Best Practices in Hypertension

The Hypertension Improvement Project

Cleveland Clinic Medicine Institute
Independence, OH

Cleveland Clinic
Family Health Center, Independence

MEDICAL GROUP PROFILE

- **The Cleveland Clinic Medicine Institute** includes all internal medicine, family medicine, and infectious disease physicians employed by the Cleveland Clinic. It is further divided into a Department of Community Internal Medicine, which includes the internists who do not work at the main campus of the Cleveland Clinic Hospital, and a Department of Family Medicine. Community internal medicine and family medicine physicians see patients at various locations, called Family Health Centers. Family Health Centers also house physicians of most other specialties.

- **The goal of Cleveland Clinic Family Health Centers** is to provide the highest-quality health care in convenient locations to families across our region.

- **Cleveland Clinic began in 1993 with the opening of a single center.** Today, fourteen locations offer primary, specialty, imaging, and surgical services. Three Family Health Centers include convenient ambulatory surgery centers and three more offer endoscopy services.

- **In 2006, 350+ providers at Family Health Centers completed appointments for more than 1.3 million patients.** An electronic medical record (EMR) is used for all patient encounters, which aids in collecting data for quality improvement. Family Health Centers also added more than 34,000 new patients. They continue to work toward expanding services for the convenience of patients.

FUNDING

The Hypertension Improvement Project has been funded as part of the Family Health Center Division's overall quality budget, and key physician and administrative personnel are allowed protected time to participate in this and other quality improvement efforts.

EXECUTIVE SUMMARY

Cleveland Clinic began tracking hypertension in 2005. Hypertension is a common medical condition that increases the risk of many other medical conditions, including heart attack, heart failure, kidney disease, vascular disease, and stroke. In 2007 a performance improvement team was developed to evaluate Cleveland Clinic's treatment of hypertension and devise a plan to improve treatment of hypertensive patients, thereby lowering their cardiovascular risk and improving their health. Cleveland Clinic follows the guidelines of Health Plan Employer Data and Information Set (HEDIS), a nationally recognized set of measures developed by the National Committee for Quality Assurance (NCQA), when tracking hypertension.

Cleveland Clinic's Hypertension Performance Improvement Committee consists of a cardiologist, internal medicine physicians, nurses, and administrators. Cleveland Clinic first focused on increasing awareness of hypertension among all of the team members involved in patient care: clerical support staff, clinical support staff, physicians, and patients.

Cleveland Clinic's clinical staff was re-educated on the method for obtaining an accurate blood pressure, with emphasis on proper cuff size selection. All physicians were forwarded the online link to *The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure* (JNC 7). The organization also provides educational handouts to patients during office visits and at community health talks on hypertension given by the organization's primary care physicians. Registered nurses offer dietary and lifestyle counseling at RN blood pressure check visits, as well as reinforcing blood pressure goals and medication information. Dietitians are available by physician referral at many of the organization's Family Health Centers.

Cleveland Clinic continues to reinforce the mandate that blood

pressure be checked at every visit with a primary care physician, and be recorded in the electronic medical record.

Physicians receive quarterly quality report cards containing information about the percentage of their patients whose hypertension was well-controlled at their last primary care visit. The report card also provides the percentage of the physician's diabetic patients whose blood pressure was less than 130/80 at their last primary care visit.

Cleveland Clinic's Hypertension Improvement Project fits in well with the overall environment of the organization, which values quality monitoring and improvement efforts as key methods of ensuring the best patient care. Cleveland Clinic's physician CEO has made quality a top priority, and each department compiles an annual "Outcomes" report that is published and distributed publicly.

GOALS AND OBJECTIVES

Hypertension is a common medical condition that increases the risk of many other medical conditions, including heart attack, heart failure, kidney disease, vascular disease, and stroke. Many patients with hypertension do not realize they have it, and many are not aware of its importance. Controlling blood pressure is crucial to reducing patients' risk of organ damage and death.

Cleveland Clinic has been tracking quality performance measures for many years, including hypertension, diabetes, cancer screening measures, immunization rates, and others. In tracking hypertension, Cleveland Clinic has follows the guidelines of the Health Plan Employer Data and Information Set (HEDIS), a nationally recognized set of measures developed by the National Committee for Quality Assurance (NCQA).

Cleveland Clinic started to track hypertension in 2005. A performance improvement team (Hypertension Performance Improvement Committee) was formed in 2007 to evaluate the organization's treatment of hypertension and devise a plan to demonstrate improvement in the treatment of the organization's hypertensive patients, thereby lowering their cardiovascular risk and improving their health.

Cleveland Clinic's Hypertension Performance Improvement Committee consists of a cardiologist, internal medicine physicians, nurses, and administrators. Initially, the committee met monthly. The frequency of meetings decreased as the plan developed.

IDENTIFYING TARGET POPULATIONS AND TRACKING INFORMATION

Cleveland Clinic tries to identify a population of patients that mirrors the guidelines of HEDIS. Criteria are updated yearly to be consistent with any changes made by HEDIS. Patients and their blood pressure readings are identified by searching the EMR. The organization searches for patients aged 18-85 with the diagnosis of hypertension in the encounter visit, problem list, or history who have had at least one completed office visit to the Primary Care Department within the past 12 months. The organization looks for ICD 9 code 401 and excludes patients with end-stage renal disease and pregnancy (ICD 9 codes 585.5, 585.6, V420, v45.1, v56, 630-677, v22, v23, v28). Data are collected quarterly. Currently, demographic information and breakdown by stage of hypertension are not reported.

