“There’s No Place Like Home”

Reducing Hospital Admissions and Readmissions Through Transitional Care and Technology

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Middletown, New York
Disclosures

We, Helen Portalatin and Betty Jessup, have no actual or potential conflict of interest in relation to this presentation.
Learning Objectives

• Discuss the complexity of Care Transitions
• Review Care Management activities that improve care transitions
• Highlight our organization’s transitional care home visit model and follow a patient from hospital to home
• Share our strategies to reduce avoidable admissions and readmissions from Skilled Nursing Facilities, and strategies to reduce CHF readmissions.
• Discuss how telehealth technology is used in our practice, it’s benefits and challenges
Crystal Run Healthcare Highlights

- Crystal Run Healthcare was established in 1984
- 15 sites
- 300 plus Providers
- 35 specialties
- 868,533 outpatient visits
- NextGen EHR.
- Joint Commission Accreditation since 2006
- Patient Centered Medical Home Level III Recognitions since 2009
- CMS – First group of ACO’s MSSP participant
- NCQA ACO accreditation 2012
Almost one of five hospitalized Medicare beneficiaries are readmitted within 30 days; more than one-third are readmitted within 90 days. Research suggests that a substantial proportion of readmissions can be prevented with evidence-based care in the hospital combined with comprehensive discharge planning, supportive transitions in care, and timely primary care. With reduced readmissions, experts estimate the nation can save $12 billion annually in the Medicare program alone. Medicare Payment Advisory Commission, “Payment Policy for Inpatient Readmissions,” in Report to the Congress: Promoting Greater Efficiency in Medicare (Washington, D.C.: MedPAC, June 2007).
Reducing admissions and readmissions

- CRHC
- SNF
- Trans. Coordinator
- Home Visit
- HF Clinic
- Tele-monitoring
- Care Manager
- Hospital
High-Risk Patient Management

**High-risk patient characteristics**
- Post hospital discharges
- Predictive modeling (Commercial payers and Medicare)
- Frequent fliers (2+ hospitalizations in last 6 months)
- 30-day hospital readmission pattern
- Noncompliance with prescribed treatment options and medications
- Complex comorbidities, heart failure, COPD

**Practice guidelines**
- Supported by Best Practice Council
- Improves care effectiveness
- Reduces unwanted variation
- Establishes goals and determines effectiveness

**Patient-centered medical home – level 3**
- Integrates population management with care managers
- Utilizes population data to conduct profiling and predictive modeling
- Embeded care managers on site
- Conducts remote monitoring and pharm management
- Conducts pharm management and remote monitoring

**Advanced care management**

**Patient and system impact**
- Better care coordination
- Increases communication between internal and external providers
- Enhances collaboration between PCPs and specialists
- Improves interaction among team members
- Facilitates seamless transitions
- Tele-monitoring
- Improves outcomes
- Hospital based Transitions Increases satisfaction and patient experience

**Population management**
- Prioritizes chronic conditions
- Identifies comorbidities
- Uses disease registries

*Crystal Run Healthcare*  
We want you healthy.
## Improving Transitions

<table>
<thead>
<tr>
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<tr>
<td>2</td>
<td>Standardized assessments, treatment plans, goals and outcomes</td>
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<tr>
<td>3</td>
<td>Real-time patient tracking and provider communication</td>
</tr>
<tr>
<td>4</td>
<td>Embedded care managers at medical homes sites, Ortho, transition coordinator at hospital, home visits</td>
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<tr>
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<td>Hand off communication</td>
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*Care manager-to-patient ratio: 1:100-125*
# Improving Transitions

1. Ensure safe transitions to home post discharge

2. Patient contacted within 24 hours of discharge

3. Medication reconciliation and optimization

4. Appropriate services in place
   - Home visit within 24-48 hours
   - Tele-monitoring
   - Heart Failure Clinic
   - DME
   - Safe to be home
Avoidable admission/readmission

