MEDICAL GROUP PROFILE

- Novant Health is a not-for-profit healthcare leader for 3.5 million residents in the eastern United States.

- With eight hospitals and three nursing homes and senior residential facilities, as well as physician practices, outpatient surgery centers, rehabilitation and community health outreach programs, Novant Health provides excellence in healthcare.

- Novant Health consists of more than 215 locations and 1,062 providers, with more than a million patient visits each year.

- Novant Medical Group is composed of more than 300 providers at more than 40 practices who care for patients across 8 counties of the state.

FUNDING

To develop the tools for this initiative, Novant Health worked with a research division of Novartis, which helped with creating and analyzing the hypertension study tool. Novartis also helped create the poster describing the results, which was recognized by the Disease Management Association of America (Appendix 8). Staff conducted the surveys with providers and clinical staff, so there was no additional staffing expense.

EXECUTIVE SUMMARY

In 2000, the Medical Management Advisory Council authorized a survey to determine how well Novant Medical Group was performing based on the 1999 Healthcare Effectiveness Data and Information Set (HEDIS). In 2001 the indicator to control hypertension was added. Each year between 2001 and 2005, the percentage of patients meeting set targets (detailed below) for hypertension improved.

In 2005 Novant Medical Group was selected to participate in the Physician Group Practice (PGP) Demonstration Project for the Centers for Medicare & Medicaid Services (CMS). The Disease Management Committee was the steering committee leading this project.

The Disease Management Committee recommended a study to identify opportunities for improvement among clinical staff and providers in helping patients with hypertension attain blood pressure (BP) goal of less than 140/90 mmHg. Questionnaires were developed, and physicians and staff were interviewed in this process. In addition, a comprehensive disease management program was developed to support the dissemination of evidence-based guidelines—including the Seventh Report on the Joint National Committee on the Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7)—to the providers and to provide disease management support to the practices.

In 2006, the Clinical Improvement Department collected 2005 data for adult clinical indicators from a random sample of patients. The data revealed that the percentage of patients meeting the target blood pressure value had declined following steady gains in the previous five years. The hypertension initiative was born out of the quest to find out why “clinical inertia” existed in the practices with respect to treating hypertension. This question led to a study to identify opportunities for improvement on the part of clinical staff and the providers in helping patients attain the target BP goal of less than 140/90 mmHg.

Results from this study also indicated an inconsistency in regards to the knowledge of hypertension guidelines and their use in clinical practice, and revealed opportunities for improvement among the physicians and clinical staff. To change physician practices
and enhance disease management, all quality initiatives now emphasize the development of a collaborative approach to managing patients. This has led to continued improvement in the number of hypertensive patients at BP goal. It has also led to a re-examination of the model of healthcare delivery and the exploration of integrating elements from Wagner’s Chronic Care Model into the existing production-based model.

GOALS AND OBJECTIVES

In the spring of 2000, building on the success of a longstanding diabetes program, the Medical Management Advisory Council (currently known as the Clinical Executive Team), composed of physician and administrative leaders, sanctioned a survey to determine how well the Novant healthcare system was performing relative to selected criteria specified in the 1999 Healthcare Effectiveness Data and Information Set (HEDIS) (see Appendix 1). Original clinical indicators for the survey included childhood and adolescent immunizations and adult preventive care.

In 2001 the indicator to control hypertension was added. Each year a random sample of hypertensive patients was selected from ambulatory practices and their charts were reviewed for blood pressure values. The aim was to move practice in the ambulatory setting closer to the organizational goal of improving relative to selected criteria specified in the 1999 Healthcare Effectiveness Data and Information Set (HEDIS) (see Appendix 1). Original clinical indicators for the survey included childhood and adolescent immunizations and adult preventive care.

In 2001 the indicator to control hypertension was added. Each year a random sample of hypertensive patients was selected from ambulatory practices and their charts were reviewed for blood pressure values. The aim was to move practice in the ambulatory setting closer to the organizational goal of improving the health of individuals and populations of patients while maximizing health resources and utilization. The target blood pressure value ranged from below 140/90 mmHg to equal to or below 140/90 mmHg, depending on the HEDIS criteria available during the data collection year. Results of the survey were presented by the physician leader and a data analyst during lunch meetings with the practicing physicians. The percentage of patients meeting set targets for hypertension continued to improve from 2001 through 2005.

In 2005, the Novant Medical Group was selected as one of 10 large physician group practices to participate in the Physician Group Practice (PGP) Demonstration Project for the Centers for Medicare & Medicaid Services (CMS). This project focused on 32 quality measures, including the measurement, control, and treatment of hypertension. The control of hypertension was also a quality measure associated with the management of diabetes, congestive heart failure and coronary artery disease. This project was under the direction of a steering committee that became the Disease Management Committee and provided direction and oversight of the project initiatives. A baseline collection of data from 2004 revealed that hypertension control was an issue in all data sets for the performance years. The Disease Management Committee recommended assessment of barriers to the effective management of hypertension using empirical and statistically significant information gathered by survey methodology from the providers and support staff involved in collecting blood pressure measurement in the practices. In addition, a comprehensive disease management program was developed to support the practices and disseminate evidence-based guidelines (including JNC 7) to the providers.

In 2006, the data collected by Clinical Improvement Department supported the baseline data from the CMS PGP Demonstration Project. Based on the BP values of patients receiving care during 2005, the percentage meeting the target value declined following gains in the previous five years. The decline was also evident in measures monitored for patients with diabetes, cardiovascular disease or stroke. Participation in the National Committee for Quality Assurance (NCQA) Recognition Programs led the organization to explore changes to ensure quality healthcare was being provided to Novant patients. Administrative and physician leaders set the goal for all eligible physicians to apply for NCQA Provider Recognition in either or both categories of diabetes and heart/stroke.

The information from the internal Clinical Improvement audits and the PGP Medicare Demonstration Project both indicated that the data collected in each independent sample was consistent. The patients followed by Novant providers were not meeting targeted blood pressure measures. The consistency in this data prompted Novant Health to initiate the recommendations of the Disease Management Committee. The administrative leader of ambulatory services recruited a physician with a specialty in internal medicine to identify and investigate issues contributing to the decline. Therefore, the hypertension initiative was born out of the quest to find out why “clinical inertia” existed in the practices with respect to treating hypertension. This led to a study to identify opportunities for improvement on the part of clinical staff and providers in helping patients achieve a BP goal of less than 140/90 mmHg. Two questionnaires (Appendix 2A and 2B) were developed. Interviews were conducted with a sample of physician at different practice sites and staff who supported the collection of blood pressure readings as part of the vital sign assessment.

Results of the study suggested an inconsistency regarding knowledge of hypertension management guidelines and their use in clinical practice. Physicians predominantly cited patient- and support staff-related factors—including poor lifestyle management by patients and inaccurate blood pressure measurement by clinical staff—as responsible for failure to attain BP goal.
RESULTS

Through process improvement initiatives with physicians, blood pressure values were captured over time in a Microsoft Excel database. Several populations of patients were reviewed for analytical studies and provider recognition. These included patients diagnosed as hypertensive, patients of physicians seeking national recognition for quality care of patients with diabetes, and patients of physicians seeking national recognition for quality care of patients with cardiovascular disease or stroke.

From 2001 to 2007, a total of 1,366 patients with the diagnosis of hypertension were reviewed. Of these, 692 had a BP reading below 140/90 mmHg, with the yearly percentage meeting target ranging from 36 to 58. Over the past three years, the percentage has ranged from 53 to 58. Further analysis of the patients reviewed from 2004 to 2007 revealed that 7 percent to 10 percent were well-controlled, with BP below 120/80 mmHg.

During the period March-December 2006, 524 patients were reviewed as part of the physicians’ application for the American Diabetes Association (ADA)/NCQA Diabetes Physician Recognition Program (DPRP). Of these, 383 also had the diagnosis of hypertension. A blood pressure value below 140/90 mmHg was noted in 288 of the 383 patients (75 percent) and a value below 130/80 mmHg was noted in 49 percent.

Additionally, during January-September 2006, 1,150 patients were reviewed as part of the physicians’ application for the American Heart Association/American Stroke Association (AHA/ASA)/NCQA Heart/Stroke Recognition Program (HSRP). Of these, 501 also had the diagnosis of hypertension. A BP value below 140/90 mmHg was noted in 317 of the 501 patients (63 percent). A blood pressure value below 130/80 mmHg was noted in 37 percent. (See Appendix 3)

TARGET POPULATION AND TRACKING INFORMATION

The hypertensive population in ambulatory practices was identified by the Information Technology Department by using the ICD-9-CM diagnosis codes 401.1 and 401.9. The target population was identified by following the HEDIS criteria for controlling high blood pressure. Chart reviews conducted in 2007 for the population of patients seen in 2006 included adults between the ages of 18 to 65 years by 12/31/06 (date of birth 1941-1988) with at least two physician office encounters with a diagnostic code of 401 in 2006. The blood pressure was recorded from the most recent 2006 visit (as long as the visit occurred after the diagnosis of hypertension was made). The target goal was set at 75 percent based on the most recent commercial population meeting the 90th percentile of HEDIS. Plans are in development to follow the criteria for ambulatory care from the National Quality Forum. To facilitate this change, in April 2007 the Clinical Executive Team supported changing the criteria to include all patients 18 years of age and older with no exclusions. The data set for each patient includes the following demographics: first and last name; date of birth; sex; race; and name of the physician’s practice.

The principles of analytical study were applied to randomly selected cases per practice for a target of 10 cases meeting the HEDIS criteria and qualifying for the study (Appendix 4A and 4B). Measurement biases were addressed by randomization. Clinical improvement staff performed chart review and data extraction. Data entry, analysis, and reporting were performed using Excel.

The physician leader for the initiative was consulted on completion of the data analysis. A follow-up review of the results and recommendations for improvement were communicated to each practice’s medical director. The medical directors were responsible for following through with the physicians and clinical staff in the office practice and reviewing the practice-specific patient data to ensure documentation of a plan of care.

