

# Primary Care Practice Facilitation Curriculum

Module 14: Collecting Performance Data Using  
Chart Audits and Electronic Data Extraction



Agency for Healthcare Research and Quality

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# Primary Care Practice Facilitation Curriculum

## Module 14. Collecting Performance Data Using Chart Audits and Electronic Data Extraction

### **Prepared for:**

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# Module 14. Collecting Performance Data Using Chart Audits and Electronic Data Extraction

## Instructor's Guide

Practice facilitator (PF) competencies addressed in this module:

- Specialized skill in conducting medical record reviews using paper audits or electronic systems

### Time

- Pre-session preparation for learners: 110 minutes
- Session: 60 minutes

### Objectives

After completing this module, learners will be able to:

1. For paper-based data: Conduct a paper chart audit using a data abstraction form.
2. For electronic data: Create a sample set of instructions for an electronic data pull for a performance audit.

### Exercises and Activities To Complete Before and During the Session

**Pre-session preparation.** Ask the learners to review information below and complete activity (110 minutes)

1. The content of this module.
2. Gregory B, Van Horn C, Kaprielian V. Eight steps to a chart audit for quality. *Fam Pract Manag* 2008 July-Aug;15(7):A3-A8. Available at: <https://www.aafp.org/fpm/2008/0700/pa3.html>

**Activity for learners** (paper-based data) (50 minutes)

1. Have learners conduct chart abstractions of diabetes Healthcare Effectiveness Data and Information Set indicators for three different time periods for the clinic WeServeEveryone. Have them use the mock patient records and data abstraction form in [Appendix 14](#).
  - The date of abstraction for the following patients is October 27, 2010:
    - Billy Gato
    - Cherie Amore
    - Wendy See
  - The date of abstraction for the following patients is January 10, 2011:
    - John Donut
    - Adam Pie
    - Tom Gelato

- The date of abstraction for the following patients is April 14, 2011:
  - Steve Apple
  - Bill Windows
  - Monica Latte

**During the session.** Presentation (10 minutes)

1. Present key concepts from the module.

**Large group discussion.** Ask questions and explore answers with learners. (15 minutes)

1. What experience have you had conducting paper chart audits or working with electronic systems to collect performance data?
2. What were three of your lessons learned for each medium?
3. What were your experiences conducting the paper chart audits for today's session? What aspect was easiest for you? What was the most challenging? What did you learn from this pre-session assignment that you would apply to your work with practices?

**Activity for learners** (25 minutes)

1. Divide into pairs or small groups.
2. Have learners work together to create instructions for the staff person managing the practice EHR or patient registry system to pull a report from the electronic system that parallels that of the paper audit the learner conducted pre-session. Have the learners use the sample [Data Pull Instructions template](#) to create the request.

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

1. What did you learn from creating the instructions for IT and an electronic performance data pull?
2. How will you use this with your practices?

## Module 14.

One of the most important functions of a facilitator is to help practices obtain, present, and interpret data in a meaningful and compelling way and translate the findings into action. Data collection, however, is laborious. Facilitators can spend much of their time with a practice simply building the practice's capacity to access accurate and reliable data from its information systems and to use these data to guide improvement work.

With data being key to quality improvement (QI), it is important that you feel comfortable collecting, analyzing, and reporting data. Once data have been collected, they will need to be cleaned, analyzed, and presented to both the practice team involved with the project and to practice staff, clinicians, and leadership. The use of data and feedback systems allows practices to see improvements during an intervention, make adjustments, and stay engaged. Also consider Appreciative Inquiry as an approach to collecting valuable performance feedback (for more information, refer to [Module 9](#)).

### Considerations When Collecting Clinical Performance Data

Many practices, especially small ones, continue to use paper medical records, often even when they have implemented an electronic health record (EHR) system. Others have transferred their record keeping completely to an EHR system. Still others use a combination of paper and electronic, for example, maintaining paper charts but also running a manual electronic registry. In other instances, the practice has gone completely digital but has only entered part of its patient records into its EHR system, so to access information, including information from prior years, you will need to pull data from both their EHR system and paper records to create a full picture. Given this, as a PF, you will want to be skilled in collecting, managing and reporting data from both paper and electronic mediums and in training practice staff and clinicians to do the same.

In general, an audit of 30 to 60 patient records seen during the target time periods is sufficient to generate usable performance data for a practice. You will need to collect data multiple times so the practice can track its progress.

For the initial performance audit, it is usually most effective to conduct an audit of the previous 12 months and organize these data by quarter to show fluctuations in performance over that time, but you will want to work with the practice to determine the time period. A 12-month period is useful because fluctuations across the period can be a valuable source of information about factors that may be affecting clinical performance. During active improvement work, monthly performance audits of patients seen during that period can help a practice monitor its progress toward improvement goals and make adjustments to processes and procedures when progress has not occurred.

When a practice is engaged in a Plan Do Study Act (PDSA) cycle, daily performance audits may be needed to assess how effective the modification is in improving the targeted performance metric, and for deciding if a modification is ready to be spread wider in the practice. For a

practice that has achieved an improvement goal, quarterly audits can be used to help them ensure that the improved performance is maintained. They also can alert the practice to the need for adjustments when performance unexpectedly declines.

## **Procedures for Paper Chart Audits**

When you are collecting data from a paper-based system, you will want to create a form for abstracting information from the practice's paper records. If you are collecting data from electronic systems, such as an EHR or patient registry, you will need to prepare a performance data request with specifications about what needs to be pulled from the system. In general, you will want to prepare both abstraction forms and data requests in collaboration with the practice's QI team (if one exists) as well as with staff at the practice that prepare reports for payers and insurers and other groups. As you work with them to define the information that will be collected, you will want to ask about data they already collect and report and consider whether these data and reports could be used in addition to, or in lieu of, new data collection.

If you are abstracting from paper charts, you will enter the data into the abstraction spreadsheet. Figure 14.1 contains an example of an abstraction spreadsheet. You will most likely work with medical records staff to access the patient charts. Ideally they can provide you with a private place to sit and review the charts that is close to where the records are kept, so it is easy to return them to staff when you complete the abstraction. In practices with paper-based systems, it is very important to return charts in a timely way, as a staff person or clinician may need them for patient care or other purposes. Nothing is more disruptive to care than not being able to find a patient record when you need it.

Unlike with electronic data, where you should be able to collect data on the universe of patients in your target population, you will have to sample patients when doing audits using paper records. For performance audits, a random sampling of 30 to 60 charts or patient records for the initial performance audit can be sufficient to provide information on the practice's performance. Smaller samples are vulnerable to random variability.

Another approach can be to sample 10 percent of eligible charts or to take a convenience sample from a single day of patients who meet the inclusion criteria (such as patients with certain chronic conditions). For monthly performance monitoring, an audit of the records of 10 patients seen during that month can be sufficient for a practice to evaluate progress toward an improvement goal.

You will need a list of patient records that you want to review. These lists can be generated using billing data with diagnostic codes and information on other inclusion and exclusion criteria. You will then need to give these patient record numbers to medical records staff, who can pull the charts and provide them to you for audit.

You will need to work closely with the QI team and practice manager to ensure that you do not create an undue burden on medical records staff and that you do not pull and retain charts of patients being seen that day.



## Procedures for Electronic Health Record Audits

When requesting pulls of electronic data, you will typically create a data or report request and give this to the person in charge of producing reports from the practice's EHR or registry systems. These data can be provided in a summary format (such as a report of the percentage of patients meeting certain criteria) or in raw form in a spreadsheet of patient-level data that you can manipulate later. In general, the raw form is helpful when getting started as it will allow you to drill down into the data and identify potential errors and underlying causes for these errors. Identifying errors in data such as mis-mapping and multiple locations for the same variable will take up much of your initial time with a practice. Having data in a raw format like an unprocessed spreadsheet will help you do this.

When accessing electronic data, you will usually work with staff at the practice who are in charge of creating reports for the practice. This can be a health educator who has been assigned to manage reporting, a QI staff person, a designated "super-user" for the practice, a clinician, or the front-desk clerk. Whoever this individual is, he or she will become an important part of the QI work you do with the practice, and also ideally a member of the QI team. You will learn from them, and they will learn from you. Over time your goal will be build their knowledge of the type of information and reports to produce to support QI work at the practice; and you will learn from them and build your knowledge about working with data in the particular IT systems they are using.

For your practices that use EHRs and electronic patient registries, you will want to become familiar with the reporting capabilities of these IT systems. Some of the needed functions, however, may require new programming. And depending on the way you want the data arrayed, it could be beyond the functionality of the EHR system. It is worth a significant investment of your time to learn as much as you can about how to coax data from the system. Developing a relationship with those who are in charge of the IT system(s) and can reconfigure reports to meet your needs will have a high payoff.

With electronic patient data, you can work with practice staff to create standing reports on key performance metrics that can be run repeatedly over time. These reports make it easy for the

### **Information to Include in a Data Pull Request**

- List of performance variables/metrics
- Patient inclusion (for example, patients with certain chronic conditions or patients seen in the office in the past 12 months)
- Patient exclusion criteria (for example, patients with ESRD)
- Time period covered (start and end date)
- Format of data

practice to continue performance reporting after the active facilitation intervention is finished.

Equally important is training staff to develop their own reports and modify existing reports so they can easily add new performance metrics over time or change the parameters of old ones.

In addition to providing a list of the performance variables you want included in the data pull, inclusion and exclusion criteria for the patient records that will be queried, and time period for the data, you will need to specify the format for receiving the data, such as a spreadsheet with individual patients or visits as rows and the variables as columns. The advantage of performance audits using data from EHRs is that you can often pull data on the entire population of patients seen during the specified time period, rather than limiting the audit to a subset of 30-to-60 patient records. Provide the IT staff, or whoever will pull the data, precise written descriptions of the criteria for inclusion and exclusion. A sample of instructions for IT for a performance audit data pull is provided in Appendix 14B.

## **Balancing Capacity Building and Hands-On Support in Getting Data**

It is worth adding a note of caution here. First, it is unrealistic to expect that as a PF, you will have expertise in extracting data from every IT system you encounter in the practices you work with, as this can easily reach 40 or more systems across your panel of practices. Your goal should be to engage and build capacity of practice staff to do this, and help them access resources for training if they do not have this knowledge already, rather than doing the work for them yourself. Of course, if you have expertise in the particular IT system, by all means you can provide the training. And you will also need to help with much of the heavy lifting in identifying sources of errors in the data and helping the practice staff fix it permanently – for example, engaging the IT vendor to correct mapping errors in the system, or to eliminate duplicate entry options for patient information.

You will want to resist taking on the function of extracting and cleaning data for the practice, as it is an essential skill they will need to acquire in order to sustain QI work once you leave or put them on a maintenance schedule of support. This said, in some practices, especially very small ones with limited resources to direct to data collection, you may need to take this task on initially to increase their capacity to eventually do this on their own. For example, you may set-up report templates for the practice that staff can use over and over again, and automate their production as much as is feasible.

