Tele-Home Monitoring Decreases Readmission Rates

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Objectives

• Provide a review of the research literature related to tele-home monitoring and readmissions

• Introduce the concept of self management education thru telehealth
Tele-home Monitoring Research

- Kaiser-Permanente conducted the foundational research in mid-1990s (4)
- University of MN replicated it with similar results in 1998
- VA in Florida experienced greater impact in 2004 by adding care coordination
- Ascension Health conducts research under Beacon Grant in 2012 with similar results and adds self management education
U of MN Research: 1998 and 2004

• The impact of using home monitoring devices on transfers to higher levels of care….1998(2)

• Patients ability to use and acceptance of tele-home monitoring equipment........2004(3)
U of MN

MN Telehealth Network Research

1998 – Telehome monitoring

N = 150
Tele-home Monitoring

- CHF
- COPD
- Diabetes

Daily recording of
- Weight
- Blood Pressure
- Pulse
- Oxygen Saturation
- Spirometry
- Daily Diary Log

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Patient Outcomes: Admissions to a higher level of care

Control

TelehomeCare

0% 20% 40% 60%

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Ascension Health Beacon Research Study 2012 (5)

- “Reducing Hospital Readmissions Using Remote Patient Monitoring and Patient Engagement Tools” Presentation by Alan Snell (5)
- N=303 Central Indiana CHF and COPD
- Results…..Intervention Group: 4%
- Control Group: 10%
- Medicare Discharges enrolled for 30 day remote monitoring and self—management skills education
Methodology in Beacon Research

- Daily vital signs sent to central monitoring station (Bp, Oxygen sat., wt)
- Daily health questions
- Daily education (including videos)
- 30 days: Enrolled at discharge from IH stay. Install and visit 1 on Day 1 after discharge-med reconciliation, verify PCP appt.
- 6 visits or more over 30 days
- Low tech devices given at end of study
- For chronic complex pts. – averaged 4 months
Beacon Case Study

• 53 y.o. female with more than 6 chronic conditions
• 13 hospital admits in 2011, $156,000
• Remote Monitoring and self management conducted resulting in:
• 1 ED visit and 1 brief hospitalization in 2012: $2500
Self Management Education for Chronic Disease using telehealth

- Daily reminder education
- Daily logs
- Questions to answer each day
- Small groups via interactive video led by HCP
- Self-rating of Discharge Readiness (7)
- Patient Activation Metric (PAM)
References

QUESTIONS......

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