Recent interventions for effectiveness were adopted for collection of BP values from office visits between June and August 2007. The sample population for each office practice was increased from 10 to 30 patients to validate data reliability. Results are pending.

HYPERTENSION REGISTRY

Novant Health has an internal informatics department with the ability to mine a data warehouse of inpatient and outpatient claims of patients within the healthcare system. In addition, data feeds from other sources, such as pharmacy benefit management programs and contract and internal laboratories, are housed in the data warehouse. The Disease Management Program worked with the informatics department to use data from this warehouse and tap files from CMS to develop a registry of patients who could be included in the denominator for the demonstration project. Over time, the query expanded beyond Medicare fee-for-service patients to include all patients followed by Novant practices. The registry identifies patients by disease states, practice and provider. Illness burden is assessed by claims costs, emergency and inpatient service utilization, and other data elements such as collection of specific labs involved.
in the quality measures monitored for management of chronic disease and preventive health. This registry is maintained by the informatics department. The description of the report specifications used to analyze the data can be found in Appendix 5A. The system that supports the data analysis is from Siemens. The data dictionary was adopted from the Quality Specification accessed online at www.cms.hhs.gov/DemoProjectsEvalRpts/downloads/Quality_Specs_Report.pdf.

**INTERVENTIONS**

The first intervention was to assess barriers to effective hypertension management with a physician and a staff survey. The results of the surveys identified workflow issues in practice areas on which to focus improvement efforts. Healthcare information technology was used in the analysis of all data sources; it helped identify outliers to overall practice results and quantify goals for quality measures.

### Table 1

**STAFF INVOLVED IN HYPERTENSION INITIATIVE**

<table>
<thead>
<tr>
<th>Job Titles</th>
<th>Departments</th>
<th>Qualifications</th>
<th>FTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Medical Director for Quality</td>
<td>Medical Group, Physicians Division</td>
<td>Medical Doctor specializing in Internal Medicine</td>
<td>1 FTE: 10%</td>
</tr>
<tr>
<td>Senior Director, Medical Services, Medical Group</td>
<td>Medical Group, Quality</td>
<td>Registered Nurse with managed care experience; Master's Degree in Public Health (MPH)</td>
<td>1 FTE: 10%</td>
</tr>
<tr>
<td>Manager Disease Management</td>
<td>Medical Group, Quality</td>
<td>Registered Nurse with managed care and project management experience; Bachelor's Degree in Nursing (BSN)</td>
<td>1 FTE: 10%</td>
</tr>
<tr>
<td>Clinical Document Management Coordinator</td>
<td>Corporate Clinical Improvement</td>
<td>Associate Degree in Medical Records Library Science; experience with coding and Medical Records management</td>
<td>0.5 FTE: 50%</td>
</tr>
<tr>
<td>Manager Clinical Improvement Programs</td>
<td>Corporate Clinical Improvement</td>
<td>Registered Nurse with project management and medical/surgical clinical experience; Master's of Science in Nursing Administration (MSN)</td>
<td>1 FTE: 10%</td>
</tr>
<tr>
<td>Senior Vice President, Clinical Improvement</td>
<td>Corporate Clinical Improvement</td>
<td>Registered Nurse with experience in healthcare operations, nursing, and consulting in quality improvement; Master's Degree in Health Systems Science</td>
<td>1 FTE: 10%</td>
</tr>
<tr>
<td>Executive Vice President</td>
<td>Medical Group, Physicians Division</td>
<td>Senior Administrative Physician Leader. Medical Doctor specializing in Endocrinology</td>
<td>1 FTE: 10%</td>
</tr>
<tr>
<td>Co-President, Medical Group</td>
<td>Medical Group, Physicians Division</td>
<td>Administrative Physician Leader. Medical Doctor specializing in Family Medicine</td>
<td>1 FTE: 10%</td>
</tr>
</tbody>
</table>
Staff members involved with supporting this intervention are listed in Table 1. Job titles, qualifications, and approximate percentage of FTE dedicated to the hypertension initiative are provided. See Appendixes 6A through 6H for specific job descriptions.

Leadership supported the hypertension initiative through the Medicare Steering Committee, comprised of the Executive Vice President for Novant Medical Group-Quality, the Co-President of the medical group, the Director and Manager for Disease Management (directly responsible for the CMS Demonstration Project), and six other appointed physicians representing large group practices participating in the project.

Results from the physician questionnaire showed the following opportunities for improvement:

- **Need** for additional time with the patient
- **Need** to improve accuracy of BP measurement by clinical staff (technique/equipment)
- **Need** for patient lifestyle modification and education
- **Need** to address patient compliance and adherence issues relevant to reaching BP goals

Opportunities for improvement were used to develop interventions for both clinical staff and provider/physician group.

Interventions for the clinical staff included:

- **Training tapes and materials** from the American Heart Association
- **Blood pressure competency test** to validate the education of each clinical staff member
- **Proper cuff size availability**
- **Calibrated blood pressure equipment** through engineering protocols
- **Review of and compliance with JNC 7 guidelines** (flagging elevated BP for clinicians)

Interventions targeted to the provider/physician group included:

- **Review of JNC 7 guidelines**: copies of guidelines were disseminated
- **Focus on lifestyle modification, patient education, patient adherence/compliance to treatment regimen** (nurse visit/provider visit)
- **Education support through the Disease Management program** established for the Medicare Demonstration Project
- **Patient education packets that supported the JNC 7 measures**, including the DASH Eating Plan and the corresponding Guide to Managing Hypertension, provided to all practices
- **In-practice presentations by an internal interventional cardiologist** and after-hours continuing medical education (CME) with this provider
- **One-on-one feedback** (chart audits) by physician leader(s)

To change physician practices, emphasis was on developing a collaborative approach to managing the patient, including:

- **Team effort** (physician/provider, clinical staff member, practice manager)
- **Renewing the commitment** to improve the quality of life of Novant patients by improving their health
- **Renewing the commitment** to corporate mission of improving the health of communities one person at a time

**LEADERSHIP**

The Hypertension Medical Management Program fits into Novant’s overall quality improvement program by linking directly to the organizational strategic plan. The healthcare organization brings together the resources of healthcare systems, hospitals and physicians in the pursuit of shared goals. The senior leadership through the Executive Vice President for Novant Medical Group reports quality initiatives and outcomes to the Executive Committee for Novant Medical Group, which reports to the Board of Directors. Physician leaders in all practices were involved in the process and supported the program.

A job description for practice physicians, recently developed by the Co-Presidents for Novant Medical Group, specifies desired quality outcomes for the provider, NCQA recognition and other quality indicators. Meeting these requirements is part of the evaluation and compensation process.

Executive decisions were primarily centered on committing staff time at all levels of the organization to ensuring the program’s success. Leadership realized that a re-examination of the delivery model was necessary and that success depended on integrating recommendations from Wagner’s Chronic Care Model. The transition from a production model for care delivery to one that adapts components of the Chronic Care Model requires the commitment of the executives who oversee financial and quality outcomes for the practices. There was consensus that a balance of both delivery models could result in improved outcomes, given the strong interventions of the program.
PROJECT PLAN

In 2006, leaders of Novant Medical Group recognized clinical inertia regarding the percentage of patient blood pressure values below 140/90 mmHg, which improved by only 4 percent over the previous year. They developed a questionnaire to assess knowledge, attitudes and clinical practices regarding hypertension management. The study was conducted throughout the group, which is composed of more than 300 providers and more than 40 practices that care for patients across 8 counties of the state. From October through November 2006, questionnaires were administered to a convenience sample of physicians (n=18, 10 sites) and support staff (n=20, 12 sites) by trained interviewers (an internal medicine physician or a registered nurse). The physician questionnaire consisted of 29 items in multiple-choice format or open-ended format with multiple responses permitted. The support staff questionnaire consisted of 15 items in a similar format.

Physician questions were designed to assess: (1) barriers to patients achieving BP goal; (2) beliefs and practices regarding hypertension management; (3) understanding of published hypertension management guidelines; and (4) factors influencing resistant hypertension. Support staff questions were designed to evaluate: (1) factors influencing accurate BP measurement; (2) beliefs and practices regarding hypertension management; and (3) recommended staff training for hypertension management. Descriptive summary statistics were calculated using SPSS, a computer program used for statistical analysis. (SPSS 12.0, SPSS Inc., Chicago, IL. See www.spss.com.)

Results of the survey showed that almost all physicians (94 percent) cited familiarity with JNC 7 guidelines, and affirmed that hypertension management guidelines are relevant to their patients. However, no physicians responded that they routinely document hypertension care management plans for their patients.

Physicians’ perceptions of a threshold BP for antihypertensive medication initiation were assessed. The mean BP cited as high enough to warrant treatment with antihypertensive medications was 136/88 mmHg (median=140/90 mmHg). However, while only 6 percent of physicians surveyed believed that it was permissible to allow some patients to maintain an elevated BP, only half responded that it was not permissible, while 44 percent responded equivocally to this question.

Consistent with JNC 7 guidelines, 78 percent of physicians surveyed believed that most patients require more than one antihypertensive medication to attain BP goal. Physicians’ perceptions of treatment intensification are shown in Appendix 7, Figure 1. About two in three physicians (67 percent) defined treatment intensification as the addition of a new medication to the existing therapeutic regimen, while one in three (33 percent) believed patient lifestyle modification is most important to treatment intensification. Almost all (94 percent) agreed that patient out-of-pocket expense is an important consideration in prescribing antihypertensive medication. Regarding barriers to hypertension management, physicians predominantly cited patient- and support staff-related factors as most important reasons for patients’ failure to attain BP goal. As seen in Appendix 7, Figure 2, physicians cited patient lifestyle modification (89 percent), education (67 percent) and medication compliance (56 percent) as the most important reasons for uncontrolled BP. Appendix 7, Figure 3 details physician-cited reasons for resistant hypertension. Few physicians surveyed believed that poor medication compliance, inadequate dosing, poor compliance with lifestyle modification recommendations, or using too few hypertension medications were the primary cause of resistant hypertension; instead, an overwhelming majority cited inaccurate BP measurements as responsible for apparent resistant hypertension. The survey indicated that physicians did not trust the consistency of technique for collecting accurate blood pressure by the support staff.