THE INTERVENTION

Raising Awareness

First, the organization focused on increasing awareness of hypertension among all of the team members involved in patient care: clerical support staff, clinical support staff, physicians, and patients.

Cleveland Clinic's clinical staff was re-educated on the proper method for obtaining an accurate blood pressure reading, with emphasis on selection of proper cuff size. The competency of staff taking blood pressures is assessed two times per year using a competency checklist (Appendix 1 and 2). Cardiologists within the organization gave lectures on hypertension to the secretarial support staff, clinical support staff, and physicians. A pharmacology course was provided for clinical staff, focusing on the common medications used to treat cardiovascular conditions. All primary care physicians have been encouraged to talk about hypertension with their clinical support staff during informal encounters during the ebb and flow of their clinical hours and during meetings.

Physicians also had the opportunity to attend an educational lecture given by a cardiologist in the group. Further CME lectures given by members of the nephrology department are planned. Hypertension quality statistics were reviewed at a regional meeting attended by all primary care physicians, and a summary of the committee's suggestions was presented at that meeting. The quality review officers at each individual site have been instructed to work with their physicians on evaluation

and management of hypertension. There has been email communication with all the primary care staff, including brief reminders about the importance of hypertension. The online link to the JNC 7 report was forwarded to all physicians, and lists of inexpensive medicines at local pharmacies are being formulated and will be emailed to all primary care physicians. Physicians are emailed when a journal article useful to the management of hypertension is published.

Patients have been educated through handouts given at office visits and through community health talks on hypertension by the organization's primary care physicians. In the future, Cleveland Clinic will be considering mass mailings through the post office and email to patients with hypertension information. Registered nurses offer dietary and lifestyle counseling at RN blood pressure check visits, as well as reinforcing blood pressure goals and medication information. Dietitians are available by physician referral at many of the Family Health Centers.

Documenting Blood Pressure

Cleveland Clinic continues to reinforce the mandate that blood pressure be checked at every visit with a primary care physician and recorded in the medical record. The medical assistant or nurse who takes the blood pressure tells the patient the reading. The clinical staff communicates high readings to each provider verbally, with written Post-it notes, or via another individualized method. The organization uses an EMR and is looking at the possibility of displaying elevated blood pressure readings in a red font on the computer screen, which will be more noticeable to the physician than the standard black font.

Ongoing Hypertension Management

The clinical staff is encouraged to talk to patients about the importance of controlling their high blood pressure. A brief, easy-to-read patient education flyer is given to patients to read while they wait for the physician (Appendix 3). A longer, more-detailed patient education handout is given to the patient to take home (Appendix 4). The handouts can be printed by clicking on a readily accessible link on the EMR. Every patient is given an After Visit Summary sheet at the end of their visit, which includes vital signs, medication list, and follow-up instructions (Appendix 5). When a patient's medications have been adjusted, Cleveland Clinic advises the patient to schedule a follow-up appointment with the physician or a nurse within a two- to four-week timeframe for assessment of the response to the medication and determination of whether further adjustments are needed. These frequent visits should keep occurring until optimal blood pressure control is achieved. Once optimal control is achieved, hypertensive patients should be evaluated in the office a minimum of two times per year. Appendix 6 is a flowchart outlining the workflow of Cleveland Clinic's intervention to date.

Physician Report Cards

Physicians receive quarterly quality report cards (Appendix 7), which contain information about the percentage of their patients with the diagnosis of hypertension who were well-controlled at their last primary care visit. The report card also provides the percentage of diabetic patients with a blood pressure less than 130/80 mmHg at their last primary care visit. Physicians at each individual site receive the report cards for all the physicians at their location. Sharing information allows providers to learn from each other and identify best practices within their group. The local quality review officer also reviews the quality statistics for his or her center at local staff meetings, and works individually with physicians who are below average.

OUTCOMES

Appendix 8 shows the rate of adequate blood pressure control of hypertensive patients on a quarterly basis since 2005. The trend has been a gradual increase—which Cleveland Clinic hopes will continue. Future plans include giving physicians quarterly lists of patients whose blood pressure is poorly controlled. Patients on these lists can be targeted for mailings and phone calls to encourage them to have appropriate follow-up care. Ideally, Cleveland Clinic would like physicians to be able to use the EMR to make real-time lists of their patients based on search criteria of their own choosing. Also, Cleveland Clinic would like to launch a patient education campaign aimed at patients with pre-hypertension.

The center whose group obtained the greatest improvement in control of blood pressure from the first quarter 2007 through the third quarter of 2007 was treated to a catered, "cardiovascularly healthy" meal for the physicians and their staff, as well as given recognition at regional staff meetings. The Most Improved prize, announce in late November 2007, was won by the Elyria Family Health Center.

LEADERSHIP

Cleveland Clinic's Hypertension Improvement Project fits in well with the overall environment of the organization, which values quality monitoring and improvement efforts as key methods of ensuring the best care for all patients. Cleveland Clinic's

physician CEO has made quality a top priority, and each department compiles an annual "Outcomes" report that is published and distributed publicly. Data on hypertension control has been featured prominently in these reports for internists and family medicine physicians for the past two years.

Cleveland Clinic's Division Chair has been an ongoing champion for quality improvement in both preventive care and chronic disease management. Data on hypertension control, along with other standard quality measures, are discussed regularly at division leadership and physician meetings, and are also covered during each physician's annual performance review.

The Hypertension Improvement Project has be funded as part of the Family Health Center Division's overall quality budget, and key physician and administrative personnel are allowed protected time to participate in this and other quality improvement projects. As an added incentive, the division also hosted a luncheon to recognize the local practice with the greatest improvement in hypertension control for 2007.

