

Greater Cincinnati Hospital Quality Improvement Project (HQIP)



Hospital Quality Report to the Community

January 2007

Greater Cincinnati **Health Council**

If it involves health,
we're involved.



HQIP

Greater Cincinnati
Hospital Quality Improvement Project



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Hospital Quality Improvement Project (HQIP) PREFACE

A note to consumers

Greater Cincinnati hospitals are pleased to present this report to the community. This is the first time hospitals in our area have voluntarily and collectively released this information about their own performance to the public. Hospitals want to be accountable to purchasers and consumers for the safety of patients and the quality of care they receive.

Making this data available publicly is evidence of hospitals' commitment to provide information that helps consumers to be partners in the journey to better care. It is hoped that patients will use the data to ask their providers questions about their care and to better educate themselves about various measures of hospital quality.

This report reflecting hospital performance in 2005, builds on the release of aggregate hospital data in October 2006 for 4th quarter 2004 data. It is important to note that this information will change over time as hospitals learn from the data and make improvements. A hospital's quality is more than just its scores on these measures. This report is part of a larger effort, the Hospital Quality Improvement Project, in which hospitals have come together in a non-competitive setting to help one another in their journey to provide better care both within their own institutions and across the entire community.

Acknowledgments

The Greater Cincinnati Health Council (GCHC), a not-for-profit member service organization, is dedicated to working cooperatively with hospitals and other health care providers in Southwestern Ohio, Northern Kentucky and Southeastern Indiana to promote high quality, cost-effective patient care.

GCHC wishes to acknowledge those hospitals who are voluntarily participating in this project to collectively improve the quality of care for our community. These hospitals have representatives and staff that work extensively together to come together in a non-competitive setting to share best practices and determine new ways to improve. This collaboration of efforts is invaluable to the success of this project. We especially thank the Ohio Hospital Association (OHA) and Applied Health Services who provide the expertise and technical support that help make this project possible.

The OHA is a membership-driven organization that provides proactive leadership to create an environment in which Ohio hospitals are successful in serving their communities.

Hospital Quality Improvement Project (HQIP)

INTRODUCTION

In 2005, the Greater Cincinnati Health Council (GCHC) began to work with the Ohio Hospital Association (OHA) on the Greater Cincinnati Hospital Quality Improvement Project (HQIP). HQIP is a voluntary project that brings together, in a non-competitive setting, businesses, hospital quality management professionals, hospital medical directors and physicians practicing out in the community. This locally designed, collaborative effort provides performance measures and tools for hospitals to use to improve the quality of care in their respective facilities as well as the community's quality of services as a whole. OHA has worked on similar projects in Dayton and Columbus.

Over the past seven years, the Ohio Hospital Association (OHA) has been able to work with Dayton hospitals to achieve important improvements in the quality of care. Because of this work, the number of deaths for patients with acute myocardial infarction (heart attack) went down in Dayton. Dayton hospitals won the 2002 Ernest Codman Award, a national honor, for their efforts. Over the past couple of years OHA has also been working with the hospitals in the Columbus area with the goal of achieving similar results, and is now pleased to work with the Cincinnati area hospitals in the same way.

WHICH HOSPITALS PARTICIPATE IN THE PROJECT

All 26 hospitals in the Cincinnati area that provide a full range of services for adults were invited to participate in this project. Those choosing to participate as of January 2006 are listed below:

PARTICIPATING HOSPITALS

- Bethesda North Hospital
- Brown County Hospital
- Clinton Memorial Hospital
- Dearborn County Hospital
- Good Samaritan Hospital
- Highland District Hospital
- Margaret Mary Community Hospital (will join in 2007)
- McCullough-Hyde Memorial Hospital
- Mercy Hospital Anderson
- Mercy Hospital Clermont
- Mercy Hospital Fairfield
- Mercy Hospital Mt. Airy
- Mercy Hospital Western Hills
- Middletown Regional Hospital
- The Christ Hospital
- The Fort Hamilton Hospital
- The Jewish Hospital
- The St. Luke Hospital East
- The St. Luke Hospital West
- The University Hospital

Cincinnati Children's Hospital Medical Center does not provide adult care so it is unable to participate in the project.

Hospital Quality Improvement Project (HQIP) WHY THIS PROJECT?

The Greater Cincinnati hospitals want to come together to be accountable to the public as well as to improve their quality of care as a community using practice guidelines. Practice guidelines for the treatment of patients are recommendations that have been created based on results of clinical trials. Such guidelines describe the indications for use of medications and the optimal approach to manage specific clinical problems. Guidelines help to limit inappropriate care, decrease differences in how patients are treated in different states, cities or other geographic locations, and improve the effective use of healthcare resources. In addition, guidelines are valuable tools for improving the quality of care patients receive during inpatient and outpatient treatment. The use of evidence-based practice standards is a good strategy to lower the risk of medical malpractice.

HOW QUALITY IS MEASURED




In recognition of the role that practice guidelines play in improving patient outcomes, the Joint Commission on Accreditation of Health Care Organizations (JCAHO), the Centers for Medicare & Medicaid Services (CMS) and the National Quality Forum (NQF) identified practice guidelines (process of care indicators) for some of the most common and costly conditions that hospitals treat (i.e. heart failure, heart attack, community acquired pneumonia and pregnancy related conditions). The percentage of cases in which the participating hospitals follow these guidelines is shown in this report. The hospitals participating in this project use the JCAHO and the Healthcare Facilities Accreditation Program/American Osteopathic Association (AOA/HFAP) guidelines.

HOW THE RESULTS ARE REPORTED

Risk Adjusted Clinical Outcome (Mortality) and Length of Stay – SECTION I

The risk-adjusted **mortality**¹ and length of stay represent the best estimate of what the hospital's mortality and length of stay would have been if the hospital had a mix of patients identical to the statewide or community mix.

The risk-adjustment of specific conditions shows the mortality analysis by hospital. The results are displayed as followed:

-  Lower than predicted
-  As predicted
-  Higher than predicted

¹ **Mortality** is the rate of death

HOW THE RESULTS ARE REPORTED (continued)

Heart attack and Congestive Heart Failure Process Measures – SECTION II

The performance of the participating hospitals for heart attack and congestive heart failure are summarized as demonstrated below. Each recommended care category is then benchmarked against a state and national rate for comparison. This report is based on local, state and national data from January thru December 2005.

RECOMMENDED CARE			
Cases	Local Rate	State of Ohio Rate*	National Rate*
#	%	%	%

WHAT TO DO WITH THE INFORMATION

The objective is to provide you (the consumer) with helpful quality information to empower you make better health care decisions on your own.

Talk to your doctor about this information to help you, your family and your friends to make your best hospital care decisions.

WHERE ARE THE DATA FROM?

The local figures highlighted are from January to December 2005 from the hospitals' patient records. The hospitals already submit this data to the Joint Commission on Accreditation of Health Care Organizations (JCAHO) and the Centers for Medicare & Medicaid Services (CMS) on a quarterly basis.

The State and National data indicated on the charts are also from January to December 2005 from Hospital Compare (<http://www.hospitalcompare.hhs.gov>). Hospital Compare was created through the efforts of the Centers for Medicare and Medicaid Services (CMS) and organizations that represent hospitals, doctors, employers, accrediting organizations, other Federal agencies and the public.

NEED ADDITIONAL INFORMATION?

For additional information regarding HQIP, please contact Dora Anim, danim@gchc.org or 513-531-0200. For more information regarding the conditions highlighted in this report, please visit www.webmd.com.

Risk Adjusted Clinical Outcome (Mortality²) and Length of Stay Analysis – SECTION I

INTRODUCTION

Hospital performance is an important factor that directly relates to patient outcomes or mortality. Whether patients recover quickly, experience complications, or die following a procedure is, in part, a result of the kind of medical care they receive. One of the reasons it is hard to compare outcomes among hospitals is that different hospitals treat different types of patients. Hospitals with sicker patients may have higher rates of complications and death than other hospitals.

What is Risk Adjustment?

The risk-adjusted mortality and length of stay represents the best estimate of what the hospital's mortality and length of stay would have been if the hospital had a mix of patients identical to the statewide or community mix. Thus, the risk-adjusted percentage has made the hospitals more comparable to each other.

The risk adjustment methodology for this section was developed and analyzed by Applied Health Services in Columbus, Ohio.

How This Contributes to Quality Improvement

The goal of the Hospital Quality Improvement Project is to improve the quality of care for patients in the Greater Cincinnati area. Providing hospitals participating in this project with data about their own outcomes for patients with specific diagnoses allows them to examine the quality of the care provided for these patients and to identify opportunities to improve care.

What Conditions are Analyzed?

The following section displays risk-adjusted outcome and length of stay data for the following conditions: Acute Myocardial Infarction (AMI), Congestive Heart Failure (CHF), Pneumonia, Coronary Artery Bypass Graft (CABG), Chronic Obstructive Pulmonary Disease (COPD), Major Joint Replacement, **Laminectomy**³, Stroke and **Gastrointestinal Hemorrhage**⁴.

These conditions were selected because they are high cost, high variation and high volume conditions.

² **Mortality** is the rate of death.

³ **Laminectomy**: Surgical removal of part of a vertebra (back bone). Usually done to relieve pressure on a spinal nerve caused by a herniated disk or bony spur.

⁴ **Gastrointestinal Hemorrhage**: Bleeding in the gastrointestinal tract

Risk Adjusted Clinical Outcome (Mortality) and Length of Stay Analysis – SECTION I (continued)

Length of Stay – What is it and Why is it Important

Length of stay measures the number of days a patient spends in the hospital. A shorter length of stay usually means a better outcome for the patient. It indicates more efficient and effective care. Shorter lengths of stay also mean that the patient is able to return home earlier, providing the opportunity to get well in a familiar surrounding. A shorter time in the hospital is often less disruptive for the patient and his/her family.

What This Report Shows

This report shows risk-adjusted outcomes (mortality) and length of stay for hospitals in the Greater Cincinnati area. For each highlighted hospital, mortality and length of stay are shown for ten different medical conditions. These include Acute Myocardial Infarction (AMI), Congestive Heart Failure (CHF), Pneumonia, Coronary Artery Bypass Graft (CABG), Chronic Obstructive Pulmonary Disease (COPD), Major Joint Replacement, Laminectomy, Stroke and Gastrointestinal Hemorrhage.







































Each chart shows whether a hospital has a mortality rate and a length of stay that is as predicted, higher than predicted, or lower than predicted for its unique mix of patients. A lower rate of mortality and a lower length of stay are better.

Three years worth of data are included in this section to have a case mix significant enough for analysis.




Risk-Adjusted Outcome (Mortality) and Length of Stay Analysis 2003-2005

ACUTE MYOCARDIAL INFARCTION (AMI OR HEART ATTACK)

Acute myocardial infarction (AMI), commonly known as a heart attack, is a serious, sudden heart condition usually characterized by varying degrees of chest pain or discomfort, weakness, sweating, nausea, vomiting, and **arrhythmias**⁵, sometimes causing loss of consciousness. It occurs when the blood supply to a part of the heart is interrupted, causing death and scarring of the local heart tissue. Since the area affected may be large or small, the severity of heart attacks vary, but they are often a life-threatening medical emergency which demand both immediate attention and activation of the emergency medical services.

