MultiCare Health System Remote Video Monitoring Program

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MultiCare Health System

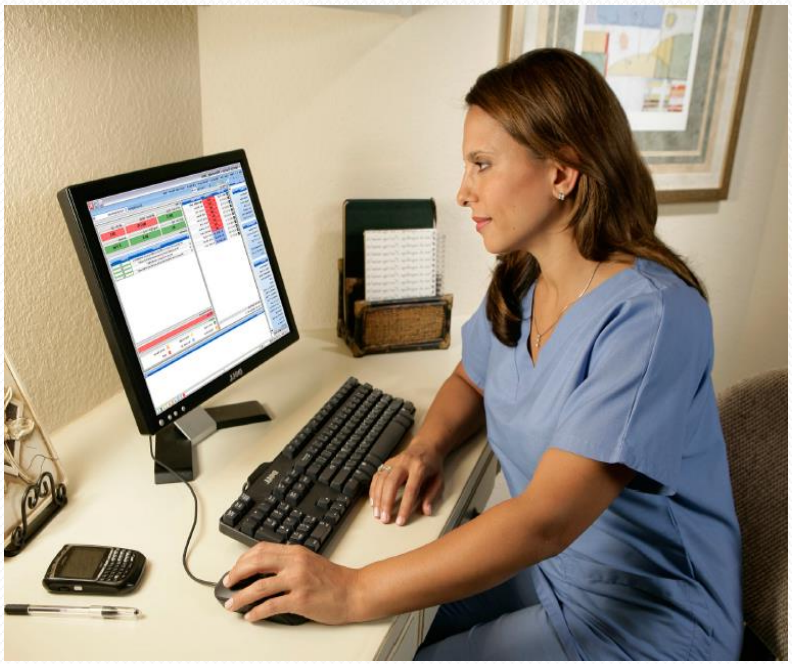
MultiCare is a non-profit Integrated Health Care System based out of Tacoma, Washington

1130 Licensed Beds
5 Acute Care Facilities (6 soon)
Affiliate Hospital (Grays Harbor)
1 Free Standing ED
11 Urgent Cares
11 Retail Clinics
3 ASCs

Level IV NICU
Level II Adult Trauma
Level 1 Pediatric Trauma
Level 1 Stroke
Level 1 Cardiac

One of the problems is that we are applying new technology to a broken model of care instead of using technology to facilitate a change in the model of care.

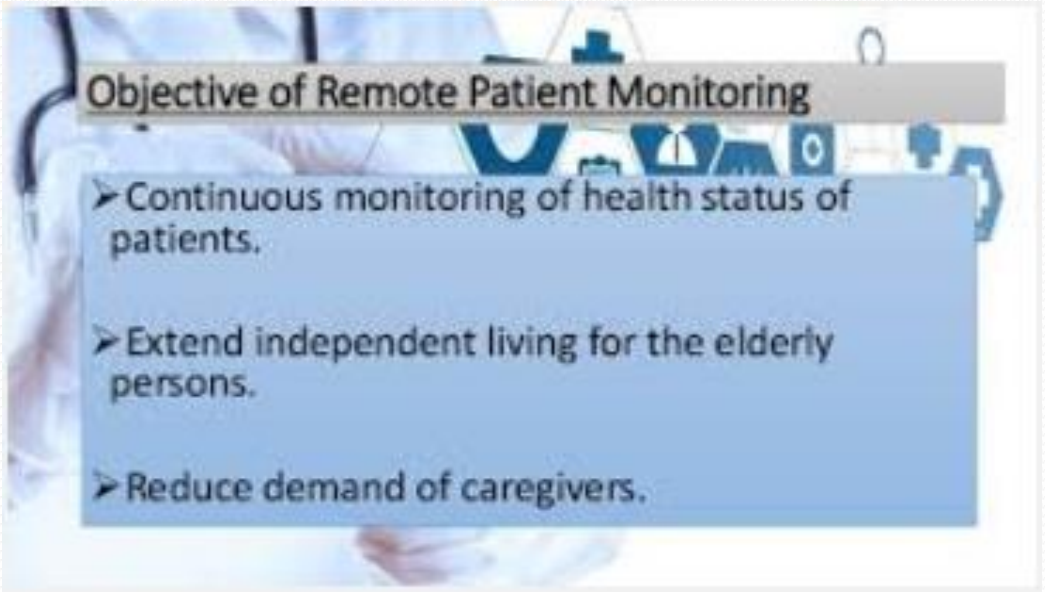
MultiCare Remote Video Monitoring Program



Today, we use remote video monitoring to…

- Reduce avoidable readmissions
- Improve care coordination and access
- Decrease costs
- Improve patient and provider satisfaction
- Encourage long-term sustainable health changes
- Provide real-time education and feedback