PROJECT PLAN/TIMELINE

1998 Quality Council for Family Health Centers formed, consisting of adult and pediatric primary care physicians from each center, nurses, and administrators. The council establishes health maintenance guidelines for the organization and devises systems to inform staff and patients of these guidelines. It also strives to optimize workflow to make preventive health measures easy to provide. The council provides statistics regarding some cancer screening rates and immunization rates to physicians.

2001 Electronic Medical Record implemented, which makes it much easier to collect data about health maintenance and chronic disease management.

2005 Cleveland Clinic starts to report the percentage of hypertensive patients who are controlled each quarter.

2006 Hypertension Quality Improvement team formed.

2007 Hypertension team starts to meet and formulates and implements plan as outlined previously.

LESSONS LEARNED

The key to the committee's success is the willingness of the team members to work together toward the goal of providing better care to their patients without regard for individual ego. Members bring ideas to the table and accept constructive criticism. The power of the group working together and using analytical skills from different points of view leads to the conception of effective plans.

The biggest challenge is communicating the committee's plans to the more than 100 physicians who provide adult primary care at multiple sites in the organization. Another challenge is to remember that the staff is very busy providing high-quality care to a diverse patient population, not just patients with hypertension. The organization needs to enhance both the efficiency and quality of care without slowing down or overwhelming patient flow.

As the project progresses, the organization has learned that it cannot rest on its laurels. Performance improvement is an ongoing process. Cleveland Clinic needs to continue to encourage forward-looking and innovative thinking to meet the next level of challenges.

FOR ADDITIONAL INFORMATION

Contact

Robert W. Jones, Jr., MD
Cleveland Clinic Independence Family Health Center
5001 Rockside Road
Independence, OH 44131
Phone: 216-986-4312
Fax: 216-986-4930
Email: jonesr@ccf.org

Appendix 1

PROPER MEASUREMENT OF BLOOD PRESSURE IN THE OFFICE

Step 1 All measurements should be performed by individuals experienced in the techniques of blood pressure assessment and using standardized equipment. Measurements should be taken in a quiet, well-lit environment. All measurements should occur at least 30 minutes after the last ingestion of caffeine, alcohol, or nicotine. The patient should be allowed 3 to 5 minutes of rest before measurement. The observer must be able to view the manometer at eye level.

Step 2 The patient's upper arm is exposed and the patient is positioned in the proper manner for the reading, with the arm supported at the level of the heart. Seated patients may have their arms rest on a table, with back support and feet flat on the floor. Supine patients' arms may lie passively in extension, with a small pillow supporting the arm and bringing the cuff to the level of the chest. Standing patients require the arm be supported in such a manner as to eliminate exertion and bring the cuff to the level of the chest.

Step 3 The patient's bare upper arm is evaluated for the appropriate size cuff (see Table 4). No tight or constrictive clothing should be present on the limb, i.e., avoid rolling up a sleeve to expose the arm.

Step 4 The cuff is placed on the patient's bare upper arm, with the lower edge of the cuff 2.5 cm above the antecubital fossa. The midline of the bladder of the cuff should lie over the path of the artery.

Step 5 The cuff is rapidly inflated to 70 mmHg and then steadily inflated by 10-mmHg increments while the examiner simultaneously palpates the patient's brachial or radial artery pulsation. At the point at which the pulse is no longer palpable, the cuff is deflated. Note the pressure at which the pulse is obliterated on insufflation and reappears on desufflation. This determines how high to inflate the cuff on subsequent readings.

Step 6 Wait 15 to 30 seconds, then place the bell head of the stethoscope over the brachial artery. Inflate the cuff to a pressure 30 mm Hg above the pressure noted in step 5.

Step 7 Allow the cuff to slowly deflate at a rate of 2 mmHg per second while listening for repetitive sounds.

Step 8 Record the pressure at which the first of at least two repetitive sounds is heard. This is the systolic pressure (phase 1 sounds). Adjust the valve such that the cuff deflates at a rate of 2 mm Hg per beat.

Step 9 Record the pressure at which the last regular sound is heard. This is the diastolic pressure (phase 5 sounds). Continue to listen during full deflation to confirm disappearance of the heart sounds. Record the pressures, and round the systolic and diastolic pressures upward to the nearst 2 mm Hg if necessary.

Step 10 Repeat the above steps to obtain blood pressure recordings in both arms or in different positions[a]. Allow 2 minutes of rest between recordings.

---

[a]Generally, 2 or more readings are obtained and the average of the two is used as the blood pressure for each limb tested. Both arms should be tested, and the higher value considered as the blood pressure. If the 2 readings in any limb differ by more than 5 mm Hg, additional readings are suggested until this wide discrepancy is clarified.
Adapted from reference 4.

Appendix 2

DEPARTMENT OF AMBULATORY NURSING CRITERION CHECKLIST

◯ **Initial training** ◯ **Annual training**

Name: _____ **Dept:** _____

Competency: Blood pressure measurement		
Critical Elements	**Met**	**Not Met**
1. Places patient in a comfortable position. Place entire arm at patient's heart level. *(If the arm is above the level of the heart, a falsely low reading may be obtained.)*		
2. Wraps the cuff smoothly and evenly around the arm 1-2 inches above the antecubital space. *(Do not place cuff over clothing.)*		
3. Palpates the brachial artery on the ulnar side of the antecubital space with the second and third finger tips of one hand. With the same hand holds the diaphragm of the stethoscope. Closes the control valve clock wise with the other hand and inflates the compression bag (cuff) as rapidly as possible by pumping the inflation bulb. Continues until the pulse you are palpating can no longer be felt.		
4. Inflate the cuff for an additional 30 mmHg.		
5. Positions the diaphragm of the stethoscope over the brachial artery.		
6. Releases the valve turning it counterclockwise. *(Do not deflate too slowly or you will obtain a falsely elevated pressure due to venous congestion. Do not deflate too quickly or you will get an erroneous reading.)*		
7. Reads the manometer at eye level		
8. Documents findings on appropriate form or in the eMAR.		