**Figure 14.1. Sample abstraction spreadsheet for paper-based records**

*Diabetes Chart Audit Form*

<b>Practice Site:</b>	<b>Date of Audit:</b>	<b>PF Reviewing:</b>
-----------------------	-----------------------	----------------------

a	b	c	d	e	f	g	h	i	J
Pt. ID (do not include names)	HbA1c in the past 3 months? 0=NO 1=YES	HbA1c less than 7.0? 0=NO 1=YES	BP documente d at last visit? 0=NO	BP less than 130/80 mm Hg? 0=NO	LDL-C in past 12 months? 0=NO 1=YES	LDL-C less than 100mg/ dL? 0=NO	Eye exam in the past 12 months? 0=NO	Foot exam in the past 12 months?	Other indicator (per practice): 0=NO

**Privacy and Data Security**

All data collected from a practice are highly sensitive. Whether the data are from patient records or staff surveys, the practice facilitator must keep data secure at all times. You should take a number of measures to protect confidential information. First and foremost, never take identified patient data offsite from a practice.

**Never** take identifiable patient data (data with patient names or other identifiers) from a practice or store data with PHI on your computer. Lost or stolen laptops are a common cause for **data breaches**.

Electronic data are particularly difficult to secure, especially in the era of cloud computing. Any data transmitted to or stored on your computer, tablet, or laptop should be deidentified with all personal health information (PHI) removed. A list of what is considered protected PHI can be found in the Health Insurance Portability and Accountability Act (HIPAA) descriptions. For more information on HIPAA compliance, see [Module 7](#), Professionalism for Practice Facilitators.

A key code connecting patient PHI, including medical record number, to data you maintain on your computer or any that you are transporting offsite will need to be created to allow you to re-identify data if needed. This key code should be housed at the practice and never taken offsite. In addition, you will need to set the security on your laptop to require a password to access any practice information stored on it. Any data transmitted through email or stored on cloud applications should similarly be deidentified, with the master code maintained only at the practice.

You will need to be familiar with and comply with all regulations of HIPAA as it relates to performance data and access to patient data. In addition to protecting sensitive patient information used in assessing clinical performance, you also need to be concerned about privacy and confidentiality of a practice's performance data.

Assessing clinical performance can be a threatening and sensitive process for a practice. While sharing aggregated performance data and best practices across practices is a critical part of facilitation and of quality improvement in general, you will need to confirm that you have a practice's permission to share information about their performance and improvement work before you do this. You will also need to clarify the conditions under which this is acceptable to the practice. Typically, these discussions will occur with practice leadership and your program director, and will be clarified at the start of an improvement intervention. But you will need to remain sensitive to these issues as you work across your practices and with other facilitators.

Note: this module is based on Module 8 of the Practice Facilitation Handbook. Available at: <https://www.ahrq.gov/ncepctr/tools/pf-handbook/index.html>

## **Appendix 14. WeServeEveryone Clinic Case Example**

WeServeEveryone is a federally qualified health center (FQHC) in Long Beach, California. It served 35,000 patients and provided approximately 80,000 patient visits last year. Average cycle time for a visit at all three of its practice sites is 75 minutes. The organization wants to improve patient experience and is interested in reducing patient cycle time as one way to do this.

Approximately 50 percent of the patients who receive care from the clinic are Latino and about 20 percent are monolingual Spanish. About 3 percent of the patients speak Nahuatl. Thirty percent of patients receiving care from the clinic are Asian and Pacific Islanders, and the remaining 20 percent are Caucasian. Forty-five percent of patients are children, 50 percent of patients are adults, and 5 percent are geriatric. Fifty percent of patients are uninsured, and 98 percent are at or below 200 percent of poverty; 70 percent are at or below 100 percent of poverty. Twenty percent of patients are diagnosed with diabetes, 15 percent with hypertension, and 3 percent with asthma.

The chief medical officer (CMO) of WeServeEveryone was serving as a quality improvement (QI) committee of one for the clinic until recently when she attended a session at a conference about QI methods for FQHCs. After returning, she engaged your organization to assist her in forming a QI committee, updating the clinic's QI plan, and identifying some first improvement aims.

Because so many of their patients have diabetes, the CMO and the QI team decided to focus their initial QI work on improving their diabetes care. They are interested in seeing how they are performing on HEDIS\* quality indicators for diabetes and comparing themselves to benchmarks from the local community clinic association and those contained in the *National Healthcare Quality Report*.

The clinic recently hired a care coordinator to help with the care of chronic disease patients. It also recently implemented an electronic health record. One of the clinicians recently realized that entries for foot exams had been mapped incorrectly and were not being captured as part of the comprehensive diabetes care record. This is the only data field that appears problematic at this point.

Dr. Sand thinks the clinic is doing “fine” with diabetes care and does not think it is necessary to look at the data. On the other hand, the CMO, Dr. Likes, is very interested in seeing what the data look like not only for diabetes but also for hypertension and asthma.

\* HEDIS stands for Healthcare Effectiveness Data and Information Set.

**Appendix 14A. Sample Data Abstraction**

**Diabetes Chart Audit Form**

<b>Practice Site:</b>	<b>Date of Audit:</b>	<b>PF Reviewing:</b>
-----------------------	-----------------------	----------------------

a	b	c	d	e	f	g	h	i	j
Pt. ID (do not include names)	HbA1c in the past 3 months? 0=NO 1=YES	HbA1c less than 7.0? 0=NO 1=YES	BP documented at last visit? 0=NO 1=YES	BP less than 130/80 mm Hg? 0=NO 1=YES	LDL-C in past 12 months? 0=NO 1=YES	LDL-C less than 100mg/ dL? 0=NO 1=YES	Eye exam in the past 12 months? 0=NO 1=YES	Foot exam in the past 12 months? 0=NO 1=YES	Other indicator (per practice): 0=NO 1=YES
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
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18.									
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21.									
22.									
23.									
24.									
25.									
26.									
27.									
28.									
29.									
30.									
<b>Totals</b>	<b>Total(b)=</b>	<b>Total(c)=</b>	<b>Total(d)=</b>	<b>Total(e)=</b>	<b>Total(f)=</b>	<b>Total(g)=</b>	<b>Total(h)=</b>	<b>Total(i)=</b>	<b>Total(j)=</b>

*Module 14: Collecting Performance Data Using Chart Audits and Electronic Data Extraction*

**Appendix 14B. Nine Mock Medical Records**

1. [Billy Gato](#) (diabetes, hypertension)
2. [Cherie Amore](#) (diabetes)
3. [Wendy See](#) (diabetes, depression)
4. [John Donut](#) (multiple chronic conditions)
5. [Adam Pie](#) (multiple chronic conditions, DNR, allergy)
6. [Tom Gelato](#) (diabetes, DNR, allergy)
7. [Steve Apple](#) (diabetes)
8. [Bill Windows](#) (diabetes, DNR)
9. [Monica Latte](#) (diabetes, hypertension)

Module 14: Collecting Performance Data Using Chart Audits and Electronic Data Extraction

Appendix 14 B. Sample Medical Record: Billy Gato

**WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

Chart Summary

**Billy Gato**

Home: 555-555-5555

Male DOB: 05/05/1955

0000-55555

Ins: Commercial Orange Shield

**Patient Information**

**Name:** Billy Gato

**Address:** 5555 Mountain Blvd  
Animal, California

**Patient ID:** 0000-55555

**Birth Date:** 05/05/1955

**Gender:** Male

**Contact By:** Phone

**Soc Sec No:** 555-55-5555

**Resp Prov:** Carl Savem

**Referred by:**

**Email:**

**Home LOC:** WeServeEveryone

**Home Phone:**555-555-5555

**Office Phone:**

**Fax:**

**Status:** Active

**Marital Status:** Married

**Race:** Hispanic

**Language:** English

**MRN:** MR-111-1111

**Emp. Status:** Part-time

**Sens Chart:** No

**External ID:** MR-111-1111

**Problems**

DIABETES MELLITUS (ICD-250.)

HYPERTENSION, BENIGN ESSENTIAL (ICD-401.1)

**Medications**

PRINIVIL TABS 20 MG (LISINOPRIL) 1 po qd

Last Refill: #30 x 2 : Carl Savem MD (01/27/2010)

HUMULIN INJ 70/30 (INSULIN REG & ISOPHANE (HUMAN)) 20 units ac breakfast

Last Refill: #600 u x 0 : Carl Savem MD (01/27/2010)

**Directives**

**Allergies and Adverse Reactions (! = critical)**

! Benadryl

**Services Due**

FLU VAX, PNEUMOVAX



## **WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

### **Billy Gato**

Male DOB: 05/05/1955

0000-55555

Home: 555-555-5555  
Ins: Commercial xxxxx

**09/25/2010 - Office Visit: F/u Diabetes**

**Provider: Carl Savem MD**

**Location of Care: WeServeEveryone Clinic**

## **OFFICE VISIT**

### **History of Present Illness**

**Reason for visit:** Routine followup to review medications **Chief Complaint:** No complaints

### **History**

**Social History:** Quit smoking 10 years ago

### **Diabetes Management**

#### **Hyperglycemic Symptoms**

**Polyuria:** no

**Polydipsia:** no

**Blurred vision:** no

#### **Sympathomimetic Symptoms**

**Diaphoresis:** no

**Agitation:** no

**Tremor:** no

**Palpitations:** no

**Insomnia:** no

#### **Neuroglycopenic Symptoms**

**Confusion:** no

**Lethargy:** no

**Somnolence:** no

**Amnesia:** no

**Stupor:** no

**Seizures:** no

### **Review of Systems**

**General:** denies fatigue, malaise, fever, weight loss

**Eyes:** denies blurring, diplopia, irritation, discharge

**Ear/Nose/Throat:** denies ear pain or discharge, nasal obstruction or discharge, sore throat

**Cardiovascular:** denies chest pain, palpitations, paroxysmal nocturnal dyspnea, orthopnea, edema

**Respiratory:** denies coughing, wheezing, dyspnea, hemoptysis

**Gastrointestinal:** denies abdominal pain, dysphagia, nausea, vomiting, diarrhea, constipation

**Genitourinary:** denies hematuria, frequency, urgency, dysuria, discharge, impotence, incontinence

**Musculoskeletal:** denies back pain, joint swelling, joint stiffness, joint pain

**Skin:** denies rashes, itching, lumps, sores, lesions, color change

**Neurologic:** denies syncope, seizures, transient paralysis, weakness, paresthesias

**Psychiatric:** denies depression, anxiety, mental disturbance, difficulty sleeping, suicidal ideation, hallucinations, paranoia

**Endocrine:** denies polyuria, polydipsia, polyphagia, weight change, heat or cold intolerance

**Heme/Lymphatic:** denies easy or excessive bruising, history of blood transfusions, anemia, bleeding disorders, adenopathy, chills, sweats

**Allergic/Immunologic:** denies urticaria, hay fever, frequent UTIs; denies HIV high risk behaviors

### **Vital Signs**

**Billy Gato**

Home: 555-555-5555

Male DOB: 05/05/1955  
0000-55555  
Ins: Commercial xxxxx

Ht: **65** in. Wt: **180** lbs. T: **98.0** degF. T site: **oral** P: **70** Rhythm: **regular** R: **16** BP: **134/92**

**Physical Exam**

**General Appearance:** well developed, well nourished, no acute distress

**Eyes:** conjunctiva and lids normal, PERRLA, EOMI, fundi WNL

**Ears, Nose, Mouth, Throat:** TM clear, nares clear, oral exam WNL

**Respiratory:** clear to auscultation and percussion, respiratory effort normal

**Cardiovascular:** regular rate and rhythm, S1-S2, no murmur, rub or gallop, no bruits, peripheral pulses normal and symmetric, no cyanosis, clubbing, edema or varicosities

**Skin:** clear, good turgor, color WNL, no rashes, lesions, or ulcerations

**Assessment**

**Problems (including changes):** Blood pressure is lower. He is following his diet, by his account.

He has not had any hypoglycemic episodes, no night sweats. Feet are inspected and there are no callouses, no compromised skin. No vision complaints.