Similar themes emerged in physician and support staff results for some areas of hypertension management. Lack of time was cited by both groups as a contributing factor to inadequate patient management in their practice setting. Approximately one in three physicians (33 percent) cited the inability to devote enough time to patients for the discussion of hypertension management, and 40 percent of support staff claimed to be rushed while measuring patient BP. Only one third of surveyed physicians believed clinical staff always obtained accurate BP measurements, and 61 percent believed resistant hypertension is a reflection of inaccurate BP measurement. Similarly, 65 percent of support staff recommended competency training for proper BP measurement technique. Finally, the mean of the level of BP that support staff considered to be “elevated” was 136/89 mmHg, similar to the level cited by physicians as the threshold BP for hypertension treatment (mean=136/88 mmHg).

Other support staff survey results indicated that respondents felt rushed to measure patient BP primarily due to a waiting physician (24 percent), high patient volume (24 percent) and other waiting patients (12 percent). Although the medical group recommends specific BP measurement techniques taken from Perry and Potter’s text, 95 percent of those surveyed were unaware of
this recommendation. Almost all (95 percent) support staff indicated that subsequent to measuring an elevated BP, they routinely re-measured BP after a 5-15 minute wait; 70 percent indicated that they initiated a patient discussion regarding generic education and lifestyle modification, and 65 percent flagged the patient’s chart for the physician.

PROJECT PLAN/TIMELINE

1999  Medical Management Advisory Council formed by administrative and physician leaders of the organization

2000  •  HEDIS indicators for childhood and adolescent immunizations and adult preventive care added to the quality initiatives of the Medical Management Advisory Council
        •  Communication to the physicians, clinical staff and practice managers about the quality initiatives, methods of data collection and feedback
        •  Preventive quality care initiative developed by following the model of the established diabetes care initiative

2001  Blood pressure values added to the Medical Management quality initiatives to monitor the control of hypertension

2005  Novant Medical Group invited as 1 of 10 participants in the Centers for Medicare and Medicaid Services' Physicians' Group Practice Demonstration Project

2006  Study developed to assess knowledge, attitudes and clinical practices regarding hypertension management

2007  •  September: Poster presentation for the Disease Management Association of America (DMAA). “Identifying Barriers to Hypertension Management to develop Targeted Clinical Improvement Initiatives” receives the Outstanding Poster Award
        •  Journal Publication: “Identifying barriers to hypertension care: Implications for quality improvement initiatives” accepted for publication in Disease Management, the journal of the DMAA, Pending Publication.

IN RETROSPECT

The key elements of this program's success were the commitment of administrative and physician leaders to providing quality healthcare, exploring the methods followed by providers and support staff in the delivery of care, and creating policy changes that supported best practice. This commitment led to the development of a steering committee and facilitated physician leadership for the initiative.

The biggest challenge was overcoming clinical inertia—when the percentage of BP values meeting the 75 percent target continued to be out of reach and even started to decline. (The steering committee for Clinical Improvement Group set the benchmarks for each clinical indicator. Targets are generally based on national benchmarks such as HEDIS.) To overcome this challenge, administrative leaders developed the survey for providers and clinical staff to determine barriers to improving the care and health of patients with hypertension. Results of that survey are being used to support policy changes following the JNC 7 guidelines. Another challenge is that the healthcare system is set up to deliver care based on the production model, versus the Chronic Care Model. Policy changes are being studied to test the Chronic Care Model and how it can be implemented.

One thing leaders wish they had known before starting this initiative is that hypertension impacts quality measures management across all disease states and quality initiatives. By promoting best practice in the delivery of care for hypertensive patients, Novant Medical Group has the opportunity to improve the health and quality of life for patients who suffer from chronic illnesses such as diabetes, congestive heart failure, cardiovascular disease and stroke.

LESSONS LEARNED

•  Obtain administrative buy-in and support when planning the initiative
•  Explore methods of care delivery by providers and support staff
•  Create a reporting structure that will maintain administrative buy-in and support throughout different phases of the initiative
•  Obtain the commitment of a physician leader throughout all phases of the initiative
•  Communicate evidence-based guidelines
•  Commit to creating and implementing policy changes that support evidence-based guidelines and best practice
•  Utilize the team approach for care delivery, involving providers and support staff

OUTCOMES

Currently the Hypertension Program includes two of the suggested hypertension measures, as demonstrated in Tables 2 and 3.
### Table 2
PERCENTAGE OF ADULT PATIENTS (AGE ≥18 YEARS) WITH DIAGNOSED HYPERTENSION WITH CONTROLLED BLOOD PRESSURE

<table>
<thead>
<tr>
<th>Initiative and Year of Review</th>
<th>Date of Service</th>
<th># Hypertension Cases Reviewed</th>
<th># Hypertension Cases Below 140/90</th>
<th>% Hypertension Cases Below 140/90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension: 2001</td>
<td>2000</td>
<td>169</td>
<td>61</td>
<td>36%</td>
</tr>
<tr>
<td>Hypertension: 2002</td>
<td>2001</td>
<td>168</td>
<td>77</td>
<td>46%</td>
</tr>
<tr>
<td>Hypertension: 2003</td>
<td>2002</td>
<td>155</td>
<td>84</td>
<td>54%</td>
</tr>
<tr>
<td>Hypertension: 2004</td>
<td>2003</td>
<td>169</td>
<td>75</td>
<td>44%</td>
</tr>
<tr>
<td>Hypertension: 2005</td>
<td>2004</td>
<td>201</td>
<td>106</td>
<td>53%</td>
</tr>
<tr>
<td>Hypertension: 2006</td>
<td>2005</td>
<td>242</td>
<td>138</td>
<td>57%</td>
</tr>
<tr>
<td>Hypertension: 2007 YTD</td>
<td>2006</td>
<td>262</td>
<td>151</td>
<td>58%</td>
</tr>
</tbody>
</table>

### Table 3
PERCENTAGE OF DIABETIC PATIENTS WITH DIAGNOSED HYPERTENSION WITH CONTROLLED BLOOD PRESSURE

<table>
<thead>
<tr>
<th>Initiative and Year of Review</th>
<th>Date of Service</th>
<th># Hypertension Cases Reviewed</th>
<th># Hypertension Cases Below 140/90</th>
<th>% Hypertension Cases Below 140/90</th>
<th># Hypertension Cases Below 130/80</th>
<th>% Hypertension Cases Below 130/80</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCQA Diabetes Provider Recognition Program: 2006-2007</td>
<td>March - Dec 2006</td>
<td>383</td>
<td>288</td>
<td>75%</td>
<td>186</td>
<td>49%</td>
</tr>
</tbody>
</table>
As a result of the organization's pursuit of NCQA Provider Recognition for physicians providing quality care to patients with diabetes and patients who have cardiovascular disease or who have had a stroke, 64 percent (127 of 198) of the organization's eligible physicians are recognized for quality diabetes care and 66 percent (119 of 180) of the organization's eligible physicians are recognized for quality heart/stroke care.

FOR ADDITIONAL INFORMATION

Contact

Nan L. Holland, RN, MPH, CPHRM
Senior Director, Clinical Services
Forsyth Medical Group
Novant Medical Group
2000 Frontis Plaza Boulevard, Suite 200
Winston-Salem, NC 27103
Phone: 336-277-1403
Email: nlholland@novanthealth.org

REFERENCES


April 10, 2000

Dear Colleagues:

The _____________ Medical Management Advisory Council is initiating a survey of how the _____________ system is performing relative to selected criteria specified in the 1999 HEDIS manual. This is one of the first efforts to be implemented system-wide in medical management, with the intent of moving us closer to the organizational goal – improving the health status of individuals and populations of patients while maximizing health resources and utilization.

_____________ and I are the physician representatives to the Council for __________ in this effort. This letter is to make you aware of the work that will get underway by the end of April and your offices’ role in the process. The practices will be involved in this study of seven HEDIS indicators for the primary care practices – an effort that will improve care as well as help the practices meet the JCAHO criteria for process improvement. The information gathered will establish a baseline for comparative benchmarking, improvement efforts and education across the system.

Your practice managers will be receiving a letter from ________________, Clinical Improvement Practitioner, who will work with your office staff on the details of the chart review for this project. They will also be given information about the _____________ Medical Management Advisory Council, criteria for chart review, the physician offices involved, and a copy of this letter.

Thank you for your support of this project. If you have any questions, please feel free to contact me at 718-1114.

Sincerely,

_______________________________________, MD

Medical Director, __________
Qualitative Investigation of Practice-Guideline-Based Hypertension Management

Forsyth Medical Group
Winston-Salem, NC

OCTOBER, 2006
Appendix 2a (con’t)
QUESTIONNAIRE FOR PHYSICIAN PROVIDERS

Introductory Page

Script for interviewer:

Good morning [Dr. ______]. Thank you for agreeing to meet with me today.

Forsyth Medical Group is conducting interviews with physicians and clinical staff. The purpose of these interviews is to understand hypertension management from a clinician’s perspective, so that hypertension performance improvement programs are well-designed. Our focus will be on established hypertensive patients, not on patients newly-diagnosed with hypertension.

__________ Corporation is providing funding so that we can analyze the results of the interviews.

Do you have any questions before we begin?

Practice name ____________________________________________________________
Appendix 2a (con’t)
QUESTIONNAIRE FOR PHYSICIAN PROVIDERS

1. Do you feel that you are able to spend enough time discussing the management of hypertension with your patients?

O Yes  O No
Comments:

2. Please name three things that you believe most affect a patient reaching hypertension treatment goals.

2a.

2b.

2c.

3. When is blood pressure high enough to warrant treatment with antihypertensive medications?

4. Do you feel that it is okay to permit some patients to go on with an elevated blood pressure?
   [probe: If response is affirmative, for which patients does the physician think that this is acceptable?]