3/06: bpcc1.mbb

◯ **Passed** ◯ **Reviewed only** ◯ **Needs to repeat**

Validated by: _____ **Date:** _____

Appendix 3

PATIENT EDUCATION FLYER

HYPERTENSION (HIGH BLOOD PRESSURE)

Goal Blood Pressure is less than 140/90

*NOTE: DIABETICS BLOOD PRESSURE GOAL IS LESS THAN 130/80

American Heart Association recommended blood pressure levels			
Blood Pressure Category	**Systolic (mmHg)**		**Diastolic (mmHg)**
Normal Prehypertension	Less than 120 120-139	and or	Less than 80 80-89
High			
Stage 1 Stage 2	140-159 160 or higher	or or	90-99 100 or higher

Ten Ways to Control Your High Blood Pressure

1. Know your blood pressure. Have it checked regularly.
2. Know what your weight should be. Keep it at or below that level.
3. Don't use too much salt in cooking or at meals. Avoid salty foods.
4. Eat a diet low in saturated fat according to the American Heart Association Recommendations.
5. Control alcohol intake. Don't have more than one drink a day if you're a woman or two a day if you're a man.
6. Take your medicine exactly as prescribed. Don't run out of pills even for a single day.
7. Keep appointments with the doctor.
8. Follow your doctor's advice about physical activity.
9. Make certain your parents, brothers, sisters and children have their blood pressure checked regularly.
10. Live a normal life every other way.

Blood Pressure Tracker Use this tool to keep track of your blood pressure levels.

Date	Blood Pressure	Weight	Notes/How I Feel

Appendix 4

PATIENT EDUCATION HANDOUT

HYPERTENSION (HIGH BLOOD PRESSURE)

WHAT IS HIGH BLOOD PRESSURE?

Blood pressure is the measurement of the pressure or force of blood pushing against blood vessel walls. The heart pumps blood into the arteries (blood vessels), which carry the blood throughout the body. High blood pressure, also called hypertension, means the pressure in your arteries is above the normal range. In most cases, no one knows what causes high blood pressure.

HOW IS BLOOD PRESSURE RECORDED?

Blood pressure is written as two numbers, such as 118/72. The first number is the systolic pressure. This is the pressure in the arteries when the heart beats and fills them with blood. The second number is the diastolic pressure. This is the pressure in the arteries when the heart rests between beats.

What is a normal blood pressure reading?

Type of blood pressure reading	Normal blood pressure	Prehypertension	Stage 1 hypertension	Stage 2 hypertension
Systolic	Less than 120 mmHg	120-139 mmHg	140-159 mmHg	160 mmHg and above
Diastolic	Less than 80 mmHg	80-89 mmHg	90-99 mmHg	100 mmHg and above

mmHg = millimeters of mercury – the unit of measure for blood pressure

HOW WILL I KNOW IF I HAVE HIGH BLOOD PRESSURE?

Your health care provider can tell you if you have high blood pressure by checking your blood pressure with a special meter. You usually cannot feel high blood pressure. Many people who have high blood pressure don't know they have it. You should have your blood pressure checked once a year to make sure you don't have high blood pressure. Do not rely on drug store measurements, as they may not be accurate.

WHAT CAN HAPPEN IF HIGH BLOOD PRESSURE IS NOT TREATED?

- **Stroke**
- **Enlarged Heart**
- **Heart Failure**
- **Peripheral Vascular Disease**
- **Heart Attack**
- **Kidney Disease/Failure**

Appendix 4 (con't)

PATIENT EDUCATION HANDOUT

WHO IS MORE LIKELY TO HAVE HIGH BLOOD PRESSURE?

- People with family members who have high blood pressure, cardiovascular disease, or diabetes
- African Americans
- Women who are pregnant
- Women who take birth control pills
- People over 35
- People who are overweight
- People who are not active
- People who drink a lot of alcohol
- People who eat too many fatty foods or foods with too much salt
- People who smoke

WHAT SHOULD I DO IF I HAVE HIGH BLOOD PRESSURE?

- If you have been diagnosed with high blood pressure, you should aim to lower your blood pressure to less than 140/90, or to less than 130/80 if you have diabetes or kidney disease.
- Check your own blood pressure at home as recommended.
- Eat healthy foods that are low in salt and fat.
- Achieve and maintain your ideal body weight.
- Limit alcohol to no more than two drinks each day. One drink is defined as 1 oz of alcohol, 5 oz of wine, or 12 oz of beer.
- Be more physically active.
- Quit smoking.
- Work on controlling anger and managing stress.
- Take high blood pressure medicine if your health care provider prescribes it, and follow the health care provider's directions carefully.
- Have regular blood pressure checks by your health care provider.

WHAT SHOULD I INCLUDE IN MY DIET TO CONTROL HIGH BLOOD PRESSURE?

- Eat foods that are lower in fat, salt, and calories such as skim or 1% milk, fresh vegetables and fruit, and plain rice and pasta. (Ask your doctor or health care provider for a more detailed list of salt-free foods to eat.)
- Use flavorings, spices, and herbs to make foods tasty without using salt.
- Avoid or cut down on butter and margarine, regular salad dressings, fatty meats, whole milk dairy products, fried foods, and salted snacks.
- Ask your health care provider if you should increase potassium in your diet or if you need to take a potassium supplement.