**Impression:** Sub optimal sugar, control with retinopathy and neuropathy, high glucometer readings. He will work harder on diet.

**Home Glucose Monitoring:**

AC breakfast 110 to 220

AC breakfast mean 142

AC dinner 100 to 250

AC dinner mean 120

**Plan**

**Medications:**

HUMULIN INJ 70/30 20 u ac breakfast

PRINIVIL TABS 20 MG 1 qd

**Treatment:** Will have annual foot exam at next visit.

**Orders:**

Ophthalmology consult

UA

HGBA1C

Metabolic Panel

Lipid Panel

**Education/Counseling (time):** 5 minutes

**Coordination of Care (time):** 10 minutes

**Follow-up/Return Visit:** 3 months

**Disposition:** return to clinic

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

March 24, 2011  
Page 2  
Chart Summary

**Billy Gato**  
Male DOB: 05/05/1955  
0000-55555  
Ins: Commercial xxxxx

Home: 555.555.5555

**09/19/2010 - Lab Report: Metabolic Panel Provider: Carl Savem MD**  
**Location of Care: Millennium Health System**

Tests:

(1) Metabolic Panel (ML-03CHEM)

ALK PHOS	72 U/L	35-100
BG RANDOM	125 mg/dl	70-125
BUN	16 mg/dl	7-25
CALCIUM	9.6 mg/dl	8.2-10.2
CHLORIDE	101 mmol/l	96-109
CO2	27 mmol/l	23-29
CREATININE	0.7 mg/dl	0.6-1.2
PO4	2.9 mg/dl	2.5-4.5
POTASSIUM	4.5 mmol/l	3.5-5.3
SGOT (AST)	31 U/L	0-40
BILI TOTAL	0.7 mg/dl	0.0-1.3
URIC ACID	4.8 mg/dl	3.4-7.0
LDH, TOTAL	136 IU/L	0-200
SODIUM	135 mmol/l	135-145

(2) HbA1c Test  
HbA1c level 7.0%

(3) Lipid Profile  
Cholesterol, Total 210 mg/dl  
Triglycerides 236 mg/dl  
HDL Cholesterol 36  
LDL Cholesterol 121

**WeServeEveryone Clinic**  
1111 First street California  
111-111-1111 Fax: 111-111-1111

March 24, 2011  
Page 2  
Chart Summary

**Billy Gato**

Home: 555-555-5555

Male DOB: 05/05/1955  
0000-55555  
Ins: Commercial xxxxx

**Flowsheet**

	<b>Date</b>	<b>09/25/2010</b>
HEIGHT (in)		65
WEIGHT (lb)		180
TEMPERATURE (deg F)		98
TEMP SITE		oral
PULSE RATE (/min)		72
PULSE RHYTHM		
RESP RATE (/min)		16
BP SYSTOLIC (mm Hg)		134
BP DIASTOLIC (mm Hg)		92
CHOLESTEROL (mg/dL)		
HDL (mg/dL)		
LDL (mg/dL)		121
BG RANDOM (mg/dL)		
CXR		
EKG		
PAP SMEAR		
BREAST EXAM		
MAMMOGRAM		
HEMOCCULT		neg
FLU VAX		0.5 ml g
PNEUMOVAX		0.5 ml g
TD BOOSTER		0.5 ml g
Foot Exam		Complete
Eye Exam		<b>Complete</b>

Module 14: Collecting Performance Data Using Chart Audits and Electronic Data Extraction

Appendix 14B. Sample Medical Record: Cherie Amore

**WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

Chart Summary

**Cherie Amore**

Home: 333-333-3333

Female DOB: 03/03/1940

0000-33333

Ins: Commercial xxxxx

**Patient Information**

**Name:** Cherie Amore

**Address:** 3333 Wonder Ave  
Famous, California

**Patient ID:** 0000-33333

**Birth Date:** 03/03/1940

**Gender:** Female

**Contact By:** Phone

**Soc Sec No:** 333-33-3333

**Resp Prov:** Carl Savem

**Referred by:**

**Email:**

**Home LOC:** WeServeEveryone

**Home Phone:** 333-333-3333

**Office Phone:**

**Fax:**

**Status:** Active

**Marital Status:** Married

**Race:** White

**Language:** English

**MRN:** MR-111-1111

**Emp. Status:** Full-time

**Sens Chart:** No

**External ID:** MR-111-1111

**Problems**

DIABETES MELLITUS (ICD-250.)

**Medications**

HUMULIN INJ 70/30 (INSULIN REG & ISOPHANE (HUMAN)) 20 units ac breakfast  
Last Refill: #600 u x 0 : Carl Savem MD (01/27/2010)

**Directives**

**Allergies and Adverse Reactions (! = critical)**

**Services Due**

FLU VAX

## **WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

Chart Summary

### **Cherie Amore**

Home: 333-333-3333

Female DOB: 03/03/1940

0000-33333

Ins: Commercial xxxxx

**10/18/2010 - Office Visit: F/u Diabetes**

**Provider: Carl Savem MD**

**Location of Care: WeServeEveryone Clinic**

## **OFFICE VISIT**

### **History of Present Illness**

**Reason for visit:** Routine follow up to review medications **Chief Complaint:** No complaints

### **History**

**Social History:**

### **Diabetes Management**

#### **Hyperglycemic Symptoms**

**Polyuria:** no

**Polydipsia:** no

**Blurred vision:** no

#### **Sympathomimetic Symptoms**

**Diaphoresis:** no

**Agitation:** no

**Tremor:** no

**Palpitations:** no

**Insomnia:** no

#### **Neuroglycopenic Symptoms**

**Confusion:** no

**Lethargy:** no

**Somnolence:** no

**Amnesia:** no

**Stupor:** no

**Seizures:** no

### **Review of Systems**

**General:** denies fatigue, malaise, fever, weight loss

**Eyes:** denies blurring, diplopia, irritation, discharge

**Ear/Nose/Throat:** denies ear pain or discharge, nasal obstruction or discharge, sore throat

**Cardiovascular:** denies chest pain, palpitations, paroxysmal nocturnal dyspnea, orthopnea, edema

**Respiratory:** denies coughing, wheezing, dyspnea, hemoptysis

**Gastrointestinal:** denies abdominal pain

**Musculoskeletal:** denies back pain, joint swelling, joint stiffness, joint pain

**Skin:** denies rashes, itching, lumps, sores, lesions, color change

**Neurologic:** denies syncope, seizures, transient paralysis, weakness, paresthesias

**Psychiatric:** denies depression, anxiety, mental disturbance, difficulty sleeping, suicidal ideation, hallucinations, paranoia

**Endocrine:** denies polyuria, polydipsia, polyphagia, weight change, heat or cold intolerance

**Heme/Lymphatic:** denies easy or excessive bruising, history of blood transfusions, anemia, bleeding disorders, adenopathy, chills, sweats

**Allergic/Immunologic:** denies hay fever

### **Vital Signs**

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

March 24, 2011  
Page 2  
Chart Summary

**Cherie Amore**

Home: 333-333-3333  
Female DOB: 03/03/1940                      0000-33333                      Ins: Commercial xxxxx

Ht: **63** in. Wt: **130** lbs. T: **98.0** degF. T site: **oral** P: **72** Rhythm: **regular** R: **16** BP: **118/60**

**Physical Exam**

**General Appearance:** well developed, well nourished, no acute distress

**Eyes:** conjunctiva and lids normal

**Ears, Nose, Mouth, Throat:** TM clear, nares clear, oral exam WNL

**Respiratory:** respiratory effort normal

**Cardiovascular:** regular rate and rhythm,

**Problems (including changes):**

She is following diet, by her account. Feet are inspected and there are no callouses, no compromised skin. No vision complaints.

**Impression:** Sub optimal sugar, control with retinopathy and neuropathy, high glucometer readings.

**Home Glucose Monitoring:**

AC breakfast 110 to 220

AC breakfast mean 142

AC dinner 100 to 250

AC dinner mean 120

**Plan**

**Medications:**

HUMULIN INJ 70/30 20 u ac breakfast

**Treatment:** Will have annual foot exam at next visit.

**Orders:**

Ophthalmology consult

UA

HGBA1C

Metabolic Panel

Lipid Panel

Hemoccult

**Education/Counseling (time):** 10 minutes

**Coordination of Care (time):** 10 minutes

**Follow-up/Return Visit:** 3 months

**Disposition:** return to clinic

**Cherie Amore**

Home: 333-333-3333

Female DOB: 03/03/1940

0000-33333

Ins: Commercial xxxxx

**10/19/2010 - Lab Report: Metabolic Panel Provider: Carl Savem MD**  
**Location of Care: Millennium Health System**

Tests:

(1) Metabolic Panel (ML-03CHEM)

ALK PHOS	72 U/L
	35-100
BG RANDOM	125 mg/dl
	70-125
BUN	16 mg/dl
	7-25
CALCIUM	9.6 mg/dl
	8.2-10.2
CHLORIDE	101 mmol/l
	96-109
CO2	27 mmol/l
	23-29
CREATININE	0.7 mg/dl
	0.6-1.2
PO4	2.9 mg/dl
	2.5-4.5
POTASSIUM	4.5 mmol/l
	3.5-5.3
SGOT (AST)	31 U/L
	0-40
BILI TOTAL	0.7 mg/dl
	0.0-1.3
URIC ACID	4.8 mg/dl
	3.4-7.0
LDH, TOTAL	136 IU/L
	0-200
SODIUM	135 mmol/l
	135-145

(2) HbA1c Test  
HbA1c level 8.0%

(3) Lipid Profile  
Cholesterol, Total 210 mg/dl  
Triglycerides 236 mg/dl  
HDL Cholesterol 36  
LDL Cholesterol 125



**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

03/24/2011 03:24 PM  
Page 1  
**Flowsheet**

**Cherie Amore**

Home: 333-333-3333

103-TEST011

Insurance: BHI (Futura)

Group: BHI1595

Female DOB: 03/03/1940

0000-33333

Ins: Commercial xxxxx

Date	10/18/2010	
HEIGHT (in)		63
WEIGHT (lb)		130
TEMPERATURE (deg F)		98
TEMP SITE		oral
PULSE RATE (/min)		72
PULSE RHYTHM		
RESP RATE (/min)		16
BP SYSTOLIC (mm Hg)		118
BP DIASTOLIC (mm Hg)		60
CHOLESTEROL (mg/dL)		
HDL (mg/dL)		
LDL (mg/dL)		125
BG RANDOM (mg/dL)		
CXR		
EKG		
PAP SMEAR		
BREAST EXAM		
MAMMOGRAM		
HEMOCCULT		neg
FLU VAX		
PNEUMOVAX		
TD BOOSTER		0.5 ml g
Foot Exam		
Eye Exam		

Module 14: Collecting Performance Data Using Chart Audits and Electronic Data Extraction

Appendix 14B. Sample Medical Record: Wendy See

**WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

**Wendy See**

Home: 777-777-7777

Female DOB: 07/07/1943

0000-77777

Ins: Commercial Orange Shield

**Patient Information**

**Name:** Wendy See

**Address:** 7777 Candy Lane  
Dessert, California

**Home Phone:** 777-777-7777

**Office Phone:**

**Patient ID:** 0000-77777

**Birth Date:** 07/07/1943

**Gender:** Female

**Contact By:** Phone

**Soc Sec No:** 777-77-7777

**Resp Prov:** Carl Savem

**Referred by:**

**Email:**

**Home LOC:** WeServeEveryone

**Fax:**

**Status:** Active

**Marital Status:** Single

**Race:** Asian

**Language:** English

**MRN:** MR-111-1111

**Emp. Status:** Full-time

**Sens Chart:** No

**External ID:** MR-111-1111

**Problems**

DIABETES MELLITUS (ICD-250.)

