Sharp HealthCare
Reducing CHF Readmissions –
Remote Patient Monitoring Program

Not-for-profit Integrated Delivery System
Largest health care system in San Diego
- 4 Acute Care Hospitals
- 3 Specialty Hospitals
- 2 Affiliated Medical Groups
- Health Plan & 3 Philanthropic Foundations
- Full range of programs and services
Largest private employer in San Diego
- 14,000 Employees
- 2,600 Affiliated Physicians
- 2,000 Volunteers

Telescale:
Transmits data using patient’s land line

Commander Cellular with Medical Scale:
Uses integrated cellular modem and uses GPRS technology to transmit data

Cardiocom - Patient Management Products
Adoption Barriers:

- Balancing high demand for program resources with targeted patient selection
  Remaining focused on patients that this program can serve, particularly when clinicians refer patients that need more resources

- Our target patient population (under funded/served) does not always have a primary care or specialty physician
  Established relationships with community clinics and ED on call panel physicians

- Patients without a telephone land line were initially excluded
  Sought funding to support more expensive cellular technology to enroll these patients

Adoption Facilitators:

- Health Coach as program coordinator/facilitator
  Patient establishes a relationship with someone whom they trust is helping them stay well managed at home

- Referral process from hospital staff
  Physicians, nurses and case managers are knowledgeable about program and empowered to make referrals

- Home visit as key piece of the “transitions intervention”
  Opportunity to address psychosocial issues as well as management of chronic disease and usage of the device
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Lessons Learned:

• Time invested in recruitment of staff resources is time well spent
  *Our model requires coordinator to do marketing, patient recruitment and patient care – not every RN wants to wear all of these hats*

• Program can’t help every patient
  *Patient selection criteria has to be very specific (inclusion and exclusion criteria) and strictly adhered to for effectiveness*

• Cellular/mobile health products are required to meet needs to patients
  *Many patients do not have telephone land lines for wired devices and some patients need a device that they can take with them as they move from one caregiver to another*

Enrollment statistics

| Active: 6 | Age range of patients 26-92 |
| Dis-enrolled: 15 | Surgery, SNF, Request, Death, Left town, Worsening CHF, Hospice |
| Graduated: 59 |
| Total Patients: 80* |

*Reached enrollment goal of 80 patients
Last patient admitted to program 8/19/11*
30-Day Readmissions: Results for patients enrolled for at least 30 days (Sharp’s Baseline: @ 20%)

<table>
<thead>
<tr>
<th>Status</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dis-enrolled</td>
<td>3/15</td>
<td>20%</td>
</tr>
<tr>
<td>Active</td>
<td>0/6</td>
<td>0%</td>
</tr>
<tr>
<td>Completed 90 day program</td>
<td>4/59</td>
<td>6.7%</td>
</tr>
<tr>
<td>Total</td>
<td>7/80</td>
<td>8.75%</td>
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30-day readmission rate for active and those who completed 90 day program is 4/65 6.15%

The intervention of technology (tele-health scale), coaching and education increases confidence in ability to manage heart failure by 90% in those who complete the program. 3 patients have not responded to questionnaire.
Patient scores above 70% - indicative of self activation.
94.6% of patients scored above 70% in their patient activation score for heart failure management.
3 patients have not responded to questionnaire.

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