



Carolina Health Centers

# Quality Improvement Program 2024

Reviewed and Approved by the Board of Directors  
5/20/2024

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**Statement of Approval**

**CAROLINA HEALTH CENTERS, INC.  
QUALITY IMPROVEMENT PROGRAM**

This signifies that the Quality Improvement Program for Carolina Health Centers was reviewed and approved by the Board of Directors as part of the overall annual grant application review process.

Approval Date: \_\_\_\_\_

Chief Medical Officer: \_\_\_\_\_  
Locke Simons, MD

President/CEO: \_\_\_\_\_  
Sue Veer, MBA, CMPE

Board of Directors: \_\_\_\_\_  
Abby Banks, Chairman

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## **Mission, Goals, Objectives, and Scope**

### **I. Mission**

The mission of Carolina Health Centers' Quality Improvement (QI) Program is to monitor and maximize the health of our patients and enhance the patient experience in our centers.

### **II. Goals**

The goals of the Carolina Health Centers QI Program are to:

1. Provide a structure and a system to report, achieve and maintain the highest quality standards for our patients utilizing a quality assurance process for continuous improvement of clinical indicators and system procedures
2. Assess the extent to which health services are consistent with the most recent accepted guidelines and recognized standards of care for primary care and preventive health care
3. Develop strategies for ensuring that such services are consistent with the guidelines for improvement in the access to primary care and preventive services

### **III. Objectives**

The objectives of the QI Program are to:

1. Present the overall structure and system in place to monitor and review quality indicators
2. Describe the QI Committee structure, purpose and procedures
3. Identify the core areas of monitoring, both clinical and systematic, based on population data and patient satisfaction surveys.
4. Present standards of care and both monitoring and reporting procedures for key chronic disease states
5. Present policies and procedures regarding data collection

### **IV. Scope**

The scope of the QI Program is comprehensive and includes all clinical and administrative departments and activities that have a direct or indirect influence on the quality, safety and outcome of care delivered to all CHC patients. This scope includes primary care, family planning, behavioral health and pharmacy services. All services and sites will be approved by BPHC to ensure compatibility with scope and provider coverage under FTCA guidelines. For services provided to CHC patients through written agreement (specialists, hospital services, etc.), CHC will perform necessary due diligence before signing the agreement. Through this mechanism, CHC will ensure that patients receive acceptable quality of care in these external settings.

## **Organizational Structure**

### **I. Board of Directors**

The Board of Directors (BOD) is ultimately accountable for the quality of care provided at CHC. The BOD holds the Chief Executive Officer accountable for the efficient and effective functioning of the QI Program. Taking an active fiduciary role in the continual improvement of quality and safety, the BOD reviews and approves the QI Program, receives and acts upon reports from the Chair of the QI Committee, and ensures the availability of resources and systems to support all QI activities.

### **II. QI Committee**

The QI Committee will oversee the comprehensive QI Program, which will be developed with input from the committee and all personnel and will be implemented organization-wide, once approved by the Board of Directors. The committee also addresses organization-level issues that relate to quality and patient safety. The QI Committee reports its activities and findings to the Board of Directors or sub-committee thereof.

### **III. Chief Medical Officer**

The Chief Medical Officer is the Chair of the QI Committee, has overall operational responsibility for the QI Program and is also responsible for the provider performance assessment and improvement component of the QI Program. This position reports to the Chief Executive Officer. The Chief Medical Officer is also responsible for presenting QI issues and reports from the QI Committee and for recommending provider credentialing and re-credentialing to the Board. These recommendations address both the requirements for credentialing and the specific application of those requirements in ongoing practice.

## QI Committee

### I. Structure and Schedule

CHC recognizes the important role of leadership in the QI Program and the need for broad-based representation of all types of departments and all types of positions in the organization. Therefore, the QI Committee is made up of permanent members from the departments of medical services, behavioral health, nursing, administration, finance, pharmacy and laboratory services. Rotating members include representatives of most, if not all sites, specialties and major job categories and positions. The QI Committee will meet on a bi-monthly basis or as needed and will be made up of the permanent and rotating members.