Hospital	Mortality	Length of Stay
Bethesda North Hospital		
Brown County Hospital		
Clinton Memorial Hospital		
Dearborn County Hospital		
Good Samaritan Hospital		
Highland District Hospital		
McCullough-Hyde Memorial Hospital		
Mercy Hospital Anderson		
Mercy Hospital Clermont		
Mercy Hospital Fairfield		
Mercy Hospital Mt. Airy		
Mercy Hospital Western Hills		
Middletown Regional Hospital		
St. Luke Hospital East		
St. Luke Hospital West		
The Christ Hospital		
The Fort Hamilton Hospital		
The Jewish Hospital		
The University Hospital		

LEGEND







































-  Lower than predicted
-  As predicted
-  Higher than predicted

Lower is better.




⁵ **Arrhythmias** is an irregular heart beat, faster or slower than normal.

Risk-Adjusted Outcome (Mortality) and Length of Stay Analysis 2003-2005
CONGESTIVE HEART FAILURE (CHF)

Congestive Heart Failure (CHF) is a condition that can result from any cardiac disorder that impairs the ability of the heart to fill or pump a sufficient amount of blood throughout the body. Congestive heart failure is often undiagnosed due to a lack of a universally agreed definition and difficulties in diagnosis, particularly when the condition is considered "mild".

Hospital	Mortality	Length of Stay
Bethesda North Hospital		
Brown County Hospital		
Clinton Memorial Hospital		
Dearborn County Hospital		
Good Samaritan Hospital		
Highland District Hospital		
McCullough-Hyde Memorial Hospital		
Mercy Hospital Anderson		
Mercy Hospital Clermont		
Mercy Hospital Fairfield		
Mercy Hospital Mt. Airy		
Mercy Hospital Western Hills		
Middletown Regional Hospital		
St. Luke Hospital East		
St. Luke Hospital West		
The Christ Hospital		
The Fort Hamilton Hospital		
The Jewish Hospital		
The University Hospital		

LEGEND

-  Lower than predicted
-  As predicted
-  Higher than predicted

Lower is better.

Risk-Adjusted Outcome (Mortality) and Length of Stay Analysis 2003-2005

PNEUMONIA

Pneumonia is an illness of the lungs and respiratory system in which the alveoli (microscopic air-filled sacs of the lung responsible for absorbing oxygen from the atmosphere) become inflamed and flooded with fluid. Pneumonia can result from a variety of causes, including infection with bacteria, viruses, fungi, or parasites. Pneumonia may also occur from chemical or physical injury to the lungs, or indirectly due to another medical illness, such as lung cancer or alcohol abuse.

Pneumonia is a common illness, occurs in all age groups, and is a leading cause of death among the elderly and people who are chronically ill.

Hospital	Mortality	Length of Stay
Bethesda North Hospital	●	○
Brown County Hospital	●	●
Clinton Memorial Hospital	○	◐
Dearborn County Hospital	◐	◐
Good Samaritan Hospital	●	◐
Highland District Hospital	○	◐
McCullough-Hyde Memorial Hospital	◐	◐
Mercy Hospital Anderson	◐	◐
Mercy Hospital Clermont	◐	◐
Mercy Hospital Fairfield	◐	◐
Mercy Hospital Mt. Airy	◐	◐
Mercy Hospital Western Hills	◐	◐
Middletown Regional Hospital	◐	◐
St. Luke Hospital East	◐	○
St. Luke Hospital West	◐	○
The Christ Hospital	●	◐
The Fort Hamilton Hospital	●	●
The Jewish Hospital	●	◐
The University Hospital	◐	●

LEGEND













- Lower than predicted
- ◐ As predicted
- Higher than predicted

Lower is better.




Risk-Adjusted Outcome (Mortality) and Length of Stay Analysis 2003-2005

CORONARY ARTERY BYPASS GRAFT (CABG)

Coronary artery bypass surgery, also coronary artery bypass graft (CABG), is a surgical procedure performed on patients with coronary artery disease for the relief of **angina**⁶ and possible improved heart muscle function. Veins or arteries from elsewhere in the patient's body are **grafted**⁷ from the aorta to the coronary arteries; bypassing coronary artery narrowings caused by **atherosclerosis**⁸ and improves the blood supply to the myocardium (heart muscle).

Hospital	Mortality	Length of Stay
Bethesda North Hospital		
Brown County Hospital	N/A	N/A
Clinton Memorial Hospital	N/A	N/A
Dearborn County Hospital	N/A	N/A
Good Samaritan Hospital		
Highland District Hospital	N/A	N/A
McCullough-Hyde Memorial Hospital	N/A	N/A
Mercy Hospital Anderson	N/A	N/A
Mercy Hospital Clermont	N/A	N/A
Mercy Hospital Fairfield		
Mercy Hospital Mt. Airy	N/A	N/A
Mercy Hospital Western Hills	N/A	N/A
Middletown Regional Hospital	N/A	N/A
St. Luke Hospital East	N/A	N/A
St. Luke Hospital West	N/A	N/A
The Christ Hospital		
The Fort Hamilton Hospital	N/A	N/A
The Jewish Hospital		
The University Hospital		

LEGEND

-  Lower than predicted
-  As predicted
-  Higher than predicted

Lower is better.

N/A = Services not provided at the hospital

⁶ **Angina:** Chest pain due to lack of oxygen supply.

⁷ **Graft:** A surgical procedure to transplant tissue without a blood supply

⁸ **Atherosclerosis:** It is commonly referred to as a "hardening" of the arteries. It is caused by the formation of multiple plaques within the arteries.

Risk-Adjusted Outcome (Mortality) and Length of Stay Analysis 2003-2005
CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

Chronic obstructive pulmonary disease (COPD) is an umbrella term for a group of **respiratory tract**⁹ diseases that are characterized by airflow obstruction or limitation. It is usually caused by tobacco smoking but can also be caused by coal dust.

Conditions included in this umbrella term are:
chronic bronchitis
emphysema
bronchiectasis

Hospital	Mortality	Length of Stay
Bethesda North Hospital	●	○
Brown County Hospital	●	●
Clinton Memorial Hospital	●	●
Dearborn County Hospital	●	◐
Good Samaritan Hospital	●	○
Highland District Hospital	●	○
McCullough-Hyde Memorial Hospital	●	◐
Mercy Hospital Anderson	●	◐
Mercy Hospital Clermont	●	●
Mercy Hospital Fairfield	●	●
Mercy Hospital Mt. Airy	●	◐
Mercy Hospital Western Hills	●	◐
Middletown Regional Hospital	●	◐
St. Luke Hospital East	●	○
St. Luke Hospital West	●	○
The Christ Hospital	●	◐
The Fort Hamilton Hospital	●	◐
The Jewish Hospital	●	◐
The University Hospital	●	●

LEGEND

- Lower than predicted
- ◐ As predicted
- Higher than predicted

Lower is better.

⁹ **Respiratory tract** is the part of the anatomy that has to do with the process of respiration or breathing.

Risk-Adjusted Outcome (Mortality) and Length of Stay Analysis 2003-2005

MAJOR JOINT REPLACEMENT

Joint replacement is one of the most common and successful operations in modern orthopedic surgery. It consists of replacing painful, arthritic, worn or diseased parts of the joint with artificial surfaces shaped in such a way as to allow joint movement.

Hospital	Mortality	Length of Stay
Bethesda North Hospital	-	●
Brown County Hospital	-	●
Clinton Memorial Hospital	-	○
Dearborn County Hospital	-	○
Good Samaritan Hospital	-	◐
Highland District Hospital	-	◐
McCullough-Hyde Memorial Hospital	-	○
Mercy Hospital Anderson	-	●
Mercy Hospital Clermont	-	●
Mercy Hospital Fairfield	-	◐
Mercy Hospital Mt. Airy	-	●
Mercy Hospital Western Hills	-	◐
Middletown Regional Hospital	-	◐
St. Luke Hospital East	-	◐
St. Luke Hospital West	-	◐
The Christ Hospital	-	◐
The Fort Hamilton Hospital	-	○
The Jewish Hospital	-	●
The University Hospital	-	◐

LEGEND

- Lower than predicted
- ◐ As predicted
- Higher than predicted

Lower is better.

In conditions such as this, when patient death is unusual, mortality is not normally tracked.

Risk-Adjusted Outcome (Mortality) and Length of Stay Analysis 2003-2005

LAMINECTOMY

Laminectomy is a surgical procedure for treating **spinal stenosis**¹⁰ by relieving pressure on the spinal cord. The **lamina**¹¹ of the vertebra is removed or trimmed to widen the spinal canal and create more space for the spinal nerves.

Hospital	Mortality	Length of Stay
Bethesda North Hospital	-	●
Brown County Hospital	-	◐
Clinton Memorial Hospital	-	N/A
Dearborn County Hospital	-	N/A
Good Samaritan Hospital	-	●
Highland District Hospital	-	N/A
McCullough-Hyde Memorial Hospital	-	○
Mercy Hospital Anderson	-	●
Mercy Hospital Clermont	-	◐
Mercy Hospital Fairfield	-	◐
Mercy Hospital Mt. Airy	-	◐
Mercy Hospital Western Hills	-	●
Middletown Regional Hospital	-	●
St. Luke Hospital East	-	◐
St. Luke Hospital West	-	◐
The Christ Hospital	-	●
The Fort Hamilton Hospital	-	●
The Jewish Hospital	-	◐
The University Hospital	-	◐

LEGEND

- Lower than predicted
- ◐ As predicted
- Higher than predicted

Lower is better.

N/A = Services not provided at the hospital

In conditions such as this, when patient death is unusual, mortality is not normally tracked.

¹⁰ **Spinal stenosis** is a medical condition where the spinal canal narrows and compresses the spinal cord and nerves. This is usually due to the natural process of spinal degeneration that occurs with aging.

¹¹ **Lamina:** surface

Risk-Adjusted Outcome (Mortality) and Length of Stay Analysis 2003-2005

STROKE

A stroke happens when the blood supply to a part of the brain is interrupted. Stroke can also be said to be a syndrome of sudden loss of neuronal (nerve cells) function due to disturbance in **cerebral perfusion**.¹²

The part of the brain with disturbed perfusion can no longer receive adequate oxygen carried by the blood. Brain cells then are damaged or die, impairing function from that part of the brain. Stroke is a medical emergency and can cause permanent neurologic damage or even death if not promptly diagnosed and treated. It is the third leading cause of death and adult disability in the US and industrialized European nations. Stroke will soon be the most common cause of death worldwide.

Risk factors include advanced age, hypertension (high blood pressure), diabetes mellitus, high cholesterol, and cigarette smoking. Cigarette smoking is the most important modifiable risk factor of stroke.

Hospital	Mortality	Length of Stay
Bethesda North Hospital	●	◐
Brown County Hospital	○	●
Clinton Memorial Hospital	◐	◐
Dearborn County Hospital	◐	◐
Good Samaritan Hospital	●	◐
Highland District Hospital	◐	◐
McCullough-Hyde Memorial Hospital	◐	●
Mercy Hospital Anderson	◐	●
Mercy Hospital Clermont	◐	◐
Mercy Hospital Fairfield	◐	◐
Mercy Hospital Mt. Airy	◐	◐
Mercy Hospital Western Hills	●	◐
Middletown Regional Hospital	◐	◐
St. Luke Hospital East	◐	○
St. Luke Hospital West	◐	○
The Christ Hospital	●	●
The Fort Hamilton Hospital	◐	◐
The Jewish Hospital	●	●
The University Hospital	◐	◐

LEGEND

- Lower than predicted
- ◐ As predicted
- Higher than predicted

Lower is better.

¹² **Cerebral perfusion** is the net supply of blood flow to the brain.