1. Exacerbation management
2. Self-management
3. Telephone and/or device monitoring
4. Follow-ups appropriate to meet care needs
5. End of life strategies - DNR, living will, non-hospital DNR
Chronic Care Model

Functional and Clinical Outcomes

Satisfaction • Clinical Measures • Cost • External Review Measures
### Care Management Improving transitions

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**Care manager-to-patient ratio: 1:100-125**
30 Day Readmissions

Monthly Quality Trend

All Cause Readmission Rate for All Facilities

17%
ED Utilization
Avoidable Admissions

Monthly Quality Trend

Avoidable Admissions
Care Transitions

Evidence Based Models
Home Visit Program Structure
Patient Transition
Transitional Care Evidence Based Models

• Care Transitions Intervention
  – Coleman

• University of Pennsylvania
  – Mary Naylor

• Various Models
Care Transitions
Critical Components

• Patient follow up with PCP and Specialists within 7 days of hospital discharge
  – Includes outpatient labs and diagnostics
• Medication Reconciliation
• Self Management Education
• Effective hand-offs at each stage of transition
• Transition to chronic Care Management
Home Visit

Patient Selection

- MSSP Population
- PCP in our practice
- 65yo and older
- High risk: 2 or more complex comorbidities
  - Primarily CHF and COPD
- Risk factors for poor outcomes:
  - Poor Self Management Skills
  - New Diagnosis
  - No Support/Lives Alone
  - No transportation to PCP appointment
  - Poor Medication Compliance
  - Impaired Cognitive Status
  - Mental Illness
Hospital To Home Transition Process

Indication Home Visit → Care Man./ Transitions Coordinator → Home Visit

Branches:
- Stable: PCP f/u 3-4 days
- Unstable: Intervention
  - Stable At risk: PCP f/u + 2nd home visit
Transition: Hospital to Home

- Maria is a 70 y.o female h/o CHF EF 30%, afib on ac, COPD, Parkinsons, lives alone in senior housing, has progressive shortness of breath x 5 days, productive cough, weakness. Her daughter brings her to ED after finding her mother sitting in recliner struggling to breathe and confused. She is admitted to the hospital for CHF exacerbation.
Transition process starts on hospital admission

- “Transitions Coordinators” embedded in hospital, with access to hospital EHR
- Review all admissions by our hospitalists
- Identifies Maria as a high risk patient for readmission
- Reconciles hospital meds with outpatient meds
Medication Reconciliation

• Greater than 50% of medication histories taken upon admission have some form of discrepancy requiring resolution.
• Greater than 50% of documented medication errors occur at three times: Admission, Transfer, Discharge.


• Admission Med errors: hospital staffing, EHR, poor historians.
• Transfer and Discharge:
  • Patient don’t receive maintenance meds during stay OR receive different doses.
  • AVS will not include resumption of PTA meds OR will have incorrect doses.
  • Patient doses often changed during hospital stay- may not be accurately reflected in AVS.
Maria’s Transition

• Hand off from Hospitalist to Transitions Coordinator when patient is being discharged
• Hospital Transitions Coordinator meets with Maria at discharge
  – 2nd Med Reconciliation and review of AVS
  – PCP, Home Visit, and Specialty Appointments
  – DME, Scripts, Prior Auths
  – Home Care
  – Self Management education
  – Hand off to office based Care Manager (3rd Med reconciliation)
Maria’s Transition

• Home Visit with Nurse Practitioner 48h
  – She was offered a sub acute rehab stay and refused
  – At home visit Maria is more short of breath than when she left the hospital, little dizzy and weak
  – Has worsening cough but is taking all meds as prescribed
  – Has leg edema and not urinating as much as usual
  – She was going to go to the ED this morning but decided to wait for the NP to “check her out”.
Maria’s Transition