#### Permanent Members:

- Chief Medical Officer (Chair)
- Director of Quality and Population Health (Vice-Chair)
- Director of Pediatrics
- Director of Family Medicine
- Director of Special Services
- Director of Clinical Support Services
- Director of Behavioral Health
- Family Medicine Practice Administrator
- Pediatric Practice Administrator
- Lab Coordinator
- Revenue Cycle Manager

#### Rotating Members, minimum composition:

- Three providers (physician, NP, PA, or therapist)
- Three clinical support staff (nurses, assistants or technicians)
- Three clerical/business support staff (patient/customer service representatives)

The rotating members will serve a two-year term with no more than five members rotating off in any given year. Other personnel may meet with the QI Committee as necessary when particular QI items are on the agenda. The rotating members will be personnel who have shown a commitment to quality patient care and will be chosen by the QI committee chair, vice-chair, and/or the committee. Sub-committees will be formed as needed as ad hoc committees.

The Chief Medical Officer is designated as chair and the Director of Quality and Population Health as Vice-Chair of the QI committee. The Chair will report to the Board on at least a quarterly basis regarding QI activities.



## **II. Agenda**

The agenda of the QI committee will be determined by standing regular monthly reports and periodic reports and presentations in the various areas that the QI committee oversees.

## **III. Minutes**

Minutes of each QI Committee meeting will be kept accurately, following generally accepted standards. Minutes will be based on the agenda and stored securely.

## **IV. Annual Review**

On an annual basis, the QI Program will be reviewed by the QI Committee with suggestions being put forth to the whole QI Committee. Annually the plan will be presented to the Board of Directors for approval.

## **V. Methodology for Improvement**

The Plan Do Study Act (PDSA) process is the standard methodology for improvement within the organization, whether implemented by the QI Committee, a patient care team or even an individual. Once an issue or problem is identified through either specific incidents or through routine monitoring, the QI Committee will implement the PDSA process to try to find a solution. Once the problem is identified, it will be examined, and solutions planned. The solutions will be implemented with regular reporting on outcomes from that solution. The outcomes will be analyzed to determine if the solution was successful or not. If successful, that new process or workflow may become the basis of a new procedure. If not successful, the QI Committee will rethink the solution or consider alternative solutions and start the process over again. This will be repeated as needed until the specific issue or problem has been resolved.

## **VI. Content**

The Quality Improvement Program will address quality assurance/program improvement content regarding the following major functional areas and important aspects of care:

- Clinical Primary Care
- Patient and Staff Education
- Continuity of Care
- Patient Satisfaction
- Case Management
- Medical Record/Information Systems

## Data Collection

**Goal:** The goal of interpreting and utilizing comparative data is to develop baselines of organizational performance and using internal and external benchmarks, to evaluate and measure the organization's effectiveness, as well as to identify priorities for performance improvement.

**Performance Measures:** The organization will select performance measures that encompass the important aspects of care provided by the program. The organization will conduct a regular review of data for performance measures from a variety of sources. Goals for specific measurements will be based on the original documentation source, e.g., UDS report, grants, CMS requirements. Data sources may include but will not be limited to:

- Clinical measures required in the annual UDS report
- HEDIS measures not included in the UDS report but of high priority to certain health plans and other entities
- Patient satisfaction survey results
- Demographic data, visit frequency, and missed appointment data
- Utilization and coding reports
- Other local and regional collaborative quality initiatives

## **Patient Satisfaction**

**Goal:** To ensure that the needs and desires of the patients of CHC are met in a professional manner.

**Method:**

1. Patient satisfaction and experience is evaluated in three ways: patient suggestion forms, an online patient experience form and a patient satisfaction survey.
2. Patient suggestion and feedback forms are placed in all offices and available to all patients.
3. An online patient experience form is maintained and reported by the marketing and development staff and is an ongoing collection of data throughout the year.
4. Patient satisfaction surveys are prepared by the Department of Quality and Population Health.
5. Patients will be surveyed at least yearly and in a random fashion.
6. Every office and every provider will be surveyed.
7. Patients will be surveyed until 20 results are obtained for full-time providers and 10 results are obtained for part-time providers.
8. Results from the survey will be tallied by the organization as a whole, and by individual center and by individual provider
9. Results from all three processes will be presented to the Quality Improvement Committee for recommendations.
10. A summary of results and the recommendations from the Quality Improvement Committee will be presented to the board at least annually.
11. Results will be used to guide changes that may be needed in policy, procedure or workflow to enhance patient satisfaction.

## Peer Review

**Goal:** To ensure providers of all types are adhering to established and agreed upon medical practice guidelines, both in clinical practice and in documentation.

