Mayo Clinic myCare

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Disclosure: I have no relevant financial relationships to disclose. I will not be discussing off-label/investigative use(s) of commercial devices.
Mobile Health Solutions:

Mobile can provide a critical link in moving health information between patients and providers.

Remote monitoring  E-visits
Medication compliance  Data access
Health education  Decision support
Reminders

“Developing health care models will combine new technologies, new data management strategies and patient participation... “

“Health technology options are significantly more advanced than clinical delivery and reimbursement models.”

Mayo “My Care:”
A Program to Guide and Support Recovery

Plan of Stay and Plan of Day
Education
Self-assessment (recovery) tools
Supports discharge planning
Interface for Remote Monitoring
Protocol: Day 3
I-MOVE<8
PT Consult

Protocol: Day 1
ESDP>10
DP Consult

myCare Nurse
Care Manager

Physical Therapy

Mobility Assessment

Patient A

Patient B

Patient C

Patient D

Same model hospital bed or home
Patient View: Procedural Care
Patient View: Gaining Strength
Patient View: Education
Patient View: Planning Your Recovery
Creating the Personal Care Plan

Plan of Care Template:
- Cardiac Surgery
- Orthopedics
- Heart Failure

Surgical Conditions:
- CABG
- MVR
- TVR
- HOCM
- AVR
- etc.

Medical Conditions:
- Diabetes
- OSA
- HTN
- CAD
- Stroke
- etc.

Configure plan: patient “B”

Patient List:
- A
- B
- C
- Etc.

Plan Configuration Patient A

Plan Configuration Patient B

Plan Configuration Patient C

Ipad

Patient Input

Any PC

Patient B
Patient View:

Plan of Day
(includes daily “To Do” list)
What to Expect

Learning about yourself, your surgery and your needs will make you feel better and reduce anxiety. Today is a good time to learn about your surgery and about important issues of the day, pain and sleep management.

My To Do

1. What You Need To Know About Heart Surgery
2. Recovering from Heart Surgery
3. Fall Prevention
4. Managing your pain
5. Ascending Aneurysm

My Education - Day 2
What You Need to Know About Heart Surgery

5:22 min.
Patient View:

Plan of Day
(includes daily “To Do” list)

What to expect today

Day 2 may be the most difficult day of your hospitalization, this means things will only get better. You are likely to leave the ICU in the morning. Pain may be your biggest issue today, so communicate with your nurse and review the module on pain in your education. It is important that you get out of bed and walk with assistance. It is likely your diet will be advanced if you feel up to it.

Day 2 - Milestone to Recovery

Urinary catheter & chest tubes out today.

Gaining Strength

My Education

Planning Your Recovery

Treatment and Care (as needed) Tests (as needed)
What to Expect

Today it is important to learn about your limitations and needs after discharge. Preparation now will make your transition much easier. Review the information titled, Questions for Patients and Families, and begin to plan your follow up.

Early Screen for Discharge Planning (ESDP)

Your score:

10
Physical Activity After Heart Surgery

Everyday you will have tasks to check off to help you gain strength. Every day includes pain and strength self assessments. Complete these everyday. They will help you see how you are progressing. It will be easy.

My To Do

1. Pain Assessment
2. Movement Assessment
3. Breathing exercises every 1-2 hours
4. Sit in chair for all meals, elevate legs while sitting
5. Walk with staff assistance, increase frequency and distance
To Do List Items:
Pain self-assessment
I-MOVE

To Do List Items:
Mobility self-assessment

Independent

With assistance:

Begin in Bed
Continue until you complete test or you need assistance

Touch highest level achieved.

Hallway 100 ft
Walking in hallway
Walking in room
Sitting on bed
Sitting in chair
Standing
Standing
Standing
Standing
Standing
myCare: Clinical and Data Infrastructure

Protocol: Day 3
I-MOVE<8
PT Consult

myCare Nurse
Care Manager

Protocol: Day 1
ESDP>10
DP Consult

Physical Therapy

Patient A

Mobility Assessment

Patient B

Mobility Assessment

Patient C

Mobility Assessment

Patient D

Mobility Assessment

Same model hospital bed or home

Provider Alerts:
- Pending content completion
- Pain above threshold
- Mobility below target
- Time out of bed

Mobility Assessment

E

F

myCare: Clinical and Data Infrastructure
Population Dashboard

Provider Alerts:
- Pending content completion
- Pain above threshold
- Mobility below target
- Time out of bed *
Provider Dashboard:
Single patient view

ESDP Score
Assessment Date: 2/3/2012

Care Plan Summary
68 of 79 complete
86% On Track

Pain Summary
Pain Level
0

Movement Summary
Movement
11

Care Plan Details

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
<th>Day 5</th>
<th>Day 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% Complete (7/7)</td>
<td>100% Complete (16/16)</td>
<td>94% Complete (15/16)</td>
<td>93% Complete (14/15)</td>
<td>92% Complete (11/12)</td>
<td>38% Complete (5/13)</td>
</tr>
<tr>
<td>+Day Summary (1/1)</td>
<td>+Day Summary (1/1)</td>
<td>+Day Summary (1/1)</td>
<td>+Day Summary (1/1)</td>
<td>+Day Summary (1/1)</td>
<td>+Day Summary (1/1)</td>
</tr>
<tr>
<td>+Strength (6/6)</td>
<td>+Strength (4/5)</td>
<td>+Strength (5/6)</td>
<td>+Strength (6/6)</td>
<td>+Strength (6/6)</td>
<td>+Strength (6/6)</td>
</tr>
</tbody>
</table>
### Recovery Data

#### Self Care
- **Median**
  - Day 1: 226
  - Day 2: 675
  - Day 3: 1170
  - Day 4: 1431
  - Day 5: 804
- **IQ Range**
  - Day 1: 382
  - Day 2: 862
  - Day 3: 1224
  - Day 4: 1239
  - Day 5: 1304

#### SNF/HHC
- **Median**
  - Day 1: 172
  - Day 2: 108
  - Day 3: 312
  - Day 4: 618
  - Day 5: 537
- **IQ Range**
  - Day 1: 178
  - Day 2: 481
  - Day 3: 1015
  - Day 4: 1379
  - Day 5: 833

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*Note: The graph shows a significant increase in steps from Day 1 to Day 3, followed by a slight decrease on Day 4 and 5.*
Mayo myCare

- Delivery of Plan of Stay and Plan of Day
- Education
- Self-assessment tools
- Recovery planning support
- Interface for remote monitoring
- Dashboards (population and individuals) with alerts
- Population norms for recovery
Information Management, Mobile and Care Delivery

• Coming health care models will combine new information architectures, new technologies to acquire, manage and deliver data, and patient participation

• “Health technology options are significantly more advanced than clinical delivery and reimbursement models.” (but these will catch up)
Q25. You feel the potential role of mobile and cloud-based computing to support the delivery of care by the PROVIDER is…?

a. cardiac surgery teams are unlikely to want or use it
b. may have value
c. probably valuable
d. may support as a new model for health care delivery