypertension.*
  - *Gestational hypertension, pulmonary hypertension or portal hypertension.*
- *Qu. 3.3: If multiple blood pressure readings were taken during the same visit by the physician and/or nurse, please record the lowest blood pressure value during that visit. Be careful not to include **home blood pressure recordings** or those taken in pharmacies etc, which the doctor sometimes records in the chart.*
- *Qu. 3.3: BP recordings on CPXs should also be included when looking for the most recent.*

4. Congestive Heart Failure (CHF)

4.1 Does the patient have a diagnosis of Congestive Heart Failure (CHF)?

❑ Yes ❑ No (proceed to Section V)

4.2 If **YES**, is CHF included in the "Problem or Diagnosis List"?

❑ Yes ❑ No ❑ No list

4.3 Was an Ace Inhibitor or Angiotensin Receptor Blocker recommended/discussed/prescribed or taken by the patient in the past 2 years?

❑ Yes ❑ No

4.4 If **YES**, is the Ace Inhibitor or Angiotensin Receptor Blocker included in the "List of Medication"?

❑ Yes ❑ No ❑ No list

4.5 Was a Beta Blocker recommended/discussed/prescribed or taken by the patient in the past 2 years?

❑ Yes ❑ No

4.6 If **YES**, is the Beta Blocker included in the "List of Medication"?

❑ Yes ❑ No ❑ No list

***NOTE**:*
** A diagnosis of Congestive Heart Failure (CHF) is coded if the patient is recorded as ever having pulmonary edema, Left Ventricular Failure (LVF) or heart failure.*

Section V: Management of Acute Disease

In this section two acute diseases will be audited: Acute Sore Throat and Acute Urinary Tract Infection (UTI). CAs should look back **TWO YEARS** in the patients chart for these two diagnoses. In this section we are only looking for diagnoses made by practitioners at the patients usual practice. Diagnoses noted by other professionals at other locations (e.g. ER or walk-in clinics) are not applicable here.

If a patient has had more than one episode of either these acute diseases, please audit the most recent episode. **However**, in cases where a diagnosis is made but the patient returns a short while later (as symptoms are worsening or continuing but it is obviously the same episode of the acute disease), the CA should audit just the first visit (i.e. when the diagnosis was made) as this is when the maneuvers should have been done. CAs should not interpret laboratory reports to make a diagnosis – these diagnoses should be evident / obvious from the MDs notes. However, lab reports should be checked for cultures (and any notes made directly on them by the MD).

Guiding Principles

Guiding principles are set to help with decision-making when the coding becomes unclear to the auditor. Refer to them frequently.

- **Doctor's Intent** - Measuring the Doctor's intentions implies giving the doctor the benefit of the doubt. Measuring doctors' behaviour is what is important, not whether the patient went and got the test or other extenuating circumstances that may prevent the test from having been received. In the situation where a doctor has recommended performing the test/ordered the medication at a visit, it is coded as having been done.

- **Eligibility** - A patient is considered eligible for the test/medication if they have been diagnosed with that specific acute illness.

1. Acute Sore Throat

1.1 Did the patient have a diagnosis of acute sore throat in the past two years?

❑ Yes ❑ No (proceed to acute disease # 2)

1.2 Was the patient's temperature mentioned?

❑Yes ➘ (√ - **Please check one**) ❑ No
- ❑ a. Temp was > 38°
- ❑ b. Temp was ≤ 38°

1.3 Was cough mentioned in the record?

❑Yes ➘ (√ - **Please check one**) ❑ No
- ❑ a. Patient had cough
- ❑ b. Patient did not have cough

1.4 Were the patient's tonsils mentioned in chart?

❑Yes ➘ (√ - **Please check one**) ❑ No
- ❑ a. Patient had tonsillar swelling or exudate.
- ❑ b. Patient did not have tonsillar swelling or exudates
- ❑ c. Tonsillar swelling or exudate not recorded

1.5 Were the patient's cervical nodes mentioned in chart?

❑Yes ➘ (√ - **Please check one**) ❑ No
- ❑ a. Patient had swollen or tender cervical nodes.
- ❑ b. Patient did not have swollen or tender cervical nodes.
- ❑ c. Swollen or tender cervical nodes not recorded

1.6 Did the patient have / recommended to have an office rapid antigen test for Group A Streptococcal infection (GAS)?

❑Yes ➘ (√ - **Please check one**) ❑ No
- ❑ a. The antigen test result for GAS was positive
- ❑ b. The antigen test for GAS was negative

1.7 Did the patient have / recommended to have a throat swab for culture?

❑ Yes ➘ (√ - **Please check one**) ❑ No
- ❑ a. The culture result was positive
- ❑ b. The culture result was negative
- ❑ c. The culture result was not recorded.