5. What comes to your mind when you hear the phrase “treatment intensification,” with regard to treating hypertension?
### Appendix 2a (con’t)

**QUESTIONNAIRE FOR PHYSICIAN PROVIDERS**

6. On a scale of 1 through 5, with 1 being “strongly disagree” and 5 being “strongly agree,” please rank the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>6a. Repeat office visits for BP checks are necessary.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6b. “White coat hypertension” is a common reason for elevated blood pressure in an office setting.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6c. The results of antihypertensive medication clinical trials are relevant to my patients.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6d. Antihypertensive medication side effects limit physicians’ ability to intensify hypertension treatment.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6e. Interactions between antihypertensive medications and other drug classes limit physicians’ ability to intensify hypertension treatment.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6f. Most patients will require more than one antihypertensive medication to achieve blood pressure goals.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6g. Patient out-of-pocket cost is an important consideration in prescribing antihypertensive medications.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>6h. Hypertension management guidelines are relevant to my patients.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>

7. On a scale of 1 through 5, with 1 being “strongly disagree” and 5 being “strongly agree,” please rank the following statements about resistant hypertension:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>7a. Resistant hypertension is mostly due to poor patient compliance with antihypertensive medications.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7b. Resistant hypertension is mostly due to inadequate dosing of antihypertensive medications.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7c. Resistant hypertension is mostly due to poor patient compliance with lifestyle recommendations regarding diet and exercise.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7d. Resistant hypertension is mostly due to using too few antihypertensive medications.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>7e. Resistant hypertension is a reflection of inaccurate blood pressure measurement.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 2a (con’t)

QUESTIONNAIRE FOR PHYSICIAN PROVIDERS

8. How many weeks do you usually wait between office visits when adjusting treatment for hypertension? ______________ weeks

9. On a scale of 1 through 5, with 1 being “never” and 5 being “always,” please evaluate the following statements with respect to your clinical practice:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>9a. I follow a specific algorithm when treating hypertension.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9b. My patients return for follow-up visits often enough for me to adjust their antihypertensive medications.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9c. I recheck elevated blood pressure measurements when they are flagged for me by my clinical staff.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9d. I am confident that my clinical staff can accurately measure blood pressures.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>9e. My hypertensive patients have a written hypertension management care plan.</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

10. What percentage of your hypertensive patients do you consider to be at treatment goal? ____________%

11. How do you get evidence-based guidelines information? *probe- Forsyth is interested in physicians’ access to information and how this may be facilitated in the future*

12. Are you familiar with JNC 7 guidelines? *probe here regarding level of familiarity and blood pressure goals suggested by these guidelines*
Appendix 2a (con’t)
QUESTIONNAIRE FOR PHYSICIAN PROVIDERS

13. Forsyth Medical Group is interested in improving knowledge and practice around treating hypertension “to target,” using evidence-based guidelines.

   How can we best deliver this?
   
   O In-practice presentation at lunch with recognized expert in the treatment of hypertension?
   O After hours CME?
   O One-on-one feedback of chart audit quality measures related to hypertension by clinical improvement staff?

14. With respect to hypertension management, would you recommend other training topics for _________’s staff?

Thank you for your time today.
Do you have any other comments or insights into the topic of antihypertensive treatment that you would like me to include?
Appendix 2b
QUESTIONNAIRE FOR CLINICAL STAFF

Qualitative Investigation of Practice-Guideline-Based Hypertension Management

Forsyth Medical Group
Winston-Salem, NC

OCTOBER, 2006
Introductory Page

Suggested script for interviewer:

Good morning [support staff title - ___.] Thank you for agreeing to meet with me today.

Forsyth Medical Group is conducting interviews with physicians and clinical staff. The purpose of these interviews is to understand hypertension management from a clinician’s perspective, so that hypertension performance improvement programs are well-designed. Our focus will be on established hypertensive patients, not on patients newly-diagnosed with hypertension.

_________ ______________ Corporation is providing funding so that we can analyze the results of the interviews.

Do you have any questions before we begin?

Practice name ______________________________________________________
Appendix 2b (con’t)

QUESTIONNAIRE FOR CLINICAL STAFF

1. On a scale of 1 through 5, with 1 being “least important” and 5 being “most important” for obtaining accurate blood pressures, please rank the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Least Important</th>
<th>Most Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waiting 5 minutes after rooming patients</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Having the patient’s feet flat on the floor and uncrossed</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Placing the blood pressure cuff at heart level</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Using a blood pressure cuff sized to a patient’s arm</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Checking blood pressures in both arms</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Having blood pressure equipment calibrated to zero</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Rechecking elevated blood pressures</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

2. In your clinical practice, do you feel rushed to take blood pressures during the rooming process? [probe: Elicit factors that may be placing time pressure on the staff.]

3. Can you describe at what point in the flow of a routine office visit you take an initial blood pressure measurement? [probe: Order of taking patient information and vital signs.]

4. What do you consider an elevated blood pressure?

   Measurement:
   Comments:
5. If you find a patient has an elevated blood pressure measurement, what next steps do you routinely take?
   [probe: Ask the respondent to be specific and identify the individual steps; probe to see if they: (a) flag elevated
   measurements for the physician; (b) discuss lifestyle changes with patients; (c) give patients educational materials;
   and (d) recheck blood pressures]

6. What blood pressure cuff sizes are available at your practice location?

7. Are you aware that Novant Medical Group recommends specific blood pressure measurement techniques
   taken from Perry and Potter’s text?
   • Yes
   • No
Appendix 2b (con’t)

QUESTIONNAIRE FOR CLINICAL STAFF

8. With respect to hypertension measurement, what, if any, training topics would you recommend for Forsyth Medical Group clinical staff?

Thank you for your time today.
Do you have any other comments or insights into the topic of antihypertensive treatment that you would like me to include?
## Appendix 3
### DATA FROM CLINICAL IMPROVEMENT INITIATIVES

<table>
<thead>
<tr>
<th>Initiative and Year of Review</th>
<th>Date of Service</th>
<th># Hypertension Cases Reviewed</th>
<th>% Hypertension Cases Below 140/90</th>
<th>% Hypertension Cases Equal to or Below 140/90</th>
<th># Hypertension Cases Below 130/80</th>
<th>% Hypertension Cases Below 130/80</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension: 2001</td>
<td>2000</td>
<td>169</td>
<td>61</td>
<td>61%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension: 2002</td>
<td>2001</td>
<td>168</td>
<td>77</td>
<td>46%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension: 2003</td>
<td>2002</td>
<td>155</td>
<td>84</td>
<td>54%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypertension: 2004</td>
<td>2003</td>
<td>149</td>
<td></td>
<td>89</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>Hypertension: 2005</td>
<td>2004</td>
<td>202</td>
<td></td>
<td>135</td>
<td>67%</td>
<td></td>
</tr>
<tr>
<td>Hypertension: 2006</td>
<td>2005</td>
<td>230</td>
<td></td>
<td>131</td>
<td>57%</td>
<td></td>
</tr>
<tr>
<td>Hypertension: 2007 YTD</td>
<td>2006</td>
<td>130</td>
<td>71</td>
<td>55%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCQA Heart/Stroke Provider Recognition Program: 2006</td>
<td>Jan-Sept 2006</td>
<td>501</td>
<td>317</td>
<td>63%</td>
<td>186</td>
<td>37%</td>
</tr>
<tr>
<td>NCQA Diabetes Provider Recognition Program: 2006-2007</td>
<td>March-Dec 2006</td>
<td>383</td>
<td>288</td>
<td>75%</td>
<td>186</td>
<td>49%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>2087</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 4a
MEMO TO PRACTICE MANAGERS REGARD HEDIS STUDY

Memo

To: Practice Managers for _____________

From: __________________, Clinical Improvement Practitioner

CC: ________________,
    ________________,
    ________________

Date: April 5, 2000

Re: Medical Management for the HEDIS indicators

The ____________________________ Medical Management Advisory Council has commissioned a system-wide analytical study of seven HEDIS indicators for the primary care providers. This study and the diabetes study will help the office practices meet the JCAHO criteria for process improvement. Attached is information about the Medical Management Advisory Council, criteria for chart review, the physician offices involved, and the communication to the medical directors. Drs. ________________ and ________________ are the physician representatives for ____________.

Your cooperation will be needed in obtaining the patient lists for random selection, and having the charts pulled for the reviewers. We will be requesting 15 charts per indicator per practice for a target of 10 patients per indicator who qualify for the study. ________________ or I will be contacting you in the near future for the patient lists. ________________ in the CBO has agreed to help with the running of these reports as needed.

The diabetes project was used as a model for the HEDIS study. A major difference in the two studies is that the diabetes project monitors information for the individual providers, and the HEDIS study will be monitoring information for the practice. The same reviewers will be doing the chart review being sensitive to the activities of the office practice and keeping the diabetes review separate.

Please feel free to contact either ________________ or myself with any questions or concerns you may have. We are both on Outlook. Telephone: ________________ 718-2670, ________________ 718-2671.

Thank you for your help and cooperation with both the diabetes and HEDIS studies.
Appendix 4b
PRACTICE MANAGERS MEETING RECORD

Practice Managers Meeting 04/19/00
Medical Management for the HEDIS Indicators

attended the Practice Managers Meeting to provide a brief description of the system-wide
study for the HEDIS indicators. had sent out information prior to the
meeting. Materials were briefly reviewed: memo for the practice managers, the letter for the medical directors from
, the flyer for Medical Management Advisory Council, recommendations,
practices to be involved, criteria for chart review, and data collection sheets. The practice
managers were asked to share all of the information with their medical director, and to ask the medical director to
share the information with the other healthcare providers.

gave information on how the HEDIS study would be kept separate from the Diabetes Project. The current offices
to be reviewed for the diabetes project have been contacted and will be last to come into the HEDIS study.

The first offices to be involved in the HEDIS study will be , , , and .
Contacts for chart review will be the practice managers or supervisors for each office. will be the contact
at .

Both the HEDIS study and the diabetes project will help the offices meet the JCAHO criteria for a process improvement
effort. Some of the offices have been involved in the diabetes project since 1997. has all the outcomes
information for the diabetes project if needed for JCAHO.