Risk-Adjusted Outcome (Mortality) and Length of Stay Analysis 2003-2005

GASTROINTESTINAL HEMORRHAGE

Gastrointestinal bleeding or gastrointestinal hemorrhage describes every form of hemorrhage (loss of blood) in the gastrointestinal tract, from the pharynx to the rectum. It has diverse causes, and a medical history, as well as physical examination, generally distinguishes between the main forms. The degree of bleeding can range from nearly undetectable to massive, life-threatening bleeding.

Initial emphasis is on resuscitation by infusion of intravenous fluids and blood transfusion, treatment with **proton pump inhibitors**¹³ and occasionally with **vasopressin analogues**¹⁴ and **tranexamic acid**¹⁵. Upper **endoscopy**¹⁶ or colonoscopy¹⁷ are generally considered appropriate to identify the source of bleeding and carry out therapeutic interventions.

Hospital	Mortality	Length of Stay
Bethesda North Hospital	●	●
Brown County Hospital	●	●
Clinton Memorial Hospital	●	●
Dearborn County Hospital	●	●
Good Samaritan Hospital	●	●
Highland District Hospital	●	●
McCullough-Hyde Memorial Hospital	●	●
Mercy Hospital Anderson	●	●
Mercy Hospital Clermont	●	●
Mercy Hospital Fairfield	●	●
Mercy Hospital Mt. Airy	●	●
Mercy Hospital Western Hills	●	●
Middletown Regional Hospital	●	●
St. Luke Hospital East	●	●
St. Luke Hospital West	●	○
The Christ Hospital	●	●
The Fort Hamilton Hospital	●	●
The Jewish Hospital	●	●
The University Hospital	●	●

LEGEND

- Lower than predicted
- As predicted
- Higher than predicted

Lower is better.

¹³ **Proton pump inhibitors** (or "PPI"s) are a group of drugs whose main action is pronounced and long-lasting reduction of gastric acid production.

¹⁴ **Vasopressin analogues** are chemicals similar in function to desmopressin. Taking a desmopressin dose 30-45 minutes before sleeping results in concentrated urine production, and the urination reflex experienced when the bladder fills above a certain level is not triggered.

¹⁵ **Tranexamic acid** is often prescribed for excessive bleeding.

¹⁶ **Endoscopy** means *looking inside* and refers to looking inside the human body for medical reasons.

¹⁷ **Colonoscopy** is the internal examination of the lower intestine.

Hospital Process of Care Measures – SECTION II

What are Process of Care Measures?

In July 2002, the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) implemented standardized performance measures that were designed to track the performance of accredited hospitals and encourage improvement in the quality of health care. These measures are used to gauge how well an entity provides care to its patients. They are based on scientific evidence and can reflect guidelines, standards of care, or practice parameters. A process of care measure converts medical information from patient records into a rate or percentage that allows facilities to assess their performance.

How This Contributes to Quality Improvement

The goal of the Hospital Quality Improvement Project is to improve the quality of care for patients in the Greater Cincinnati area. Providing hospitals participating in this project with data about their process of care measures for patients with specific diagnoses allows them to examine the quality of the care provided for these patients and to identify opportunities to improve care.

Hospital Process of Care Measures

Heart Attack

As previously noted on page 9, a heart attack (also called an acute myocardial infarction or AMI) happens when the arteries leading to the heart become blocked and the blood supply is slowed or stopped. When the heart muscle can't get the oxygen and nutrients it needs, the part of the heart tissue that is affected may die.

The symptoms of a heart attack can include:

Chest pain (often described as a crushing, squeezing or burning pain in the center of the chest and may radiate to your arm or jaw), shortness of breath, dizziness or faintness, sweating, nausea, cold or clammy skin, a gray or very ill appearance.

For more information on heart attacks, please visit, www.webmd.com

This report is based on local, state and national data from January thru December 2005.

There are 8 items that are recommended care for heart attack or AMI patients. Research has shown that these treatments provide the best results for most adults with those conditions and are an important part of the patient's overall care. They are listed below and individually analyzed in this section:

AMI – 1 Aspirin administered at arrival, within 24 hours of arrival, or within 24 hours prior to arrival

AMI – 2 Aspirin prescribed at discharge

AMI – 3 Patients having left ventricular ejection fractions (LVEF)¹⁸ below 40% that were prescribed **ACE inhibitors**¹⁹ at discharge

AMI – 4 Smoking cessation advice or counseling offered

AMI – 5 Beta blocker²⁰ prescribed at discharge

AMI – 6 Beta blocker prescribed at arrival

AMI – 7, 7A Thrombolysis²¹ therapy – Rate of therapy in 30 or fewer minutes from arrival

AMI – 8 PCI²² – Rate receiving PCI in less than 120 minutes

¹⁸ **LVEF** is the fraction of blood pumped out of the left ventricle with each heartbeat.

¹⁹ **ACE inhibitors, or inhibitors of Angiotensin-Converting Enzyme**, are a group of medicines that are used primarily in treatment of hypertension and congestive heart failure, in most cases as the drugs of first choice.

²⁰ **Beta blockers** (sometimes written as β -blockers) are a class of drugs used for various indications, but particularly for the management of hypertension and cardiac arrhythmias.

²¹ **Thrombolysis** is the breakdown (*lysis*) by pharmacological means, of blood clots. It is sometimes referred to as clot busting for this reason.

²² **Percutaneous Coronary Interventions (PCI)**: Procedures done for diagnosis or therapy which reach the heart through major blood vessels instead of having to open the chest.

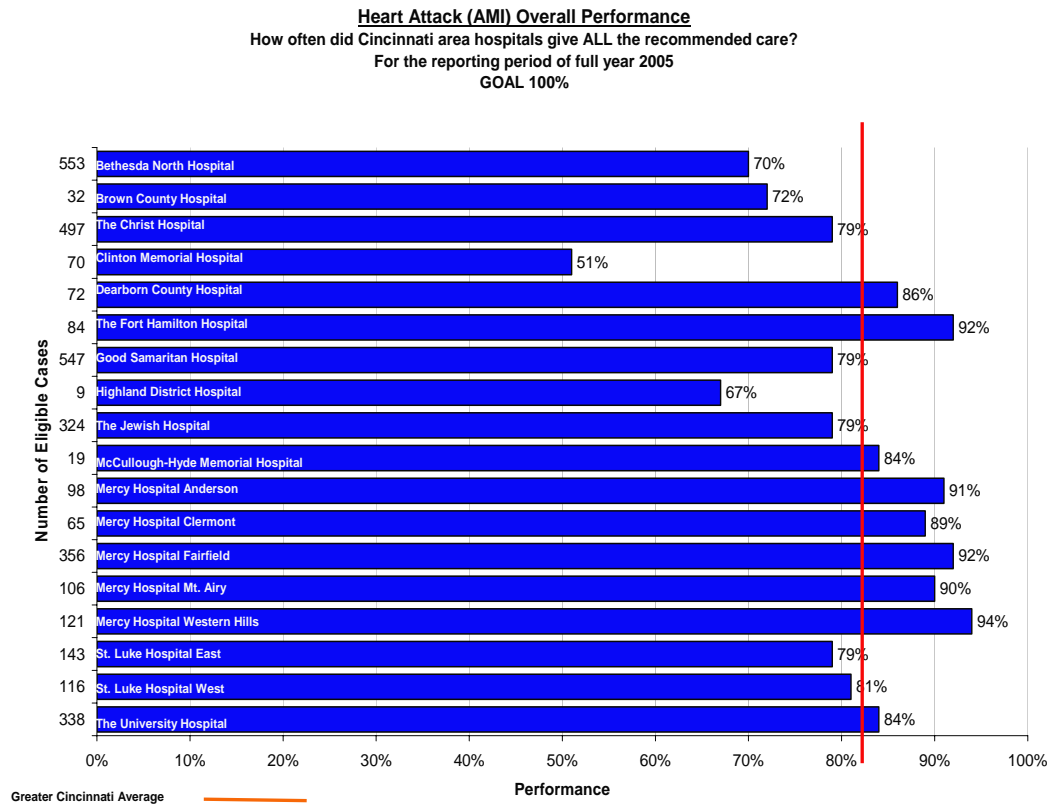
Hospital Process of Care Measures Heart Attack (AMI) Overall Performance Chart

The chart below shows how often hospitals provide ALL the listed recommended care to ALL eligible patients. Research has shown that these treatments provide the best results for most adults with those conditions and are an important part of the patient’s overall care.

There may be a specific reason why a patient should not get a certain treatment. For example, one of the recommended treatments for heart attack is to be given aspirin every day. If a patient is allergic to aspirin, they should not take aspirin. **Patients who do not meet the requirement are not reflected in the data below.**

A higher percentage is better. 

- Recommended Care Measured Below:**
 AMI 1 - Aspirin Administered at Arrival
 AMI 2 - Aspirin Prescribed at Discharge
 AMI 3 – Pts having LVEF below 40% that were Prescribed ACEI at Discharge
 AMI 4 - Smoking Cessation Advice/Counsel Offered
 AMI 5 - Beta Blocker Prescribed at Discharge
 AMI 6 - Beta Blocker Prescribed at Arrival
 AMI 7, 7A – Thrombolysis Therapy – Rate of therapy in <30 mins
 AMI 8 – PCI – Rate Receiving PCI in <120 mins



Please note: the information is more likely to have greater variability the less volume one hospital may have.

Heart Attack Description of Performance Measures (AMI 1-8)

AMI – 1 Aspirin administered at arrival, within 24 hours of arrival, or within 24 hours prior to arrival

Measure Description: Heart attack patients without aspirin contraindications (increased risk) who received aspirin within 24 hours before or after hospital arrival.
Patients who do not meet the requirement are not reflected in the data below (e.g. patients allergic to aspirin.)

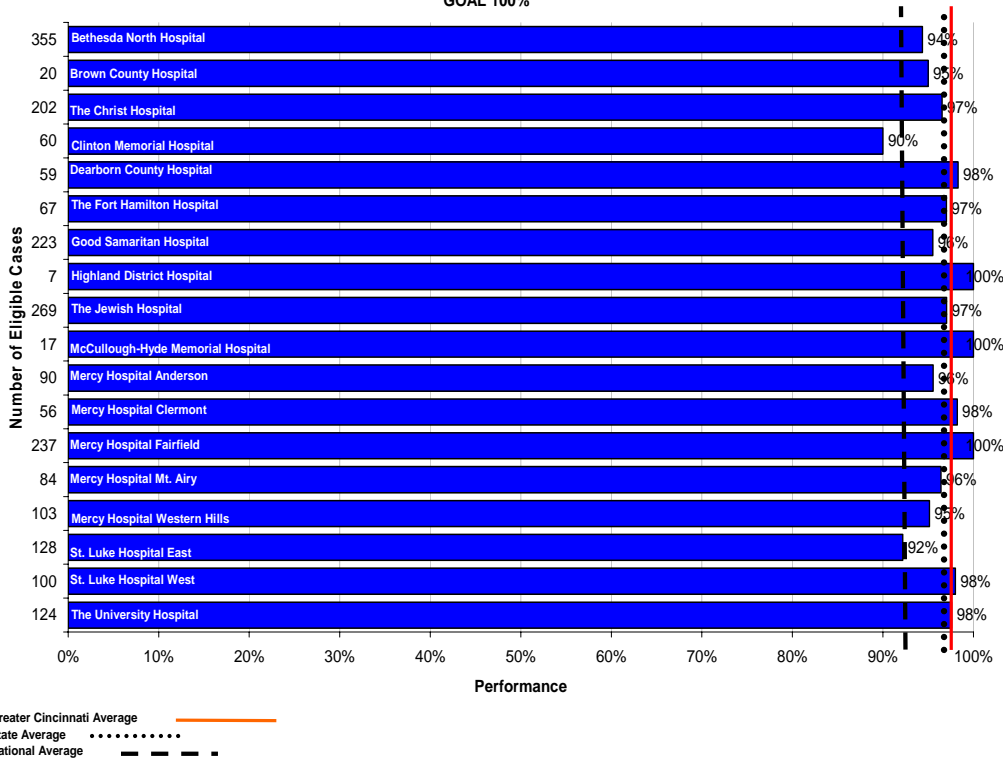
Why is this important?

