It's A Success! Achieving Cost-Effective Disease Management in CHF

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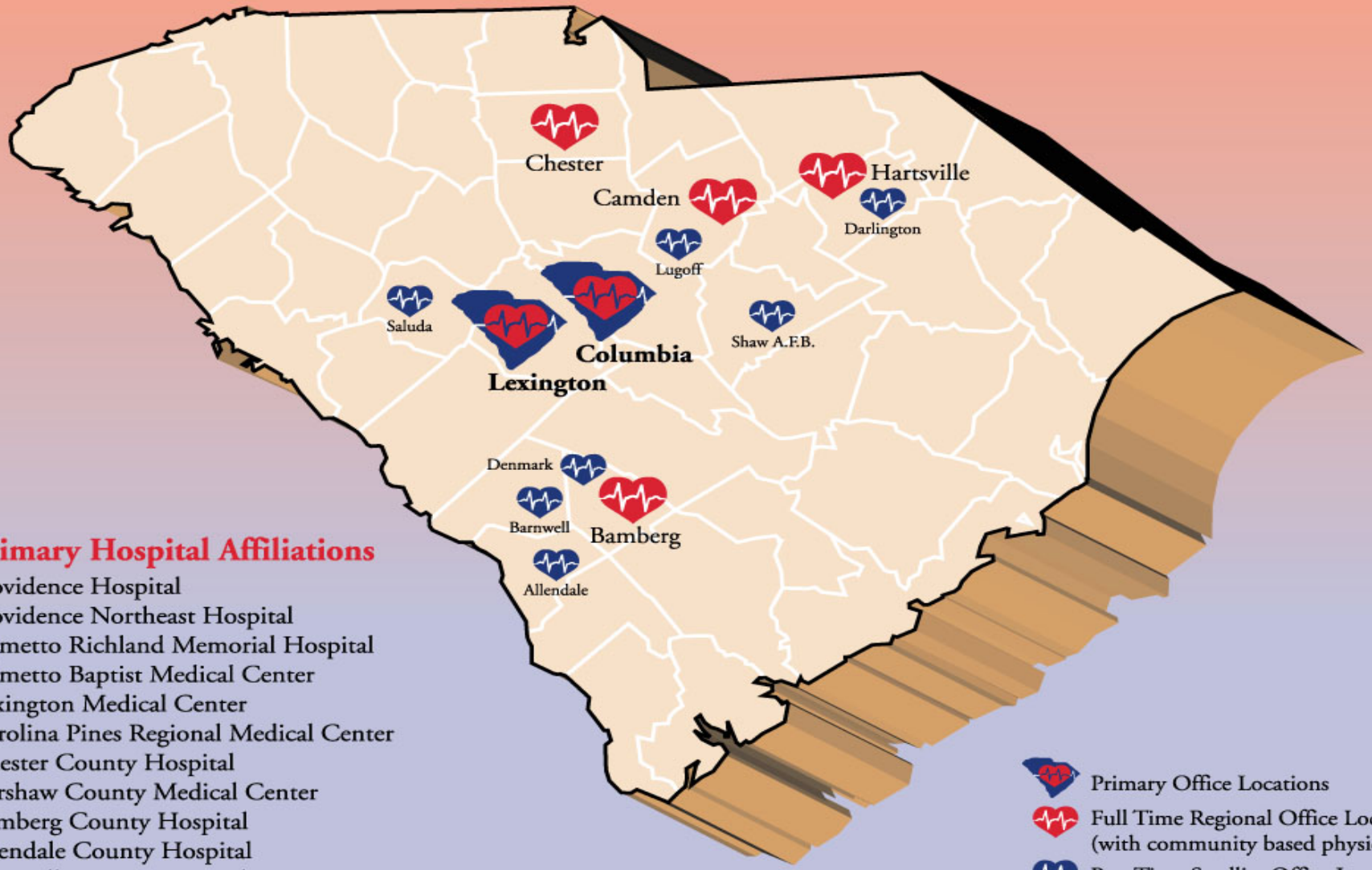
Learning Objectives

- Discuss how to use disease management software to manage CHF patients
- Recommend steps to involve patients in their CHF management through software
- Determine ways to improve communication with all healthcare providers
- Identify ways to decrease hospitalizations and length of stay

Providing Advanced Cardiology Care To Patients Throughout South Carolina



Primary Hospital Affiliations

Providence Hospital
Providence Northeast Hospital
Palmetto Richland Memorial Hospital
Palmetto Baptist Medical Center
Lexington Medical Center
Carolina Pines Regional Medical Center
Chester County Hospital
Kershaw County Medical Center
Bamberg County Hospital
Allendale County Hospital
Barnwell County Hospital

Practice Overview

Why Disease Management?