**Method:**

1. Peer Review Surveys are prepared by the Department of Quality and Population Health to be utilized twice per year for every employed provider.
2. Providers will be reviewing similar provider specialties as much as is possible.
3. All providers will be included (short-term locum tenens providers will be exempt).
4. 10 charts will be assigned to be reviewed for each provider.
5. Results will be reviewed by the Chief Medical Officer.
6. Outstanding issues will be noted and discussed with the individual providers.
7. A summary of results will be presented to the Quality Improvement Committee for review.
8. The summary of results and the recommendations from the Quality Improvement Committee will be presented to the board by the Chief Medical Officer.
9. Results will be used to guide changes that may be needed in policy, procedure, workflow or training to enhance provider performance.
10. If deficiencies are found on peer review, then additional reviews may be necessary and granted privileges may be modified based on those results, as determined by the Chief Medical Officer in collaboration with the director of the department.

## **Select Topic: Immunizations**

**Purpose:** To reduce morbidity and mortality in children from diseases that are preventable by immunizations, namely: diphtheria, tetanus, pertussis, polio, measles, mumps, rubella, H. influenza, influenza, varicella, pneumococcal pneumonia and hepatitis. Influenza infection and pneumococcal pneumonia are also important public health problems for adults in our service area. Over 80% of the excess deaths from pneumonia and influenza in the United States occur in persons 65 years or older, and a majority of these patients are not properly immunized. Additionally, two thirds of all cases of tetanus each year occur in people over the age of 50. Thus, vaccination against influenza, pneumococcal pneumonia and tetanus are an important part of primary prevention for adult patients.

**Goal:** To provide or document adequate immunization for all pediatric and adult patients of Carolina Health Centers, Inc., according to the recommended schedule published by the CDC.

**Method:**

1. Provide on-site the following vaccines: DTaP, Hib, Hep A, Hep B, HPV, influenza, IPV, MMR, rotavirus, tetanus, meningococcal, pneumococcal, and varicella.
2. Administer immunizations by the appropriate schedule as recommended by the CDC for children and adults.
3. Track all patients receiving primary immunizations at CHC for the intervals determined by their age and immunization status at time of first CHC immunization.
4. Record historical immunizations of all patients who are active users but who select to receive their immunizations elsewhere.
5. Utilize the Health Maintenance module in EHR to track administered vaccines and to notify staff of any current deficiencies.
6. Have in place a management plan to catch up on immunizations if needed.

## Select Topic: Pediatric Dental Hygiene

**Problem:** There is a high incidence of poor dental hygiene among children as reflected in numerous referrals to the dental clinic.

**Goal:** To reduce dental decay in children

### **Methods:**

1. Patient is identified as pediatric
2. Patient receives counseling re: the recommendation to refrain from giving a bottle at time of bed, regular teeth brushing from the eruption of the first tooth and to supplement fluoride as appropriate.
3. Counseling occurs at Well Child Care (WCC) visits, acute visits, or at intervals not to exceed 6 months until the age of two.
4. If the child lives in a nonfluorinated area, the water supply should be tested and then fluoride supplementation should be provided, based on concentration of fluoride contained in the water.
5. All parents are encouraged to have the child's first dental appointment soon after first birthday.
6. Moderate to high-risk patients will be referred directly to dentist, if possible.
7. Apply fluoride varnish to all teeth surfaces every 6 months from first eruption to age 5. If a child is considered high risk for caries, then fluoride should be applied every 3 months for the same time frame. The purpose of applying fluoride varnish is to prevent, retard, arrest, and/or reverse the process of cavity formation.

## Select Topic: Cervical Cancer Screening

**Goal:** To reduce the incidence of mortality secondary to undetected or delayed detection of cervical cancer.

**Objective:** To promote women's gynecological health and reduce the risk of mortality secondary to undetected cervical carcinoma through implementation of Pap test protocols.

