ReDS across the Continuum of Care
How to initiate your Heart Failure Program?

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Cone Health, NC
About Moses Cone Hospital

- 517 Bed Teaching Hospital
- Regional Referral Center
- Level II Trauma Center
- Centers of Excellence:
  - Heart and Vascular
  - Cancer Care
  - Emergency Services
  - Neurosciences
  - Bariatric Care
  - Orthopedic Surgery
  - Pulmonary Care
  - Women’s Services
About Cone Health

➢ Not-for-profit network of healthcare providers serving people in 5 counties
➢ 6 hospitals (1,254 licensed beds)
➢ 12,000 employees, 1,300 physicians and 1,200 volunteers
➢ Joint Commission accredited, Magnet designated
➢ Triad Healthcare Network
  ➢ 11th largest ACO with over 90,000 covered lives
  ➢ 1 of 45 Next Generation ACOs – Rated Top 5 in US for Quality
➢ Carolinas Health System
  ➢ Management Services Agreement since October 2012
Cone Health – BEST Discharge Study

- Randomized Control Trial
- ADHF patients admitted to hospital
- ReDS reading when patients deemed clinically ready for discharge
- ReDS ≥ 39%
  - Treatment – referral to HF program
  - Control – discharge as planned
- ReDS < 39%
  - Discharged as planned
  - For both Arms

**Flowchart**

1. ADHF Admission
2. Screening & Enrollment
3. Randomization \( N = 108 \)
4. Ready for Discharge
5. ReDS Measurement
6. Control Arm \( N = 48 \)
   - ReDS < 39% \( N = 31 \) → Discharge as planned
   - ReDS ≥ 39% \( N = 17 \)
7. Treatment Arm \( N = 60 \)
   - ReDS < 39% \( N = 42 \)
   - ReDS ≥ 39% \( N = 18 \)
     - Referral to Advanced HF Team
     - Actual Discharge
9. 30 & 90 days Follow up
10. HF Program
• **Primary Endpoint**: To determine the percentage of patients deemed clinically ready for discharge, but are still congested

**Patients are being discharged congested**
- 32% are discharged with ReDS ≥ 39%
- 44% are discharged with ReDS > 35%
BEST Discharge Study – Results

• Secondary Endpoint: % Patients Readmitted in 30 days and 90 days

![Bar chart showing decrease in readmission rates]

75% decrease in 90-day readmit rate

30 Days

<table>
<thead>
<tr>
<th>Group</th>
<th>% Patient Readmitted</th>
<th>Events /Patients</th>
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</thead>
<tbody>
<tr>
<td>Treatment, ReDS ≥ 39%</td>
<td>0%</td>
<td>0/18</td>
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<tr>
<td>Referred to HF Program</td>
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<tr>
<td>All, ReDS &lt; 39%</td>
<td>1%</td>
<td>1/73</td>
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90 Days

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BEST Discharge Study – Results

Treatment arm intervention

- Mean additional weight loss – 5.7 lbs
- Mean additional LOS – 2 days
- No adverse events
  - Only 1 episode of transient WRF (creatinine inc > 0.5 g/dl)
- Mean ReDS decrease – 8%

Conclusions

- ~1/3 of ADHF patients are discharged with significant congestion
- % of patients readmitted was lower for patients with ReDS < 39%
- ReDS guided treatment significantly and safely improved pre-discharge decongestion and was associated with decreased readmissions