Tomorrow, we will be using remote video monitoring to…



Hypothesis: Improved clinical outcomes with remote video monitoring

Earlier Identification of…

- Infection
- Exacerbation of symptoms
- Decline

"One look is worth a thousand words."
Barnard, 1927

Outcome Measures

- ↓ Readmission Rates
- ↓ Length of Stay
- ↓ ED and Observation Days
- ↓ Overall utilization rates
- ↑ Patient Engagement/ Satisfaction

Health Systems Proving Hypothesis

Lee Memorial Health System

- Utilized Team Approach

- Results:
  - 50 to 250 pts – 6,000 pts in 30 months
  - 950 avoided readmissions
  - **Estimated $5.3 million savings**
  - 8-9% readmission rate

Health Systems Proving Hypothesis

Rockford, Illinois

- Reduced HF readmit rate from 31% to 14%
- Reduced overall readmit rate from 25% to 17%

Franciscan Alliance

- Reduced HF readmissions to 4.4%
- Reduced COPD readmissions to 5.4%
- Reduced CAB/CAD/AMI readmissions to 2.9%

Health Systems Proving Hypothesis

East Alabama

- 70% improvement in patient engagement
- 50% improvement in Quality of Life
- 75% of patients demonstrated a reduction in costs
- Overall improvement in diet/medication compliance

The MultiCare Model

Lynnell Hornbeck, Manager, Home Health Services

Home Health: 2014 focus

- Reducing re-hospitalization of Heart Failure

Population selection:

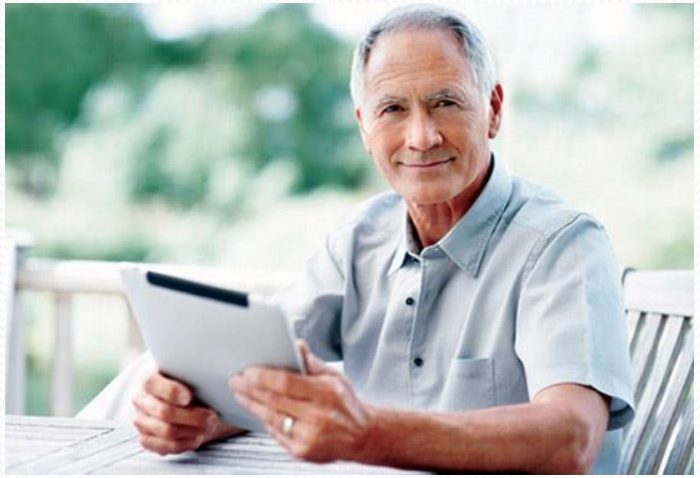
  - MultiCare patients
  - Heart Failure as primary diagnosis
  - Heart Failure patients using Telemonitor equipment
  - All payers: Medicare, Medicaid, Private, Cost Avoidance; Financial Assistance

Home Health:2015 Focus

- Continue Heart Failure Focus
- Added COPD/Pneumonia Focus
- Active Surveillance of COPD Re-hospitalization Rates
- South King County Telehealth and Home Health Partnership
- Personal Health Partner Education, Collaboration, and Communication
- Pilot For COPD DX: Non-Home Health Population

Partnership Opportunities

- Utilize in risk contracting and ACO models
- Develop telemedicine strategy for Post Acute Care