The heart is a muscle that gets oxygen through blood vessels. Sometimes blood clots can block these blood vessels, and the heart can't get enough oxygen. This can cause a heart attack. Taking an aspirin as soon as symptoms of a heart attack begin may help reduce the severity of the attack. This chart shows the percent of heart attack patients, eligible for this treatment, who were given (or took) aspirin within 24 hours of arrival at the hospital.

A higher percentage is better. ↑

Recommended Care Measured Below:
AMI 1 - Aspirin Administered at Arrival
 AMI 2 - Aspirin Prescribed at Discharge
 AMI 3 - Pts having LVEF below 40% that were Prescribed ACEI at Discharge
 AMI 4 - Smoking Cessation Advice/Counsel Offered
 AMI 5 - Beta Blocker Prescribed at Discharge
 AMI 6 - Beta Blocker Prescribed at Arrival
 AMI 7, 7A - Thrombolysis Therapy - Rate of therapy in <30 mins
 AMI 8 - PCI - Rate Receiving PCI in <120 mins

AMI 1 Aspirin administered at arrival, within 24 hours of arrival, or within 24 hours prior to arrival
 How often did Cincinnati area hospitals give the recommended care?
 For the reporting period of full year 2005
 GOAL 100%



Please note: the information is more likely to have greater variability the less volume one hospital may have.

AMI – 2 Aspirin prescribed at discharge

Measure Description: Heart attack patients without aspirin contraindications (increased risk) who were prescribed aspirin at hospital discharge.

Patients who do not meet the requirement are not reflected in the data below (e.g. patients allergic to aspirin.)

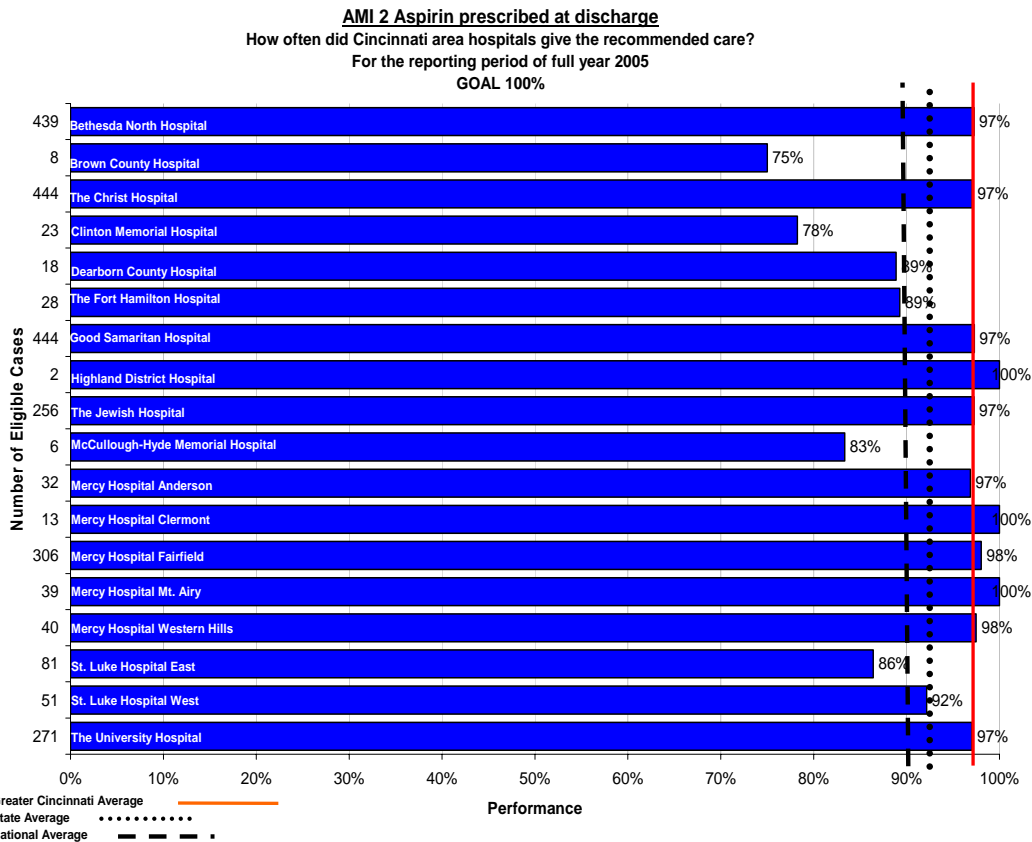
Why is this important?

Blood clots can block blood vessels. Aspirin can help prevent blood clots from forming or help dissolve blood clots that have formed. Following a heart attack, continued use of aspirin may help reduce the risk of another heart attack. Aspirin can have side effects like stomach inflammation, bleeding, or allergic reactions. Talk to your health care provider before using aspirin on a regular basis to make sure it's safe for you.

A higher percentage is better. 

Recommended Care Measured Below:

- AMI 1 - Aspirin Administered at Arrival
- AMI 2 - Aspirin Prescribed at Discharge
- AMI 3 - Pts having LVEF below 40% that were Prescribed ACEI at Discharge
- AMI 4 - Smoking Cessation Advice/Counsel Offered
- AMI 5 - Beta Blocker Prescribed at Discharge
- AMI 6 - Beta Blocker Prescribed at Arrival
- AMI 7, 7A – Thrombolysis Therapy – Rate of therapy in <30 mins
- AMI 8 – PCI – Rate Receiving PCI in <120 mins



Please note: the information is more likely to have greater variability the less volume one hospital may have.

AMI – 3 Patients having left ventricular ejection fractions²³ (LVEF) below 40% that were prescribed ACE inhibitors at discharge

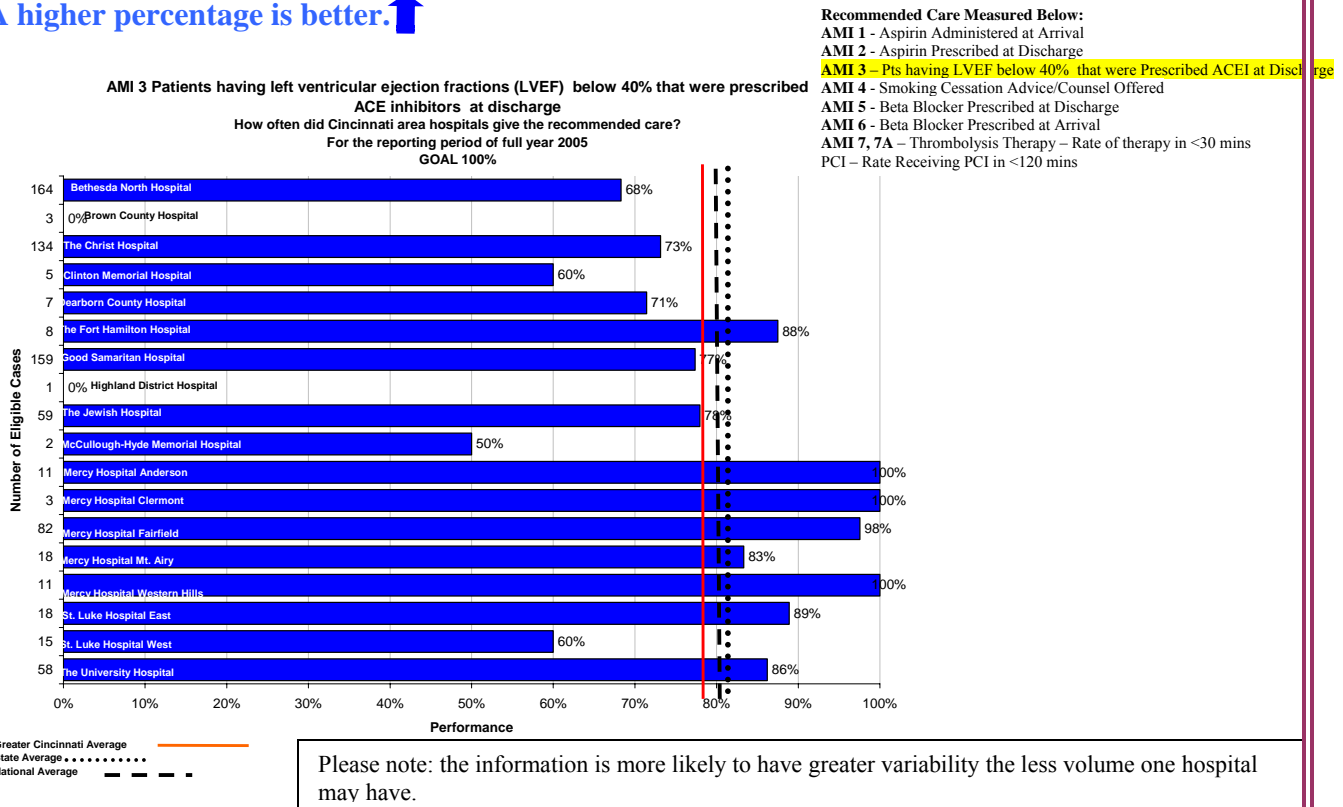
Measure Description: Heart attack patients with **left ventricular systolic dysfunction**²⁴ (LVSD) and without **angiotensin converting enzyme inhibitor**²⁵ (ACEI) and **angiotensin receptor blocker**²⁶ (ARB) contraindications (increased risk) who are prescribed either an ACEI or ARB at hospital discharge.

Patients who do not meet the requirement are not reflected in the data below.

Why is this important?

ACE (angiotensin converting enzyme) inhibitors and ARBs (angiotensin receptor blockers) are medicines used to treat patients with heart failure and are particularly beneficial in those patients with heart failure and decreased function of the left side of the heart. Early treatment with ACE inhibitors and ARBs in patients who have heart failure symptoms or decreased heart function after a heart attack can also reduce their risk of death from future heart attacks. ACE inhibitors and ARBs work by limiting the effects of a hormone that narrows blood vessels, and may thus lower blood pressure and reduce the work the heart has to perform. Since the ways in which these two kinds of drugs work are different, your doctor will decide which drug is most appropriate for you. If you have a heart attack and/or heart failure, you should get a prescription for ACE inhibitors or ARBs if you have decreased heart function before you leave the hospital.

A higher percentage is better. ↑



²³ LVEF is the fraction of blood pumped out of the left ventricle with each heartbeat.

²⁴ LVSD An abnormal performance of the left ventricle or the muscular chamber of the heart. LVSD may often occur in the period following a heart attack and greatly increases patients' risk for recurrent heart attacks, heart failure or other deadly events.

²⁵ ACE inhibitors are a group of medicines that are used primarily in treatment of hypertension and congestive heart failure, in most cases as the drugs of first choice.

²⁶ ARBs are a group of medicines used in hypertension (high blood pressure), diabetic nephropathy (kidney damage due to diabetes) and congestive heart failure.

AMI – 4 Smoking cessation advice or counseling offered

Measure Description: Heart attack patients with a history of smoking cigarettes, who are given smoking cessation advice or counseling during a hospital stay.

Patients who do not meet the requirement are not reflected in the data below (e.g. patients who do have a history of smoking.)