### **Screening Protocol:**

1. Regular Pap tests and gynecological exams recommended for all women starting age 21
2. Pap tests should be performed at an interval of every 3 years until age 30.
3. Women age 30 to 65 should have Pap testing in combination with human papillomavirus (HPV) testing every 5 years
4. Pap smears may be discontinued after age 65 years if patient has had adequate prior screening
5. Women who have had a hysterectomy including cervix, other than for reason of cancer, do not need Pap tests

**Management Protocols:** Pap smears will be done per the guidelines above unless otherwise noted.

Follow-up of Pap smears should be as follows:

1. No atypical Cells: routine per screening protocol
2. Benign Cellular Changes: (Infections or Reactive Changes) treat as appropriate and repeat Pap at or before 12 months.
3. Epithelial Cell Abnormalities:
  - a. Atypical squamous cells of undetermined significance (ASCUS):  
Repeat Pap at or before 6 months:
    - i. If same or more severe, refer for colposcopy within 6 weeks.
    - ii. If normal, repeat every 6 months for a year, then return to annual Pap if normal.
    - iii. If atrophic or suspected inadequate hormones, use estrogen cream or pill (unless contraindicated) and repeat in 3-4 months.
  - b. Low Grade Squamous Intraepithelial Lesion: Referral for colposcopy in four weeks.
  - c. High Grade Squamous Intraepithelial Lesion: Referral for colposcopy in two weeks.
  - d. Squamous Cell Carcinoma: Referral for colposcopy within two weeks.
  - e. Other malignant Lesion: Referral for colposcopy within two weeks.
  - f. HPV Effect or clinically apparent condyloma: Repeat in 6 months and follow as if ASCUS.
  - g. Record diagnosis on problem list

## Select Topic: Diabetes

**Goal:** To reduce unnecessary death and disability from diabetes.

### **Methods:**

#### Newly Diagnosed Diabetics

1. Should have a complete physical examination and lab work-up to include a urine albumin-to-creatinine ratio (UACR), glomerular filtration rate (GFR), glucose, lipid profile, liver enzymes, and electrolytes and ECG if over 40 years of age.
2. Dietary and lifestyle education, including self-management goals, should be given and documented.
3. Follow-ups should be at least at monthly intervals until glucose is stable and should include some type of blood sugar test (fasting blood sugar (FBS), post-prandial blood sugar, or HgbA1C).

#### Established Diabetics

1. Office visits every three months with a blood sugar test. More frequent visits if patient is symptomatic or abnormalities exist in lab tests. Less frequent acceptable if very stable and very controlled, but no less frequent than every 6 months
2. Yearly funduscopy eye exams
3. Yearly complete diabetic foot exams
4. Yearly UACR, GFR and blood lipid levels
5. HgbA1C every 3 months; every 6 months if levels have been controlled and stable
6. Exercise and diet education, including self-management goals, at least annually
7. Blood pressure will be tightly controlled, targeting 120/80
8. Medium- or high-intensity statin will be used if possible, with LDL level target less than 100mg/dL



## Select Topic: Hypertension

**Goal:** To reduce unnecessary death and disability from uncontrolled high blood pressure.

### **Methods:**

#### **New Hypertensive Patients:**

1. Blood pressure measurement is made with a properly calibrated and validated instrument with patient seated quietly for at least 5 minutes in a chair, with feet on the floor, and arm supported at heart level. At least two measurements should be made. Two readings on separate days of 130/80 or higher constitute diagnosis of hypertension.
2. Any blood pressure greater than 140/90 should be repeated later in the same encounter.
3. Assess risk factors for CAD (family history, DM, cholesterol, smoking, obesity, exercise, alcohol).
4. Document education including low salt diet, weight loss, and exercise.
5. If patient is to be treated with medicines, document that hematocrit, creatinine, cholesterol, urinalysis have been ordered or done within the last year.
6. Ensure that an EKG has been done within the last five years (if over 40 years of age).
7. If diuretics are to be used, document uric acid, potassium and glucose levels checked within the previous year.
8. Reduce blood pressure to less than 130/80 for those with chronic kidney disease or DM, and less than 140/90 for all others.
9. If initial diastolic pressure is greater than 100, consider medical therapy at that time.
10. Consider thiazide-type diuretic or calcium channel blockers with initial antihypertensive treatment for African American adults with hypertension (but without heart failure or chronic kidney disease).
11. Consider using single-pill combination therapy for improved compliance.

#### **Chronic Hypertensive Patients:**

1. If on medicines and stable (less than 130/80 for those with chronic kidney disease or DM, less than 140/90 for all others) follow-up at least every 6 months with office visit for recheck of blood pressure.
2. Any blood pressure greater than 140/90 should be repeated later in the same encounter.
3. If using self-monitored blood pressure (SMBP) readings, consider changing regimen more quickly, perhaps even without an in-person visit.
4. Consider adding a new medication class if not at goal and other medication(s) are maximized.
5. Schedule a follow-up visit in 4 weeks if not at goal.
6. If not on medicines, follow-up at least yearly with office visit and blood pressure check.
7. Yearly urinalysis, creatinine, cholesterol (and potassium if on diuretic).
8. ECG every 5 years (if over 40 years of age).