Everyone was receptive. Comment: “You are doing all the work.”
Appendix 5a
PHYSICIAN DISEASE MANAGEMENT (DM) REPORT

Report Name:  Physician DM Report

Business Owner:
Subject Area:  Disease Management
Date Needed:

Last Revised: 07/19/2006
Version: 1.0

Document Change History

<table>
<thead>
<tr>
<th>Version</th>
<th>Name</th>
<th>Date</th>
<th>Description of change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td></td>
<td>07/19/2006</td>
<td>Initiation of Document</td>
</tr>
</tbody>
</table>

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Control Information

<table>
<thead>
<tr>
<th>Title:</th>
<th></th>
<th>Physician DM Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report Description:</td>
<td>Office, inpatient, and ER detail for DM patients grouped by primary care physician</td>
<td></td>
</tr>
<tr>
<td>Report Requestor:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report Audience:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functional Contact:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Contact:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SHS Contact:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Report Developer:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 5a (con’t)
PHYSICIAN DISEASE MANAGEMENT (DM) REPORT

1.0 Business Purpose
Provide detail information for inpatients discharged from FMC during the prior month. Also, include next appointment and relevant disease management information.

2.0 Functional Information
Does this report contain PHI? __X__ Y or _____ N
Report sample included? _____ Y or __X__ N
Name of file: __________________________

3.0 Report Outputs & Inputs
Requested Report Layout

<table>
<thead>
<tr>
<th>Report Title:</th>
<th>Patient Disease Management Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report Subtitle:</td>
<td>Reporting Period mm/dd/yyyy – mm/dd/yyyy</td>
</tr>
<tr>
<td>Format:</td>
<td>PDF</td>
</tr>
<tr>
<td>Orientation (Landscape/Portrait):</td>
<td>Landscape</td>
</tr>
<tr>
<td>Headers:</td>
<td>Title and subtitle</td>
</tr>
<tr>
<td>Footers:</td>
<td>Report run date and &quot;Provided by...&quot;</td>
</tr>
</tbody>
</table>
### Appendix 5a (con’t)

**PHYSICIAN DISEASE MANAGEMENT (DM) REPORT**

<table>
<thead>
<tr>
<th>Report Field Names</th>
<th>Format Type ($, #, %, ... )</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician ID</td>
<td>Group by</td>
<td></td>
</tr>
<tr>
<td>Physician Name</td>
<td>Group by</td>
<td></td>
</tr>
<tr>
<td>Member ID</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient Name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illness Burden</td>
<td>Y, * or Null</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>Y</em> indicates patient with total acute care billed amount between $50K-$99K for the reporting period. <em>Y</em> indicates patients with total acute care billed amount &gt; $100K for the reporting period.</td>
<td></td>
</tr>
</tbody>
</table>

### ADMITS WITHIN YEAR

<table>
<thead>
<tr>
<th>Admits</th>
<th>#</th>
<th># of admits for the patient during report period. Counts 3 or greater are highlighted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Dx w/ Desc</td>
<td></td>
<td>The primary diagnosis code and description of the latest admission during the reporting period</td>
</tr>
<tr>
<td>Last Date</td>
<td>mm/dd/yyyy</td>
<td>The date of the latest admission for the reporting period</td>
</tr>
<tr>
<td>Office Follow-up</td>
<td>Y or N</td>
<td><em>Y</em> indicates patient with a physician office visit within 14 days of the last acute hospital discharge</td>
</tr>
</tbody>
</table>

### AVOIDABLE ADMITS

<table>
<thead>
<tr>
<th>Avoidable Admits</th>
<th>#</th>
<th># of hospital admission during the reporting period that based on AHRQ quality indicators that could possibly be considered avoidable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Date</td>
<td>mm/dd/yyyy</td>
<td>Date of the latest admission that according to AHRQ quality indicators could be considered avoidable</td>
</tr>
<tr>
<td>Reason</td>
<td></td>
<td>Brief description of the condition that early and appropriate intervention could potentially reduce the likelihood of needing hospitalization</td>
</tr>
</tbody>
</table>

### ER VISITS WITHIN YEAR

<table>
<thead>
<tr>
<th>Visits</th>
<th>#</th>
<th># of ED visits for the patient during report period. Counts 3 or greater are highlighted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Dx w/ Desc</td>
<td></td>
<td>The primary diagnosis code and description of the latest ED visit during the reporting period</td>
</tr>
<tr>
<td>Last Date</td>
<td>mm/dd/yyyy</td>
<td>The date of the latest ED visit for the reporting period</td>
</tr>
</tbody>
</table>

### CAD

<table>
<thead>
<tr>
<th>Dx</th>
<th>Y or N</th>
<th><em>Y</em> indicates patient with a hospital admission or clinic visit with an associated diagnosis of CAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Visits</td>
<td>#</td>
<td># of office visits with this diagnosis during the reporting period</td>
</tr>
<tr>
<td>LDL</td>
<td>Y or N</td>
<td><em>Y</em> indicates at least one lipid profile test during the reporting period</td>
</tr>
</tbody>
</table>

### COPD

<table>
<thead>
<tr>
<th>Dx</th>
<th>Y or N</th>
<th><em>Y</em> indicates patient with a hospital admission or clinic visit with an associated diagnosis of COPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Visits</td>
<td>#</td>
<td># of office visits with this diagnosis during the reporting period</td>
</tr>
</tbody>
</table>

### CHF

<table>
<thead>
<tr>
<th>Dx</th>
<th>Y or N</th>
<th><em>Y</em> indicates patient with a hospital admission or clinic visit with an associated diagnosis of CHF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Visits</td>
<td>#</td>
<td># of office visits with this diagnosis during the reporting period</td>
</tr>
</tbody>
</table>

### DIABETES

<table>
<thead>
<tr>
<th>Dx</th>
<th>Y or N</th>
<th><em>Y</em> indicates patient with a hospital admission or clinic visit with an associated diagnosis of Diabetes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Visits</td>
<td>#</td>
<td># of office visits with this diagnosis during the reporting period</td>
</tr>
<tr>
<td>HbA1c</td>
<td>Y or N</td>
<td><em>Y</em> indicates at least one Hemoglobin A1c during the reporting period</td>
</tr>
<tr>
<td>LDL</td>
<td>Y or N</td>
<td><em>Y</em> indicates at least one lipid profile test during the reporting period</td>
</tr>
<tr>
<td>Nephropathy Monitored</td>
<td>Y or N</td>
<td><em>Y</em> indicates at least one urine test for microalbumin during the reporting period</td>
</tr>
</tbody>
</table>

### HYPERTENSION

<table>
<thead>
<tr>
<th>Dx</th>
<th>Y or N</th>
<th><em>Y</em> indicates patient with a hospital admission or clinic visit with an associated diagnosis of Hypertension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Visits</td>
<td>#</td>
<td># of office visits with this diagnosis during the reporting period</td>
</tr>
<tr>
<td>Column Name</td>
<td>Source</td>
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</tr>
<tr>
<td>-----------------------------</td>
<td>-----------</td>
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</tr>
<tr>
<td>Physician ID</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
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<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
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<tr>
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</tr>
<tr>
<td>Member ID</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Patient Name</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Illness Burden</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Admits</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Primary Dx w/ Desc</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Last Date</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Office Follow-up</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Avoidable Admits</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Last Date</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Reason</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Visits</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Primary Dx w/ Desc</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Last Date</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Dx (CAD)</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Office Visits (CAD)</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>LDL (CAD)</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Dx (COPD)</td>
<td>CDWDSH</td>
<td>PHYSICIAN_DM_DATA</td>
</tr>
<tr>
<td>Office Visits (COPD)</td>
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Appendix 5a (con’t)
PHYSICIAN DISEASE MANAGEMENT (DM) REPORT

Processing Notes
Process ran by Dale to produce single source file to be loaded into table PHYSICIAN_DM_DATA:

1. **Select from Medical Manager data,** all office visit information for DM patients for the prior 12 months
   - Limit office visit information to include all but facilities: ‘AA’, ‘AD’, ‘AI’ and ‘SH’ (AA = IPOF, AD and AI = test, SH = School)
   - Create list of facility/account combinations from this extraction and do a lookup against doctor master to determine PCP(s) for all patients
   - Create list of patient SSNs from this extraction to be used in next step
   - Filter to include only patients with primary payer Medicare

2. **Select from hospital data** (PRDB), all ER and IP information for DM patients (identified by SSN list created above) for the prior 12 months

3. **Apply logic against combined data** to populate all fields in source file

4.0 REPORT DETAIL

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<thead>
<tr>
<th>Date Range:</th>
<th>Previous 12 months</th>
</tr>
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<tbody>
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<td>If scheduled, when:</td>
<td>Sunday – when data available</td>
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Report Filters (hard-coded filters within report, transparent to users. Filters limit data to report)

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<th>Column to Filter</th>
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<th>Filter Values</th>
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Report Prompts (allows users to dynamically select values that limit output of the report)

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User Security

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</table>
Appendix 5b
PATIENT DISEASE MANAGEMENT (DM) REPORT

Report Name: Physician DM Report

Business Owner: ________________________________
Subject Area: ________________________________ Disease Management

Date Needed:

Last Revised: 07/25/2006
Version: 1.0

Document Change History

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<tr>
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<th>Name</th>
<th>Date</th>
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<td>Initiation of Document</td>
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Control Information

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<tr>
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<tr>
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<tr>
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Appendix 5b (con’t)
PATIENT DISEASE MANAGEMENT (DM) REPORT

1.0 Business Purpose
Provide detail information for inpatients discharged from FMC during the prior month. Also, include next appointment and relevant disease management information.

