Levels of Rehabilitation Care

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Objectives

- List various levels of care (LOC) for rehabilitation
- Describe admission criteria for each LOC
- Compare efficacy/efficiency among LOC
- Compare advantages/disadvantages among LOC
Levels of Care for Rehabilitation

- Comprehensive Integrated Inpatient Rehabilitation Program (CIIRP)
- Long-term acute care (LTAC)
- Sub-acute Rehabilitation (SAR)
- Nursing Home Custodial Care
- Home Care
- Outpatient therapy (OP)
- Comprehensive Outpatient Rehab Facility (CORF)

Comprehensive Integrated Inpatient Rehabilitation Program

- Most intensive rehabilitation LOC
- May be in free-standing rehab hospital or unit in an acute care hospital (a.k.a. IRF)
- Commission on Accreditation Rehabilitation Facilities (CARF) certification
CIIRP Components

- Interdisciplinary specialized care
- Physiatrist or equivalent > 3 days/week, available 24/7 for emergencies
- 24 hour rehabilitation nursing care
- Need for > 2 disciplines PT/OT/SLP
- Must also have SW, psychology, rec tx, access to voc rehab, prosthetics/orthotics

CIIRP Admission Criteria

- Medical
- Nursing
- Therapy
- Disposition
Medical Criteria

• Need for PM&R (or equivalently trained physician) visits > 3 days/week
• Need for 24/7 physician availability
• e.g., pain mgt, spasticity, delirium, DM mgt, enteral nutrition
• How frequently are physician orders written?

24 hour Nursing Care

• Need for RN
• Skin
• Bowel/bladder programs
• Pain mgt
• Carry-over of functional activities
• Medication teaching
Therapy Criteria

• Tolerate > 3 hours PT/OT/SLP 5 days/week or 15 hours/week
• Need at least 2 disciplines
• Benefit from > 3 hours of therapy (active participation)
• Measurable improvement

Disposition

• CIIRP intended as a relatively brief start to rehab
• LOS typically 5-30 days
• Expectation of discharge to community
Advantages and Disadvantages of CIIRP

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Inter-disciplinary team</td>
<td>• Cost $$$$$$</td>
</tr>
<tr>
<td>• Specialized care</td>
<td>• Too fast-paced for many patients</td>
</tr>
<tr>
<td>• Focus on community re-entry</td>
<td>• Hospital-based (not home)</td>
</tr>
<tr>
<td>• Availability of hospital services</td>
<td></td>
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<tr>
<td>• Capitated reimbursement encourages short LOS</td>
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Long-Term Acute Care (LTAC)

- a.k.a, Chronic Hospital in MD
- Patients need acute care services long-term
- > 28 days average length of stay
- Often used for ventilator care, wound care, TBI (esp. coma stim)
Subacute Rehab

- Can be in a hospital transitional care unit or in a skilled nursing facility (SNF)
- Need skilled nursing or therapy
- Covered for 100 days maximum Medicare

SAR Components

- Paid per diem—incentive to keep patients longer
- Typically 1-2 hours PT/OT/SLP daily
- Often 1-2 RN/shift + CNAs
- Limited nursing care, infrequent physician visits
## SAR Advantages vs. Disadvantages

### Advantages
- Cost
- Can stay longer if needed
- Option for residence post-discharge

### Disadvantages
- Long LOS
- Less therapy
- Limited RN
- Limited physician visits
- Away from hospital services (unless TCU)
- NH environment
- High rehospitalization rates

## Outcomes and Mortality

- **Stroke and hip fracture (6 mos. post d/c; n=370,000)**

<table>
<thead>
<tr>
<th></th>
<th>Home</th>
<th>CIIRP</th>
<th>SAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality</td>
<td>4.4%</td>
<td>6.2%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Custodial care</td>
<td>5.4%</td>
<td>12.4%</td>
<td>39.9%</td>
</tr>
</tbody>
</table>

- **Trauma (3 yrs post d/c; n=125,000)**

<table>
<thead>
<tr>
<th></th>
<th>Home</th>
<th>Home w/assist</th>
<th>CIIRP</th>
<th>SAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality</td>
<td>1</td>
<td>1.43</td>
<td>1.04</td>
<td>1.57</td>
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</tbody>
</table>

Davidson GH et al. JAMA 2010; 305: 1001-7
Buntin MB et al. Medical Care 2010; 48: 776-784
Nursing Home Custodial Care

- Not skilled care
- Typically after SAR stay (after 100 days exhausted in SNF)
- NO PT/OT/SLP paid for
- Residential
- Disabled or elderly patients with limited family support

Home Care

- Must be home-bound (strict criteria)
- Medicare pays capitated rate
- Typically 2-3 x/week visits
- Limited home health aide coverage (typically 5-10 hours/week)
Home Care
Advantages vs. Disadvantages

Advantages
• Cost $
• Convenience
• Adaptation to home setting
• Slow paced
• “No place like home”

Disadvantages
• More expensive than OP tx
• Limited equipment
• Less aggressive
• Limited goals
• Need for family support
• Nursing care primarily for teaching family to do care

Outpatient Therapy

• Mobile patients
• Varied settings—hospitals, free-standing
• Can be sub-specialized — e.g., sports, neuro, cancer, male/female health issues
• Can be up to 5 days/week
OP Therapy
Advantages vs. Disadvantages

**Advantages**
- Cost 💯
- Community level goals
- Equipment

**Disadvantages**
- Time limits set by insurance (# visits capped)
- Transportation needed
- Limited physician supervision
- Not inter-disciplinary

Comprehensive Outpatient Rehabilitation Facilities (CORF)

- Can be specifically licensed and CARF accredited
- Inter-disciplinary
- “Day hospital programs”—may have RN
- Typically 4 hrs 3-5 days/week
- Often sub-specialized—e.g., TBI or Cancer rehab
Case 1

50 year old man has left Total Knee Replacement, seen day 4 post-op. Ambulates supervision 200 ft., climbs 8 stairs, independent all ADLs. Has a supportive wife. Lives in a single level home with 2 step entry. His goal is to return to work as a truck driver ASAP.

Case 2

75 year old woman, DM, poorly controlled HTN, has right hemisphere stroke with left hemiparesis, neglect, moderately severe dysphagia. She is on the stroke unit 5 days after stroke. She tolerates therapy well and is motivated to return home with her daughter, who does not work outside the home.
Case 3

25 year old C4 ASIA A Spinal Cord Injury 3 weeks ago, ventilator dependent, has stage 4 sacral wound. Limited family support. Lives in a row house.

Case 4

70 year old man being discharged from CIIRP s/p craniotomy for SDH. Has right hemiparesis and expressive aphasia. Lives with wife and daughter, who can provide 24 hour care. He is retired and lives in a 2 story home with a guest bedroom and bath on 1st floor, with 3 steps to enter.