## **Select Topic: Asthma**

**Goal:** To reduce unnecessary morbidity and disability from uncontrolled asthma.

**Methods:**

1. Every asthma patient will be classified with the Classification of Asthma Severity scale (attached).
2. Any patient that is classified with persistent asthma or uncontrolled will be prescribed the appropriate anti-inflammatory medication to help prevent inflammation and asthma attacks.
3. Patients will be counseled on use of maintenance medications for persistent control of symptoms vs. use of short-acting rescue medications for acute symptom relief.
4. Patients will be encouraged to notice, and further avoid environmental triggers like cigarette smoke and other irritants.
5. Asthma action plan will be completed with instructions on mild, moderate and severe exacerbations

## Select Topic: Depression Screening and Monitoring

**Problem:** Depression is a very common and debilitating problem, seen in 5-13% of patient visits to primary care providers.

**Goal:** To better identify and treat Carolina Health Centers patients who suffer from clinically significant depression (CSD).

### **Methods:**

1. All patients age 12 years and older will be screened annually for CSD with either the Patient Health Questionnaire (PHQ) or the Pediatric Symptom Checklist (PSC-17).
2. PSC-17 is for pediatric patients 4 years and older and parents will complete the questionnaire.
3. PHQ screening will start with the PHQ-2, then reflex to the full PHQ-9 if the 2 answers are not considered clinically negative.
4. Both the PSC-17 and the PHQ have standard scoring methods.
5. Once depression is diagnosed, therapy can be initiated, whether it consists of psychotherapy, medications, or both.
6. PHQ will be used for monitoring patients with CSD every 3 months.
7. Suicide risk will be assessed regularly throughout the course of treatment, including consultation with family and friends where appropriate. Agitation and suicide risk may increase early in treatment. The following will be used to screen for suicide risk:
  - Ask all depressed patients if they have thoughts of death or suicide, or if they feel hopeless and feel that life is not worth living. Also ask if they have previously attempted suicide.
  - If the answer is yes, ask about plans for suicide.
  - Assess risk factors for suicide:
    - Psychosocial** - first nations, male, advanced age, single or living alone
    - History** - Prior suicide attempt, Family history of suicide, Family history of substance abuse
    - Clinical/Diagnostic** – hopelessness, psychosis, medical illness, substance abuse
  - Consider emergency psychiatric consultation and treatment if:
    - Suicidal thoughts are persistent
    - The patient has a prior history of a suicide attempt or a current plan, or
    - The patient has several risk factors for suicide
8. After initial diagnosis of CSD, patient will be seen in close follow-up (3-4 weeks) for re-evaluation.
9. Target duration of antidepressant therapy is 12 months or greater, to minimize possibility of relapse.

## Select Topic: Cardiovascular Disease

**Goal:** To decrease morbidity and mortality associated with cardiovascular disease.

**Objective:** To identify and document cardiac risk factors and initiate management as necessary to prevent occurrence or recurrence of cardiac disease and injury.

### **Methods:**

1. All adult patients (age 18 and older) should have cardiovascular risk assessment performed within the last four years. The assessment shall include the following:
  - Review of family history (parents and siblings) including that of coronary artery disease, including whether any blood relative died suddenly from unexpected disease or had a heart attack before the age of 55
  - Assess tobacco use
  - Assess for hypertension (BP>130/80 for 2 readings)
  - Assess and treat elevated lipid levels, according to the most recent published guidelines by the American College of Cardiology and the American Heart Association:
    - History of atherosclerotic cardiovascular disease – high-intensity statin therapy
    - LDL-C over 190 mg/dL - high-intensity statin therapy
    - Adult with diabetes – medium-intensity statin therapy unless multiple risk factors or 10-year atherosclerotic cardiovascular disease (ASCVD) event risk >20% then high-intensity statin
    - Adults without diabetes age 40-75 years with 1+ risk factors and an ASCVD risk >10% - low- to medium-intensity statin therapy
  - Assess for obesity – BMI  $\geq$  30
2. Any positive result for tobacco use, hypertension, elevated cholesterol, or obesity should be noted in the chart and included on the problem list if applicable.
3. Management plan will be documented for each of the identified risks as follows:
  - Cholesterol not known- advise to test
  - Obesity- diet and exercise program and instructions
  - Hypertension- DASH diet and treatment per hypertension protocol
  - Smoking- counseled to stop smoking with or without withdrawal therapy
  - Inactivity- exercise program and instructions
  - Family history- review periodically
  - Presence of CVD – low-dose aspirin therapy - 81mg daily, blood pressure control, lipid levels controlled, weight reduction