DEPRESSION (ICD-311)

**Medications**

HUMULIN INJ 70/30 (INSULIN REG & ISOPHANE (HUMAN)) 20 units ac breakfast

Last Refill: #600 u x 0 : Carl Savem MD (06/17/2010)

PROZAC CAPS 10 MG (FLUOXETINE HCL) 1 po qd

Last Refill: #30 x 2 : Carl Savem MD (06/17/2010)

**Directives**

**Allergies and Adverse Reactions (! = critical)**

! Benadryl

**Services Due**

FLU VAX

## **WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

## **Wendy See**

Female DOB: 07/07/1943

0000-77777

Home: 777-777-7777  
Ins: Commercial xxxxx

**9/22/2010 - Office Visit: F/u Diabetes**

**Provider: Carl Savem MD**

**Location of Care: WeServeEveryone Clinic**

## **OFFICE VISIT**

### **History of Present Illness**

**Reason for visit:** Routine follow up

**Chief Complaint:** No complaints

### **History**

**Social History:** Her husband died 2 years ago and she is more introspective.

### **Diabetes Management**

#### **Hyperglycemic Symptoms**

**Polyuria:** no

**Polydipsia:** no

**Blurred vision:** no

#### **Sympathomimetic Symptoms**

**Diaphoresis:** no

**Agitation:** no

**Tremor:** no

**Palpitations:** no

**Insomnia:** no

#### **Neuroglycopenic Symptoms**

**Confusion:** no

**Lethargy:** no

**Somnolence:** no

**Amnesia:** no

**Stupor:** no

**Seizures:** no

### **Review of Systems**

**General:** denies fatigue, malaise, fever, weight loss

**Eyes:** denies blurring, diplopia, irritation, discharge

**Ear/Nose/Throat:** denies ear pain or discharge, nasal obstruction or discharge, sore throat

**Cardiovascular:** denies chest pain, palpitations, paroxysmal nocturnal dyspnea, orthopnea, edema

**Respiratory:** denies coughing, wheezing, dyspnea, hemoptysis

**Gastrointestinal:** denies abdominal pain, dysphagia, nausea, vomiting, diarrhea, constipation

**Musculoskeletal:** denies back pain, joint swelling, joint stiffness, joint pain

**Skin:** denies rashes, itching, lumps, sores, lesions, color change

**Neurologic:** denies syncope, seizures, transient paralysis, weakness, paresthesias

**Psychiatric:** denies depression, anxiety, mental disturbance, difficulty sleeping, suicidal ideation, hallucinations, paranoia

**Endocrine:** denies polyuria, polydipsia, polyphagia, weight change, heat or cold intolerance

**Heme/Lymphatic:** denies easy or excessive bruising, history of blood transfusions, anemia, bleeding disorders, adenopathy, chills, sweats

**Allergic/Immunologic:** denies urticaria, hay fever

**Wendy See**

Home: 777-777-7777

Ht: **60** in. Wt: **120** lbs. T: **98.0** degF. T site: **oral** P: **72** Rhythm: **regular** R: **16** BP: **125/70**

### **Physical Exam**

**General Appearance:** well developed, well nourished, no acute distress

**Eyes:** conjunctiva and lids normal, PERRLA, EOMI, fundi WNL

**Ears, Nose, Mouth, Throat:** TM clear, nares clear, oral exam WNL

**Respiratory:** clear to auscultation and percussion, respiratory effort normal

**Cardiovascular:** regular rate and rhythm, S1-S2, no murmur, rub or gallop, no bruits, peripheral pulses normal and symmetric, no cyanosis, clubbing, edema or varicosities

**Skin:** clear, good turgor, color WNL, no rashes, lesions, or ulcerations

### **Assessment**

**Problems (including changes):** Blood pressure is lower.

**Impression:** Sub optimal sugar, control with retinopathy and neuropathy, high glucometer readings. He will work harder on diet. Will increase insulin by 2 units.

### **Medications:**

HUMULIN INJ 70/30 20 u ac breakfast

PROZAC CAPS 10 MG 1 qd

**Treatment:** Will have annual foot exam at next visit.

### **Orders:**

UA

**Education/Counseling (time):** 20 minutes

**Coordination of Care (time):** 5 minutes

**Follow-up/Return Visit:** 3 months

**Disposition:** return to clinic

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

**Wendy See**

Male DOB: 07/07/1943

0000-77777

Home: 777-777-7777  
Ins: Commercial xxxxx

Tests:

(1) HbA1c Test  
HbA1c level 7.0%

(2) Lipid Profile  
Cholesterol, Total 210 mg/dl  
Triglycerides 236 mg/dl  
HDL Cholesterol 36  
LDL Cholesterol 90

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

Chart Summary

**Wendy See**

Home: 777-777-7777

DOB: 07/07/1943

0000-77777

Ins: Commercial xxxxx

**Flowsheet**

	<b>Date</b>	<b>9/22/2010</b>
HEIGHT (in)		60
WEIGHT (lb)		120
TEMPERATURE (deg F)		98
TEMP SITE		oral
PULSE RATE (/min)		72
PULSE RHYTHM		
RESP RATE (/min)		16
BP SYSTOLIC (mm Hg)		125
BP DIASTOLIC (mm Hg)		70
CHOLESTEROL (mg/dL)		
HDL (mg/dL)		
LDL (mg/dL)		90
BG RANDOM (mg/dL)		125
CXR		
EKG		
PAP SMEAR		
BREAST EXAM		
MAMMOGRAM		
HEMOCCULT		neg
FLU VAX		0.5 ml g
PNEUMOVAX		0.5 ml g
TD BOOSTER		0.5 ml g
Foot Exam		Complete
Eye Exam		<b>Complete</b>

Module 14: Collecting Performance Data Using Chart Audits and Electronic Data Extraction

## Appendix 14B. Sample Medical Record: John Donut

### WeServeEveryone Clinic

1111 First Street California  
111-111-11111 Fax: 111-111-1111

Chart Summary

### John Donut

Male DOB: 01/01/1935 0000-11111

Home: 000-000-0000  
Ins: Commercial xxxxx

### Patient Information

**Name:** John Donut

**Address:** 1111 Donut Road  
Fast Food, California

**Home Phone:** 000-000-0000

**Office Phone:**

**Patient ID:** 0000-11111

**Birth Date:** 01/01/1935

**Gender:** Male

**Contact By:** Phone

**Soc Sec No:** 111-11-1111

**Resp Prov:** Carl Savem

**Referred by:**

**Email:**

**Home LOC:** WeServeEveryone

**Fax:**

**Status:** Active

**Marital Status:** Widowed

**Race:** Black

**Language:** English

**MRN:** MR-111-1111

**Emp. Status:** Part-time

**Sens Chart:** No

**External ID:** MR-111-1111

### Problems

DIABETES MELLITUS (ICD-250.)

HYPERTENSION, BENIGN ESSENTIAL (ICD-401.1)

HYPERPLASIA, PROSTATE (ICD-600)

DEPRESSION (ICD-311)

RETINOPATHY, DIABETIC (ICD-362.0)

POLYNEUROPATHY IN DIABETES (ICD-357.2)

### Medications

PRINIVIL TABS 20 MG (LISINOPRIL) 1 po qd

Last Refill: #30 x 2 : Carl Savem MD (05/27/2010)

HUMULIN INJ 70/30 (INSULIN REG & ISOPHANE (HUMAN)) 20 units ac breakfast

Last Refill: #600 u x 0 : Carl Savem MD (05/27/2010)

### Directives

### Allergies and Adverse Reactions (! = critical)

### Services Due

HEMOCCULT or SIGMOID, BP DIASTOLIC, BP SYSTOLIC, FLU VAX, PNEUMOVAX, MICROALB  
URN

## **WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

### **John Donut**

Male DOB: 01/01/1935 0000-111111

Home: 000-000-0000  
Ins: Commercial xxxxx

**10/31/2010 - Office Visit: F/u Diabetes**  
**Provider: Carl Savem MD**  
**Location of Care: WeServeEveryone Clinic**

## **OFFICE VISIT**

### **History of Present Illness**

**Reason for visit:** Routine follow up to review medications **Chief Complaint:** No complaints

### **History**

#### **Diabetes Management**

##### **Hyperglycemic Symptoms**

**Polyuria:** no  
**Polydipsia:** no  
**Blurred vision:** no

##### **Sympathomimetic Symptoms**

**Diaphoresis:** no  
**Agitation:** no  
**Tremor:** no  
**Palpitations:** no  
**Insomnia:** no

##### **Neuroglycopenic Symptoms**

**Confusion:** no  
**Lethargy:** no  
**Somnolence:** no  
**Amnesia:** no  
**Stupor:** no  
**Seizures:** no

### **Review of Systems**

**General:** denies fatigue, malaise, fever, weight loss  
**Eyes:** denies blurring, diplopia, irritation, discharge  
**Ear/Nose/Throat:** denies ear pain or discharge, nasal obstruction or discharge, sore throat  
**Cardiovascular:** denies chest pain, palpitations, paroxysmal nocturnal dyspnea, orthopnea, edema  
**Respiratory:** denies coughing, wheezing, dyspnea, hemoptysis  
**Gastrointestinal:** denies abdominal pain, dysphagia, nausea, vomiting, diarrhea, constipation  
**Genitourinary:** denies hematuria, frequency, urgency, dysuria, discharge, impotence, incontinence  
**Musculoskeletal:** denies back pain, joint swelling, joint stiffness, joint pain  
**Skin:** denies rashes, itching, lumps, sores, lesions, color change  
**Neurologic:** denies syncope, seizures, transient paralysis, weakness, paresthesias  
**Psychiatric:** denies depression, anxiety, mental disturbance, difficulty sleeping, suicidal ideation, hallucinations, paranoia  
**Endocrine:** denies polyuria, polydipsia, polyphagia, weight change, heat or cold intolerance  
**Heme/Lymphatic:** denies easy or excessive bruising, history of blood transfusions, anemia, bleeding disorders, adenopathy, chills, sweats  
**Allergic/Immunologic:** denies urticaria, hay fever, frequent UTIs; denies HIV high risk behaviors

### **Vital Signs**



**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

March 24, 2011  
Page 2  
Chart Summary

**John Donut**

Male DOB: 01/01/1935 0000-111111

Home: 000-000-0000  
Ins: Commercial xxxxx

Ht: **74** in. Wt: **190** lbs. T: **98.0** degF. T site: **oral** P: **72** Rhythm: **regular** R: **16** BP: **158/90**

**Physical Exam**

**General Appearance:** well developed, well nourished, no acute distress

**Eyes:** conjunctiva and lids normal, PERRLA, EOMI, fundi WNL

**Ears, Nose, Mouth, Throat:** TM clear, nares clear, oral exam WNL

**Respiratory:** clear to auscultation and percussion, respiratory effort normal

**Cardiovascular:** regular rate and rhythm, S1-S2, no murmur, rub or gallop, no bruits, peripheral pulses normal and symmetric, no cyanosis, clubbing, edema or varicosities

**Skin:** clear, good turgor, color WNL, no rashes, lesions, or ulcerations

**Assessment**

**Problems (including changes):** Blood pressure is lower. He is following his diet, by his account.

He has not had any hypoglycemic episodes, no night sweats. Feet are inspected and there are no callouses, no compromised skin. No vision complaints.