- **90** million Americans have a chronic illness
- **70%** of all deaths in the United States (287,000/yr from heart disease)
- **75%** of the nation‘s $1.7 trillion medical care costs

CHF-Costly Chronic Disease

- Number **one** diagnosis
- **3.5 million** admissions/year
- **60-75%** of total costs
- **47%** re-admission rate in six-months

5 million

US citizens have heart failure

Disease Management Will…

- Support the provider/patient relationship and plan of care
- Prevent exacerbations by utilizing practice guidelines
- Provide tools to monitor patient outcomes



CHF Management Issues

- High volume of CHF patients
- No CHF Clinic
- Inability to track patient status
- Frequent hospitalizations/ED visits
- Communication with other providers

Disease Management Software

Solution

Achieving Physician Acceptance

- Presented concept to Administration, IS Committee and Physicians
- Determined program would improve management of CHF patients
- Agreed to participate as beta site utilizing our Camden regional office
- Worked with development team to determine content and workflow

Implementation Process

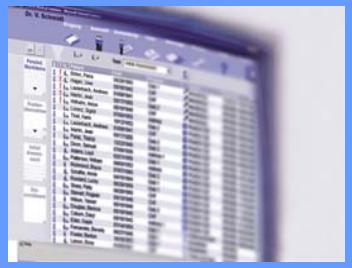
- Workflow mapping
- Staffing requirements
- Training
- Patient engagement
- Went live February 23, 2005

CHF Program Goals

- Improve quality of life
- Optimize communication
- Enhance compliance
- Early intervention
- Reduce frequency of CHF admissions
- Reduce length of stay

CHF Management Program

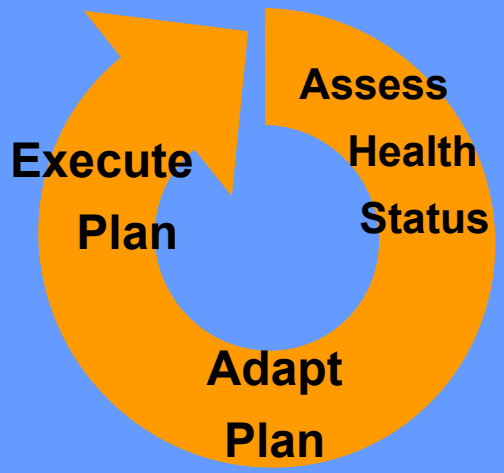
- Regular assessment of the patient's health status
- Management according to guidelines
- Provider communication
- Outcomes measurement


CHF Management Concept

The Management Loop

- Follow up visit
- Adapt medication and diet
- Schedule tests/procedures
- Educational session
- Self-monitoring



- Lab tests
- Physical examination
- History
  - EF %
  - problem list
  - symptoms
  - diet
  - medication

- Medication
- Diet
- Education
- Monitoring
- Appointments

CHF Process Model

- Identify patient
- Patient registration
- Initial assessment
- Patient Education
- Develop plan
- Identify providers

- Follow up visits
- Follow up phone calls
- Revise plan
- Assess Self monitoring
- Patient Education
- Communicate with providers

- Patient satisfaction
- Provider survey
- Quality assurance
- Process evaluation
- Optimize program

- End service
- Inform providers

PATIENT SUMMARY 23/01/2004 – 23/03/2004

Patient	Disease Management Nurse	Physician	Cardiologist
Name, First Name Patient ID - DOB Address Phone # Mobile #	Name, First Name Address Phone # Mobile #	Name, First Name Address Phone # Mobile #	Name, First Name Address Phone # Mobile #

Program Information

Date enrolled in CHF Program: 02/11/2003 **Program level**: high **Age**: 64 **Sex**: Male
Status: NYHA III (01/22/2004) ACC/AHA C (02/25/2004) EF 40 % (03/16/2004)

Cardiac Related Diagnoses

Date	ICD	Description
02/23/2004	428.1	Left heart failure
02/02/2004	404.11	Hypertensive heart and renal disease, benign with congestive heart failure
01/12/2004	425.1	Cardiomyopathy, hypertrophic obstructive
11/22/2003	428.22	Heart failure, systolic, chronic

Comorbidities & Risks

Hypertension	since 1980	Last Flu Shot	4/15/2003
Diabetes Type II	since 1993	Last Pneumococcal Vaccination	9/2/2001
Renal Insufficiency		Smoking 2 packs per day	8/2/2003
Depression	since 1999	**Allergies:** no known allergies	

Current Medications:

