Establishing an Advanced Illness Management (AIM) Model in a Community-Based Setting

Health Care Workforce for Older Americans: Promoting Team Care
October 7, 2008

Panel on “Models of Team Care for the Functionally Impaired and Nursing Home Eligible”

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Context

**VNSNY – Established 1893**

- Largest nonprofit home care organization in U.S. – Serves NYC metropolitan area
  - ~31,000 average daily census;
  - ~120,000 patients annually, ~86 service delivery teams,
  - ~2500 nurses, ~650 therapists, ~650 social workers, ~6000 aides

**Home Health Care – U.S.**

- Post-acute & long term care
- ~8000 Medicare-certified home health agencies (3.3 million discharges in 2005)
- Older persons = 85% of home care episodes; multiple chronic conditions;
  - multiple medications; frailty; cognitive impairment
- “Team-based” service delivery (nurses, therapists, social workers, and aides)
  - Dispersed, generalist nursing workforce
  - Few APNs, little geriatric or palliative care training
Advanced Illness Management (AIM): The Problem and the Opportunity

**Problem:** Intense, acute care in advanced stages of illness –

- Does not necessarily = better quality of life or reduced morbidity
- Does = high Medicare costs, potential misallocation of resources

- 2000-03: Medicare Spending last 6 months of life (Dartmouth Atlas, 2006)
  - U.S. Hospital days per Medicare enrollee = 11.7 days
  - NYS Hospital days per Medicare enrollee = 16.9 days
  (more than residents of any other state save Hawaii)
  - U.S. Hospice use rate = 27%
  - NYS Hospice use rate = 18.7%

- 2001-05 Medicare spending on chronically ill decedents, last two years of life (Dartmouth Atlas 2008)
  - All U.S. Hospital Regions = $46,412
  - NY (Manhattan & Bronx) = $81,143

**Goal:** Create a cost-effective model of advanced illness & palliative care that improves quality of life and appropriateness of care for patients with advanced chronic illness
Interdisciplinary Team-Based Care

Evidence reviews show that multidisciplinary team-based interventions have been key to promoting comprehensive, person-centered palliative and EOL care

(Francke, 2000; Lorenz, 2008; NQF, 2006; WHO, 2004)
VNSNY AIM Program: Objective 1

Embed home-based palliative care into routine practice of the home care team:

- Build team capacity for an interdisciplinary approach to advanced illness management
  - Deploy APN, MD, SW to direct, guide and support
  - Designate AIM Clinical Resource Nurse (CRN) for each service team
  - Develop collaboration between CRN, primary nurse, hospice & patient/family
- Prepare/implement collaborative, individualized AIM plans: advance care directives, ED alternatives, palliative care, hospice referral
Building Team Capacity for Advanced Illness Management

**Interdisciplinary Service Team**
- Frontline manager
- CRN
- Primary nurse
- Social workers, therapists, and aides

- Hospice nurses, MDs, and social workers provide support through case conferences
- APN provides support and mentoring to CRNs
- Primary care physician works with patient, family, and home care team on patient’s plan of care
- Patient & Family/Caregiver work with CRN and primary nurse to clarify goals of care

*Roles of Team Members*
- Frontline service manager addresses CRN assignment and caseload issues
- CRN collaborates with primary nurse on AIM plan of care
- Primary nurse follows up with patient, family, and primary care physician on AIM plan of care
- Social workers, therapists, and aides provide additional support to patients as needed
VNSNY AIM Program: Objective 2

*Develop a clinical career path for frontline nurses that can be broadly replicated by Medicare/Medicaid certified home health agencies (CHHAs):*

- Develop an advanced clinical position for generalist homecare RNs who generally lack clinical career opportunities in traditional CHHAs
- Provide CEU-eligible trainings on how to:
  - Assess patients for advanced illness management and palliative care needs
  - Manage pain and non-pain symptoms
  - Communicate about advanced illness and goals of care with patients, caregivers, collaborating nurses, and physicians
- Provide ongoing mentoring and clinical support to CRNs by a palliative care-certified APN
Program Development and Training

**Development & Planning:** AIM protocols, assessment tool, roles & responsibilities, electronic patient screening/tracking system, training curriculum

**Clinical Resource Nurse (CRN) Training & Support:**
- 12 hours of training in advanced illness management provided by 2 APNs specializing in palliative care (eligible for CEUs)
- APNs “shadowed” CRNs making visits to AIM patients during initial training phase
- Clinicians on 5 service teams received instruction on collaborating with CRNs assigned to their teams
- Ongoing one-on-one mentoring by APNs
- Regular case conferences with Hospice clinicians
AIM CRN Workforce

 Decompiled nurses trained as CRNs
分解 Tenure at VNSNY ranges from 2 – 28 years
分解 Average of 10 years
分解 Diverse educational backgrounds
分解 3 BSN-level nurses
分解 6 MSN-level nurses
分解 3 Nurse Practitioners
分解 1 AIDS certified RN
分解 Languages spoken: Greek (1), Tagalog (3), Chinese (1), Korean (3), Polish (1), English only (4)
Patient Eligibility Criteria for AIM Program

**Risk algorithm:** Patients must meet 1 of these 3 criteria:

- **A.** Life expectancy < 6 months AND either poor overall prognosis or poor rehabilitation prognosis

  OR

- **B.** Poor prognosis AND a primary diagnosis of 1 of the following diseases with severity of 3 or greater:
  