1.8 Did the patient have / recommended to have an antibiotic prescribed at that same visit?

❑ Yes ➔ Name of antibiotic _____ ❑ No (proceed to acute disease # 2)

1.9 Was the patient asked to delay antibiotic regimen?

❑ Yes ❑ No (proceed to acute disease # 2)

1.10 Why was the patient asked to delay starting antibiotic regimen?

❑ Waiting for the culture result	❑ Waiting for the symptoms to worsen

NOTE:

**** What is an Acute Sore Throat?***

- *It is defined as a condition where the symptoms have lasted for **7 days or less**. In cases where an MD indicates the patient has had the sore throat for 8 or more days – code NO to acute sore throat.*
- *A sore throat is synonymous with the diagnoses of Acute Pharyngitis and Acute Tonsillitis.*
- *A sore throat is included if it is a symptom of another principal diagnosis e.g. Acute Upper Respiratory Tract Infection (URTI), Pneumonia, Flu etc. However, a sore throat must be a symptom present.*

**** What is NOT an Acute Sore Throat?***

- *If a patient has more than 3 separate incidents of a sore throat in a any one year period (during our two years of investigation) – this is now a chronic case therefore code NO.*
- *The following are NOT considered as acute sore throat even if it is mentioned as a symptom;*
  - *Acute Nasopharyngitis (common cold)*
  - *Acute Sinusitis, Acute Laryngitis*
  - *Tracheitis*
  - *Acute Obstructive Laryngitis (croup)*
  - *Epiglottitis*
  - *A "scratchy" throat*
  - *A red throat or erythematous throat is not synonymous with a sore throat.*

**** Temperature:***

- *if the MD has written "apyrexial" or "afebrile" or "no fever" – code as ≤ 38°.*
- *if the MD has written "fever" - code as >38°.*

**** Tonsils:***

- *"Big" or "large" tonsils can be interpreted as swollen.*
- *If exudates or non-exudate is mentioned, it can be assumes a MD is referring to the tonsils.*
- *Watch out for "TM" - which refers to Tympanic Membrane when looking to see if tonsils are mentioned.*
- *If an MD notes a red throat it cannot be assumed he is talking about the tonsils too.*

**** Cervical Nodes:***

- *if the term "lymphadenopathy" (LAD) is used, or no lymphs, it can be assumed it is referring to cervical nodes.*
- *Cervical nodes may also be described as "submandibular" or just "nodes".*
- *The term "shotty nodes" can be taken to mean swollen nodes.*

**** Office rapid antigen test:***

- *This is performed at the practice so would be recorded in the doctors notes at the time of diagnosis. It could be written in the notes as "office antigen" or just "antigen".*

**** Throat Swabs:***

- *These may be written as "TS". For this question it will often be necessary to check more than just this one visit to see if the swab was done and what the result was. i.e check later visits and lab reports.*

2. Acute Disease # 2 – Acute Urinary Tract Infection

2.1 Is the patient female?

❑ Yes ❑ No (end of chart audit)

2.2 Did the patient have a diagnosis of Urinary Tract Infection (UTI) during the past two years?

❑ Yes ❑ No (end of chart audit)

2.3 If the patient was diagnosed with UTI, was she pregnant at the time?

❑ Yes (end of chart audit) ❑ No

2.4 Was the patient prescribed / recommended any antibiotics?

❑ Yes ⇘ ❑ No

Name_____ # of days_____

Name_____ # of days_____

Name_____ # of days_____

2.5 Did the patient have any one of the following complications/symptoms **at the time of the UTI diagnosis**? (Check any **one** of the following)

Disease/symptoms	
Urologic obstruction (indwelling)	❑
Catheter	❑
Spinal cord injury	❑
Diabetes	❑
Cancer or tumor (exclude skin cancer)	❑
Recent hospitalization within one week	❑
Staying in nursing home	❑
Symptoms of UTI (dysuria, frequency, urgency) lasting **more than 7 days**	❑
Symptoms of flank pain, abdominal pain, nausea, vomiting, fever or chills	❑
None of the above	❑

2.6 Did a patient have / recommended to have a urine culture done prior to antibiotic treatment?

❑ Yes ❑ No

2.7 Did the patient have / recommended to have a follow-up urine culture within **ONE MONTH** after finishing antibiotic treatment?

