

Innovations in the Healthcare of Older Patients



**THE USE OF REMOTE MONITORING
TECHNOLOGY**

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- **Objectives:**

- 1) Understand how to implement iPad and Telemedicine remote monitoring programs.**
- 2) List 2 potential barriers in the implementation of remote monitoring programs.**
- 3) List 4 benefits of delivering healthcare via remote monitoring for older patients.**
- 4) List 4 potential disadvantages of delivering healthcare via remote monitoring for older patients.**

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- **Patient Home Monitoring (iPAD)**

Overall Objectives:

- 1) Reduce ER/Inpatient Admissions**
- 2) Improve Patient Satisfaction**
- 3) Improve Access to Care**

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Goals of iPad Home Monitoring

1. Improve access to care through a nurse-based virtual visit
2. Improve transitions in care: Hospital to home
3. Reduce readmissions/ER visits

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- **Review of literature (Last 5 years)**

Methodology: telephone based and videoconference,

Measures: daily biometrics and symptom reporting

Mostly intended for chronic conditions (HF, diabetes)

Mixed Outcomes: reduction in hospitalizations and ED visits; increased mortality with telemonitoring

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UC Irvine Pilot (January to March)

- 1) Identify Eligible Patients Based on Set Criteria**
- 2) Develop new consent form**
- 3) Utilized iPad minis to conduct videoconferencing**

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- **Eligibility Requirements:**

- 1) **One to two hospital admissions within the last 12 months**

- 2) **One to two emergency room visits within the last 6 months**

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Methods:

- 1) Videoconference – iPad “face time” within 24-28 hours upon discharge from the hospital
- 2) Subsequent frequency of visits determined by clinician (30 days)
- 3) Re-enrolled in patient home monitoring if clinically indicated (after 30 days)

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- **Exclusion Criteria:**

- 1) Discharge to Skilled Nursing Home
- 2) Discharge to Assisted Living Facility
- 3) Cognitive Impairment without English speaking caregiver
- 4) Non English/Filipino speaking patients

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- **Geriatric Assessment**
 - **Functional Abilities**
 - **Review of Medications (Correlate with Diagnoses)**
 - **Home Environment**
 - **Address Questions/Concerns**

Innovations



- **Demonstration**

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Case Discussion

Mr. X

77 year-old Filipino male

Multiple Inpatient Admissions

Diagnoses: Diastolic HF, HTN, AF, Hx of Lung CA, Dyslipidemia, COPD, Cholecystitis

Living Condition

Caregiver issues

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- **Outcomes:**

Mr. X

Enrolled in iPAD x 30 days

-Home Health Care Coordination

-No inpatient admission/ER visits

Hospital Admission- Hypotension

RE-enrolled x 30days (2nd time)

-Established PCP/Specialist

-Home Health follow up

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- **Case Discussion**

Mrs. Y

81 year-old Filipino female

ER/Inpatient Admission- HF and UTI

**Diagnoses: CAD, Diabetes, HTN,
Hyperlipidemia, AF, CHF**

Living Condition: Caregiver 24/7

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- **Outcomes:**

Enrolled 30 days for iPad Home Monitoring

- 2 iPad encounters
- ER to Inpatient to Rehabilitation

Renewal of 30 days iPad Home Monitoring

- caregiver issues
- moved out of state
- patient deceased

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- **Values/Benefits**

Ease of Access to Providers

Enhanced Coordination of Care

Potential decrease in inpatient admissions and

Potential reduction in ER visits

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Patient Comments:

“ peace of mind knowing that someone will call”

“ great program I wish we can be on iPad monitoring longer than 30 days.”

“ great for my dad, he likes talking with you on the iPad.”

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- **Barriers in Home Monitoring using iPad:**
 - ✦ **Poor Connectivity**
 - ✦ **Missed Appointments**
 - ✦ **Caregiver Issues**

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- **Telemedicine**

Objective:

Coordination of care among seniors in nursing homes; both sub-acute and custodial patients are eligible.

Purpose:

The creation of a team-based telemedicine program will provide increased access to primary care services among seniors at SNFs.

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Review of Literature:

- 1) Rehabilitation/Stroke Patients
- 2) Mental Health Patients
- 3) SNF – autonomous robots to assist nursing home staff (Finland)
- 4) SNF – telemedicine-based Parkinson's disease program to increase patient access to a neurologist (Pennsylvania)

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- **Eligibility Requirements**

- 1) **UCI patients- Develop consent form**

- 2) **Consultations: non emergent issues- new onset cough, falls, new skin lesion/rash, abdominal pain, altered mental status, pain, weight loss**

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UC Irvine Pilot

- Established Connectivity with 2 Orange County Nursing Home Facilities
- Training – UCI Staff and Nursing Home Staff
- “Live Consultations” (March 2013-Present)
 - one time videoconference
 - follow up determined by provider: “in-person” or “telemedicine”

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- UCI Telemedicine



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- **Telemedicine**

Barriers to Implementation

1) Cost

2) Staff training –asynchronous versus synchronous

3) Information Technology

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- **Telemedicine**

Benefits

- 1) Easy access to geriatricians-continuity of care**
- 2) May potentially decrease costly transfer to emergency rooms/hospitals**

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QUESTIONS??