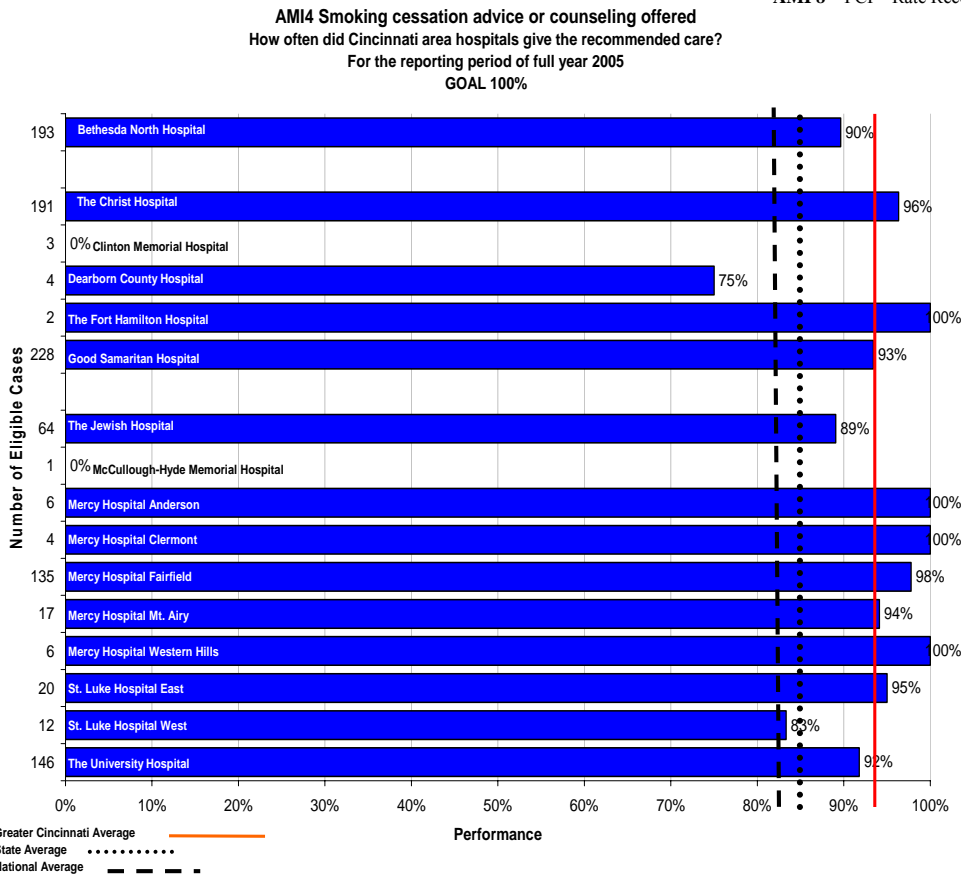
Why is this important?

Smoking increases your risk for developing blood clots and heart disease that can result in a heart attack, heart failure or stroke. Smoking causes your arteries to thicken and your blood vessels to narrow. Fat and plaque stick to the walls of your arteries, which makes it harder for blood to flow. Reduced blood flow to your heart may result in chest pain, high blood pressure, and an increased heart rate. Smoking is also linked to lung disease and cancer, and can cause premature death. It is important that you get information to help you quit smoking before you leave the hospital. Quitting may help prevent another heart attack.

A higher percentage is better. ↑

Recommended Care Measured Below:

- AMI 1 - Aspirin Administered at Arrival
- AMI 2 - Aspirin Prescribed at Discharge
- AMI 3 - Pts having LVEF below 40% that were Prescribed ACEI at Discharge
- AMI 4 - Smoking Cessation Advice/Counsel Offered**
- AMI 5 - Beta Blocker Prescribed at Discharge
- AMI 6 - Beta Blocker Prescribed at Arrival
- AMI 7, 7A – Thrombolysis Therapy – Rate of therapy in <30 mins
- AMI 8 – PCI – Rate Receiving PCI in <120 mins



Please note: the information is more likely to have greater variability the less volume one hospital may have.

AMI – 5 Beta blocker prescribed at discharge

Measure Description: Heart attack patients without beta blocker contraindications (increased risk) who are prescribed a beta-blocker at hospital discharge.

Patients who do not meet the requirement are not reflected in the data below.

Why is this important?

Beta blockers are a type of medicine that is used to lower blood pressure, treat chest pain (angina) and heart failure, and to help prevent a heart attack. Beta blockers relieve the stress on your heart by slowing the heart rate and reducing the force with which your heart muscles contract to pump blood. They also help keep blood vessels from constricting in your heart, brain, and body. If you have a heart attack, you should get a prescription for a beta blocker before you leave the hospital.

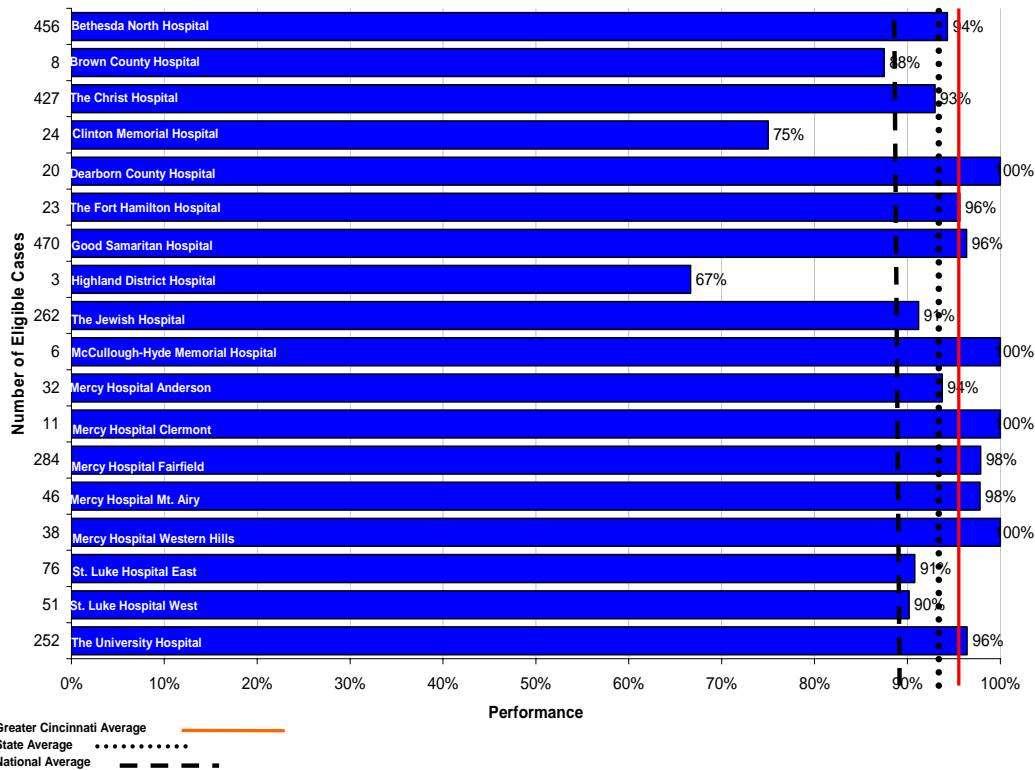
A higher percentage is better.



Recommended Care Measured Below:

- AMI 1 - Aspirin Administered at Arrival
- AMI 2 - Aspirin Prescribed at Discharge
- AMI 3 – Pts having LVEF below 40% that were Prescribed ACEI at Discharge
- AMI 4 - Smoking Cessation Advice/Counsel Offered
- AMI 5 - Beta Blocker Prescribed at Discharge**
- AMI 6 - Beta Blocker Prescribed at Arrival
- AMI 7, 7A – Thrombolysis Therapy – Rate of therapy in <30 mins
- AMI 8 – PCI – Rate Receiving PCI in <120 mins

AMI 5 Beta Blocker prescribed at discharge
How often did Cincinnati area hospitals give the recommended care?
For the reporting period of full year 2005
GOAL 100%



Please note: the information is more likely to have greater variability the less volume one hospital may have.

AMI – 6 Beta blocker prescribed at arrival

Measure Description: Heart attack patients without beta blocker contraindications who are prescribed a beta blocker within 24 hours after hospital arrival.

Patients who do not meet the requirement are not reflected in the data below.

Why is this important?

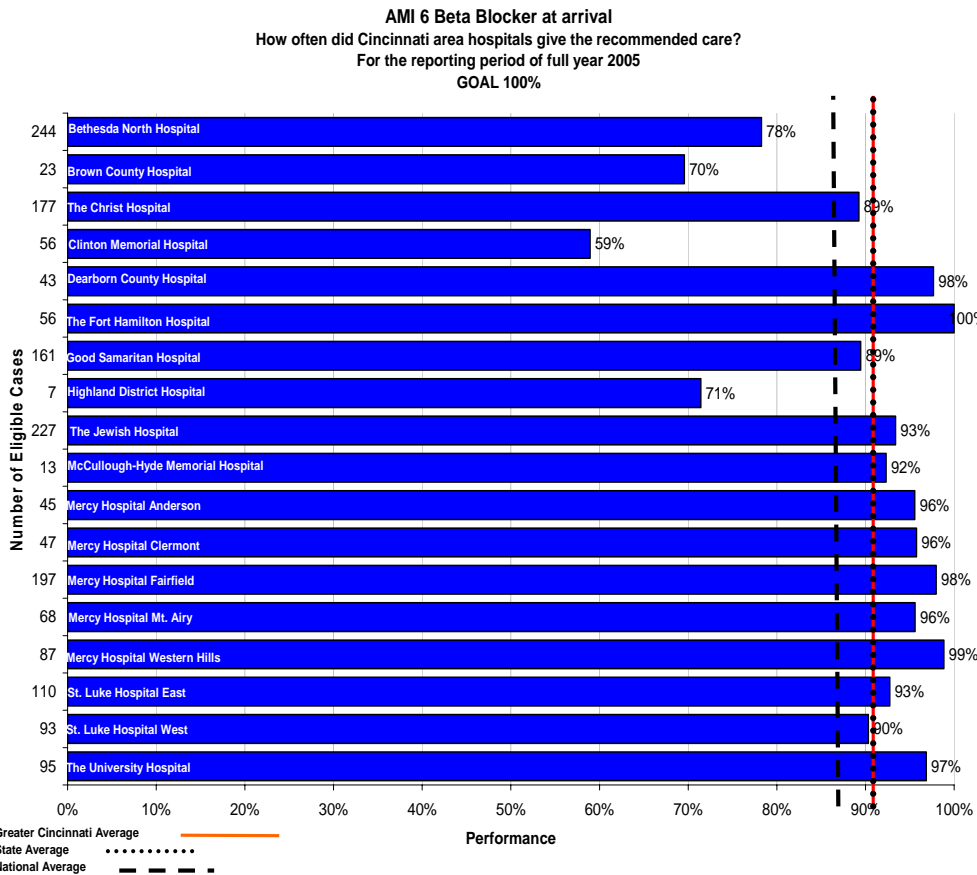
Beta blockers are a type of medicine that is used to lower blood pressure, treat chest pain (angina) and heart failure, and to help prevent a heart attack. Beta blockers relieve the stress on the heart by slowing the heart rate and reducing the force with which the heart muscle contracts (to pump blood). Most heart attack patients should be given a beta blocker within 24 hours of arriving at the hospital.

A higher percentage is better.