Appendix 4 (con't)

PATIENT EDUCATION HANDOUT

HOW CAN I BE MORE ACTIVE?

- Check first with your health care provider before increasing your physical activity. Ask your provider what type and amount of exercise is right for you.
- Choose aerobic activities such as walking, biking, or swimming.
- Start slowly and increase activity gradually. Aim for a regular routine of activity three to five times a week for 30 to 45 minutes each session.

WHAT SHOULD I KNOW ABOUT BLOOD PRESSURE MEDICINE?

- There are many different medicines to treat high blood pressure, and you might need to take medicine from now on. If you are told by your health care provider to take high blood pressure medicine, be sure to follow the exact directions.
- Also ask what side effects can happen with your medicine, and talk to your health care provider about any problems or side effects you might have with your medicine. Lastly, do not stop taking the medicine on your own.

HOW CAN I LEARN MORE ABOUT HIGH BLOOD PRESSURE?

Talk to your health care provider or visit your local library. You can also contact health care agencies such as:

The National Heart, Lung and Blood Institute
Information Center
1.301.592-8573
TTY: 240.629.3255
www.nhlbi.nih.gov/

The American Heart Association
1.800.242.872
www.americanheart.org/

The National Institute of Health Joint National
Committee on the Prevention, Detection, Evaluation,
and Treatment of High Blood Pressure
www.nhlbi.nih.gov/guidelines/hypertension/

Appendix 5

AFTER VISIT SUMMARY

AFTER VISIT SUMMARY

PATIENT INFO		ENCOUNTER DATE:	Male	74	
	Patient's Name	DOB	Sex	Age	
VISIT INFORMATION	09/01/2001				
	Date & Time	Provider	Department	Encounter#	
REASON FOR VISIT	Flu 6 Month				
VITALS LAST RECORDED	122/62	75	96.4°F (35.8°C) Tympanic	Right 198 lbs. (89.812kg)	
	BP	Pulse	Temp (Src)	Weight	
ALLERGIES AS OF 09/07/2007	NO LATEX ALLERGY Date verified 09/01	03/16/2005	not noted		
	Agent	Noted	Reactions-Comments	Type	
OUTPATIENT CURRENT MEDICATIONS 09/07/2007	candesartan (ATACAND) 16mg ORAL Tab LIPITOR 10mg TAB ASPIRIN TABLET 81 MG PO		Take one (1) tablet daily in the morning. Take one (1) tablet daily. 1.0 tablet Oral qd		
	Prescription		Dosage		
PRESCRIPTION INFORMATION	ATACAND 16 MG TAB				
	Printed Prescriptions				
PATIENT INSTRUCTIONS	NONE				
VISIT DISPOSITION	Return in approximately 6 months.				
	Disposition				

Thank you for coming to see me today. I appreciate your confidence in choosing_____ for your medical care. If you have any questions about your visit today, please call our office and my staff will forward your message to me. I will get back to you as soon as possible.

Appendix 6

FLOWCHART OF INTERVENTION

1. Ongoing Education of Clerical, Clinical and Physician Staff
2. Patient arrives at office
3. Clinical staff takes blood pressure and sees it is elevated
4. Clinical staff gives patient brief handout to read about Hypertension
5. Clinical staff tells the Physician the blood pressure is high
6. Physician evaluates the patient
   Repeats the blood pressure measurement
   Develops treatment plan
7. Clinical staff gives patient more detailed handout about Hypertension
8. Patient returns for RN blood pressure visit in 2-4 weeks
   RN measures blood pressure several times
   RN confers with Physician who orders treatment plan
   RN communicates plan to patient
   RN educates patient about non-pharmacologic and pharmacologic treatment of HTN
9. Patient continues to have RN blood pressure visits every 2-4 weeks until BP is controlled
10. Patient sees physician at least every 6 months for surveillance of BP
    More often if there are complications with the treatment plan