**Select Topic: General Population Disease Prevention**

**Goal:** To reduce morbidity and mortality in the general population by recognizing and identifying potential health risks that may lead to adverse outcomes in cardiovascular and neoplastic processes, not otherwise specified in this manual.

**Methods:** Items as described in chart below:

<b>Age in years</b>	<b>Identifying factor</b>	<b>Item</b>
45+	Female	Fasting lipid panel in last 5 years
35+	Male	Fasting lipid panel in last 5 years
13+		Documented tobacco use status in last year
All	Tobacco users	Documented advice to quit yearly
19+	BMI $\geq$ 30 BMI $\leq$ 18.5	Documented counseling on a healthy weight management plan at least yearly
2-18	Regardless of BMI	Documented counseling on nutrition and physical activity at least yearly
40-74	Female	Documented mammography in the last 2 years
45-75		One of the following: Fecal occult blood test (FOBT) within 1 year Fecal immunochemical test (FIT) within 1 year Stool DNA-FIT screening test within 3 years CT colonography within 5 years Flexible sigmoidoscopy within 5 years Flexible sigmoidoscopy within 10 years and yearly FIT test Colonoscopy within 10 years

## Clinical Quality Measure Goals

The following will be the select Clinical Quality Measure goals for calendar year 2024.  
Previous year's goal listed for comparison.

Clinical Measure	2023 Goal	2024 Goal
<b>Uncontrolled Diabetes</b>	20%	18%
<b>Hypertension Control</b>	60%	65%
<b>Cervical Cancer Screening Rate</b>	35%	50%
<b>Breast Cancer Screening Rate</b>	60%	60%
<b>Colorectal Cancer Screening Rate</b>	47%	55%
<b>2-Year-Old Vaccination Rates</b>	30%	12%
<b>Well Child Visit 3-21 Year</b>	55%	55%
<b>Well-Child Visits, 30 months</b>	50%	45%
<b>Depression Screening Rates</b>	60%	73%
<b>Diabetic Eye Exams</b>	30%	25%
<b>Diabetic Kidney Screening</b>	80%	80%
<b>HIV screening</b>	30%	55%

### Attachment: Classification of Asthma Severity

Classification*	Symptoms†	Night symptoms	Lung function
mild intermittent asthma	Symptoms occurring twice a week or less No symptoms and normal PEF between exacerbations Brief exacerbations (lasting a few hours to days) with variable intensity	Symptoms occurring no more than twice a month	FEV <sub>1</sub> /FVC is 80% or more of predicted  PEF variability of less than 20%
mild persistent asthma	Symptoms occurring more than twice a week Exacerbations may affect activity	Symptoms occurring more than twice a month	FEV <sub>1</sub> /FVC is 80% or more of predicted  PEF variability of 20 to 30%
moderate persistent asthma	Daily symptoms Daily use of inhaled short-acting beta agonist Exacerbations affect activity Exacerbations occur more than twice a week and may last for days	Symptoms occurring more than once a week	FEV <sub>1</sub> /FVC is greater than 60% but less than 80% of predicted  PEF variability of greater than 30%
severe persistent asthma	Continual symptoms Limited physical activity Frequent exacerbations	Frequent symptoms	FEV <sub>1</sub> /FVC is 60% or less of predicted PEF variability of greater than 30%

\*The initial classification is based on the presence of certain clinical features before treatment. The presence of one of the features of severity is sufficient to place a patient in that category. A patient should be assigned to the most severe grade in which any feature occurs. The characteristics noted in this classification are general and may overlap because asthma is highly variable. Furthermore, a patient's classification may change over time.

†--Patients at any level of severity can have mild, moderate or severe exacerbations. Some patients with intermittent asthma have severe and life-threatening exacerbations separated by long periods of normal lung function and no symptoms.