Recommended Care Measured Below:

- AMI 1 - Aspirin Administered at Arrival
- AMI 2 - Aspirin Prescribed at Discharge
- AMI 3 – Pts having LVEF below 40% that were Prescribed ACEI at Discharge
- AMI 4 - Smoking Cessation Advice/Counsel Offered
- AMI 5 - Beta Blocker Prescribed at Discharge
- AMI 6 - Beta Blocker Prescribed at Arrival**
- AMI 7, 7A – Thrombolysis Therapy – Rate of therapy in <30 mins
- AMI 8 - PCI – Rate Receiving PCI in <120 mins



Please note: the information is more likely to have greater variability the less volume one hospital may have.

AMI – 7, 7A Thrombolysis therapy – Rate of therapy in 30 or fewer minutes from arrival

Measure Description: Heart attack patients receiving **thrombolytic**²⁷ therapy during the hospital stay with a time from hospital arrival to **thrombolysis**²⁸ of 30 minutes or less
Patients who do not meet the requirement are not reflected in the data below.

Why is this important?

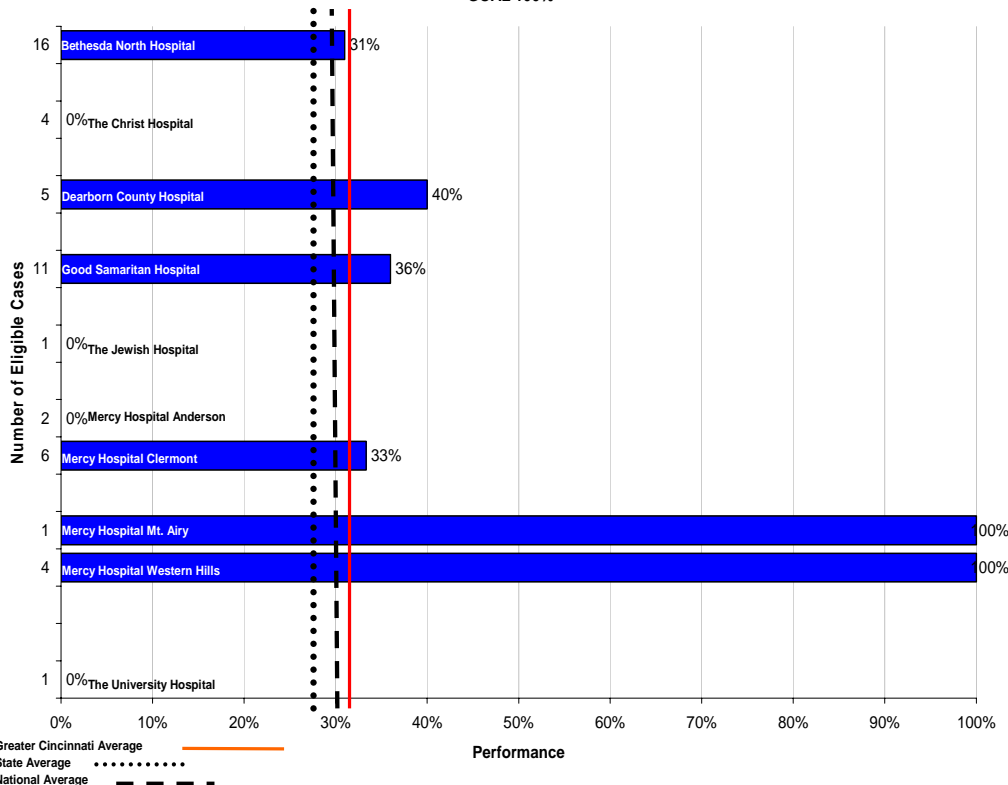
The heart is a muscle that gets oxygen through blood vessels. Sometimes blood clots can block these blood vessels and the heart can't get enough oxygen. This can cause a heart attack. Thrombolytics are medicines that can help dissolve blood clots in blood vessels and improve blood flow to your heart. You should get them within 30 minutes of arrival at the hospital.

A higher percentage is better. 

Recommended Care Measured Below:

- AMI 1 - Aspirin Administered at Arrival
- AMI 2 - Aspirin Prescribed at Discharge
- AMI 3 - Pts having LVEF below 40% that were Prescribed ACEI at Discharge
- AMI 4 - Smoking Cessation Advice/Counsel Offered
- AMI 5 - Beta Blocker Prescribed at Discharge
- AMI 6 - Beta Blocker Prescribed at Arrival
- AMI 7, 7A – Thrombolysis Therapy – Rate of therapy in <30 mins**
- AMI 8 – PCI – Rate Receiving PCI in <120 mins

AMI 7, 7A - Thrombolysis therapy - Rate of therapy in 30 or fewer minutes from arrival
How often did Cincinnati area hospitals give the recommended care?
For the reporting period of full year 2005
GOAL 100%



Please note: Recent medical research has suggested that it may be better for eligible heart attack patients to receive PCI treatment within 120 minutes instead of thrombolysis therapy. As a result of this, PCI treatment is becoming the preferred treatment and many patients who previously received thrombolysis therapy are now receiving PCIs.

²⁷ **Thrombolytic** is an agent that facilitates the breakdown of blood clots.

²⁸ **Thrombolysis** is a breakdown of blood clots.

AMI – 8 PCI – Rate receiving PCI in less than 120 minutes

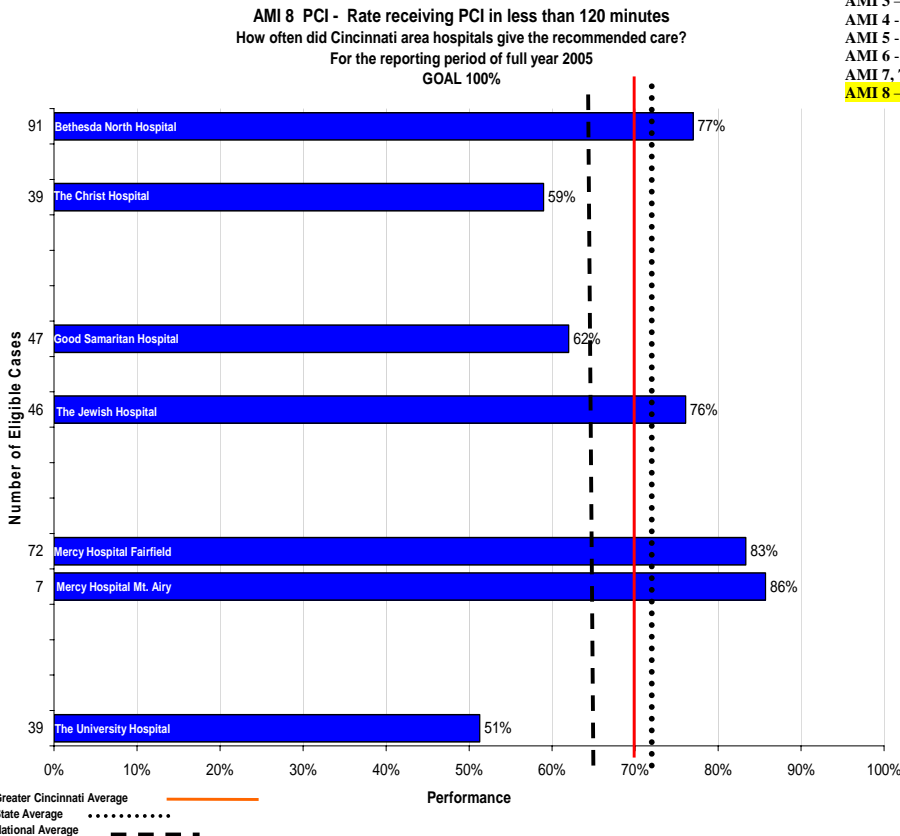
Measure Description: Heart attack patients receiving **Percutaneous Coronary Interventions**²⁹ (PCI) within 120 minutes or less of arrival to the hospital.

Patients who do not meet the requirement are not reflected in the data below.

Why is this important?

The heart is a muscle that gets oxygen through blood vessels. Sometimes blood clots can block these blood vessels, and the heart can't get enough oxygen. This can cause a heart attack. Percutaneous Coronary Interventions (PCI) are procedures that are among the most effective ways to open blocked blood vessels and help prevent further heart muscle damage. A PCI is performed by a doctor to open the blockage and increase blood flow in blocked blood vessels. Improving blood flow to your heart as quickly as possible lessens the damage to your heart muscle. It also can increase your chances of surviving a heart attack. There are three procedures commonly described by the term PCI. These procedures all involve a catheter (a flexible tube) that is inserted, often through your leg, and guided through the blood vessels to the blockage. The three procedures are:
 Angioplasty - a balloon is inflated to open the blood vessel.
 Stenting - a small wire tube called a stent is placed in the blood vessel to hold it open.
 Atherectomy - a blade or laser cuts through the clot and removes the blockage.

A higher percentage is better.



- Recommended Care Measured Below:**
 AMI 1 - Aspirin Administered at Arrival
 AMI 2 - Aspirin Prescribed at Discharge
 AMI 3 - Pts having LVEF below 40% that were Prescribed ACEI at Discharge
 AMI 4 - Smoking Cessation Advice/Counsel Offered
 AMI 5 - Beta Blocker Prescribed at Discharge
 AMI 6 - Beta Blocker Prescribed at Arrival
 AMI 7, 7A - Thrombolysis Therapy - Rate of therapy in <30 mins
AMI 8 - PCI - Rate Receiving PCI in <120 mins

Please note: Recent medical research has suggested that it may be better for eligible heart attack patients to receive PCI treatment within 120 minutes instead of thrombolysis therapy. As a result of this, PCI treatment is becoming the preferred treatment and many patients who previously received thrombolysis therapy are now receiving PCIs.

²⁹ **Percutaneous Coronary Interventions:** Procedures done for diagnosis or therapy which reach the heart through major blood vessels instead of having to open the chest.

Hospital Process of Care Measures – SECTION II (continued) Congestive Heart Failure - CHF

Heart failure is a weakening of the heart's pumping power. With heart failure, your body doesn't get enough oxygen and nutrients to meet its needs. Your heart tries to pump more blood, but the muscle walls become weaker over time.

Symptoms of heart failure may include: Shortness of breath from fluid in the lungs, swelling (such as in legs, ankles or abdomen), dizziness, fatigue, weakness, cold or clammy skin, a rapid or irregular heartbeat, worsening of shortness of breath while laying flat on back.

Heart failure can be a result of a heart condition due to: Hardening of the arteries, also known as coronary artery disease, a heart attack, cardiomyopathy (heart muscle damage from infection or alcohol or drug abuse), or an overworked heart (caused over time by conditions like high blood pressure, kidney disease, diabetes, or a defect from birth).

For more information on Heart Failure, please visit www.webmd.com

This report is based on local, state and national data from January thru December 2005.

There are 4 items that are recommended care for Heart Failure patients. Research has shown that these treatments provide the best results for most adults with those conditions and are an important part of the patient's overall care. They are listed below and individually analyzed in this section:

CHF – 1 Patients with a complete set of discharge instructions in the medical record

CHF – 2 Patients receiving **left ventricular ejection fraction**³⁰ (LVEF) assessment

CHF – 3 ACE Inhibitor³¹ prescribed for patients with CHF

CHF – 4 Smoking cessation advice or counseling offered

³⁰ **LVEF** is the fraction of blood pumped out of the left ventricle with each heartbeat.

³¹ **ACE inhibitors** are a group of medicines that are used primarily in treatment of hypertension and congestive heart failure, in most cases as the drugs of first choice.