• NP reviews all med bottles in home with accurate AVS (4th med reconciliation)
• Diagnosed and treated in the home for CHF exacerbation, meds adjusted
• Labs
• Daughter called to assist in getting meds today
• Linked to Care Management for community resources
• PCP alerted to new event and management plan
• Has follow-up office visit with PCP and Cardiologist within 7 days (5th med reconciliation)
• Enrolled in CHF telehealth
Home Visit Data

Actionable Home Visits
Yr 2013

Yearly Average Actionable visits = 41%
Yearly Actionable Patients Hospital D/C = 25%
Follow-up home visits

• Patients followed in home for 30 days:
  – Medically unstable at time of home visit
  – New problem or exacerbation of chronic condition
  – New meds or adjustment of meds
  – Poor self management skills
  – Lack of support
Maria’s Transition

• She followed up with PCP and Cardiology in office within 7 days
• Several home visits were made in between office visits to assess response and adherence to treatment, teach self management
• Care Management continues to follow
• She was not readmitted within 30 days
• She continues on CHF telemonitoring
Home Visit Data

Careteam 30 Day Readmissions

Yearly Avg
2013 = 10%
2012 = 16%

30 day readmit 2012
30 day readmit 2013
Care Transitions

Skilled Nursing Facilities
SNF Summit

• 3 SNF, Hospitals, multi-disciplinary provider team
• Defined and aligned focus areas: avoidable admissions, readmissions, quality, patient experience
• Charter: reduce avoidable admissions and readmission from the SNF population
• Reviewed baseline data
• Reviewed surveys
SNF Summit

• Identified Processes:
  – Facility level:
    • early warning signs
    • improved communication to on call provider
    • improved familiarity of on call provider
  – Transition:
    • communication to ER
    • awareness of hospital course
    • communication back to SNF on discharge
    • timing of discharge
SNF Summit Outcome

• Standardized communication tool
  January 2014

• Ongoing working group meeting

• Metrics
Universal Physician Communication Tool for SNF to Hospital Transfer

<table>
<thead>
<tr>
<th>RESIDENT:</th>
<th>Transferring MD/NP:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date/Time:</td>
<td>Report given to:</td>
</tr>
<tr>
<td></td>
<td>By:</td>
</tr>
</tbody>
</table>

**Reason(s) for transfer**

The primary reason for transfer is for: ☐ Diagnostic Testing ☐ Admission
Tests needed: ________

**S Situation**

<table>
<thead>
<tr>
<th>Patient is in SNF for</th>
<th>Long Term Care dx:</th>
<th>Rehab dx:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code Status</td>
<td>☐ Full Code ☐ DNR ☐ DNI ☐ DNH ☐ Comfort Care/Palliative Care ☐ Hospice ☐ Uncertain</td>
<td></td>
</tr>
<tr>
<td>Relevant diagnoses</td>
<td>☐ CHF ☐ COPD ☐ CRF ☐ DM ☐ Cancer (active treatment) ☐ Dementia ☐ Other</td>
<td></td>
</tr>
<tr>
<td>Today’s Vital Signs</td>
<td>Time taken ________ am/pm</td>
<td></td>
</tr>
<tr>
<td>BP: ________</td>
<td>HR: ________</td>
<td></td>
</tr>
<tr>
<td>RR: ________</td>
<td>Temp: ________ Rectal/Oral/Axillary</td>
<td></td>
</tr>
<tr>
<td>O2 Sat: ________</td>
<td>E: ________ O2: ________ L/min Blood</td>
<td></td>
</tr>
<tr>
<td>If CHF Weight today:</td>
<td>weight prior to today:</td>
<td>date: ________/<strong><strong>/</strong></strong></td>
</tr>
<tr>
<td>Most recent pain level</td>
<td>☐ N/A Pain location:</td>
<td></td>
</tr>
<tr>
<td>Most recent pain med:</td>
<td>Date given: ________/<strong><strong>/</strong></strong> Time: ________/<strong><strong>/</strong></strong></td>
<td></td>
</tr>
</tbody>
</table>