**Impression:** Sub optimal sugar, control with retinopathy and neuropathy, high glucometer readings. He will work harder on diet. Will increase insulin by 2 units. BP better.

**Plan**

**Medications:**

HUMULIN INJ 70/30 20 u ac breakfast

PRINIVIL TABS 20 MG 1 qd

**Treatment:** Will have annual foot exam at next visit.

**Orders:**

Ophthalmology consult

UA

HGBA1C

Metabolic Panel

Lipid Panel

Hemoccult

**Education/Counseling (time):** 10 minutes

**Coordination of Care (time):** 10 minutes

**Follow-up/Return Visit:** 3 months

**Disposition:** return to clinic

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

March 24, 2011  
Page 2  
Chart Summary

**John Donut**  
Male DOB: 01/01/1935                      0000-11111

Home: 000-000-0000  
Ins: Commercial xxxxx

Ins: BHI (Futura) Grp: BHI1595

**10/31/2010 - Lab Report: Metabolic Panel Provider: Carl Savem MD**  
**Location of Care: Millennium Health System**

Tests:

(1) Metabolic Panel (ML-03CHEM)

ALK PHOS	72 U/L
	35-100
BG RANDOM	125 mg/dl
	70-125
BUN	16 mg/dl
	7-25
CALCIUM	9.6 mg/dl
	8.2-10.2
CHLORIDE	101 mmol/l
	96-109
CO2	27 mmol/l
	23-29
CREATININE	0.7 mg/dl
	0.6-1.2
PO4	2.9 mg/dl
	2.5-4.5
POTASSIUM	4.5 mmol/l
	3.5-5.3
SGOT (AST)	31 U/L
	0-40
BILI TOTAL	0.7 mg/dl
	0.0-1.3
URIC ACID	4.8 mg/dl
	3.4-7.0
LDH, TOTAL	136 IU/L
	0-200
SODIUM	135 mmol/l
	135-145

2) HbA1c Test

HbA1c level                      8.0%

(3) Lipid Profile

Cholesterol, Total	210 mg/dl
Triglycerides	236 mg/dl
HDL Cholesterol	36
LDL Cholesterol	102

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

March 24, 2011  
Page 2  
Chart Summary

**John Donut**

Home: 000-000-0000

Male DOB: 01/01/1935

0000-11111

Ins: Commercial xxxxx

**Flowsheet**

	Date	10/31/2010
HEIGHT (in)		74
WEIGHT (lb)		190
TEMPERATURE (deg F)		98
TEMP SITE		oral
PULSE RATE (/min)		72
PULSE RHYTHM		
RESP RATE (/min)		16
BP SYSTOLIC (mm Hg)		158
BP DIASTOLIC (mm Hg)		90
CHOLESTEROL (mg/dL)		
HDL (mg/dL)		
LDL (mg/dL)		102
BG RANDOM (mg/dL)		125
CXR		
EKG		
PAP SMEAR		
BREAST EXAM		
MAMMOGRAM		
HEMOCCULT		neg
FLU VAX		0.5 ml g
PNEUMOVAX		0.5 ml g
TD BOOSTER		0.5 ml g
Foot Exam		
Eye Exam		

Module 14: Collecting Performance Data Using Chart Audits and Electronic Data Extraction

Appendix 14 B. Sample Medical Record: Adam Pie

**WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

**Adam Pie**

Male DOB: 08/08/1948

0000-88888

Home: 888-888-8888

Ins: Commercial xxxx

**Patient Information**

**Name:** Adam Pie

**Home Phone:** 888-888-8888

**Address:** 8888 Crust Dr  
Filling, California

**Office Phone:**

**Patient ID:** 0000-88888

**Fax:**

**Birth Date:** 08/08/1948

**Status:** Active

**Gender:** Male

**Marital Status:** Married

**Contact By:** Phone

**Race:** White

**Soc Sec No:** 888-88-8888

**Language:** English

**Resp Prov:** Carl Savem

**MRN:** MR-111-1111

**Referred by:**

**Emp. Status:** Full-time

**Email:**

**Sens Chart:** No

**Home LOC:** WeServeEveryone

**External ID:** MR-111-1111

**Problems**

DIABETES MELLITUS (ICD-250.)

HYPERTENSION, BENIGN ESSENTIAL (ICD-401.1) HYPERPLASIA, PROSTATE (ICD-600)

DEPRESSION (ICD-311)

RETINOPATHY, DIABETIC (ICD-362.0)

POLYNEUROPATHY IN DIABETES (ICD-357.2)

**Medications**

HYTRIN CAP 5MG (TERAZOSIN HCL) 1 po qd

Last Refill: #30 x 0 : Carl Savem (10/27/2010)

PRINIVIL TABS 20 MG (LISINOPRIL) 1 po qd

Last Refill: #30 x 2 : Carl Savem MD (10/27/2010)

HUMULIN INJ 70/30 (INSULIN REG & ISOPHANE (HUMAN)) 20 units  
ac breakfast

Last Refill: #600 u x 0 : Carl Savem MD (10/27/2010)

PROZAC CAPS 10 MG (FLUOXETINE HCL) 1 po qd

Last Refill: #30 x 2 : Carl Savem MD (10/27/2010)

**Directives**

DO NOT RESUSCITATE

**Allergies and Adverse Reactions (! = critical)**

! CODEINE

**Services Due**

HEMOCCULT or SIGMOID, BP DIASTOLIC, BP SYSTOLIC, FLU VAX, PNEUMOVAX,  
MICROALB URN, FLU VAX, BP DIASTOLIC, BP SYSTOLIC, FUNDUSCOPY, DIAB FOOT CK,  
ALBUMIN URIN, TSH,  
CHOLESTEROL, HGBA1C, CREATININE.

## **WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

### **Adam Pie**

Male DOB: 08/08/1948

0000-88888

Home: 888-888-8888

Ins: Commercial xxxx

**12/18/2010 - Office Visit: F/u Diabetes**

**Provider: Carl Savem MD**

**Location of Care: WeServeEveryone Clinic**

## **OFFICE VISIT**

### **History of Present Illness**

**Reason for visit:** Routine follow up to review medications **Chief Complaint:** No complaints

### **History**

**Social History:** His wife Marzapan died 5 years ago this month and he is more introspective.

### **Diabetes Management**

#### **Hyperglycemic Symptoms**

**Polyuria:** no

**Polydipsia:** no

**Blurred vision:** no

#### **Sympathomimetic Symptoms**

**Diaphoresis:** no

**Agitation:** no

**Tremor:** no

**Palpitations:** no

**Insomnia:** no

#### **Neuroglycopenic Symptoms**

**Confusion:** no

**Lethargy:** no

**Somnolence:** no

**Amnesia:** no

**Stupor:** no

**Seizures:** no

### **Review of Systems**

**General:** denies fatigue, malaise, fever, weight loss

**Eyes:** denies blurring, diplopia, irritation, discharge

**Ear/Nose/Throat:** denies ear pain or discharge, nasal obstruction or discharge, sore throat

**Cardiovascular:** denies chest pain, palpitations, paroxysmal nocturnal dyspnea, orthopnea, edema

**Respiratory:** denies coughing, wheezing, dyspnea, hemoptysis

**Gastrointestinal:** denies abdominal pain, dysphagia, nausea, vomiting, diarrhea, constipation

**Genitourinary:** denies hematuria, frequency, urgency, dysuria, discharge, impotence, incontinence

**Musculoskeletal:** denies back pain, joint swelling, joint stiffness, joint pain

**Skin:** denies rashes, itching, lumps, sores, lesions, color change

**Neurologic:** denies syncope, seizures, transient paralysis, weakness, paresthesias

**Psychiatric:** denies depression, anxiety, mental disturbance, difficulty sleeping, suicidal ideation, hallucinations, paranoia

**Endocrine:** denies polyuria, polydipsia, polyphagia, weight change, heat or cold intolerance

**Heme/Lymphatic:** denies easy or excessive bruising, history of blood transfusions, anemia, bleeding disorders, adenopathy, chills, sweats

**Allergic/Immunologic:** denies urticaria, hay fever, frequent UTIs; denies HIV high risk behaviors

### **Vital Signs**

## **WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

### **Adam Pie**

Male DOB: 08/08/1948

0000-88888

Home: 888-888-8888

Ins: Commercial xxxx

Ht: **70** in. Wt: **190** lbs. T: **98.0** degF. T site: **oral** P: **72** Rhythm: **regular** R: **16** BP: **158/ 90**

### **Physical Exam**

**General Appearance:** well developed, well nourished, no acute distress

**Eyes:** conjunctiva and lids normal, PERRLA, EOMI, fundi WNL

**Ears, Nose, Mouth, Throat:** TM clear, nares clear, oral exam WNL

**Respiratory:** clear to auscultation and percussion, respiratory effort normal

**Cardiovascular:** regular rate and rhythm, S1-S2, no murmur, rub or gallop, no bruits, peripheral pulses normal and symmetric, no cyanosis, clubbing, edema or varicosities

**Skin:** clear, good turgor, color WNL, no rashes, lesions, or ulcerations

### **Assessment**

**Problems (including changes):** Adam is voiding better since increasing Hytrin to 5 mg/day. Blood pressure is lower. He is following his diet, by his account. He has not had any hypoglycemic episodes, no night sweats. Feet are inspected and there are no callouses, no compromised skin. No vision complaints.

**Impression:** Sub optimal sugar, control with retinopathy and neuropathy, high glucometer readings. He will work harder on diet. Will increase insulin by 2 units. BP and symptoms of prostatism are better.