Hospital Process of Care Measures Congestive Heart Failure (CHF) Overall Performance Chart

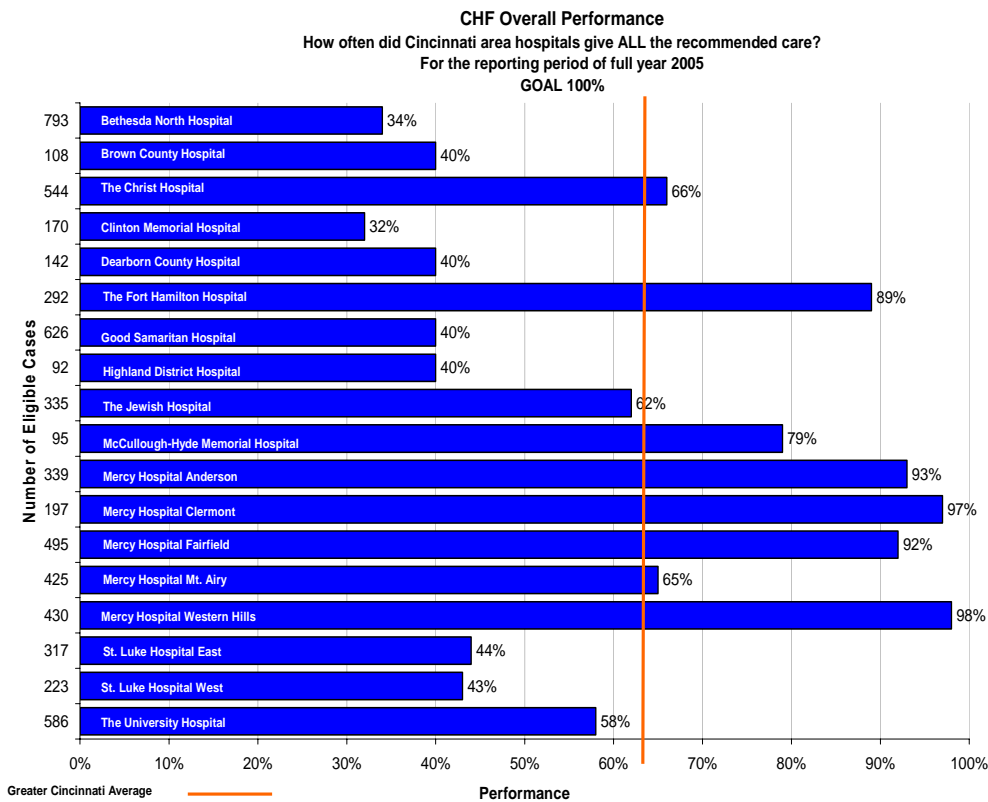
The chart below shows how often hospitals provide ALL the listed recommended care to ALL eligible patients. Research has shown that these treatments provide the best results for most adults with those conditions and are an important part of the patient’s overall care.

There may be a specific reason why a patient should not get a certain treatment. For example, one of the recommended treatments for Congestive Heart Failure is to be given smoke cessation counseling. If a patient does not have a history of smoking, they should not receive smoke cessation counseling. **Patients who do not meet the requirement are not reflected in the data below.**

A higher percentage is better. 

Recommended Care Measured Below:

- CHF 1 - Patients with a complete set of discharge instructions in the medical record
- CHF 2 - Patients receiving left ventricular ejection fraction (LVEF) assessment
- CHF 3 - ACE Inhibitor prescribed for patients with CHF
- CHF 4 - Smoking cessation advice or counseling offered



Please note: the information is more likely to have greater variability the less volume one hospital may have.

Congestive Heart Failure DESCRIPTION OF PROCESS MEASURES (CHF 1-4)

CHF – 1 Patients with a complete set of discharge instructions in the medical record

Measure Description: Heart failure patients discharged home with written instructions or educational material given to patient or care giver at discharge or during the hospital stay addressing ALL of the following: activity level, diet, discharge medications, follow up appointment, weight monitoring, and what to do if symptoms worsen.

Patients who do not meet the requirement are not reflected in the data below.

Why is this important?

Heart failure is a **chronic**³² condition. It results in symptoms such as shortness of breath, dizziness, and fatigue. Before you leave the hospital, the staff at the hospital should provide you with information to help you manage the symptoms after you get home.

A higher percentage is better. 

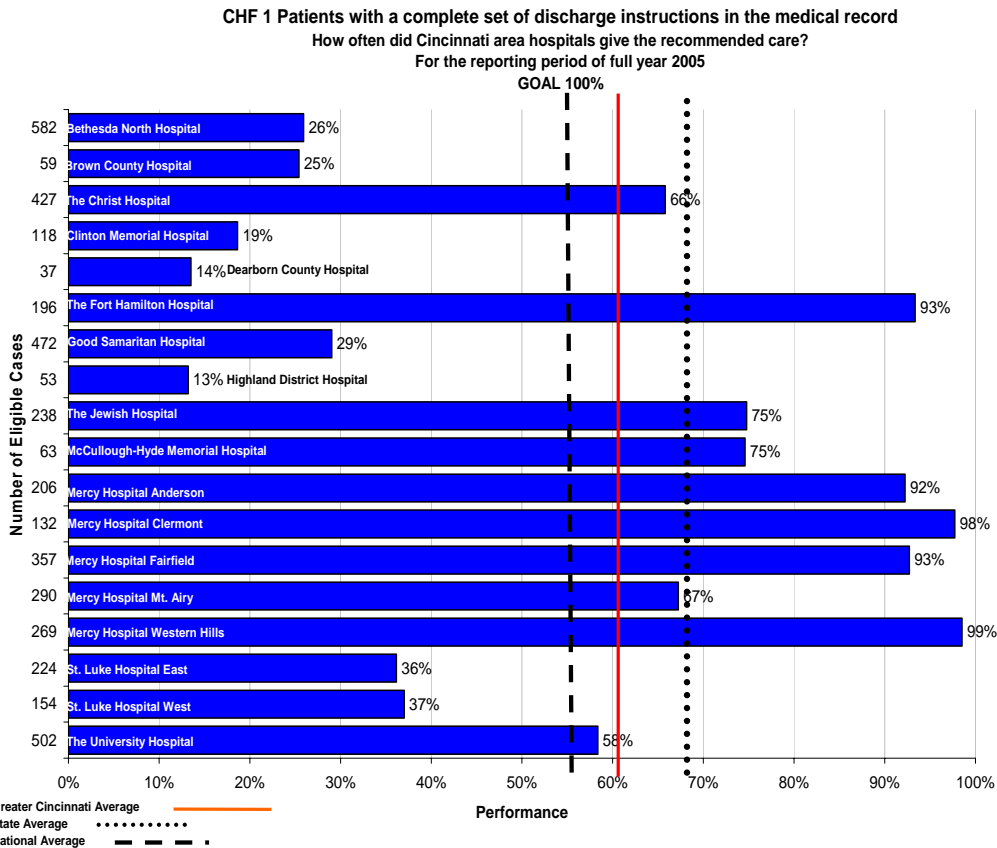
Recommended Care Measured Below:

CHF 1 - Patients with a complete set of discharge instructions in the medical record

CHF 2 - Patients receiving left ventricular ejection fraction (LVEF) assessment

CHF 3 - ACE Inhibitor prescribed for patients with CHF

CHF 4 - Smoking cessation advice or counseling offered



Please note: the information is more likely to have greater variability the less volume one hospital may have.

³² **Chronic:** is long-lasting and recurrent or characterized by long suffering

CHF – 2 Patients receiving left ventricular ejection fraction³³ (LVEF) assessment

Measure Description: Heart failure patients discharged home with documentation in the hospital record that **left ventricular function**³⁴ (LVF) was assessed before arrival, during hospitalization, or was planned for after discharge.

Patients who do not meet the requirement are not reflected in the data below.

Why is this important?

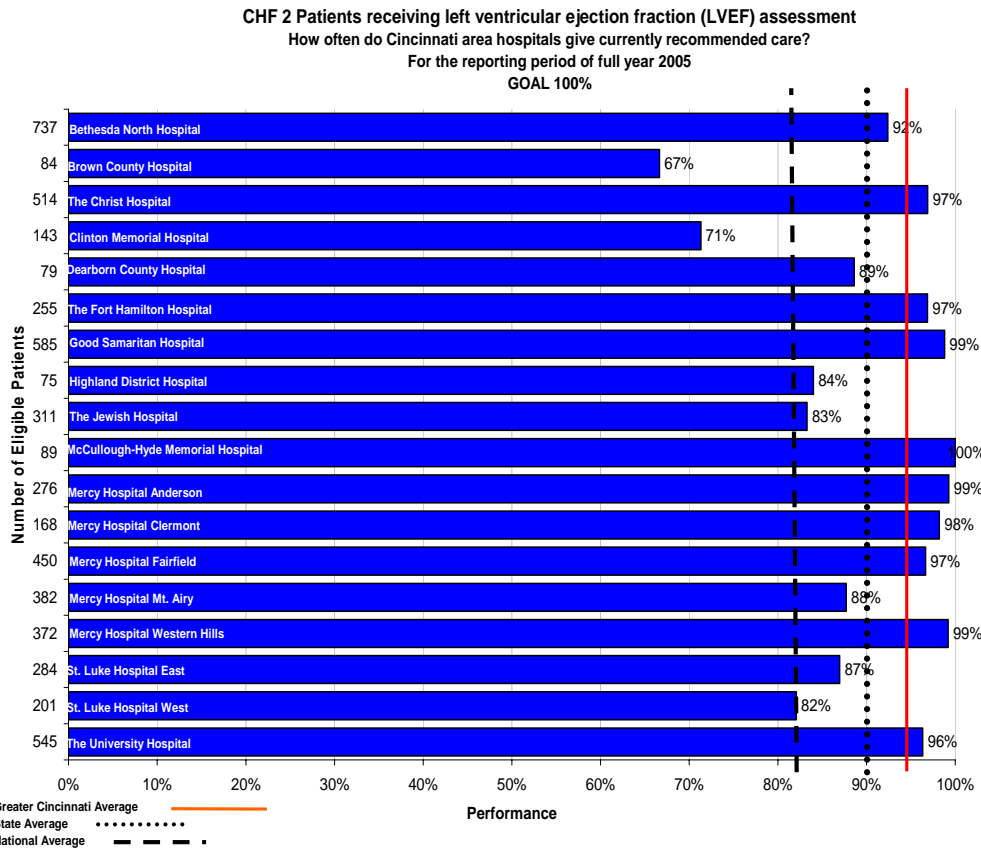
The proper treatment for heart failure depends on what area of your heart is affected. An important test is to check how your heart is pumping, called “the left ventricular function assessment.” It can tell your health care provider whether the left side of your heart is pumping properly. Other ways to check on how your heart is pumping include:

- 1) your medical history
- 2) a physical examination
- 3) listening to your heart sounds
- 4) other tests as ordered by a physician (like an ECG (electrocardiogram), chest x-ray, blood work, and an echocardiogram)

A higher percentage is better. ↑

Recommended Care Measured Below:

- CHF 1 - Patients with a complete set of discharge instructions in the medical record
- CHF 2 - Patients receiving left ventricular ejection fraction (LVEF) assessment
- CHF 3 - ACE Inhibitor prescribed for patients with CHF
- CHF 4 - Smoking cessation advice or counseling offered



Please note: the information is more likely to have greater variability the less volume one hospital may have.

³³ LVEF is the fraction of blood pumped out of the left ventricle with each heartbeat.

³⁴ LVF is the assessment of how well the left ventricle is working.