2.0 Functional Information
Does this report contain PHI?  ___X__ Y or ____ N

Report sample included? ____ Y or ___X__ N  Name of file: __________________________

3.0 Report Outputs & Inputs
Requested Report Layout

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<td>Footers:</td>
<td>Report run date and &quot;Provided by...&quot;</td>
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Requested Report Output (fields to be displayed on report)

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<tr>
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<tr>
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<tr>
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Appendix 5b (con’t)

PATIENT DISEASE MANAGEMENT (DM) REPORT

Report Inputs (fields that are used to calculate or produce the report)

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<th>Column Name</th>
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<th>Table</th>
<th>Column</th>
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<td>Office Follow-up</td>
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<td>Total billed Amount</td>
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Processing Notes

Process ran by Dale to produce single source file to be loaded into tables INPATIENT_DM_DATA, ER_DM_DATA and OFFICE_VISIT_DATA:

1. Select from Medical Manager data, all office visit information for DM patients for the prior 12 months
   - Limit office visit information to include all but facilities: ‘AA’, ‘AD’, ‘AI’ and ‘SH’ (AA = IPOF, AD and AI = test, SH = School)
   - Create list of facility/account combinations from this extraction and do a lookup against doctor master to determine PCP(s) for all patients
   - Create list of patient SSNs from this extraction to be used in next step
2. Select from hospital data (PRDB), all ER and IP information for DM patients (identified by SSN list created above) for the prior 12 months
3. Apply logic against combined data to populate all fields in source file
Appendix 5b (con’t)

PATIENT DISEASE MANAGEMENT (DM) REPORT

4.0 REPORT DETAIL

<table>
<thead>
<tr>
<th>Date Range:</th>
<th>Previous 12 months</th>
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<tr>
<td>Report Frequency:</td>
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<td>Scheduled or Ad hoc:</td>
<td>Argent scheduled</td>
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<tr>
<td>If scheduled, when:</td>
<td>Sunday – when data available</td>
</tr>
</tbody>
</table>

Report Filters (hard-coded filters within report, transparent to users. Filters limit data to report)

<table>
<thead>
<tr>
<th>Column to Filter</th>
<th>Source</th>
<th>Filter Values</th>
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Report Prompts (allows users to dynamically select values that limit output of the report)

<table>
<thead>
<tr>
<th>Column to Filter</th>
<th>Filter Values</th>
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User Security

<table>
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</tbody>
</table>
Appendix 6a
JOB DESCRIPTION: ASSOCIATE MEDICAL DIRECTOR FOR QUALITY

Roles and Responsibilities

Leadership

• Teams with the Practice Manager to create practice success
• Provides leadership in cooperation with the Practice Manager in developing positive group dynamics and team work throughout the practice
• Works to develop a common vision and purpose for the practice that supports community needs and _____’s mission
• Understands and communicates concepts necessary for the success of the practice in such areas as customer satisfaction, cost effectiveness, financial integrity, and clinical improvements
• Serves as an effective role model
• Demonstrates excellent communications skills with all customers, internal and external
• Promotes excellent patient service standards

Physician Relationships

• Coordinates and leads physician and mid-level recruiting activities
• Reviews activities related to clinical practice and helps implement plans for improvement
• Holds physicians, nurse practitioners and physician assistants responsible and accountable for supporting these improvement efforts
• Works with physicians to achieve appropriate patient access, reasonable wait times, efficient scheduling, and excellent customer satisfaction
• Coaches and councils individual physicians, physician assistants and nurse practitioners, and ensures annual feedback is conducted timely

Operational and Financial Management

• Assumes responsibility in conjunction with the Practice Manager for achieving financial breakeven for the practice
• Reviews and understands operational and financial issues of the practice
• Communicates financial targets/issues to providers
• Works with the Practice Manager to create action plans and assists with implementation of appropriate actions to improve the operational and financial performance of the practice
Appendix 6b

JOB DESCRIPTION: SENIOR DIRECTOR, MEDICAL SERVICES, MEDICAL GROUP

---

**Job Summary**
Responsible for overseeing the coordination of nursing practice functions for the _____ Medical Group, including development of policies, standards, protocols and support of department-specific initiatives. Works with physician to create, develop, coordinate and manage the disease management programs for the medical care for a pre-paid patient population. Directs the ____ provider credentialing process.

---

**Core Processes and Activities**
Following is a summary of the major job processes of this job. Other duties may be performed, both major and minor, which are not mentioned below. Specific activities may change from time to time:

**Planning**
- Facilitates the development, coordination and the management of disease management programs for ___ patient population.
- Oversees the functions of ___Clinical Practice Council
- Facilitates and assures compliance with regulations and licensure requirements related to ___.
- Participates in the development of ___ and ___ policies and procedures.
- Facilitates the development of goals, objectives and action plans to achieve clinical staff education and development.
- Participates with ______ ______ Clinical Nursing Leaders/Supervisors in planning for program and service development.
- Supports implementation of ___ programs and services.
- Participates and supports preparation for accreditation /regulatory activities to facilitate compliance.

**Leadership**
- Provides guidance and direction related to professional practice.
- Provides feedback and support to Clinical Nursing Leaders / Supervisors.
- Provides consultation related to functions.
- Interacts with staff in a manner that survey results indicate overall satisfaction with management practices.

**Continuous Improvement**
- Participates in _____ _____ as well as ___ improvement efforts.
- Assists with the development and implementation of policies and procedures across the system consistent with practice and regulatory requirements.
- Serves as a resource and consultant for improvement efforts.
- Supports and facilitates process improvement in the organization and across the system.

**Manages Resources**
- Provides guidance and direction for patient and staff education program.
- Provides guidance and direction for the disease management program.
- Provides guidance and direction for the ___ contracting and credentialing process.
- Provides guidance and direction for the management of ___ clinical practice.
Appendix 6b (con’t)

JOB DESCRIPTION: SENIOR DIRECTOR, MEDICAL SERVICES, MEDICAL GROUP

Staff Development
• Assures development of a plan for the ongoing education of Clinical staff
• Coaches and counsels staff related to practice issues.
• Serves as mentor for new Clinical leaders.
• Facilitates learning experiences to meet identified learning needs.
• Supports staff development through sharing of information/educational resources.

Communication
• Provides feedback related to risk issues and risk reduction.
• Makes routine visits to practices to enhance communication.
• Seeks feedback from staff, physicians, and other leaders and shares concerns appropriately.
• Serves as liaison for ___ with other clinical area.

Professionalism
• Promotes collaborative and professional relationships with the medical staff and other professionals.
• Participates in community/professional organizations.
• Supports Clinical Leaders / Supervisors in creating the environment for professional practice.
• Collaborates with _____ _____ Vice President Nursing and Patient Care services to resolve professional nursing issues as needed.

Qualifications
The following qualifications are the minimum necessary to adequately perform this job. However, any equivalent combination of experience, education and training which provides the necessary knowledge, skills and abilities would be acceptable, subject to any legal and/or regulatory requirements.

• **Education and formal training:** Bachelor’s degree in nursing Registered Nurse currently licensed in North Carolina. MBA or MPH strongly preferred.
• **Work experience:** Five (5) years experience in management/supervision; experience in successfully managing population health functions. Clinical background required.
• **Knowledge, skills and abilities required:** Ability to successfully complete generic and department-specific skills validation and competency testing.
Appendix 6c
JOB DESCRIPTION: MANAGER DISEASE MANAGEMENT

Job Summary
Provides resources to manage the chronic disease, high risk patient population at ___. Responsible for developing / strengthening ties with system resources and assisting with operationalizing the Physician Demonstration Project (PDP). PDP responsibilities will include identifying chronic disease patients at high risk and facilitating their access to appropriate care, educating clinical staff, serving as a resource to physicians, case managers and clinical staff.

Core Processes and Activities
Following is a summary of the major job processes. Other duties may be performed, both major and minor, which are not mentioned below. Specific activities may change from time to time:

Major Job Functions
1. **Monitors care** for High Risk Chronic Disease patients and their families consistent with evidence based guidelines as described by various national groups such as National Quality Forum, Centers for Medicare/Medicaid Services (CMS), Agency for Health Care Policy and Research (AHCPR) guidelines and hospital standards to achieve optimal outcomes and maintain efficient use of resources.
   - Provides health education and counseling emphasizing compliance and health promotion.
   - Collaborates with Medical Director for Quality, primary care physicians, and members of the interdisciplinary team (including IPOF, PCP, case managers, and hospital staff).
   - Develops processes to facilitate the efficient access of patients to needed resources.
   - Develops programs to enhance disease specific chronic conditions identified as opportunities for improvement of the overall health of the targeted populations.
   - Supervise daily activities of ___ Case Managers.
   - Identifies and refers patients to system, community and hospital resources that can assist the patient and family to cope with the chronic disease state.
   - Promotes interaction with clinical resources to facilitate the movement of the patient throughout the system and monitors effectiveness.
   - Provides resources for the ___ clinical staff related to Chronic Disease populations and monitors effectiveness.
   - Works with ___ providers to improve quality of care provided with special emphasis on chronic disease.
   - Works within the _____ system to facilitate care after hospitalization.
   - Works with case managers and physicians to identify high risk patients, anticipate patient needs and minimize chronic disease complications.
   - Facilitates the coordination of care throughout the healthcare system.
   - Completes patient assessments and evaluations as requested.
   - Determines and implements appropriate therapeutic interventions according to approved Program guidelines.
   - Effectively communicates with the healthcare team the patient and family.

2. **Maintains good working relationships** with patients and patients’ family members.
3. **Works as a team member** with other health care team members.
4. **Participates** in patient, staff and community education efforts.
5. **Complies with and supports** department policies, procedures, and protocols.
6. **Complies with all** applicable regulatory and certifying agencies.
7. **Accepts responsibility** for personal growth and development.
Appendix 6c (con’t)
JOB DESCRIPTION: MANAGER DISEASE MANAGEMENT

Maintains clinical and professional competency, according to department policies, procedures and protocols, as appropriate for the age of patient(s) served.