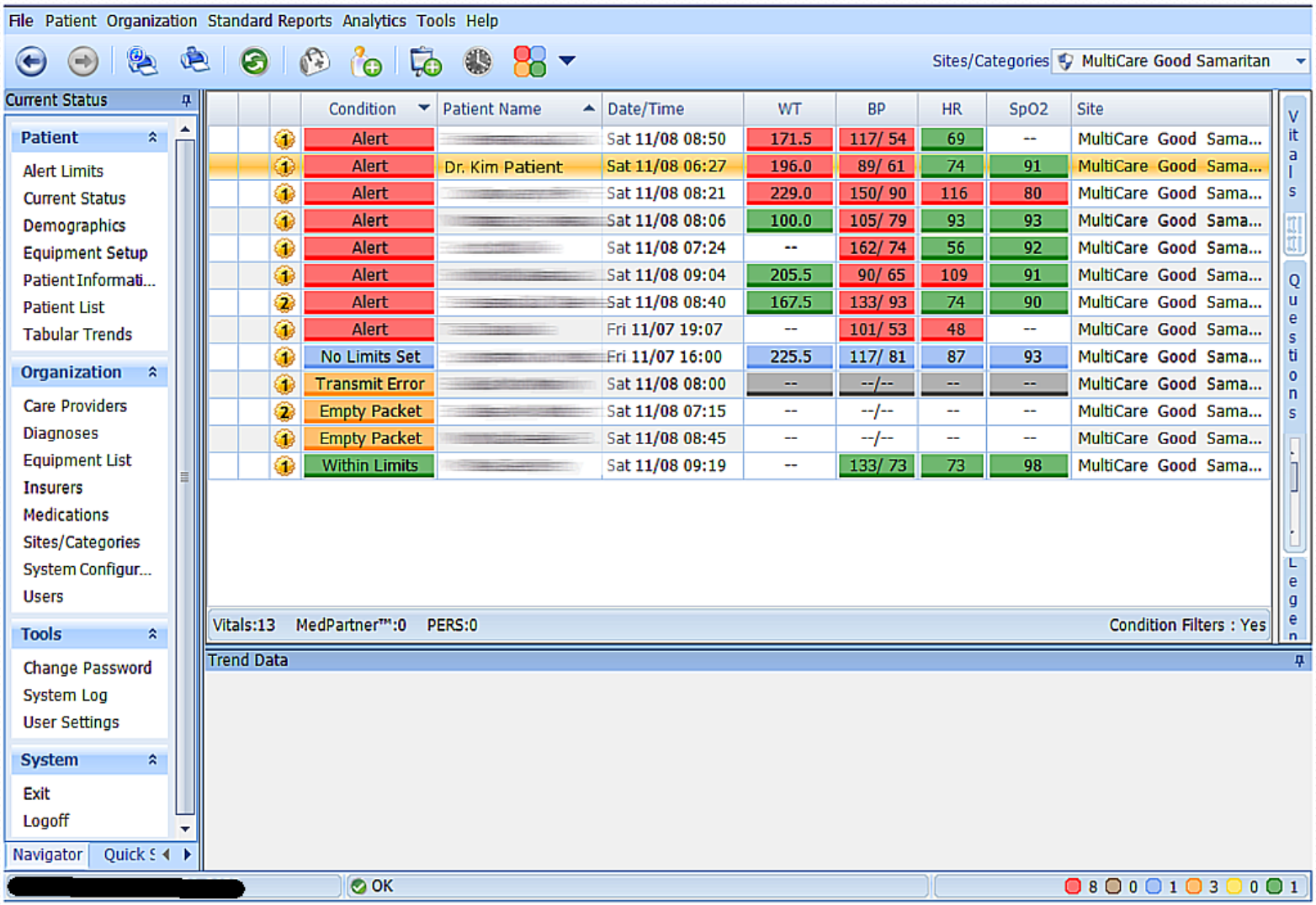
Program Overview

- 70 Monitors: 753 patients in 2014, 667 in 2015.
- Average census: 74 patients/mo.
- Average >450 Interventions per month
- Staffing Ratio: 1.5 FTE RNs and one 0.7 Tech to serve 60 patients

Work Flow

- Telemonitor installed on visit #1
- Monitors 7 days a week, 365 days/year
- Centralized telemonitoring station
  - Automated data retrieval
  - Data sorting identifies clinical variances
- Proactive Population Health Management prior to accessing acute care level
- Patient contacted if outside specified parameters
- EPIC software: facilitates communication with providers and transparent data sharing

Alert Screen



Custom Disease Management Templates

- Prompts Patient at Each Monitoring Session
- Teaching Cues
- Disease Process Assessment Questions
- Customize Different Questions on Certain Days

Telemonitoring Standardized Tools

- MHS Flexible Diuretic Dosing Guideline
- MHS Self-Management Tool (green-yellow-red)
- Low Sodium Diet and Sorting Sodium Tool
- Holiday Diet handout
- Cardiac Medication handout
- Weight Tracking Tool
- COPD Pathway and Rescue Plan

Heart Failure "Hard-wired"

- "Next day" admits followed hospital discharge
- Initially: daily visits for 3 days (longer if needed)
  - On-going: 1-2 visit/week and as needed
- Telemonitor installed on visit #1
- Patient contacted if outside patient-specific parameters i.e. weight gain, shortness of breath
- "Flexible Diuretic Dosing Guidelines"
- EPIC software: rapid communication with physicians and transparent data sharing

COPD Management

- COPD Escalation Protocol
- Video Visit
  - Biofeedback Capability
  - Patients “see” positive response to treatment
    - Decrease in Pulse
    - Decrease oximetery
    - Less anxiety
  - Teach Relaxation Techniques and Pursed Lip Breathing

Right Intervention; Right Time

- Tool to ensure right intervention right time
- Decreases AVOIDABLE Readmissions
- Identifies need for urgent intervention
  - VIDEO VISIT CASE EXAMPLE
- Technology is only a tool
  - Results due to:
    - Clinical protocols
    - Clinical Evaluation of Data and Clinical Intervention

Patient Engagement

- Video Component Increases Engagement
- Promotes Patient Disease Management
- Success with Chronically Ill and Disillusioned Patients
  - Immediate feedback to patients
  - Celebrate Small Successes