Appendix 7

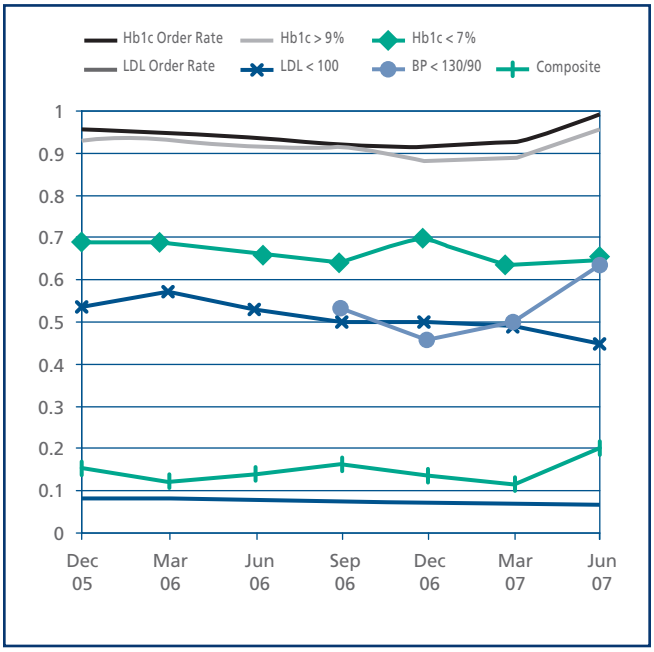
PHYSICIAN QUARTERLY QUALITY REPORT CARD

	QUARTER 1				QUARTER 2			QUARTER 3			QUARTER 4		
	Physician		Site	RMP	Physician	Site	RMP	Physician	Site	RMP	Physician	Site	RMP
Cervical Cancer S													
% Screened	93%	93%	84%	84%	94%	85%	80%						
Patient Count		1017	7734	57469	994	6555	63342						
Chlamydia Screen													
% Screened	43%	23%	28%	25%	26%	23%	24%						
Patient Count		52	151	5669	50	88	6385						
Colorectal CA Screen													
% Screened	81%	89%	79%	72%	90%	81%	70%						
Patient Count		848	8412	69045	867	7785	79403						
Diabetes													
Patient Count		161	1237	10479	115	731	9112						
Comprehensive Measure*		11%	14%	13%	20%	17%	14%						
Hba1c Order Count	97%	93%	89%	89%	99%	95%	95%						
*Hba1c < 7%	69%	64%	57%	54%	63%	54%	53%						
Hba1c < 8%	85%	83%	80%	77%	83%	81%	78%						
Hba1c > 9%	96%	7%	11%	11%	7%	9%	11%						
*LDL < 100	46%	49%	61%	60%	46%	62%	59%						
LDL < 130	74%	82%	87%	85%	82%	85%	85%						
LDL Order Rate	93%	89%	86%	85%	96%	92%	90%						
MicroAlb Screen	90%	90%	83%	75%	96%	89%	80%						
Rate of BPs < 130/80	63%	50%	46%	42%	63%	50%	44%						
Rate of BPs < 140/90		91%	85%	76%	92%	85%	77%						
Rate of BPs done	100%	100%	99%	99%	99%	99%	98%						
Rate of Eye Exams	70%	66%	59%	53%	77%	70%	55%						
Diabetes Screen													
Patient Count		1195	11863	97385	1211	10916	111976						
Rate of Diabetes Screen	85%	63%	68%	73%	96%	93%	89%						
HTN													
Patient Count		579	4427	38157	539	3840	41891						
Rate of BPs < 140/90	85%	85%	79%	71%	87%	80%	73%						
Lipid Screen													
Patient Count		1756	18286	154547	1756	16244	174829						
Rate of Lipid Screen	89%	89%	80%	75%	91%	83%	74%						
Mammogram													
Patient Count		878	5989	45194	889	5380	51331						
% Tests	93%	94%	88%	85%	95%	89%	84%						
Osteoporosis Screen													
% Screened	98%	99%	92%	86%	99%	93%	83%						
Patient Count		323	2359	18611	332	2229	22089						
Pneumovax													
Patient Count		366	3879	31549	372	3682	37429						
Rate of Pneumovax	99%	98%	95%	94%	99%	96%	92%						

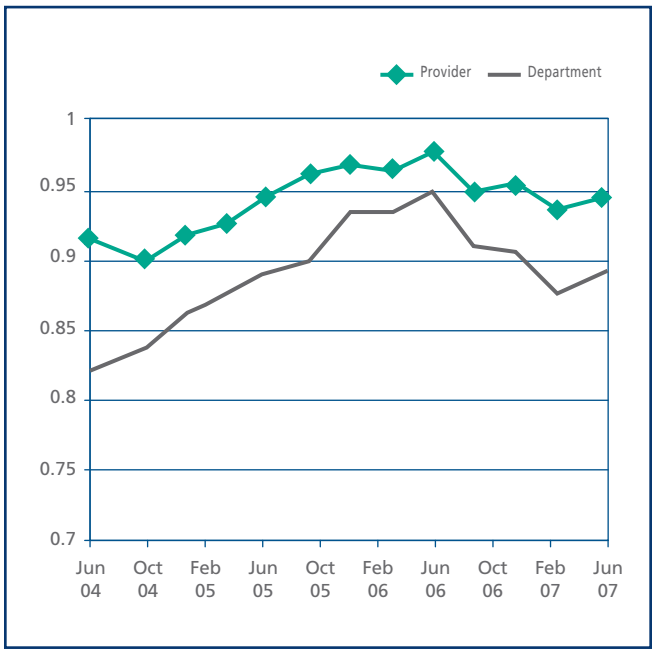
Appendix 7 (con't)