### **Home Glucose Monitoring:**

AC breakfast 110 to 220

AC breakfast mean 142

AC dinner 100 to 250

AC dinner mean 120

### **Plan**

#### **Medications:**

HUMULIN INJ 70/30 20 u ac breakfast

PRINIVIL TABS 20 MG 1 qd

HYTRIN CAP 5MG 1 qd

PROZAC CAPS 10 MG 1 qd

**Treatment:** Will have annual foot exam at next visit.

#### **Orders:**

Ophthalmology consult

UA

HGBA1C

Metabolic Panel

Lipid Panel

Hemoccult

**Education/Counseling (time):** 10 minutes

**Coordination of Care (time):** 10 minutes

**Follow-up/Return Visit:** 3 months

**Disposition:** return to clinic

## WeServeEveryone Clinic

1111 First Street California  
111-111-11111 Fax: 111-111-1111

### Adam Pie

Male DOB: 08/08/1948

0000-88888

Home: 888-888-8888

Ins: Commercial xxxx

### 12/19/2010 - Lab Report: Metabolic Panel Provider: Carl Savem MD Location of Care: Millennium Health System

#### Tests:

#### (1) Metabolic Panel (ML-03CHEM)

ALK PHOS	72 U/L
	35-100
BG RANDOM	125 mg/dl
	70-125
BUN	16 mg/dl
	7-25
CALCIUM	9.6 mg/dl
	8.2-10.2
CHLORIDE	101 mmol/l
	96-109
CO2	27 mmol/l
	23-29
CREATININE	0.7 mg/dl
	0.6-1.2
PO4	2.9 mg/dl
	2.5-4.5
POTASSIUM	4.5 mmol/l
	3.5-5.3
SGOT (AST)	31 U/L
	0-40
BILI TOTAL	0.7 mg/dl
	0.0-1.3
URIC ACID	4.8 mg/dl
	3.4-7.0
LDH, TOTAL	136 IU/L
	0-200
SODIUM	135 mmol/l
	135-145

#### (2) HbA1c Test

HbA1c level 6.0%

#### (3) Lipid Profile

Cholesterol, Total	210 mg/dl
Triglycerides	236 mg/dl
HDL Cholesterol	36
LDL Cholesterol	127

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

**Adam Pie**  
Male DOB: 08/08/1948

0000-88888

Home: 888-888-8888  
Ins: Commercial xxxx

**FLWSHEET**

<b>Date</b>	<b>12/19/2010</b>	<b>12/18/2010</b>
HEIGHT (in)		70
WEIGHT (lb)		190
TEMPERATURE (deg F)		98
TEMP SITE		oral
PULSE RATE (/min)		72
PULSE RHYTHM		
RESP RATE (/min)		16
BP SYSTOLIC (mm Hg)		158
BP DIASTOLIC (mm Hg)		90
CHOLESTEROL (mg/dL)		
HDL (mg/dL)		
LDL (mg/dL)		127
BG RANDOM (mg/dL)	125	
CXR		
EKG		
PAP SMEAR		
BREAST EXAM		
MAMMOGRAM		
HEMOCCULT		neg
FLU VAX		0.5 ml g
PNEUMOVAX		0.5 ml g
TD BOOSTER		0.5 ml g
Foot Exam		Complete
Eye Exam		<b>Complete</b>



Module 14: Collecting Performance Data Using Chart Audits and Electronic Data Extraction

Appendix 14B. Sample Medical Record: Tom Gelato

**WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

Chart Summary

**Tom Gelato**

Male DOB: 06/06/1938 0000-66666

Home: 666-666-6666  
Ins: Commercial xxxxx

**Patient Information**

**Name:** Tom Gelato  
**Address:** 5555 Flavor Ave  
Ice Cream, California

**Home Phone:** 666-666-6666  
**Office Phone:**

**Patient ID:** 0000-66666  
**Birth Date:** 06/06/1938  
**Gender:** Male  
**Contact By:** Phone  
**Soc Sec No:** 666-666-6666  
**Resp Prov:** Carl Savem  
**Referred by:**  
**Email:**  
**Home LOC:** WeServeEveryone

**Fax:**  
**Status:** Active  
**Marital Status:** Divorced  
**Race:** White  
**Language:** English  
**MRN:** MR-111-1111  
**Emp. Status:** Part-time  
**Sens Chart:** No  
**External ID:** MR-111-1111

**Problems**

DIABETES MELLITUS (ICD-250.)

**Medications**

HUMULIN INJ 70/30 (INSULIN REG & ISOPHANE (HUMAN)) 20 units  
ac breakfast  
Last Refill: #600 u x 0 : Carl Savem MD (04/17/2010)

**Directives**

DO NOT RESUSCITATE

**Allergies and Adverse Reactions (! = critical)**

! CODEINE

**Services Due**

FLU VAX, PNEUMOVAX, MICROALB URN

## **WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

### **Tom Gelato**

Male DOB: 06/06/1938

0000-66666

Home: 666-666-6666  
Ins: Commercial xxxxx

**11/13/2010 - Office Visit: F/u Diabetes**

**Provider: Carl Savem MD**

**Location of Care: WeServeEveryone Clinic**

## **OFFICE VISIT**

### **History of Present Illness**

**Reason for visit:** Routine followup

**Chief Complaint:** No complaints

### **History**

#### **Diabetes Management**

##### **Hyperglycemic Symptoms**

**Polyuria:** no

**Polydipsia:** no

**Blurred vision:** no

##### **Sympathomimetic Symptoms**

**Diaphoresis:** no

**Agitation:** no

**Tremor:** no

**Palpitations:** no

**Insomnia:** no

##### **Neuroglycopenic Symptoms**

**Confusion:** no

**Lethargy:** no

**Somnolence:** no

**Amnesia:** no

**Stupor:** no

**Seizures:** no

### **Review of Systems**

**General:** denies fatigue, malaise, fever, weight loss

**Eyes:** denies blurring, diplopia, irritation, discharge

**Ear/Nose/Throat:** denies ear pain or discharge, nasal obstruction or discharge, sore throat

**Cardiovascular:** denies chest pain, palpitations, paroxysmal nocturnal dyspnea, orthopnea, edema

**Respiratory:** denies coughing, wheezing, dyspnea, hemoptysis

**Gastrointestinal:** denies abdominal pain, dysphagia, nausea, vomiting, diarrhea, constipation

**Musculoskeletal:** denies back pain, joint swelling, joint stiffness, joint pain

**Skin:** denies rashes, itching, lumps, sores, lesions, color change

**Neurologic:** denies syncope, seizures, transient paralysis, weakness, paresthesias

**Psychiatric:** denies depression, anxiety, mental disturbance, difficulty sleeping, suicidal ideation, hallucinations, paranoia

**Endocrine:** denies polyuria, polydipsia, polyphagia, weight change, heat or cold intolerance

**Heme/Lymphatic:** denies easy or excessive bruising, history of blood transfusions, anemia, bleeding disorders, adenopathy, chills, sweats

**Allergic/Immunologic:** denies urticaria, hay fever, frequent UTIs; denies HIV high risk behaviors

### **Vital Signs**

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

Male DOB: 06/06/1938  
0000-66666  
Ins: Commercial xxxxx

**Tom Gelato**

Home: 666-666-6666

Ht: **66** in. Wt: **195** lbs. T: **98.0** degF. T site: **oral** P: **72** Rhythm: **regular** R: **16** BP: **131/ 94**

### **Physical Exam**

**General Appearance:** well developed, well nourished, no acute distress

**Eyes:** conjunctiva and lids normal, PERRLA, EOMI, fundi WNL

**Ears, Nose, Mouth, Throat:** TM clear, nares clear, oral exam WNL

**Respiratory:** clear to auscultation and percussion, respiratory effort normal

**Cardiovascular:** regular rate and rhythm, S1-S2, no murmur, rub or gallop, no bruits, peripheral pulses normal and symmetric, no cyanosis, clubbing, edema or varicosities

**Skin:** clear, good turgor, color WNL, no rashes, lesions, or ulcerations

### **Assessment**

**Problems (including changes):** Blood pressure is lower. He is following his diet, by his account. He has not had any hypoglycemic episodes, no night sweats. Feet are inspected and there are no callouses, no compromised skin.

No vision complaints.

**Impression:** Sub optimal sugar, control with retinopathy and neuropathy, high glucometer readings.

### **Home Glucose Monitoring:**

AC breakfast 110 to 220

AC breakfast mean 142

AC dinner 100 to 250

AC dinner mean 120

### **Plan**

#### **Medications:**

HUMULIN INJ 70/30 20 u ac breakfast

**Treatment:** Will have annual foot exam at next visit.

#### **Orders:**

Ophthalmology consult

UA

HGBA1C

Metabolic Panel

Lipid Panel

**Education/Counseling (time):** 10 minutes

**Coordination of Care (time):** 10 minutes

**Follow-up/Return Visit:** 3 months

**Disposition:** return to clinic

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

Chart Summary

**Tom Gelato**

Male DOB: 06/06/1938

0000-66666

Home: 111-111-111  
Ins: Commercial xxxxx

Tests:

(1) Metabolic Panel (ML-03CHEM)

ALK PHOS	72 U/L
	35-100
BG RANDOM	125 mg/dl
	70-125
BUN	16 mg/dl
	7-25
CALCIUM	9.6 mg/dl
	8.2-10.2
CHLORIDE	101 mmol/l
	96-109
CO2	27 mmol/l
	23-29
CREATININE	0.7 mg/dl
	0.6-1.2
PO4	2.9 mg/dl
	2.5-4.5
POTASSIUM	4.5 mmol/l
	3.5-5.3
SGOT (AST)	31 U/L
	0-40
BILI TOTAL	0.7 mg/dl
	0.0-1.3
URIC ACID	4.8 mg/dl
	3.4-7.0
LDH, TOTAL	136 IU/L
	0-200
SODIUM	135 mmol/l
	135-145

(2) HbA1c Test

HbA1c level 11.0%

(3) Lipid Profile

Cholesterol, Total	210 mg/dl
Triglycerides	236 mg/dl
HDL Cholesterol	36
LDL Cholesterol	102

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

March 24, 2011  
Page 2  
Chart Summary

**Tom Gelato**

Home: 666-666-6666

Male DOB: 06/06/1938

0000-66666

Ins: Commercial xxxxx

**Flowsheet**

Enterprise/Medicine/Internal Medicine

Date	11/13/2010
HEIGHT (in)	66
WEIGHT (lb)	195
TEMPERATURE (deg F)	98
TEMP SITE	oral
PULSE RATE (/min)	72
PULSE RHYTHM	
RESP RATE (/min)	16
BP SYSTOLIC (mm Hg)	131
BP DIASTOLIC (mm Hg)	94
CHOLESTEROL (mg/dL)	
HDL (mg/dL)	
LDL (mg/dL)	102
BG RANDOM (mg/dL)	125
CXR	
EKG	
PAP SMEAR	
BREAST EXAM	
MAMMOGRAM	
HEMOCCULT	neg
FLU VAX	
PNEUMOVAX	
TD BOOSTER	0.5 ml g
Foot Exam	
Eye Exam	

Module 14: Collecting Performance Data Using Chart Audits and Electronic Data Extraction

Appendix 14B. Sample Medical Record: Steve Apple

**WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

**Steve Apple**

Male DOB: 02/02/1945

0000-22222

Home: 222-222-2222  
Ins: Commercial xxxxx

**Patient Information**

**Name:** Steve Apple

**Address:** 2222 Computer Dr  
Laptop, California

**Patient ID:** 0000-22222

**Birth Date:** 02/02/1945

**Gender:** Male

**Contact By:** Phone

**Soc Sec No:** 222-22-2222

**Resp Prov:** Carl Savem

**Referred by:**

**Email:**

**Home LOC:** WeServeEveryone

**Home Phone:** 222-222-2222

**Office Phone:**

**Fax:**

**Status:** Active

**Marital Status:** Married

**Race:** White

**Language:** English

**MRN:** MR-111-1111

**Emp. Status:** Full-time

**Sens Chart:** No

**External ID:** MR-111-1111

**Problems**

DIABETES MELLITUS (ICD-250.)