- Facilitates communication of appropriate information about the patient’s status, plan of management, and progress to the primary care physician, and other members of the care team.
- Demonstrates responsibility and accountability by periodic evaluations administration, peers, and self-evaluation.
- Pursues continuing education opportunities.
- Participates in continuous quality improvement activities.
- Functions as a clinical resource.
- Contributes to inservice educational programs for clinical staff.
- Educates health care providers, patients, and families about the Disease Management Role.
- Develops annual goals and objectives to guide professional performance.
- Maintains professional certification and clinical practice in accordance with the rules and guidelines of the Board of Nursing.
- Evaluates self and staff performance.
- Develops and provides on-going evaluation of Program policies, guidelines, protocols, and standards.
- Collaborates with the Director Clinical Practice in budget management.
- Participates in communicating about the Disease Management Services to appropriate groups
- Monitors effectiveness of Disease Management Programs and reports same to Director Clinical Services

Qualifications
The following qualifications are the minimum necessary to adequately perform this job. However, any equivalent combination of experience, education and training which provides the necessary knowledge, skills and abilities would be acceptable, subject to any legal and/or regulatory requirements. Ability to successfully complete generic and department-specific skills validation and competency testing;

**EDUCATION AND FORMAL TRAINING:** Current License as a registered nurse with the _____ Board of Nursing; BSN or equivalent degree, graduate degree preferred

**WORK EXPERIENCE:** Three years of experience in project management of disease management programs; Knowledge of business principles and outpatient management preferred. Three years experience with disease management program development.

**KNOWLEDGE, SKILLS AND ABILITIES REQUIRED:** Ability to successfully complete generic and depart-specific skills validation and competency testing; Thorough knowledge of disease management concepts and program requirements; Thorough knowledge in assessment and management of chronic illness; Strong communication skills, both verbal and written; general computer knowledge is preferred; ability to work independently, yet in collaboration with a team. Ability to use problem-solving, decision-making, creative and communication skills. Dedicated to chronic disease management and preventive care programs.

**VALID DRIVER’S LICENSE.**

**PHYSICAL REQUIREMENTS:** Sit, stand, read, speak, write, see, walk; exposure to communicable / infectious diseases.
Appendix 6d
JOB DESCRIPTION: CLINICAL DOCUMENT MANAGEMENT COORDINATOR

Job Summary
Abstraction of data, data entry, and analysis for the purpose of monitoring the clinical indicators related to medical management studies. Assisting with the NCQA Provider Recognition Programs. Assisting with the research and reporting processes to assure best practice.

Coordination of activities for the medical management studies associated with _____ Medical Group and non-employed physician practices in the surrounding area. These activities include but are not limited to coordinating meetings, chart review, and data collection.

Core Processes and Activities
Following is a summary of the major job processes of this job. Other duties may be performed, both major and minor, which are not mentioned below. Specific activities may change from time to time.

1. Coordination of the Diabetes Program and other medical management studies (e.g. Quality Indicator Study related to HEDIS criteria).
   - Coordination of meetings, chart review, data collection, and data entry
   - Return with the physician champion to report findings. Preparation and distribution of the meeting record as well as CME materials and documentation. Follow-up as requested by the healthcare providers
   - Participation in the planning process for the medical management studies
   - Literature search and review related to the selection of indicators and criteria for Medical Management Studies
   - Data entry into Excel spreadsheets for reporting purposes
2. Diabetes and Heart/Stroke Provider Recognition Programs
   - Assist with scheduling the office visits for chart review
   - Data collection for the Provider Recognition Programs
   - Assist with the education of office staff regarding the selection of patients for participation in the diabetes recognition program

Qualifications
The following qualifications are the minimum necessary to adequately perform this job. However, any equivalent combination of experience, education and training which provides the necessary knowledge, skills and abilities would be acceptable, subject to any legal and/or regulatory requirements.

EDUCATION AND FORMAL TRAINING: Associate Degree in a health-related field. Medical records or clinical background is preferred.

WORK EXPERIENCE: Minimum of 5 years in a health-related field.

KNOWLEDGE, SKILLS AND ABILITIES REQUIRED: Ability to successfully complete generic and department-specific skill validation and competency testing. Ability to work with department heads, nurse managers, physicians and other staff to meet their needs. Knowledge of the medical record content and use within the organization. Proficient use of the Microsoft Office programs including a working knowledge of Excel spreadsheets.

VALID DRIVER’S LICENSE. The capability to travel to the physician office practices in the surrounding area.

PHYSICAL REQUIREMENTS: Stand, sit, walk around at intervals, bend, stoop, lift and carry equipment, material and supplies of up to 20 lbs, push/pull equipment carts, see, hear, speak, and read. Have the manual dexterity to use PC and mouse.
Appendix 6e
JOB DESCRIPTION: MANAGER CLINICAL IMPROVEMENT PROGRAMS

Job Summary
_____ _____ is the largest healthcare system in the state, serving more than 3.5 million people in 34 counties reaching from southern _____ to northern _____ ___. The purpose of this role is to promote _____ _____ locally and nationally as a provider of quality health care. This is accomplished through facilitating improvements in disease management, seeking quality awards, grants, presentations, and publications; writes (including the role of ghost writer), prepares, and/or reviews information to be used. Coordinates the preparation of company information giving final approval or working with the appropriate departments to obtain final approval.

Core Processes and Activities
Following is a summary of the major processes of this job. Other duties may be performed, both major and minor, which are not mentioned below. Specific activities may change from time to time.

1 Disease Management Studies – Participate in the development and monitoring of quality improvement programs including and not limited to NCQA and HEDIS measures
   • Function as the Team Leader and communicate with staff in the Triad and Southern Piedmont Regions to assist with the consistency of criteria development, monitoring, and reporting of disease management studies throughout the organization
   • Identify methods for the growth of disease management programs including resources available or needed
   • Assist with the development of job descriptions, interviews, and selection
   • Draft budgets and seek resources for quality improvement programs

2 Awards, Presentations, and Publications – Work with the Corporate Clinical Improvement Medical Director to identify, research, write, and submit quality improvement initiatives throughout the organization for consideration of awards, presentations, or publications
   • Participate on teams or interview team members for the purpose of obtaining background information about the initiative
   • Research the applicable organizational guidelines for article or presentation submission
   • Work with Marketing to determine appropriate publications
   • Coordinate communication among authors (e.g. arranging of meetings or communication via e-mail, phone, or print)
   • Assist with or write, format, and submit the information for consideration

3 Grant Funding – Work with the Foundations throughout the organization to research grant opportunities and submit applications for quality improvement initiatives
   • Research grant opportunities via the Internet and referrals
   • Interview people involved with the improvement initiative
   • Communicate with representatives from the grant organizations
   • Assist with the budget proposal
   • Assist with or complete data analysis
   • Assist with or complete the grant application in the appropriate format
   • Assist with submission of the grant application for consideration of funding
   • Work with the Foundations and other participants in the tracking and renewal process
Appendix 6e (con’t)
JOB DESCRIPTION: MANAGER CLINICAL IMPROVEMENT PROGRAMS

Clinical Research – Work with the Director for Clinical Research Trials to develop and grow the program at a
corporate level. Responsibilities will include and not be limited to data analysis, writing for consideration of
publication, and applying for grant funding

Verification of Licensure – The Vice President, Patient Care Services/Chief Nursing Officer has agreed to be the
person responsible for the tracking of licensed staff. The person in this role is to work with the Corporate Clinical
Improvement, Executive Assistant and the Nursing Administration, Business Systems Analyst to assure current
licensure of staff in the Corporate Clinical Improvement and Infection Control Departments
• Qualified to verify licensure on the ___ Board of Nursing web site
• Communicate with the Executive Assistant and the Business Systems Analyst to confirm verification and data
  entry into the PeopleSoft System
• Communicate with the appropriate staff when issues occur for the purpose of clarification and/or resolution

Qualifications
The following qualifications are the minimum necessary to adequately perform this job. However, any equivalent
combination of experience, education and training which provides the necessary knowledge, skills and abilities would
be acceptable, subject to any legal and/or regulatory requirements.

EDUCATION AND FORMAL TRAINING: Licensed as a Registered Nurse in ___
  • Master’s Degree
  • Education in Total Quality Management to include the philosophy of W. Edwards Deming and the study of
    analytical statistics
  • Education or experience in writing for consideration of publication
  • Education or experience in grant research and application submission

WORK EXPERIENCE: Two years previous experience in project management and implementation
  • At least three years experience in healthcare with a clinical focus
  • Previous experience in working with physicians and other clinicians demonstrating a team player attitude
  • Understanding of customer needs and expectations
  • Knowledge for improvement to exceed the customer’s expectations
  • Skills in interviewing and the selection process
  • Understanding of budget preparation
  • Experience with clinical data is preferred

KNOWLEDGE, SKILLS AND ABILITIES REQUIRED:
• Conceptual, theoretical, and critical thinking skills
• Strong oral and written communication skills
• Proficient knowledge of Microsoft Office Products including Word, PowerPoint, Excel, and Outlook; Internet
  search engines; and VHA Clinical Knowledge Management
• Typing level of at least 45 words per minute
• Understands clinical processes and the delivery of care
• Ability to successfully complete generic and department-specific skill validation and competency testing

VALID DRIVER’S LICENSE. The capability to travel to the physician office practices in the surrounding area.

PHYSICAL REQUIREMENTS: Stand, sit, walk around at intervals, bend, stoop, lift and carry equipment, material and
supplies of up to 20 lbs, push/pull equipment carts, see, hear, speak, and read. Have the manual dexterity to use PC
and mouse.
Appendix 6f

JOB DESCRIPTION: SENIOR VICE PRESIDENT, CLINICAL IMPROVEMENT

_____ _____, Senior Vice President for Clinical Improvement, has been with _____ Health since 1994 and has more than 30 years of experience in healthcare operations, nursing, and consulting in quality improvement. _____’s background includes education and training, consulting, case management, infection control, and long-term care contracting. Prior to 1994, she held leadership positions with Quorum Health Resources in Nashville, Tennessee.

_____ holds a Master’s Degree in Health Systems Science and a Bachelor’s Degree in Nursing from the University of Louisville, Kentucky. _____ is active in VHA National and Regional Clinical Improvement Councils for planning VHA’s clinical focus. She is a member of the Forsyth County Infant Mortality Coalition and the North Carolina and National Association for Quality Professionals.
Appendix 6g
JOB DESCRIPTION: EXECUTIVE VICE PRESIDENT, QUALITY

Job Summary
Responsible for operations of the physicians’ practices owned by ______ _____/__ and the development of primary care physician relationship within the region.