PHYSICIAN QUARTERLY QUALITY REPORT CARD

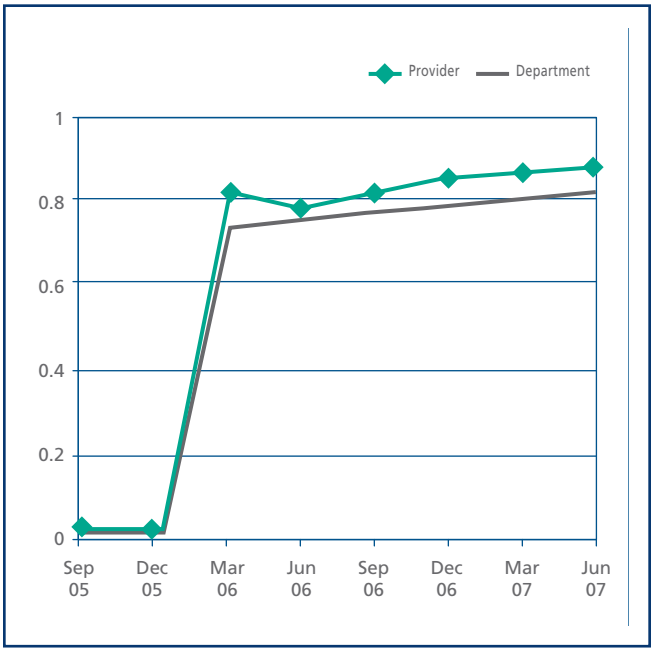
Diabetes



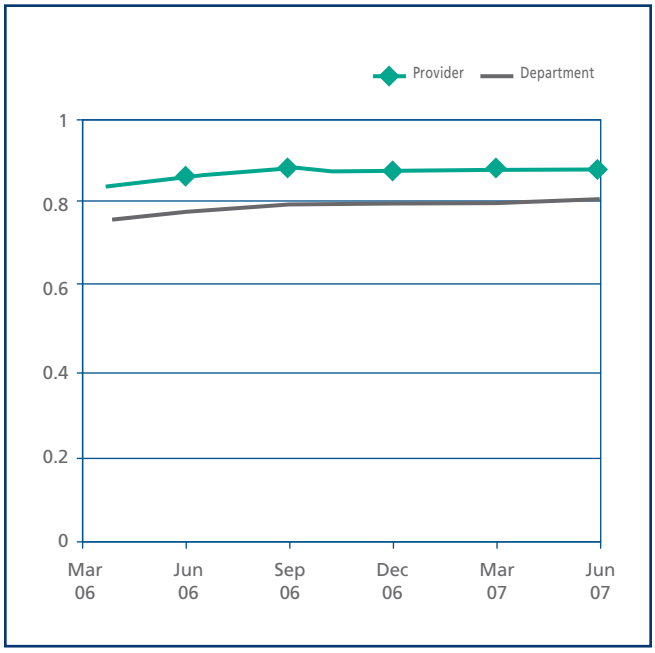
Mammogram



HTN



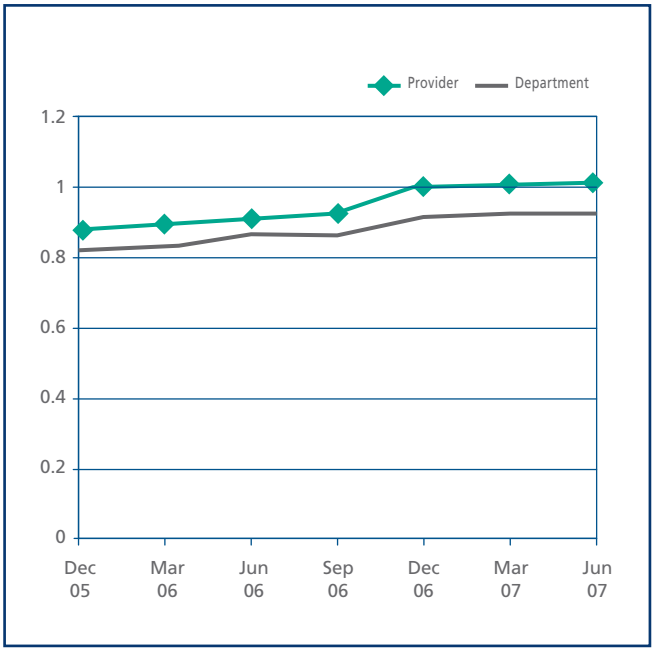
Colorectal Cancer Screeing



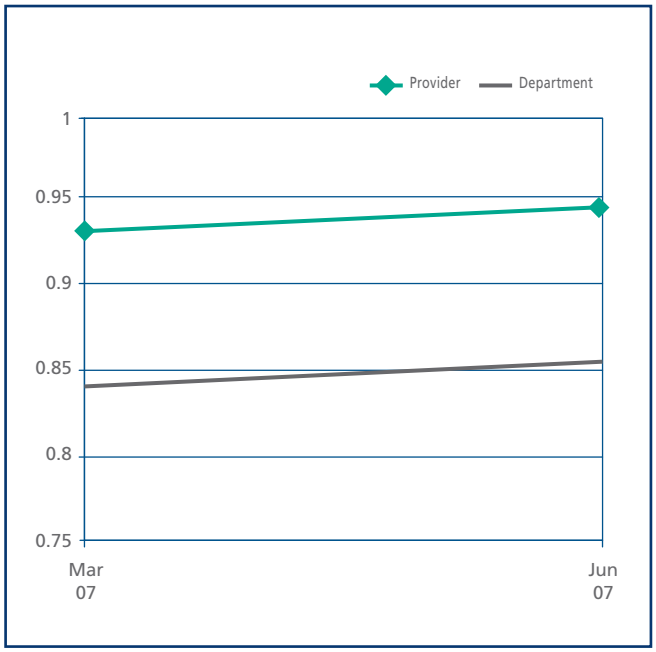
Appendix 7 (con't)