**B Background**

**Baseline Mental Status:***

| ☐ Alert, oriented, follows instructions |
| ☐ Alert, disoriented, follows simple instructions |
| ☐ Alert, disoriented, cannot follow simple instructions |
| ☐ Not Alert |

| Current Mental Status: |
| ☐ Alert, oriented, follows instructions |
| ☐ Alert, disoriented, follows simple instructions |
| ☐ Alert, disoriented, cannot follow simple instructions |
| ☐ Not Alert |

**Diet:**

**Meds/Treatments:** MAR ATTACHED

| Coumadin (if on Coumadin, last INR was ________ date: ________/____/____) |
| Oxygen |
| CPAP/BIPap |
| Foley (date: ________) |
| Pacemaker/Defibrillator |
| TPN |
| Ostomy type: ________ |
| Diet: ________ |

**Tests:** LAST RESULTS ATTACHED

**Special Considerations/Request:**

**SNF Contact Information:**

<table>
<thead>
<tr>
<th>Attending MD:</th>
<th>Phone:</th>
<th>SNF Unit Manager:</th>
<th>Phone:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient’s HCP:</td>
<td>Name:</td>
<td>Phone: (ph):</td>
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**SNF Capabilities list (over)**
# Universal Physician Communication Tool for SNF to Hospital Transfer

**Nursing Home Capabilities List**

<table>
<thead>
<tr>
<th></th>
<th>Middletown Park Rehab</th>
<th>Valley View</th>
<th>Achieve</th>
<th>Campbell Hall</th>
<th>Montgomery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stat Labs</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EKG</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequent VS q 2h</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I&amp;O Monitoring</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily Weights</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glucose Fingerstick &amp; RH</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INR</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urine Culture</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UA or dipstick</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O2 Set</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nebulizer Treatments</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IVF</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV Antibiotics</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV Lasix</td>
<td>N</td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PICC Management</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TPN</td>
<td>N</td>
<td>Y</td>
<td></td>
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- 24 hour notice

- Isolation
- Surgical Drain Care
- Trach Care
- Wound Care
- Analgesic Pump
Care Transitions

Heart Failure
HEART FAILURE CLINIC

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We want you healthy.
Telehealth

Program Highlights
Telehealth

• Insert National Data for CHF, COPD, IVR

• Our Goals
  – Reduce Avoidable Admissions (CHF, COPD)
  – Reduce 30 day readmissions and ER visits
  – Reduce utilization
Patient Selection

- Patient Eligibility
  - MSSP, PCP
  - Telehealth Responsive Conditions: COPD, CHF, DM2, hospital discharges
- Patient Identification:
  - Provider Referral
  - Data Mining: Disease Severity (FEV1<1L, EF < 40%, Hgb A1c>11), Excess Utilization

- Exclusions: Refusal, Inability to participate (cognitive, mental health), Infectious Reasons
Telehealth Enrollment

Eligible

PCP Approval

Exclusions

COPD
CHF
DM2
Device

Hospital
D/c
IVR

Control

Yes

No
Telehealth Disenrollment

• Patient met their goals
  – No Hospital Admissions or ER visits in 6 months
  – No CHF or COPD Exacerbation 6 months
  – IVR: auto-disenrollment 30 days
• Patient asked to be disenrolled
• Long term SNF placement
• Non compliance with taking daily readings or answering to alert readings
• PCP request
Telehealth Data
30 Day readmissions
Telehealth Data
Cost PMPM

![Graph showing cost per month for different groups. The graph indicates fluctuations in cost over time, with two distinct lines representing different cohorts.](image-url)
Telehealth Data

ED Visits

Monthly Utilization Trend

ED Visits per 1K - Population Average
Telehealth

• Benefits
  – Homebound patients
  – ? Utilization
  – Patient satisfaction

• Challenges
  – Wireless equipment
  – False alarms, customize biometrics and equipment
Reflections on Transitions

• What works well
• What needs tweaking
• Future strategies
Questions?

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• Betty Jessup, RN, BSN, Director Care Management
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Thank You