Leadership in Community Congestive Heart Failure (CHF) Program Decreases Readmission Rates

Northern Ontario School of Medicine

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THE GROUP HEALTH CENTRE

- A unique community-sponsored, not-for-profit, inter-disciplinary health organization serving over 60,000 registered patients in Sault Ste Marie
- 65 General Practitioners
- 18 Specialists
- 9 Associate and Visiting Specialists
- 8 Nurse Practitioners
- Allied Health Professionals
- 97 Registered Nurses (full and part time)
- Electronic medical record (EMR) since 1997

HEALTH PROMOTION INITIATIVES (HPI)

HPI aims to develop and evaluate evidence-based outcomes management programs in order to improve the quality of health care for our patients.

~ Diabetes
~ CHF
~ Anticoagulation Clinic
~ Mammography/ Breast Health
~ Immunization
~ Smoking Cessation
~ Vascular Intervention Project
~ Falls, Fractures, Osteoporosis
~ Cervical Screening
~ Asthma

CHF: THE EPIDEMIC

- #1 admission diagnosis in most hospitals in Canada
- High re-admission rate (>25%)
- High mortality rate
- Incidence and prevalence increasing

CHF DISCHARGE TRANSITION IS GOOD CARE

- There is Level 1 medical evidence that a hospital discharge transition program decreases hospital re-admission rates
  CCS 2001 Abstracts #55, #72
- Evidence supports comprehensive discharge planning, plus post-discharge support to optimize the transition from hospital to home
  Jama, March, 2004 – Vol. 291, #11
- Most studies suggest cost-effectiveness

CHRONIC CARE MODEL

- Patient focused
- Informed patients who take an active part in their care…
  " Self management"
- Innovative CHF Chronic Disease Support Program
- Coordinated delivery system
- An effective system change supports evidence-based, clinical and quality improvements
- Provide active follow-up, support and patient education

CORE TEAM MEMBERS

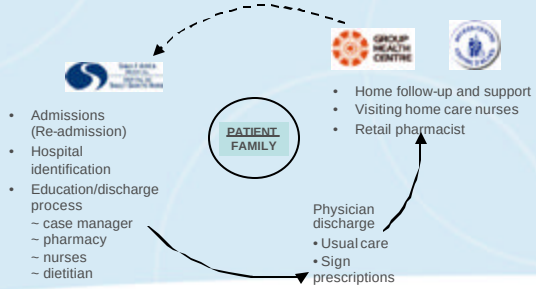
Group Health Centre (GHC)
- Algoma District Medical Group
- Group Health Association

Sault Area Hospital (SAH)

Algoma Community Care Access Centre (ACCAC)

Heart & Stroke Foundation of Ontario (handouts)

CHF PROGRAM COLLABORATIVE PROCESS



PHASED APPROACH

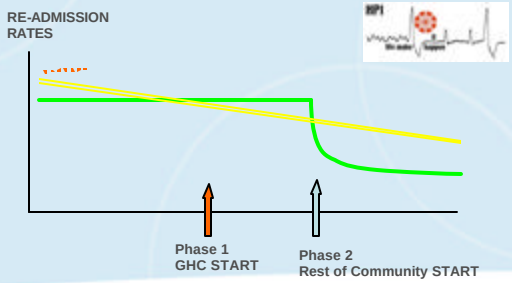
- **Phase I, March 2000:**
  Group Health patients only > "proof of concept"
  visit patient in home within 48 hours
- **Phase II, Feb. 2001:**
  Remainder of city incorporated into program
  GHC or Home Care nurse visits patient within 48 hours
- **Phase III:**
  Entry to the program from outpatient
  (GHC patients presently access support)

PHASE I:

Group Health Centre CHF RE-ADMISSION IMPROVEMENT

- GHC CHF project resulted in a sustained decrease of the one-month CHF re-admission rate of 53.8% from baseline
- Education did not result in increased length of stay during index admission
- Non-significant trend to decreased mortality