Results

Christi McCarren, SVP
Retail Health & Community Based Care

MultiCare Results

	2015 System Readmit Rate	2015 Readmit Rate with RPM	2016 Aug YTD Readmit Rate with RPM
HF Readmits	20.3%	5.1%	3.0%
COPD Readmits	20.7%	10.7%	5.0%

2016 and beyond…

2016-2017 Work Plan

- Continue to expand across all high risk and chronic disease conditions.
- Establish strong , collaboration with Personal Health Partners (Case Management)
- Expand Telemonitoring Service
- Enhance Video Visit Technology
  - Wound Assessment
  - Biofeedback
  - Physical Therapy
  - Customized Broadcast Education

Inclusion & Exclusion Criteria

Inclusion Criteria:

- Primary diagnosis of CHF, COPD, or Pneumonia
- Readmission risk score of High/Intensive/Medium, or 2 ED visits within the past 6 months
- Discharging to Home

Exclusion Criteria

- Patients discharged to Intermediate/Extended Care Facility, SNF, LTAC, Home Health, Hospice, Inpatient Rehab
- HF patients with ICD Implant

Resource Requirements

- Increase in patient volume

	2015	Yr1	Yr 2	Yr 3	Yr 4	Yr 5
Annual Admissions	**667**	**913**	**1,825**	**3,042**	**3,042**	**3,042**
Length of Stay	28	60	60	60	60	60
CENSUS (ADC)	51.2	150.0	300.0	500.0	500.0	500.0

Changes to Scale:

- **1 RN to 3 LPN model**
- Increase Nursing caseload from 27 to **75 patients per FTE**
- Increase LOS from 30 to **60 days on telemonitoring**
- Decrease equipment cost with **vendor search**

Population Health Management

	Current	Expanded Model
Cost per Patient Day	$21	**$11**
PMPM	$582	**$320.58**

Geisinger Health Plan

- 44% decrease in 30-day readmissions
- 50% decrease in 60-day readmissions
- 11% cost savings, $3.30 ROI to health plan

Maeng, Daniel D. et al. "Can Telemonitoring Reduce Hospitalization and Cost of Care? A Health Plan's Experience in Managing Patients with Heart Failure." Population Health Management 17.6 (2014): 340-44.

Reimbursement

- The states that currently offer some type of RPM reimbursement in their Medicaid program are:

  - Alabama
  - Alaska
  - Colorado
  - Illinois
  - Indiana
  - Kansas
  - Louisiana
  - Maine
  - Minnesota
  - Mississippi
  - New York
  - South Carolina
  - Texas
  - Utah
  - Vermont
  - Washington

- In addition to state Medicaid programs, Pennsylvania and South Dakota offer RPM reimbursement through their Department of Aging Services

SOURCE: *Center for Connected Health Policy, www.cchpa.org*

Washington State Medicaid

- The Medicaid agency covers the delivery of home health services through telemedicine.

Revenue Code	HCPCS Code	Short Description	Limitation
0780	T1030	RN home care per diem	One per client per day
0780	T1031	LPN home care per diem	One per client per day

- Eligible services:
  - Assessment and monitoring of clinical data including, but not limited to, vital signs, pain levels and other biometric measures specified in the plan of care;
  - Assessment of response to previous changes in the plan of care;
  - Detection of condition changes based on the telemedicine encounter that may indicate the need for a change in the plan of care.
  - Implementation of a management plan
- Must be provided by a Registered Nurse or Licensed Practical Nurse.
- The Medicaid agency does not require prior authorization for the delivery of home health services through telemedicine.

Source: *WA State Health Care Authority, Medicaid Provider Guide, Home Health Svcs. (Acute Care Svcs.), p. 20-6 (Jul. 1, 2014).*

Medicare Reimbursement

(CPT) code 99490, for **non-face-to-face** care coordination services furnished to Medicare beneficiaries with multiple chronic conditions. CPT 99490 is defined as follows:

99490

Chronic care management services, at least 20 minutes of clinical staff time directed by a physician or other qualified health care professional, per calendar month, with the following required elements:

- Multiple (two or more) chronic conditions expected to last at least 12 months, or until the death of the patient,
- Chronic conditions place the patient at significant risk of death, acute exacerbation/decompensation, or functional decline,
- Comprehensive care plan established, implemented, revised, or monitored.

- Monthly unadjusted non-facility fee of $46.20
- CPT **99487** -- Complex chronic care management, 60 mins per month
- CPT **99489** is each additional 30 mins

Where do we go from here?

- Deploy system-wide across all high risk patients
- Utilize in risk contracting
- Seek regional partners to scale faster
- Develop telemedicine strategy for PAC partners

Questions?