❑ Yes ❑ No

***NOTE**:*

** Synonyms of Acute Urinary Tract Infection (UTI) in the chart may include: Acute pyelonephritis, Acute cystitis, bladder infection.*

** The following diagnoses are NOT considered a UTI; **Recurrent** Cystitis (as opposed to acute), **Recurrent** UTIs and Asymptomatic Bacteriuria (i.e. shows on lab report but patient is non-symptomatic – note that this diagnosis should be stated).*

More tips on next page…

UTI tips continued:

** If a patient has more than 3 separate incidents of a UTI in a any one year period (during our two years of investigation) – code NO to UTI.*

** Qu 2.4: If the antibiotics are not prescribed at the same visit (as the MD is waiting for the results of a specimen), still code as YES if they have been prescribed as a direct result of this original visit. If antibiotics are changed later, write these in too (always note how long the MD prescribed antibiotics for as opposed to how long the patient actually took them for).*

** The acronym CVA (costo vertebral angle) may be seen in association with a UTI. It may also be described as a "renal punch". It refers to flank pain. If this is found to be present when the MD is describing a patients' symptoms, code as flank pain on qu. 2.5.*

** Qu 2.6: If the patient had a urine culture and antibiotic prescription on the same day, we will count the urine culture as being collected prior to the antibiotic therapy.*

APPENDIX A

Chart Abstractor Practice Information Sheet

Lead CA name: _____
Lead CA ID code: _____
Phone #: _____

Second CA: ❑ **Yes** ❑ **No**
Second CA name: _____
Second CA ID code: _____
Phone #: _____

SA name: _____
SA ID code: _____
Phone #: _____

Practice site Type: ☐HSO ☐CHC ☐FHN ☐FFS

Practice site Name: _____
Practice site code: _____

Practice site Address: _____

_____

Safety information: _____

Type of Patient Charting System: ☐ Numeric ☐ Alphabetic with computer linkage
☐ Alphabetic without computer linkage

Additional Information about charting system:

_____

_____

Extent of participation: ☐Quantitative ☐Qualitative – Focus group (3 pts)
☐Qualitative – In-depth interviews (6 pts)

Consenting Physicians:

1. 2.
3. 4.
5. 6.
7. 8.
9. 10.
11. 12.

Consenting Nurse Practitioners:

1. 2.
3

Language spoken at the clinic: _____

Practice Contact Person: _____ **Phone #:** _____

Best time to contact: _____

APPENDIX B

Chart Abstraction Tracking Log

Instructions:

Please track the status of ALL patients charts examined for the Chart Audit.

Screening IDs are assigned sequentially to all patient charts extracted by the CA.
The CA will keep a record of all charts extracted.

1. For patients who are deemed non-eligible by the CA, select ☐NE under the 'Patient Eligibility' column, and provide the reason for non-eligibility under the 'Reason for non eligibility.
2. If the patient is eligible for the Chart Audit select ☐Yes under the 'Patient Eligibility' column to indicate that the patient is eligible and assign a Patient ID. Patient IDs are assigned sequentially from 01-30.

Patients are eligible for general inclusion if they are:

- Aged 17 or older;
- An 'active' patient of the practice, where 'active' refers to patients seen at least once within the past year and who have an overall record in the practice going back two years. The last one year is calculated by using the date the chart is audited and subtracting exactly one year from that date;
- A regular patient of the practice (not a walk in patient);
- A patient of one of the consenting physicians (e.g. a physician who has agreed to participate in the study).

Patients are excluded if they:

- Are not an active patient of the practice (e.g. not seen at least once within the past year);
- Have passed away or have transferred out of the practice in the last 2 years;
- Are not a regular patient of the practice (a walk in patient);
- Are seen at the practice for specialized services only (e.g. foot care only);
- A patient of one of the non-consenting physicians (e.g. a physician who has not agreed to participate in the study);
- Are known to the CA;
- Are staff of the practice site.