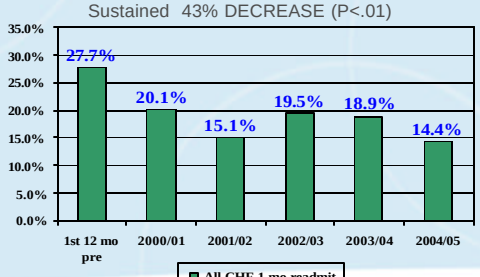
CHF TRANSITION PROJECT



PHASE 2:

COMMUNITY IMPLEMENTATION

Sustained 43% DECREASE (P<.01)



IN-HOSPITAL CARE

Patient/Family

Physician
- Coordinate CHF medical management

Discharge Planner
- Identify admission
- Introduce program to patient/family

Dietitian
- CHF diet education

Hospital Nurse
- CHF orders/care map
- Education/support
- Discharge checklist

GHC Nurse (FHW)
- Review EMR for cardiac history
- Identify medications and communicate with team
- Pre-discharge teaching in hospital.

Pharmacist
- Clarify and review medications
- Create discharge medication list and prescription for patient/family
- Patient education re medications

CCAC Case Manager
- Visit patient pre-discharge

TOOLS

Standardized educational material
- workbook
- video
- pharmacy med sheet and script
- dosette

Self Management Plan
- titration of a patient's diuretic weight gain of 1 kg (2 pounds) overnight or a 2.5 kg (5 pounds) weight gain in a week
- CHF health assessment

Phone support

EMR for the GHC patients

CHF SELF MANAGEMENT PLAN

GREEN Zone: All Clear

YELLOW Zone: Caution

RED Zone: Medical Alert!

DISCHARGE TRANSITION

1. **Prescription Medication List faxed to:**
   - GP
   - GHC Nurse/CCAC Nurse
   - Specialist
   - Retail Pharmacy
2. **Home Visit – 48 hours post discharge**
   - Review/clarify all medications
   - Reinforce self management plan
   - Cardiac assessment
3. **GHC Nurse**
   - Update EMR
   - Communicate with providers via EMR
   - Ongoing phone support

ACCOUNTABILITY

- **Statistical Analysis**
  - ~ Gathered monthly
  - ~ Printed quarterly
  - ~ Target review
  - ~ Patient registry
- **Standards**
  - ~ CHF goals
  - ~ Flow of care
  - ~ Nursing standards
  - ~ Checklist
  - ~ Education

Performance System Review

- **Re-admission Review**
  - ~ Review compliance
  - ~ Intervention
  - ~ Prescription system
- reactivated
  - ~ Patient questionnaire

Quality Improvement
- ~ Team reports/feedback
- ~ Data assess/review
- ~ Medication system review

IS CHF PROTOCOL COST EFFECTIVE?

- 3 years of data indicates a 35% decrease in re-admission (equivalent to 527 hospital days)
- Reduced ER visits (98% go through ER)
- Assuming $800 per diem Þ savings = $422,048
- Minimal cost for providing CHF monitoring/education and follow-up Þ use existing resources

BARRIERS AND SOLUTIONS

BARRIERS

- Change is difficult
- Patient functional capacity
- Caregiver support
- Workload
- Ongoing changes to medications…
- Funding $$$
- Expertise

SOLUTIONS

- Patient/nurse champions – experts in CDM
- Primary care nurse – case management
- Funding for the collaborative program
- Common registry of CHF patients
- Retail pharmacy communication system

LESSONS LEARNED

- Longer and improved quality of life
- Health care leadership is paramount in overcoming barriers around traditional roles and responsibilities
- A coordinated, inter-disciplinary, discharge program reduces re-admissions … good fiscal responsibility
- Shifting of costs: hospital Þ community
- Overall savings to the health care system
- Integrated CHF project can work in a variety of settings

HARD WORK…. PROUD OF OUR SUCCESS

Group Health Centre
National Best Practice Award

2002 - HPI
2003 - Anticoagulation
2004 – CHF
2005- Breast Screening

NEXT STEPS…

Sault Ste. Marie Ontario Canada

THANK YOU!

Visit us at www.ghc.on.ca

The primary care excellence model