**Medications**

PRINIVIL TABS 20 MG (LISINOPRIL) 1 po qd

Last Refill: #30 x 2 : Carl Savem MD (11/27/2010)

HUMULIN INJ 70/30 (INSULIN REG & ISOPHANE (HUMAN)) 20 units ac breakfast

Last Refill: #600 u x 0 : Carl Savem MD (11/27/2010)

**Directives**

**Allergies and Adverse Reactions (! = critical)**

**Services Due**

CREATININE

## **WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

### **Steve Apple**

Male DOB: 02/02/1945

0000-22222

Home: 222-222-2222  
Ins: Commercial xxxxx

**2/1/2011 - Office Visit: F/u Diabetes**

**Provider: Carl Savem MD**

**Location of Care: WeServeEveryone Clinic**

## **OFFICE VISIT**

### **History of Present Illness**

**Reason for visit:** Routine follow up to review medications

**Chief Complaint:** No complaints

### **History**

#### **Diabetes Management**

##### **Hyperglycemic Symptoms**

**Polyuria:** no

**Polydipsia:** no

**Blurred vision:** no

##### **Sympathomimetic Symptoms**

**Diaphoresis:** no

**Agitation:** no

**Tremor:** no

**Palpitations:** no

**Insomnia:** no

##### **Neuroglycopenic Symptoms**

**Confusion:** no

**Lethargy:** no

**Somnolence:** no

**Amnesia:** no

**Stupor:** no

**Seizures:** no

### **Review of Systems**

**General:** denies fatigue, malaise,

**Eyes:** denies blurring, diplopia, irritation, discharge

**Ear/Nose/Throat:** denies ear pain or discharge, nasal obstruction or discharge, sore throat

**Cardiovascular:** denies chest pain, palpitations, paroxysmal nocturnal dyspnea, orthopnea, edema

**Respiratory:** denies coughing, wheezing, dyspnea, hemoptysis

**Gastrointestinal:** denies abdominal pain

**Musculoskeletal:** denies back pain, joint swelling, joint stiffness, joint pain

**Skin:** denies rashes, itching, lumps, sores, lesions, color change

**Neurologic:** denies syncope, seizures

**Psychiatric:** denies depression, anxiety, mental disturbance, difficulty sleeping, hallucinations, paranoia

**Endocrine:** denies polyuria, polydipsia, polyphagia, weight change, heat or cold intolerance

**Heme/Lymphatic:** denies easy or excessive bruising, history of blood transfusions, anemia, bleeding disorders, adenopathy, chills, sweats

**Allergic/Immunologic:** denies urticaria, hay fever

### **Vital Signs**

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

March 24, 2011  
Page 2  
Chart Summary

**Steve Apple**

Male DOB: 02/02/1945

0000-22222

Home: 222-222-2222  
Ins: Commercial xxxxx

Ht: **71** in. Wt: **191** lbs. T: **98.0** degF. T site: **oral** P: **72** Rhythm: **regular** R: **16** BP: **118/70**

**Physical Exam**

**General Appearance:** no acute distress

**Eyes:** conjunctiva and lids normal, PERRLA, EOMI, fundi WNL

**Ears, Nose, Mouth, Throat:** TM clear, nares clear, oral exam WNL

**Respiratory:** clear to auscultation and percussion, respiratory effort normal

**Cardiovascular:** regular rate and rhythm, S1-S2, no murmur, rub or gallop, no bruits, peripheral pulses normal and symmetric, no cyanosis, clubbing, edema or varicosities

**Skin:** clear, good turgor, color WNL, no rashes, lesions, or ulcerations

**Assessment**

**Problems (including changes):** Feet are inspected and there are no callouses, no compromised skin. No vision complaints.

**Impression:** Sub optimal sugar, control with retinopathy and neuropathy, high glucometer readings.

**Plan**

**Medications:**

HUMULIN INJ 70/30 20 u ac breakfast

PRINIVIL TABS 20 MG 1 qd

**Treatment:** Will have annual foot exam at next visit.

**Orders:**

Lipid Panel

**Education/Counseling (time):** 15minutes

**Coordination of Care (time):** 5 minutes

**Follow-up/Return Visit:** 3 months

**Disposition:** return to clinic



**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

March 24, 2011  
Page 2  
Chart Summary

**Steve Apple**

Male DOB: 02/02/1945

0000-22222

Home: 222.222.2222  
Ins: Commercial xxxxx

**2/1/2011 - Lab Report: Metabolic Panel Provider: Carl Savem MD**

Patient: Steve Apple

Note: All result statuses are Final unless otherwise noted.

Tests:

(1) Metabolic Panel (ML-03CHEM)

ALK PHOS	72 U/L
	35-100
BG RANDOM	125 mg/dl
	70-125
BUN	16 mg/dl
	7-25
CALCIUM	9.6 mg/dl
	8.2-10.2
CHLORIDE	101 mmol/l
	96-109
CO2	27 mmol/l
	23-29
CREATININE	0.7 mg/dl
	0.6-1.2
PO4	2.9 mg/dl
	2.5-4.5
POTASSIUM	4.5 mmol/l
	3.5-5.3
SGOT (AST)	31 U/L
	0-40
BILI TOTAL	0.7 mg/dl
	0.0-1.3
URIC ACID	4.8 mg/dl
	3.4-7.0
LDH, TOTAL	136 IU/L
	0-200
SODIUM	135 mmol/l
	135-145

(2) HbA1c Test

HbA1c level 5.0%

(3) Lipid Profile

Cholesterol, Total	210 mg/dl
Triglycerides	236 mg/dl
HDL Cholesterol	36
LDL Cholesterol	87

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

Chart Summary

**Steve Apple**

Home: 222-222-2222

Male DOB: 02/02/1945

0000-22222

Ins: Commercial xxxxx

**Flowsheet**

	<b>Date</b>	<b>2/1/2011</b>
HEIGHT (in)		71
WEIGHT (lb)		191
TEMPERATURE (deg F)		98
TEMP SITE		oral
PULSE RATE (/min)		72
PULSE RHYTHM		
RESP RATE (/min)		16
BP SYSTOLIC (mm Hg)		118
BP DIASTOLIC (mm Hg)		70
CHOLESTEROL (mg/dL)		
HDL (mg/dL)		
LDL (mg/dL)		87
BG RANDOM (mg/dL)		125
CXR		
EKG		
PAP SMEAR		
BREAST EXAM		
MAMMOGRAM		
HEMOCCULT		neg
FLU VAX		0.5 ml g
PNEUMOVAX		0.5 ml g
TD BOOSTER		0.5 ml g
Foot Exam		Complete
Eye Exam		<b>Complete</b>

Module 14: Collecting Performance Data Using Chart Audits and Electronic Data Extraction

Appendix 14 B. Sample Medical Record: Bill Windows

**WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

Chart Summary

**Bill Windows**

Male DOB: 09/09/1953 0000-99999

Home: 999-999-9999  
Ins: Commercial xxxxx

**Patient Information**

**Name:** Bill Windows  
**Address:** 9999 Computer Dr  
Operating System, California  
**Patient ID:** 0000-99999  
**Birth Date:** 09/09/1953  
**Gender:** Male  
**Contact By:** Phone  
**Soc Sec No:** 999-99-9999  
**Resp Prov:** Carl Savem  
**Referred by:**  
**Email:**  
**Home LOC:** WeServeEveryone

**Home Phone:** 999-999-9999  
**Office Phone:**  
**Fax:**  
**Status:** Active  
**Marital Status:** Married  
**Race:** White  
**Language:** English  
**MRN:** MR-111-1111  
**Emp. Status:** Full-time  
**Sens Chart:** No  
**External ID:** MR-111-1111

**Problems**

DIABETES MELLITUS (ICD-250.)

**Medications**

HUMULIN INJ 70/30 (INSULIN REG & ISOPHANE (HUMAN)) 20 units ac breakfast  
Last Refill: #600 u x 0: Carl Savem MD (09/27/2010)

**Directives**

DO NOT RESUSCITATE

**Allergies and Adverse Reactions (! = critical)**

**Services Due**

BP DIASTOLIC, BP SYSTOLIC, FLU VAX, PNEUMOVAX, MICROALB URN, FLU VAX, BP DIASTOLIC, BP SYSTOLIC, DIAB FOOT CK, ALBUMIN URIN, TSH, CHOLESTEROL, HGBA1C, CREATININE.

## **WeServeEveryone Clinic**

1111 First Street California  
111-111-11111 Fax: 111-111-1111

Chart Summary

### **Bill Windows**

Male DOB: 09/09/1953                      0000-99999

Home: 999-999-9999  
Ins: Commercial xxxxx

**01/20/11- Office Visit: F/u Diabetes**  
**Provider: Carl Savem MD**  
**Location of Care: WeServeEveryone Clinic**

## **OFFICE VISIT**

### **History of Present Illness**

**Reason for visit:** Routine follow up for Diabetes

**Chief Complaint:** No complaints

### **Diabetes Management**

#### **Hyperglycemic Symptoms**

**Polyuria:** no  
**Polydipsia:** no  
**Blurred vision:** no

#### **Sympathomimetic Symptoms**

**Diaphoresis:** no  
**Agitation:** no  
**Tremor:** no  
**Palpitations:** no  
**Insomnia:** no

#### **Neuroglycopenic Symptoms**

**Confusion:** no  
**Lethargy:** no  
**Somnolence:** no  
**Amnesia:** no  
**Stupor:** no  
**Seizures:** no

### **Review of Systems**

**General:** denies fatigue, malaise, fever, weight loss  
**Eyes:** denies blurring, diplopia, irritation, discharge  
**Ear/Nose/Throat:** denies ear pain or discharge, nasal obstruction or discharge, sore throat  
**Cardiovascular:** denies chest pain, palpitations, paroxysmal nocturnal dyspnea, orthopnea, edema  
**Respiratory:** denies coughing, wheezing, dyspnea, hemoptysis  
**Gastrointestinal:** denies abdominal pain, dysphagia, nausea, vomiting, diarrhea, constipation  
**Genitourinary:** denies hematuria, frequency, urgency, dysuria, discharge, impotence, incontinence  
**Musculoskeletal:** denies back pain, joint swelling, joint stiffness, joint pain  
**Skin:** denies rashes, itching, lumps, sores, lesions, color change  
**Neurologic:** denies syncope, seizures, transient paralysis, weakness, paresthesias  
**Psychiatric:** denies depression, anxiety, mental disturbance, difficulty sleeping, suicidal ideation, hallucinations, paranoia  
**Endocrine:** denies polyuria, polydipsia, polyphagia, weight change, heat or cold intolerance  
**Heme/Lymphatic:** denies easy or excessive bruising, history of blood transfusions, anemia, bleeding disorders, adenopathy, chills, sweats  
**Allergic/Immunologic:** denies urticaria, hay fever, frequent UTIs; denies HIV high risk behaviors

### **Vital Signs**

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

March 24, 2011  
Page 2  
Chart Summary

## Bill Windows

Home: 999-999-9999

Male DOB: 09/09/1953

0000-99999

Ins: Commercial xxxxx

Ht: **73** in. Wt: **200** lbs. T: **98.0** degF. T site: **oral** P: **74** Rhythm: **regular** R: **15** BP: **128/ 70**

## Physical Exam

**General Appearance:** well developed, well nourished, no acute distress

**Eyes:** conjunctiva and lids normal

**Ears, Nose, Mouth, Throat:** TM clear, nares clear, oral exam WNL

**Respiratory:** respiratory effort normal

**Cardiovascular:** regular rate and rhythm

**Skin:** clear, good turgor, color WNL, no rashes, lesions, or ulcerations

## Assessment

**Problems (including changes):** He is following his diet, by his account. He has not had any hypoglycemic episodes, no night sweats. Feet are inspected and there are no callouses, no compromised skin. No vision complaints.