Med	Dose	Sched	Start	End	Med	Dose	Sched	Start	End
Zocor	10mg	OD	12/1/03	4/1/04	Glucotrol	5mg	OD	3/15/04	6/15/04
Cartia XT	120mg	OD	1/15/04	4/15/04	ASA	80mg	HS	3/15/04	6/15/04
Lasix	80mg	BID	1/15/04	4/15/04					

Laboratory Results:

S-Sodium	138	mmol/l	12/1/03	Hemoglobin	11	g/dl	2/15/04
S-Potassium	3.3	mmol/l	1/15/04	Hematokrit	37	%	2/15/04
S-Creatinin	2.4	mg/dl	1/15/04	INR	0.8		2/15/04
BUN	20	mg/dl	1/15/04	BNP	20	pg/ml	1/22/03

Miscelleaneous:

Dry weight:	89	lbs	2/18/2003	Last weight:	93 lbs	12/14/03
BP	160/100	mmHg	2/4/2004	ICD:	DDD	12/14/03

Recent History:

3/15/04	ED not CHF related
2/20/04	Regular phone assessment call
2/15/04	Medication adapted by M. Krieger, DMU
1/15/04	Monitoring Exception Weight gain > 3 lbs
/6/03	Inpt CHF related

Our Experience

- Strategy for patient enrollment
- Workflow adjustments
- Telephony adjustments
- Patient alerts
- Patient compliance
- Home Health participation
- Longitudinal tracking of disease