  Malignant neoplasm, Heart failure-CHF, Ischemic heart disease, HIV, Renal Failure, Hepatic Failure, COPD, Parkinson's, Multiple Sclerosis, ALS, Huntington's, and Alzheimer’s (for Alzheimer’s only, severity must be 4)

  OR

- **C.** A primary or secondary diagnosis of one of the diseases listed above with severity of 4
AIM Implementation

Implementation: December 2007 to date

- 13 CRNs designated, trained and receiving ongoing mentoring
- ~100 field nurses received one-hour initial training on advanced illness management and continue to receive updates and support through CRNs
- 304 patients have received AIM services

Anticipated patient sample

- Total of 350 patients will receive AIM services during a 1-yr period
- 350 control patients
  - Patients served by usual care teams who meet AIM screening criteria during the same timeframe
# First 200 AIM-Eligible Patients (Intervention Group): Demographic Characteristics

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>N=200</th>
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</thead>
<tbody>
<tr>
<td>Age in years, mean (SD)</td>
<td>17.0 (N=34)</td>
</tr>
<tr>
<td>Female, % (N)</td>
<td>64.5 (N=129)</td>
</tr>
<tr>
<td>Lives Alone, % (N)</td>
<td>0.5 (N=1)</td>
</tr>
<tr>
<td>Race, % (N)</td>
<td>72.0 (N=144)</td>
</tr>
<tr>
<td>White</td>
<td>53.0 (N=106)</td>
</tr>
<tr>
<td>Black</td>
<td>14.5 (N=29)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>53.5 (N=107)</td>
</tr>
<tr>
<td>Asian</td>
<td>15.0 (N=30)</td>
</tr>
<tr>
<td>Other</td>
<td>0.5 (N=1)</td>
</tr>
<tr>
<td>Language Spoken, % (N)</td>
<td>73.8 (14.2)</td>
</tr>
<tr>
<td>English</td>
<td>64.5 (N=129)</td>
</tr>
<tr>
<td>Spanish</td>
<td>14.5 (N=29)</td>
</tr>
<tr>
<td>Other</td>
<td>21.5 (N=43)</td>
</tr>
<tr>
<td>Payor Type, % (N)</td>
<td>21.0 (N=42)</td>
</tr>
<tr>
<td>Medicare FFS</td>
<td>27.5 (N=55)</td>
</tr>
<tr>
<td>Medicaid FFS</td>
<td>52.5 (N=105)</td>
</tr>
<tr>
<td>Dually Eligible</td>
<td>53.0 (N=106)</td>
</tr>
<tr>
<td>Managed Care</td>
<td>15.0 (N=30)</td>
</tr>
<tr>
<td>Referred from Hospital, % (N)</td>
<td>72.0 (N=144)</td>
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<tr>
<td></td>
<td>Percent/Mean</td>
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<tr>
<td>Life Expectancy Less than 6 Months, % (N)</td>
<td>55.0 (N=110)</td>
</tr>
<tr>
<td>Poor Prognosis, % (N)</td>
<td>93.8 (N=180)</td>
</tr>
<tr>
<td>Number of Illnesses (range 0 - 5), mean (SD)</td>
<td>4.2 (1.0)</td>
</tr>
<tr>
<td>Number of Medications Taken at Admission, mean (SD)</td>
<td>8.5 (4.1)</td>
</tr>
<tr>
<td>Number of ADL Assistance Needed, range 0-8, mean (SD)</td>
<td>7.1 (1.7)</td>
</tr>
<tr>
<td>Number of IADL Assistance Needed, range 0-6, mean (SD)</td>
<td>5.4 (0.7)</td>
</tr>
<tr>
<td>End-Stage Diseases, % (N)*</td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td>29.5 (N=59)</td>
</tr>
<tr>
<td>Congestive Heart Failure</td>
<td>12.5 (N=25)</td>
</tr>
<tr>
<td>Chronic Obstructive Pulmonary Disease</td>
<td>12.0 (N=24)</td>
</tr>
<tr>
<td>Other End-Stage Disease (e.g. Ischemic heart disease, HIV, Renal failure, Liver failure, Parkinson's, ALS, Multiple Sclerosis, Huntington's, Alzheimer's)</td>
<td>9.0 (N=18)</td>
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*These end-stage diseases do not account for 100% of sample. Roughly 38% of sample met AIM criteria based on life expectancy alone, regardless of diagnosis.
Goals of the AIM Evaluation

- Assess the impact of AIM on patient outcomes:
  - Referral to hospice
  - Emergency care utilization and hospital admission
  - Symptom control and quality of life
  - Documentation of advance care directives

- Assess the impact on nurse outcomes:
  - Awareness of palliative care
  - Perceived career opportunities and job satisfaction

- Further develop the CRN role as a career development opportunity; formalize the role within VNSNY staffing and team structure

- Analyze AIM’s effect on agency costs and cost-effectiveness

- Understand challenges and identify strategies for implementing/replicating AIM throughout VNSNY’s regions and home health agencies nationwide
AIM: System Challenges

**Systems and Attitudes:**
- Reaching “short-stay” patients covered by managed care
- Initiating & implementing individualized AIM plan before unstable patients cycle back to the hospital in first week of care
- Enlisting the support of families & primary care physicians
- Changing organizational productivity expectations

**Resources:**
- Establishing a firm mechanism to pay for Advanced Practice Nurses
- Adjusting productivity standards for Clinical Resource Nurses
- Addressing “externalities”