CHF – 3 ACE Inhibitor prescribed for patients with CHF

Measure Description: Heart failure patients with **left ventricular systolic dysfunction (LVSD)**³⁵ and without both **angiotensin converting enzyme inhibitor (ACE inhibitor)**³⁶ and **Angiotensin Receptor Blocker (ARB)**³⁷ contraindications (increased risk) who were prescribed an ACE inhibitor or an ARB at hospital discharge. *Patients who do not meet the requirement are not reflected in the data below.*

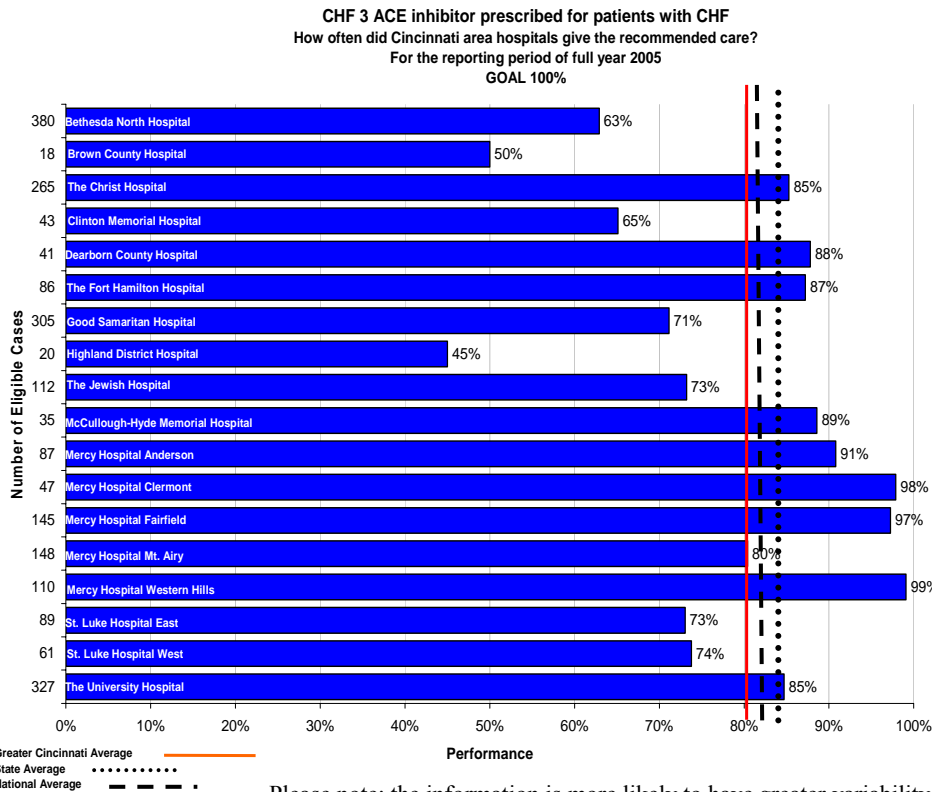
Why is this important?

ACE (angiotensin converting enzyme) inhibitors and ARBs (angiotensin receptor blockers) are medicines used to treat patients with heart failure and are particularly beneficial in those patients with heart failure and decreased function of the left side of the heart. Early treatment with ACE inhibitors and ARBs in patients who have heart failure symptoms or decreased heart function after a heart attack can also reduce their risk of death from future heart attacks. ACE inhibitors and ARBs help reduce the work the heart has to perform. These drugs work differently so your doctor will decide which drug is most appropriate for you. If you have a heart attack and/or heart failure, you should get a prescription for ACE inhibitors or ARBs if you have decreased heart function before you leave the hospital.

Recommended Care Measured Below:

- CHF 1 - Patients with a complete set of discharge instructions in the medical record
- CHF 2 - Patients receiving left ventricular ejection fraction (LVEF) assessment
- CHF 3 - ACE Inhibitor prescribed for patients with CHF**
- CHF 4 - Smoking cessation advice or counseling offered

A higher percentage is better. 



Please note: the information is more likely to have greater variability the less volume one hospital may have

³⁵ **LVSD** An abnormal performance of the left ventricle or the muscular chamber of the heart. LVSD may often occur in the period following a heart attack and greatly increases patients' risk for recurrent heart attacks, heart failure or other deadly events.

³⁶ **ACE inhibitors** are a group of medicines that are used primarily in treatment of hypertension and congestive heart failure, in most cases as the drugs of first choice.

³⁷ **ARBs** are a group of medicines used in hypertension (high blood pressure), diabetic nephropathy (kidney damage due to diabetes) and congestive heart failure.

CHF – 4 Smoking cessation advice or counseling offered

Measure Description: Heart failure patients with a history of smoking cigarettes, who are given smoking cessation advice or counseling during a hospital stay.

Patients who do not meet the requirement are not reflected in the data below (e.g. patients that do not have a history of smoking.)

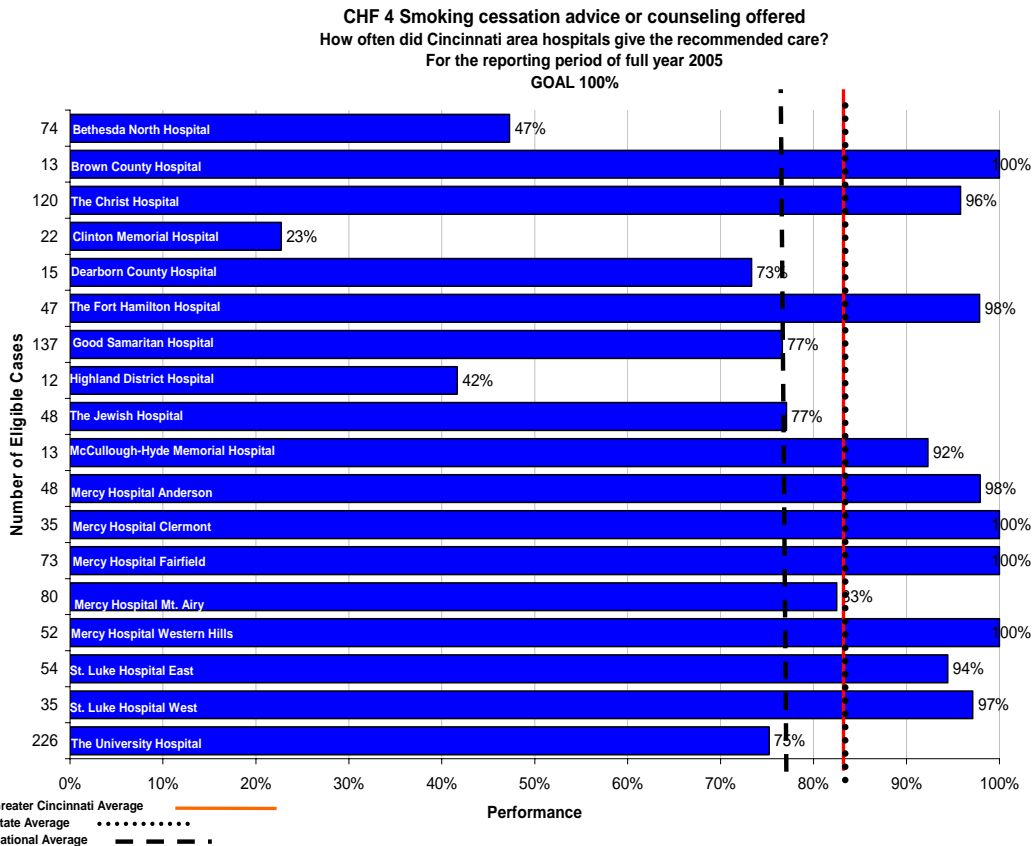
Why is this important?

Smoking increases your risk for developing blood clots and heart disease, which can result in a heart attack, heart failure or stroke. Smoking causes your blood vessels to thicken. Fat and plaque then stick to the wall of your blood vessels, which makes it harder for blood to flow. Reduced blood flow to your heart may result in chest pain, high blood pressure, and an increased heart rate. Smoking is linked to lung disease and cancer, and can cause premature death. It is important for your health that you get information to help you quit smoking before you leave the hospital.

A higher percentage is better. 

Recommended Care Measured Below:

- CHF 1 - Patients with a complete set of discharge instructions in the medical record
- CHF 2 - Patients receiving left ventricular ejection fraction (LVEF) assessment
- CHF 3 - ACE Inhibitor prescribed for patients with CHF
- CHF 4 - Smoking cessation advice or counseling offered**



Please note: the information is more likely to have greater variability the less volume one hospital may have.

Glossary of Terms

ACE inhibitors, or inhibitors of Angiotensin-Converting Enzyme, are a group of medicines that are used primarily in treatment of hypertension and congestive heart failure, in most cases as the drugs of first choice.

Angina: Chest pain due to lack of oxygen supply.

ARBs (angiotensin receptor blockers) are a group of medicines used in hypertension (high blood pressure), diabetic nephropathy (kidney damage due to diabetes) and congestive heart failure.

Arrhythmias is an irregular heart beat, faster or slower than normal.

Atherosclerosis: It is commonly referred to as a "hardening" of the arteries. It is caused by the formation of multiple plaques within the arteries.

Beta blockers (sometimes written as β -blockers) are a class of drugs used for various indications, but particularly for the management of hypertension and cardiac arrhythmias.

Cerebral perfusion is the net supply of blood flow to the brain.

Chronic: is long-lasting and recurrent or characterized by long suffering

Colonoscopy is the internal examination of the lower intestine.

Endoscopy means *looking inside* and refers to looking inside the human body for medical reasons.

Gastrointestinal Hemorrhage: Bleeding in the gastrointestinal tract

Graft: A surgical procedure to transplant tissue without a blood supply

Lamina: surface

Laminectomy: Surgical removal of part of a vertebra (back bone). Usually done to relieve pressure on a spinal nerve caused by a herniated disk or bony spur.

LVF (left ventricular function) is the assessment of how well the left ventricle is working.

LVEF (left ventricular ejection fraction) is the fraction of blood pumped out of the left ventricle with each heartbeat.

LVSD (left ventricular systolic dysfunction) An abnormal performance of the left ventricle or the muscular chamber of the heart. LVSD may often occur in the period following a heart attack and greatly increases patients' risk for recurrent heart attacks, heart failure or other deadly events.

Mortality is the rate of death

Percutaneous Coronary Interventions (PCI): Procedures done for diagnosis or therapy which reach the heart through major blood vessels instead of having to open the chest.

Proton pump inhibitors (or "PPI"s) are a group of drugs whose main action is pronounced and long-lasting reduction of gastric acid production.

Respiratory tract is the part of the anatomy that has to do with the process of respiration or breathing.

Spinal stenosis is a medical condition where the spinal canal narrows and compresses the spinal cord and nerves. This is usually due to the natural process of spinal degeneration that occurs with aging.

Thrombolysis is the breakdown (*lysis*) by pharmacological means, of blood clots. It is sometimes referred to as clot busting for this reason.

Glossary of Terms (continued)

Thrombolytic is an agent that facilitates the breakdown of blood clots.

Tranexamic acid is often prescribed for excessive bleeding.

Vasopressin analogues are chemicals similar in function to desmopressin. Taking a desmopressin dose 30-45 minutes before sleeping results in concentrated urine production, and the urination reflex experienced when the bladder fills above a certain level is not triggered.

References

Applied Health Services, Inc. (2006) The Greater Cincinnati Hospital Quality Improvement Project, 5th Edition

Centers for Medicare and Medicaid Services (CMS) Hospital Compare
<http://www.hospitalcompare.hhs.gov/>

Ohio Hospital Association and Applied Health Services, Inc. (2006) Cincinnati Study 2002-2005 Version V5.2

Wikipedia Online Encyclopedia
<http://www.wikipedia.org/>