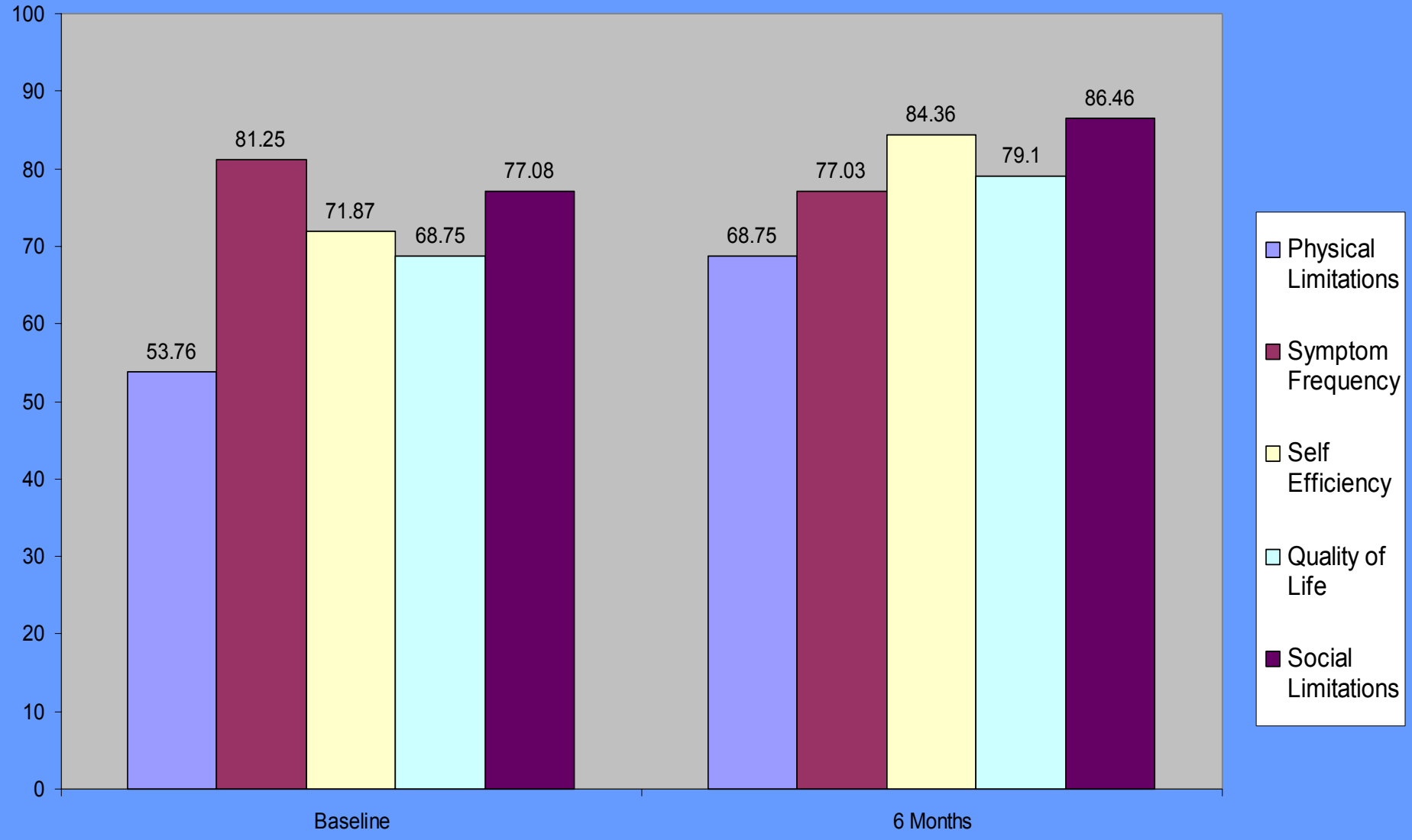
Benefits

- Improved patient compliance
- Active patient participation
- Early Intervention due to alerts
- Improved communication with providers
- Ability to track patient disease process
- Improve outcomes-core measures
- Decrease number of hospitalizations/year

16	Total patients tracked on SDM
71	Total patients not in SDM program

Admitted to hospital	70
In SDM	0
Not in SDM	70
% total event free	19.5%
% event free not in SDM	1.4%
% event free in SDM	100%
% SDM patients hospitalized	0.0%
% non-SDM patients hospitalized	98.6%

KCCQ Questionnaire Results (%)



Potential Impact of Disease Management Programs:

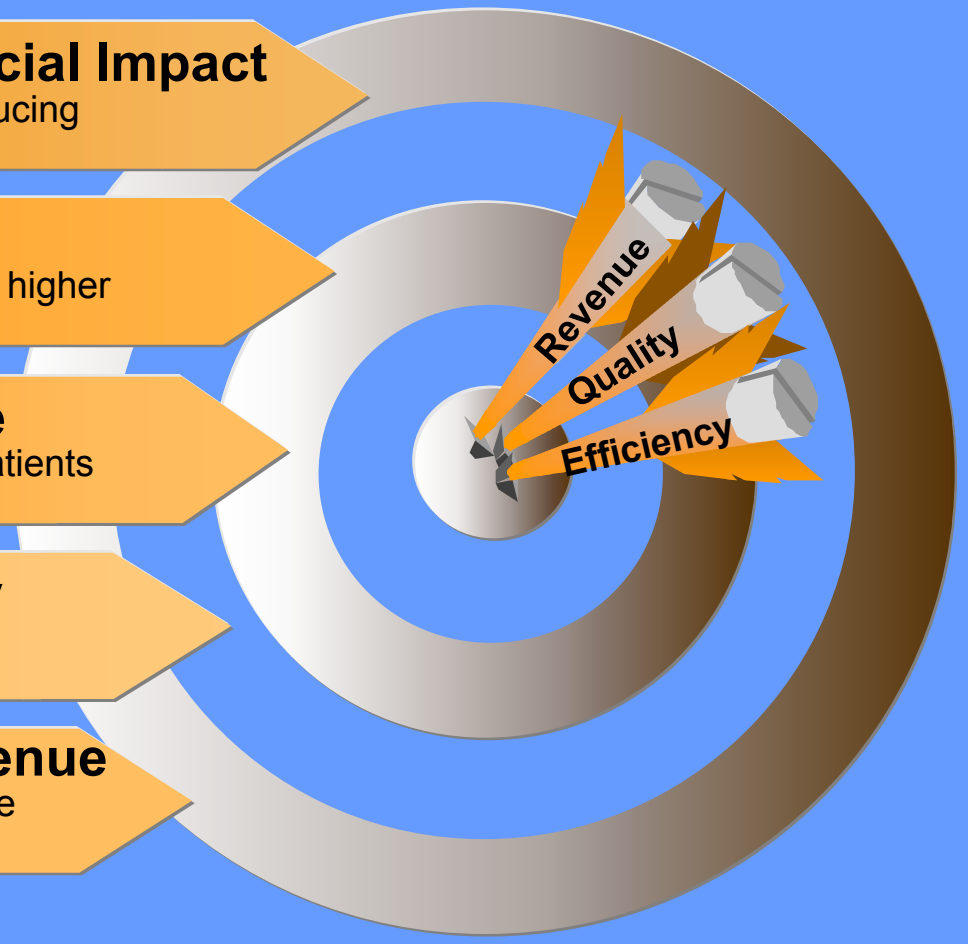
Reduce Negative Financial Impact
of treating chronic ill patients by reducing Admission LOS and ER visits

Optimize Resources
by freeing up valuable resources for higher reimbursable procedures

Improve Quality of Care
by delivering better care to at risk patients

Improve Patient Affinity
by keeping valuable patients tied to your organization

Prepare for Future Revenue
anticipate reimbursement for disease management services (CMS)



QUESTIONS????