A Comprehensive Heart Failure Management Program for the Portland VA Medical Center

A Collaboration of Primary Care, Specialty Care, Nursing and Pharmacy
This Presentation

• Adapted and shortened from a more detailed “sales” presentation made to Portland VA leadership at an ACA retreat in August, 2005.
• I am happy to send the full slide set if it will be of use to you
• Email me: greg.larsen@va.gov
What is Wrong With the Status Quo at PVAMC, 2005?

• For CHF in-patients:
  – 29% readmission rate within 30 days

• For CHF out-patients:
  – Inadequate dosing of life saving drugs
    • ACE Inhibitors
    • Beta Blockers
## State of CHF Drug Titration

Chart review of 179 CHF patients by Bing Bing Liang, Pharm. D., 2004

<table>
<thead>
<tr>
<th>Drug</th>
<th>% Receiving</th>
<th>% at Target Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACE</td>
<td>77%</td>
<td>49%</td>
</tr>
<tr>
<td>Beta Blocker</td>
<td>77%</td>
<td>6%</td>
</tr>
<tr>
<td>Both</td>
<td>39%</td>
<td>4%</td>
</tr>
</tbody>
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Structural Barriers: Primary Care

• Structural Primary Care Capacity (panel size):
  – 1.7 visits per patient per year

• Many competing priorities in any visit
  – Alerts, mandates, screening, patient concerns, etc
  – Clinic not designed for frequent drug titration

• Thus, Limited Capacity for “Short Cycle” Returns
  – Post-Discharge: “See PCP in 1 week”
  – Ongoing medical monitoring: “titrate medications every 1-2 weeks”
Structural Barriers in Cardiology: Current CHF Clinic Activity

- Projected Yearly Cards Clinic:
  - CHF new patient visits: 160
  - CHF return visits: 565
  - CHF post-hospital f/u visits: 264
  - Total 989 visits

- Primary Care CHF Visits: 2,548 visits
  (Portland only)

- Visit “Gap”: 2,548 – 989 = 1559 visits
The Case for A Comprehensive CHF Management Program
Why do CHF Programs work?

• **They rescue the most vulnerable**
  – recently hospitalized patients
  – Chronic NYHA Class 4 patients

• **They titrate life saving drugs to full doses**
  – Some CHF patients are not on life prolonging drugs at all
  – Of those who are, most are not on doses shown to provide the life saving benefit
The Proposal
CHF Clinic Structure

• Most activities already ongoing, most FTE already in place, but scattered and under-supported. Thus, we propose:
  – A weekly clinic
  – Supervised by Cardiologist, CHF ANP
  – Educational—pre-clinic conference weekly
  – Consultative for new patients
  – Focused on effective diuresis and up-titration of life saving medications ("The Spin Cycle")
  – Multidisciplinary: “Primary care CHF care for Primary Care patients”
  – Staff supported for between-clinic continuity and drop-in care
The Pivotal Role of Primary Care

• We believe this to be PVAMC’s first integrated collaboration between Primary Care and Medical Subspecialty practitioners for the care of a specific population of patients

• The plan: to have 2 PCP’s (MD or ANP) at a time rotate into the CHF clinic for a limited time (3 months)

• A Heart Failure “Practicum”:
  – “Heart Failure Care, for Primary Care, by Primary Care”
  – Learn the critical importance of diagnosing the cause of CHF in every patient
  – Learn in detail the algorithms of CHF drug management
  – Improve the care of CHF patients in the outpatient setting
  – Become resources and role models for CHF care after returning full time to primary care
How to Balance PCP Workload?

• A Negotiation with Primary Care Leadership
• Suspend requirement to see new PCP patients while in CHF clinic
• Encourage Self-Referral: send your challenging patients to yourself in CHF clinic
  – Still caring for your patient panel while not in your routine clinic
The Use of a Hospitalist: A Focus on Recently Discharged CHF Patients

• Most CHF patients who relapse do so in the first 3 weeks

• 6 PVAMC Hospitalists rotate in seeing recently discharged CHF patients to insure they have successfully made the transition from inpatient to outpatient status (~ 6 pts per week)
  – Begin med titration
  – Address other medical concerns
  – Plan for further CHF clinic visits for continued medicine up-titration
The Pivotal Role of Nurses in the CHF Clinic: Med Reconciliation

• Every CHF patient will have his medications reviewed by a nurse prior to meeting with a practitioner
  – “What medicines do you actually take?”
  – “What doses do you actually use?”
  – “Do you have a scale?”
  – “Do you have a home Blood Pressure Cuff?”

• We plan to allow 20 minutes for each review

• Start IV’s, give diuretics in clinic

• Follow up lab test results, call patients

• Troubleshoot unanticipated problems

• Educate patients
Pharm D’s and “The Spin Cycle”

• Recruited from both College of Pharmacy and PVAMC staff
• A great teaching clinic for Pharm D. residents
• CHF patients must be adequately diuresed in order to be adequately managed
  – “If they are wet, spin them dry”
• Means more, not less, clinic visits
• Pharm D.s will lead in this f/u activity:
  – CHF PCP’s – to learn the details of medicine use/adjustment
  – CHF Nurse Practitioner
• Requires meticulous attention to detail
  – Blood tests, vital signs, blood tests
• Once they are “dry”, Other CHF medicines can be up-titrated—remain with Pharm D’s in the Spin Cycle
Proposed CHF team and their duties:

1 Cardiologist (.15 FTE) – provides consultative advice for all other providers in clinic
1 Cardiology CHF NP (1 FTE) - 2 new and 5 followup patients
1 Hospitalist (.15 FTE)- 4 new and 2 followup recently discharged CHF pts
2 Primary Care providers (.15 FTE each)– each provider will see 2 new and 3 followup patients
2 Pharm D s(.3 FTE)– each w six 30 min followup patients for med. titration
1 Nutritionist (.15 FTE)– two 60 min group appointments and four 30 min individual appointments
1 Nurse (.5 FTE CDU)– manages clinic flow, administers medications, inserts IVs,, assists with intake medication reviews, vital signs, does f/u in “Nurse clinic” between CHF clinics
1 Nurse (.5 FTE DHSM)– eleven 20min intake medication reviews, clinical reminders; phone f/u, ad hoc patient visits between clinics
1 Nurse (.15 FTE PC) – eleven 20 min intake medication reviews during clinic; phone clinic followup and other f/u between CHF clinics
1 Health Tech/MA (.15 FTE)– takes vital signs, does clinical reminders, administers Minnesota LWHF scale, puts patients in rooms
Typical New patient flow

10:30 - Patient goes to x-ray, lab & EKG.

11:30 – Patient meets with nurse for intake medication review

11:50 – Patient meets with nurse for vitals and clinical reminders

12:00 – Patient goes to nutrition group

1:00 – Patient meets with MD or NP
Proposed Comprehensive CHF Program Clinic

Appointment types:
- 30 min CHF conference
- 60 min new appointments
- 30 min new appointments
- 30 min followup appointments
- 60 min group nutrition appointments
- 30 min individual nutrition appointments
- 20 min individual medication reviews

# Appointments
- 12 new
- 22 followup
- 4 individual nutrition
- 2 nutrition groups
- 34 individual med review
Measuring Our Outcomes

- Mortality
- Re-Admission rate
- Percent of patients at optimal drug doses
- Functional Status/QOL: Minnesota Living With Heart Failure Survey
- CHF Clinic Provider satisfaction/feedback
- Need help from Quality Mgmt Service to collect the data