**Impression:** Sub optimal sugar, high glucometer readings.

He will work harder on diet. Will increase insulin by 2 units. BP and symptoms are better.

## Home Glucose Monitoring:

AC breakfast 110 to 220

AC breakfast mean 142

AC dinner 100 to 250

AC dinner mean 120

## Plan

### Medications:

HUMULIN INJ 70/30 20 u ac breakfast

**Treatment:** Will have annual foot exam at next visit.

### Orders:

UA

HGBA1C

Metabolic Panel

Lipid Panel

**Education/Counseling (time):** 10 minutes

**Coordination of Care (time):** 10 minutes

**Follow-up/Return Visit:** 3 months

**Disposition:** return to clinic

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March 24, 2011  
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Chart Summary

**Bill Windows**

Male DOB: 09/09/1953

0000-99999

Home: 999-999-9999  
Ins: Commercial xxxxx

**01/20/2015 - Lab Report: Metabolic Panel Provider: Carl Savem MD**  
**Location of Care: Millennium Health System**

Patient: Bill Windows

Note: All result statuses are Final unless otherwise noted.

Tests:

(1) HbA1c Test

HbA1c level 6.0%

(2) Lipid Profile

Cholesterol, Total 210 mg/dl

Triglycerides 236 mg/dl

HDL Cholesterol 36

LDL Cholesterol 127

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March 24, 2011  
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Chart Summary

**Bill Windows**

Male DOB: 09/09/1953

0000-99999

Home: 999-999-9999  
Ins: Commercial xxxxx

**Flowsheet**

Enterprise/Medicine/Internal Medicine

<b>Date</b>	<b>01/20/2011</b>	<b>01/19/201</b>
HEIGHT (in)		70
WEIGHT (lb)		190
TEMPERATURE (deg F)		98
TEMP SITE		oral
PULSE RATE (/min)		72
PULSE RHYTHM		
RESP RATE (/min)		16
BP SYSTOLIC (mm Hg)		128
BP DIASTOLIC (mm Hg)		70
CHOLESTEROL (mg/dL)		
HDL (mg/dL)		
LDL (mg/dL)	127	
BG RANDOM (mg/dL)	125	
CXR		
EKG		
PAP SMEAR		
BREAST EXAM		
MAMMOGRAM		
HEMOCCULT		neg
FLU VAX		0.5 ml g
PNEUMOVAX		0.5 ml g
TD BOOSTER		0.5 ml g
Foot Exam		Complete
Eye Exam		<b>Complete</b>

*Module 14: Collecting Performance Data Using Chart Audits and Electronic Data Extraction*

**Appendix 14B. Sample Medical Record: Monica Latte**

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**Monica Latte**

Female DOB: 04/04/1950

0000-44444

Home: 444-44-4444

Ins: Commercial Orange Shield

**Patient Information**

**Name:** Monica Latte

**Home Phone:** 444-444-4444

**Address:** 4444 Coffee Ave  
Chocolate, California

**Office Phone:**

**Patient ID:** 0000-44444

**Fax:**

**Birth Date:** 04/04/1950

**Status:** Active

**Gender:** Female

**Marital Status:** Divorced

**Contact By:** Phone

**Race:** Black

**Soc Sec No:** 444-44-4444

**Language:** English

**Resp Prov:** Carl Savem

**MRN:** MR-111-1111

**Referred by:**

**Emp. Status:** Full-time

**Email:**

**Sens Chart:** No

**Home LOC:** WeServeEveryone

**External ID:** MR-111-1111

**Problems**

DIABETES MELLITUS (ICD-250.)

HYPERTENSION, BENIGN ESSENTIAL (ICD-401.1)

**Medications**

PRINIVIL TABS 20 MG (LISINOPRIL) 1 po qd

Last Refill: #30 x 2 : Carl Savem MD (08/27/2010)

HUMULIN INJ 70/30 (INSULIN REG & ISOPHANE (HUMAN)) 20 units ac breakfast

Last Refill: #600 u x 0 : Carl Savem MD (08/27/2010)

**Directives**

**Allergies and Adverse Reactions (! = critical)**

**Services Due**

FLU VAX, PNEUMOVAX, MICROALB URN



## **WeServeEveryone Clinic**

1111 First Street California  
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### **Monica Latte**

Female DOB: 04/04/1950

0000-44444

Home: 444-444-4444  
Ins: Commercial xxxxx

**3/18/2011 - Office Visit: F/u Diabetes**

**Provider: Carl Savem MD**

**Location of Care: WeServeEveryone Clinic**

## **OFFICE VISIT**

### **History of Present Illness**

**Reason for visit:** Routine follow

**Chief Complaint:** No complaints

### **History**

#### **Diabetes Management**

##### **Hyperglycemic Symptoms**

**Polyuria:** no

**Polydipsia:** no

**Blurred vision:** no

##### **Sympathomimetic Symptoms**

**Diaphoresis:** no

**Agitation:** no

**Tremor:** no

**Palpitations:** no

**Insomnia:** no

##### **Neuroglycopenic Symptoms**

**Confusion:** no

**Lethargy:** no

**Somnolence:** no

**Amnesia:** no

**Stupor:** no

**Seizures:** no

### **Review of Systems**

**General:** denies fatigue, malaise, fever, weight loss

**Eyes:** denies blurring, diplopia, irritation, discharge

**Ear/Nose/Throat:** denies ear pain or discharge

**Cardiovascular:** denies chest pain

**Respiratory:** denies coughing, wheezing, dyspnea, hemoptysis

**Gastrointestinal:** denies abdominal pain, dysphagia, nausea, vomiting, diarrhea, constipation

**Musculoskeletal:** denies back pain, joint swelling, joint stiffness, joint pain

**Skin:** denies rashes, itching, lumps, sores, lesions, color change

**Neurologic:** denies syncope

**Psychiatric:** denies depression, anxiety, mental disturbance, difficulty sleeping, suicidal ideation, hallucinations, paranoia

**Endocrine:** denies polyuria, polydipsia, polyphagia, weight change, heat or cold intolerance

**Heme/Lymphatic:** denies easy or excessive bruising, history of blood transfusions, anemia, bleeding disorders, adenopathy, chills, sweats

**Allergic/Immunologic:** denies urticaria

### **Vital Signs**

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Chart Summary

**Monica Latte**

Female DOB: 04/04/1950

0000-44444

Home: 444-444-4444  
Ins: Commercial xxxxx

Ht: **64** in. Wt: **140** lbs. T: **98.0** degF. T site: **oral** P: **72** Rhythm: **regular** R: **16** BP: **158/90**

**Physical Exam**

**General Appearance:** well developed, well nourished, no acute distress

**Eyes:** conjunctiva and lids normal, PERRLA, EOMI, fundi WNL

**Ears, Nose, Mouth, Throat:** TM clear, nares clear, oral exam WNL

**Respiratory:** clear to auscultation and percussion, respiratory effort normal

**Cardiovascular:** regular rate and rhythm, S1-S2, no murmur, rub or gallop, no bruits, peripheral pulses normal and symmetric, no cyanosis, clubbing, edema or varicosities

**Skin:** clear, good turgor, color WNL, no rashes, lesions, or ulcerations

**Assessment**

**Problems (including changes):** Blood pressure is lower. Feet are inspected and there are no callouses, no compromised skin. No vision complaints.

**Impression:** Sub optimal sugar, control with retinopathy and neuropathy, high glucometer readings. Will work harder on diet. Will increase insulin by 2 units.

**Home Glucose Monitoring:**

AC breakfast 110 to 220

AC breakfast mean 142

AC dinner 100 to 250

AC dinner mean 120

**Plan**

**Medications:**

HUMULIN INJ 70/30 20 u ac breakfast

PRINIVIL TABS 20 MG 1 qd

**Treatment:** Will have annual foot exam at next visit.

**Orders:**

UA

Metabolic Panel

**Education/Counseling (time):** 5 minutes

**Coordination of Care (time):** 20 minutes

**Follow-up/Return Visit:** 3 months

**Disposition:** return to clinic

**WeServeEveryone Clinic**  
1111 First Street California  
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**Monica Latte**  
Female DOB: 04/04/1950

0000-44444

Home: 444-444-4444  
Ins: Commercial xxxxx

**03/18/2011 - Lab Report: Metabolic Panel Provider: Carl Savem MD**

Tests:

(1) HbA1c Test  
HbA1c level 6.0%

(2) Lipid Profile  
Cholesterol, Total 210 mg/dl  
Triglycerides 236 mg/dl  
HDL Cholesterol 36  
LDL Cholesterol 107

**WeServeEveryone Clinic**  
1111 First Street California  
111-111-11111 Fax: 111-111-1111

March 24, 2011  
Page 2  
Chart Summary

**Monica Latte**

Home: 444-444-4444

Female DOB: 04/04/1950

0000-44444

Ins: Commercial xxxxx

**Flowsheet**

Enterprise/Medicine/Internal Medicine

Date	03/18/2011
HEIGHT (in)	64
WEIGHT (lb)	140
TEMPERATURE (deg F)	98
TEMP SITE	oral
PULSE RATE (/min)	72
PULSE RHYTHM	
RESP RATE (/min)	16
BP SYSTOLIC (mm Hg)	158
BP DIASTOLIC (mm Hg)	90
CHOLESTEROL (mg/dL)	
HDL (mg/dL)	
LDL (mg/dL)	107
BG RANDOM (mg/dL)	125
CXR	
EKG	
PAP SMEAR	
BREAST EXAM	
MAMMOGRAM	
HEMOCCULT	neg
FLU VAX	
PNEUMOVAX	
TD BOOSTER	0.5 ml g
Foot Exam	
Eye Exam	Complete

## Appendix 14C. Sample Set of Electronic Pull Instructions for IT Staff

### Diabetic Patient Identification IT Instructions

#### Patient list generator

**Step 1:** Identify all patients that meet all of the following criteria:

- **Diabetic:** Select patients with any ICD9 = 250.xxx in the billing data.
- Among those, select patients with birth dates after 1/1/1927 and prior to 1/1/1962 [**Age > 50 years and <85 on 1/1/12**]
- Record number of patients seen at least twice in the 2-year period (3/30/2010-3/31/2012) \_\_\_\_
  - Generate list seen at least once in both 12-month periods (3/30/2010-3/30/2011 AND 3/31/2011-3/31/2012).
- Record number of diabetics identified \_\_\_\_
  - Of diabetic patients selected, select those with three hemoglobin A1c values dated from 3/31/2011 to 3/31/2012:
    - Record number of patients identified \_\_\_\_

**Step 2:** Identify all patients that meet all of the following criteria:

- **Hypertensive:** Select patients with any ICD9 = 401 or 402 or 403 or 404.
- Among those, select patients with birth dates after 1/1/1927 and prior to 1/1/1962 [**Age > 50 years and <85 on 1/1/12**]
- Record number of patients seen at least twice in the 2-year period (3/30/2010-3/31/2012) \_\_\_\_
  - Generate list seen at least once in both 12-month periods (3/30/2010-3/30/2011 AND 3/31/2011-3/31/2012).
- Record number of hypertensives identified \_\_\_\_

Of diabetic patients identified in Step 1 (excluding criteria for hemoglobin A1c values, including those seen twice in both 12-month periods and only those within the range of birth dates listed), how many have any ICD9 = 401 or 402 or 403 or 404?