Core Processes and Activities
Following is a summary of the major job processes of this job. Other duties may be performed, both major and minor, which are not mentioned below. Specific activities may change from time to time:

1. Responsible for the overall leadership of the ___ Regional Physician Division, including the overall professional and administrative activities.
2. Develops and maintains close working relationships with practice managers and directors, ensuring that they are well informed and part of an overall service team for the network.
3. Submits regular reports to ____ Executive Committee concerning: (1) customer service; (2) revenue growth; (3) expense reduction and (4) clinical quality. Also develops specific ways to meet financial goals for Board review.
4. Works closely with the CFO for both the _____ and ___ Physician Divisions to install appropriate management controls designed to maximize revenue and minimize expenses without impairing patient quality or satisfaction.
5. Prepares appropriate annual reports including quality monitors, budgetary planning, customer satisfaction and others for reporting to the Board and _____ senior leadership.
6. Oversee physician credentialing process and recruit physicians as needed within ____.
7. Develop a central “support team” culture among the central staff, a culture designed to provide highly responsive service and support to individual practices
8. Coordinates and leads regional expansion of, and assumes overall responsibility for the operation of ______________ Healthcare Associates and other affiliated physician practices through a physician network chief operating officer.
9. Supervises the operation of community and business health departments.
10. Serve as the liaison and facilitator between ____ employed physicians and the ___ facilities, including the PICS team.

Qualifications
The following qualifications are the minimum necessary to adequately perform this job. However, any equivalent combination of experience, education and training which provides the necessary knowledge, skills and abilities would be acceptable, subject to any legal and/or regulatory requirements.

EDUCATION AND FORMAL TRAINING: Master’s Degree in Business Administration or Health Administration.
WORK EXPERIENCE: Seven or more years of progressive management experience with a working knowledge of planning, institutional service operations, physician practice operations, and network relationship development.
KNOWLEDGE, SKILLS AND ABILITIES REQUIRED: Strong organizational skills, motivated self-starter; high energy, experienced negotiator, strong analytical skills.
SPECIAL CONDITIONS: Prolonged sitting, bending, stooping and manual dexterity.
Appendix 6h
JOB DESCRIPTION: CO-PRESIDENT, MEDICAL GROUP

Job Summary
Makes all professional medical judgments in care of patients seen.

Core Processes and Activities
Following is a summary of the major job processes of this job. Other duties may be performed, both major and minor, which are not mentioned below. Specific activities may change from time to time:

1 Makes all professional medical judgments in the care of patients seen.
2 Manages the physician/patient relationship.
3 Participates in system wide health management initiatives.
4 Provides input into the practice site’s financial, clinical, and service quality performance.
   • Budget.
   • Capital plan.
   • Personnel issues.
5 Assists in the development and implementation of clinical and service standards.
   Receives and resolves patient complaints.
6 Participates in the recruitment and replacement of other providers.
7 Enhances professional growth and development.
   • Participation in educational programs.
   • Literature review.
   • Inservices.
   • Workshops.
8 Performs other functions as required.

Qualifications
The following qualifications are the minimum necessary to adequately perform this job. However, any equivalent combination of experience, education and training which provides the necessary knowledge, skills and abilities would be acceptable, subject to any legal and/or regulatory requirements.

A EDUCATION AND FORMAL TRAINING: MD/DO Board-eligible or certified in Family Medicine. State of _ _ Medical License required.
B WORK EXPERIENCE: One year of internship in family medicine required.
C KNOWLEDGE, SKILLS AND ABILITIES REQUIRED: Requires detailed knowledge of family medicine in terms of theories and practices to serve as the resource or educator to other practitioners in the medical field. This staff member must demonstrate knowledge of the principles of growth and development over the life span of patients served. Ability to make decisions that require significant analysis and investigation with solutions requiring significant original thinking. Ability to determine appropriate courses of action in more complex situations that may not be addressed by existing policies, procedures or protocols. Decisions include such matters as changes in staffing levels, order in which work is done, and application of established procedures.
D SPECIAL CONDITIONS: Frequently moderate lifting, pulling, pushing. Extended periods of walking, standing, bending and stretching.
Appendix 7

Figure 1: Physician perceptions of treatment intensification in hypertension management

Figure 2: Reasons cited by physicians as responsible for uncontrolled BP

Figure 3: Reasons cited by physicians for resistant hypertension

What comes to your mind when you hear the phrase “treatment intensification” with regard to treating antihypertension?

Please name three things that you believe most affect a patient reaching hypertension treatment goals.
IDENTIFYING BARRIERS TO HYPERTENSION MANAGEMENT
TO DEVELOP TARGET CLINICAL IMPROVEMENT INITIATIVES

Appendix 8

BACKGROUND

- The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC-7) established current guidelines that recommend that hypertensive persons be treated to a blood pressure (BP) of <140/90 mmHg.
- For the diabetic hypertensive population, treatment recommendations are more aggressive, at <130/80 mmHg.
- In the US today, only about 1 in every 2 persons with hypertension currently receive antihypertensive medication.
- Fewer than 1 in 3 hypertensive individuals are controlled to a blood pressure (BP) of <140/90 mmHg, and only about half (51%) of persons receiving antihypertensive medication are controlled to the BP levels recommended by JNC-7.

STUDY PURPOSE

- To assess knowledge, attitudes, and clinical practices regarding hypertension management, surveys were administered to physicians (internal medicine, family practice) and support staff (RN, LPN, and Certified Medical Assistants) from a North Carolina medical group. Results suggested a contradiction between knowledge of hypertension management guidelines and their use in clinical practice. Physicians predominantly cited patient- and support-staff-related factors, including lifestyle management and inaccurate BP measurement by clinical staff, as responsible for patients not attaining BP goal. Results are being utilized to develop clinical improvement initiatives.

STUDY OBJECTIVES

- Objective 1: Discuss healthcare providers’ perceptions of management of the hypertensive patient.
- Objective 2: Understand provider and patient barriers to the achievement of blood pressure goals in patients with hypertension.
- Objective 3: Using the study presented as a model, other health plans may participate in the development of strategies to implement hypertension clinical improvement initiatives, to identify issues and improve hypertension management in their own practice setting.

PHYSICIAN QUESTIONS

Designed to assess beliefs and practices regarding the following:
1. Barriers to patients achieving BP goal
2. Beliefs and practices regarding hypertension management
3. Understanding of published hypertension management guidelines
4. Factors influencing resistant hypertension

SUPPORT STAFF QUESTIONS

Designed to assess beliefs and practices regarding the following:
1. Factors influencing accurate BP measurement
2. Beliefs and practices regarding hypertension management
3. Recommended staff training for hypertension management

DESIGN AND METHODS

- Design: Cross-sectional survey
- Setting: Forsyth Medical Group, North Carolina, with 300 providers and more than 40 practices that care for patients across eight counties in North Carolina.
- Participants: Physicians (n=18, 10 sites) and staff (n=20, 12 sites) surveyed in 2006.
- Measurements: Physician and support staff questionnaires consisted of 29 and 15 items, respectively, and were administered by trained interviewers.
- Descriptive summary statistics were calculated using SPSS (SPSS, Chicago, IL, USA).

RESULTS

Figure 1: Illustrates physician perceptions of treatment intensification in hypertension management. Physicians most commonly associated the addition of antihypertensive medications to the existing therapeutic regimen with treatment intensification.

What comes to your mind when you hear the phrase “treatment intensification” with regard to treating hypertension?

Figure 2: Illustrates physicians’ perceptions of the factors that are most important to a hypertensive patient attaining treatment goals. Lifestyle modification, education, and compliance were the most commonly cited factors.

Please name three things that you believe most affect a patient reaching hypertension treatment goals.
Figure 3: Illustrates physicians' perceptions of the causes or resistant hypertension; the most frequently cited reason was inaccurate BP measurement.

Figure 4: Illustrates support staff's perceptions of the time constraints on taking BP measurements.

Figure 5: Illustrates support staff's awareness of specific guidelines for measuring BP measurements.

DISCUSSION
- Study results suggested providers' knowledge of hypertension management standards and routine application of this knowledge in clinical practices are somewhat contradictory.
- Though almost all physicians cited familiarity with JNC-7 guidelines and affirmed that hypertension management guidelines are relevant to their patients, no physicians responded that they routinely document patient hypertension management plans.
- An important finding of our study was that although only 6% of physicians felt that it was permissible to allow some patients to maintain an elevated BP, 44% responded equivocally, and only 50% responded “no” to this question.
- Furthermore, although 1 in 3 physicians cited the inability to devote enough time to patients for the discussion of hypertension management, physicians predominantly cited patient- and support-staff-related factors as most important to patients not attaining BP goal.
- Potential interventions targeting improved hypertension management:
  - Support staff-targeted initiatives included:
    - staff education and training
    - provision of engineering protocols to facilitate properly calibrated BP equipment
    - implemented BP competency testing
  - Physician-targeted initiatives included:
    - a review of JNC-7 guidelines, focusing on lifestyle modification, patient education, and patient adherence to treatment regimens
    - In-practice educational & CME sessions

CONCLUSIONS
Similar themes emerged between physician and support staff results for some areas of hypertension management.
- Time was cited by physicians and support staff alike as a contributing factor to patient management in their practice setting.
  - Approximately 33% of physicians cited the inability to devote enough time to patients for the discussion of hypertension management, and 40% of support staff claimed to be rushed while measuring patient BP.
- Only 1/3 of surveyed physicians believed that clinical staff always obtained accurate BP measurements, and 61% believed that resistant hypertension is a reflection of inaccurate BP measurement.
- Similarly, 65% of support staff recommended competency training for proper BP measurement technique.
- This study was conducted in a large group practice in North Carolina, it is difficult to know whether our findings are generalizable on a large scale.
- This study provides an example that may be useful to other medical groups interested in designing their own initiatives to identify barriers to hypertension management.
- Investigations and associated interventions similar to those described in this report are important to minimize the role of clinical inertia in hypertension management, thus potentially improving national rates of BP control.

REFERENCES