Practice site ID: _____ **Practice site name:** _____

Chart Abstractor ID: _____ **Dates of data collection:** _____

Screening ID	Patient Eligibility		Reason for non eligibility	Patient ID
1	☐Yes	☐NE		
2	☐Yes	☐NE		
3	☐Yes	☐NE		
4	☐Yes	☐NE		
5	☐Yes	☐NE		
6	☐Yes	☐NE		
7	☐Yes	☐NE		
8	☐Yes	☐NE		
9	☐Yes	☐NE		
10	☐Yes	☐NE		
11	☐Yes	☐NE		
12	☐Yes	☐NE		
13	☐Yes	☐NE		
14	☐Yes	☐NE		
15	☐Yes	☐NE		
16	☐Yes	☐NE		
17	☐Yes	☐NE		
18	☐Yes	☐NE		
19	☐Yes	☐NE		
20	☐Yes	☐NE		
21	☐Yes	☐NE		
22	☐Yes	☐NE		
23	☐Yes	☐NE		
24	☐Yes	☐NE		
25	☐Yes	☐NE		
26	☐Yes	☐NE		
27	☐Yes	☐NE		
28	☐Yes	☐NE		
29	☐Yes	☐NE		
30	☐Yes	☐NE		
31	☐Yes	☐NE		
32	☐Yes	☐NE		
33	☐Yes	☐NE		

Screening ID	Patient Eligibility		Reason for non eligibility	Patient ID
34	☐Yes	☐NE		
35	☐Yes	☐NE		
36	☐Yes	☐NE		
37	☐Yes	☐NE		
38	☐Yes	☐NE		
39	☐Yes	☐NE		
40	☐Yes	☐NE		
41	☐Yes	☐NE		
42	☐Yes	☐NE		
43	☐Yes	☐NE		
44	☐Yes	☐NE		
45	☐Yes	☐NE		
46	☐Yes	☐NE		
47	☐Yes	☐NE		
48	☐Yes	☐NE		
49	☐Yes	☐NE		
50	☐Yes	☐NE		
51	☐Yes	☐NE		
52	☐Yes	☐NE		
53	☐Yes	☐NE		
54	☐Yes	☐NE		
55	☐Yes	☐NE		
56	☐Yes	☐NE		
57	☐Yes	☐NE		
58	☐Yes	☐NE		
59	☐Yes	☐NE		
60	☐Yes	☐NE		
61	☐Yes	☐NE		
62	☐Yes	☐NE		
63	☐Yes	☐NE		
64	☐Yes	☐NE		
65	☐Yes	☐NE		

APPENDIX C
Chart Abstractor's Validation List

Practice ID: _____ **Date of Chart Abstraction:** _____

Practice Address: _____

CA Name: _____

Validator Name: _____ **Date of Validation**: _____

#	Patient Name	Patient ID or Chart #	Validated? Y/N
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

APPENDIX D

List of Medications

Aspirin	**B Blockers**	**Statins**
ASA Aspirin Acetylsalicylic acid Entrophen Novasen Ecasa ***NOTE:*** ***For Beta Blockers, the meds with the prefixes APO and NOVO may have these prefixes replaced by GEN, RATIO or ALTI. These should all be accepted.***	Apo-Atenolol (atenolol) Apo-Metoprolol (metoprolol) Apo-Propranolol (propranolol) Apo-Timol (timolol) Betaloc (metoprolol) Betaxolol (kerlone) Blocadren (timolol) Corgard (nadolol) Coreg (carvedilol) Inderal (propranolol) Lopressor (metoprolol) Monitan (acebutolol) Monocor, Zebeta (bisoprolol) Novo-Atenol (atenolol) Novometoprol (metoprolol) Novo-Pindol (pindolol) Novo-Timol (timolol) Sectral (acebutolol) Sotacor (sotalol) Tenormin (atenolol) Trandate (labetalol) Trasicor (oxprenolol) Visken (pindolol)	Pravachol (pravastatin) Pravastatin Mevacor (lovostatin, Altocor) Zocor (simvastatin) Lescol (fluvastatin) Lipitor (atorvastatin) Baycol (cerivastatin) Crestor (rosuvastatin) Advicor (lovastatin & niacin)
Ace Inhibitors	**Angiotension Receptor Blocker(s)**:	
Accupril (Quinapril) Accuretic (Quinapril & HCTZ) Aceon (Perindopril) Altace (Ramipril Capoten (Captopril) Coversyl (Perindopril) Inhibace (Cilazapril) Lotensin, (Benazepril) Mavik (Trandolapril) Monopril (Forinopril) Prinivil (Lisinopril) Univasc (Moexipril) Vasotec (Enalapril) Zestril (Lisinopril)	Atacand® (candesartan) Atacand Plus Avalide Avapro® (irbesartan) Avapro HCT Benicar (olmesartan) Benicar HCT Cozaar® (losartan) Diovan® (valsartan) Diovan HCT Hyzaar Micardis® (telmisartan) Micardis HCT Micardis Plus Verdia (tasosartan) Teveten (eprosartan) Teveten HCT	