PHYSICIAN QUARTERLY QUALITY REPORT CARD

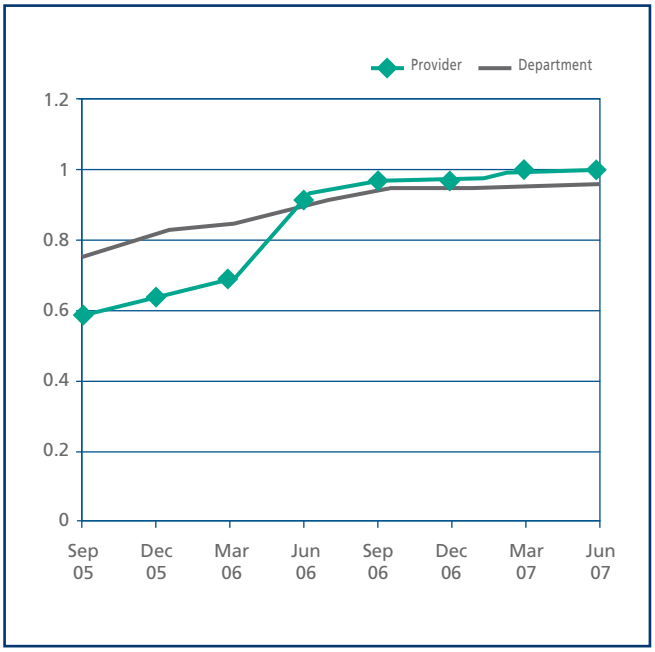
Osteoporosis Screening



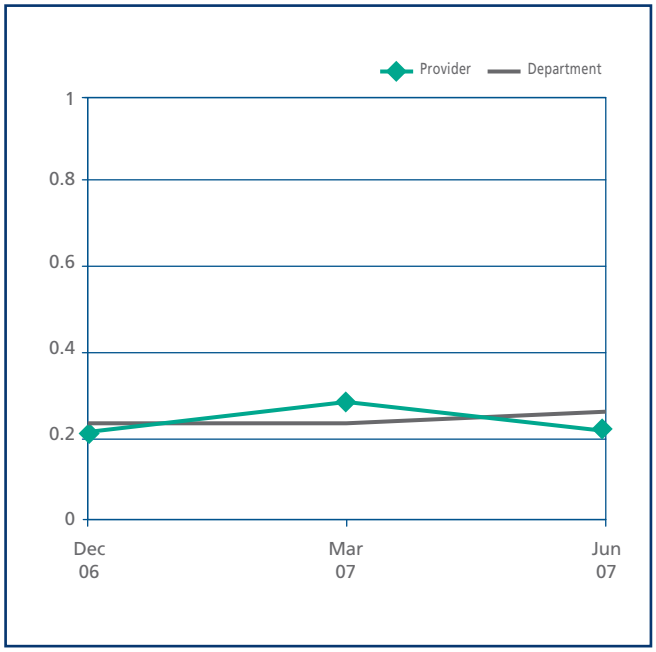
Cervical Cancer Screen



Pneumovax



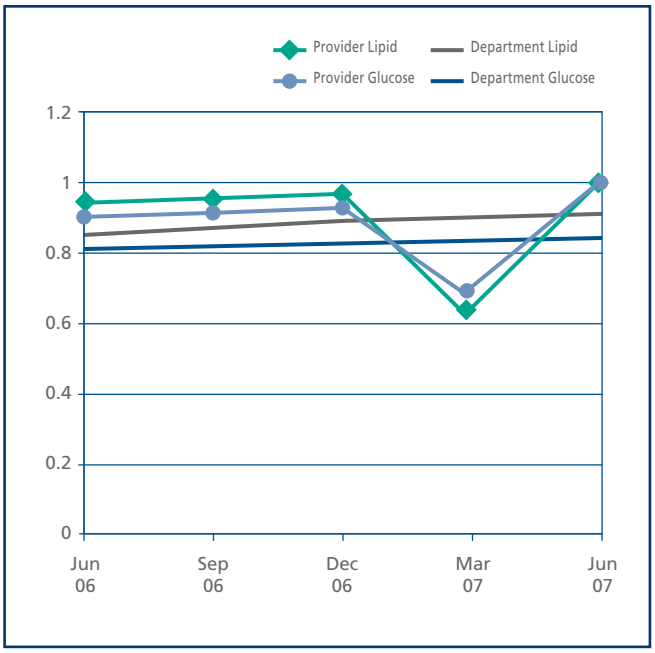
Chlamydia Screen



Appendix 7 (con't)

PHYSICIAN QUARTERLY QUALITY REPORT CARD

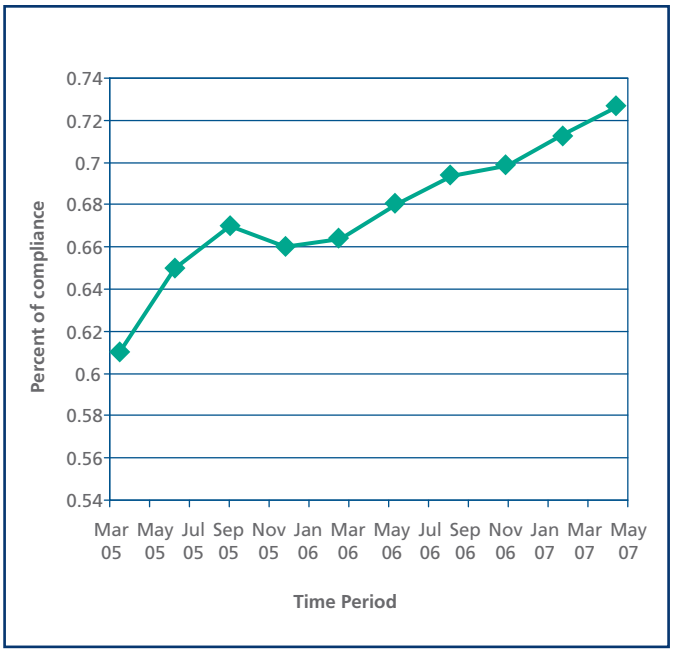
Lipid and Glucose Screening



Appendix 8

PHYSICIAN QUARTERLY QUALITY REPORT CARD

HTN Compliance



Provided as an educational service by AMGA and Daiichi Sankyo, Inc.

1422 Duke Street, Alexandria, VA 22314-3403
Tel: (703) 838-0033 Fax: (703) 548-1890 www.amga.org