Data Entry into Software

A. Connecting to Internet using lap-top:

1. Insert power cord into the back of the laptop (left corner) and into the power outlet
2. Open lap top and press power button at top middle
3. To login hold down buttons CTRL, ALT & DELETE simultaneously
4. Enter username
   Password:
5. Close initial window that appears

To connect to the web connect the **network cable** to the side of the lap top and to the network cable jack in the wall. (Most offices and hotel rooms now have these).

To make sure you are connected, select the **Internet Explorer** (e) icon from the desktop and see if any website will come up.

If you cannot connect to the Internet at this point follow these steps:

Click the **Start** button on the bottom left of the main screen
Select **Run** (a box will appear)
In command line enter: **cmd** and click **OK**
In the Black Box that appears, type the letters: **ipconfig /release** and hit **enter**
Wait. Four lines will appear followed by 0.0.0.0.
Type in **ipconfig /renew** and hit **enter** and wait.
This time the same four lines will appear followed by varying numbers and information. (This means that the computer now recognizes your network connection and you're ready to go on the Internet).
Type **exit** and hit **enter** to close the command window

Once your Internet connection is working enter into the software by typing the following address:

http://_____.com

The first page will ask you for your user name and password.

NOTE: If you are using your home computer or another workstation with Internet access you can enter the data directly without using the lap-top by typing in the software Stat address.

B: To enter patient survey data into the software:

- Click on **Subjects** on top left of screen.
- Click on **Add New Subject**
- In the **Subject Description** box type in the first chart audit ID (i.e. CA01)

NOTE: For Patient Survey data enter the codes CA01, CA02…CA30 separately until all 30 patient chart audits have been entered.

- In the **Center No**. box scroll down and click on **15-Full Study Centre**
- In the **Group** box scroll down and select the Practice ID no. that corresponds with the clinic where the patient surveys were administered. For example, if you conducted the patient survey at the Civic Hospital Family Medicine Clinic in Ottawa click on the Practice ID for that site: ***Civic Test XX***

NOTE: The Practice ID will be provided to you prior to data collection at the site. It is ***very important*** to keep track of the right Practice ID for data entry.

- Leave **Email box** blank and do not change **Upload to Mobile** and **Subject Log-in** Options
- Click on **Add Subject**

The following screen will appear:

Notice

Subject with enrollment number **13-224-Practice Side ID XX** was successfully added. You can have the following options.
1. Add another subject.
2. Fill forms for the newly created subject.

[click here to go back]

- Click on # **2. Fill forms for the newly created subject**.
- Click on Visit Name = **Chart Extraction**

The following screen will appear:

Form Name	Options	Form Category	Form Status
Chart Audit 2005		Single	New

- Click on symbol under "Options".
- Chart Audit 2005 will appear on the screen ready for data entry.
- Enter data by clicking on the appropriate boxes for each question.
- When finished click **Submit Form**

***** Please note that after clicking on Submit Form a number of message boxes will likely appear on your screen*****

See below for explanation:

Possible Errors:

If a **mandatory question** (one with the red star) has not been completed you will be notified and the question will be highlighted in Red. You will not be able to SUBMIT FORM until all mandatory questions are completed.

If an **informed miss** question (one with the green star) has not been completed you will be notified to confirm that this questioned has been missed intentionally and you will be able to SUBMIT FORM.

- After the form has successfully submitted the following screen will appear:

Form Name	Options	Form Category	Form Status
Chart Audit 2005		Single	Completed

This means that the data entry for the first subject has been successful and you're ready to input data for the next subject.

- To verify the data entry or make a correction for that subject click on the edit icon under options. If you make changes to the data click **Submit Form** at the bottom of the screen when complete.

C: To enter data for new subject:

- Click on **Add New Subject** on top left of screen.
- In the **Subject Description** box type in the next patient ID (i.e. CA02)
- Follow the same steps as above to enter the data for the next subject into TrialStat and click on **Submit Form** when completed.

Continue the process until all of the subject data has been entered for that practice site.