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**OBJECTIVES**

- Describe the process of implementing a tiered framework of stroke rehab in a small community based health system in Oregon.
- Identify the typical progression of rehabilitation to improve transitions of care for patients who have had a stroke.
- Identify what percentage of patients need additional therapy
- Identify when guidance is needed
- Empower patients to improve function and quality of life.

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**BACKGROUND**

- Needs expressed at Stroke Support group
  - "Fragmentation of existing stroke health systems translates into inconsistent delivery of care to stroke patients"<sup>4</sup>
  - Lack of communication and coordination of post stroke care can result in sub-optimal recovery (AHA)<sup>1</sup>
  - Per the "North American survey by the National Stroke Association (NSA), nearly 40% of stroke survivors acknowledged that they lacked information on rehabilitation and recovery after stroke"<sup>4</sup>
  - Rehabilitation may be equally as important as acute medical management to patients and their families<sup>1</sup>
  - Goal: provide guidance/support for patients/caregivers<sup>5</sup> & help return to community activities<sup>3,4</sup>

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### BACKGROUND CONTINUED

- Decline in neurologic specialized outpatient referrals
  - “US Behavioral Risk Factor Surveillance system found that less than one-third (30.7%) of stroke survivors reported receiving outpatient stroke rehabilitation. If clinical practice guideline recommendations were followed, more than half would be expected to receive outpatient rehabilitation services”<sup>4</sup>
  - State wide post- stroke outpatient rehab care according to CDC<sup>2</sup>:
    - 2013 Oregon 23%: lowest of 20 states
    - 2015 Oregon 39%: third lowest of 20 states
  - Outpatient rehab post-stroke is proven to decrease risk of medical complications and improve quality of life (AHA)<sup>1</sup>
  - The Office of Disease Prevention and Health Promotion (ODPHP) Healthy People 2020 initiative is to increase outpatient rehab care post stroke <sup>6</sup>

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### PROCESS OF IMPLEMENTATION

- Location: An outpatient rehabilitation department affiliated with a small community hospital system (Corvallis, Oregon) 
- The project team identified the appropriate patients based on Epic reports (EMR) and therapy orders
  - Inclusion criteria: confirmed stroke (CT scan, MRI, and physician diagnosis)
  - Exclusion criteria: TIA, TBI, patients on hospice care, deceased patients, diagnosis that does not meet criteria
- REDCap system was implemented to capture data related to patient response to outreach

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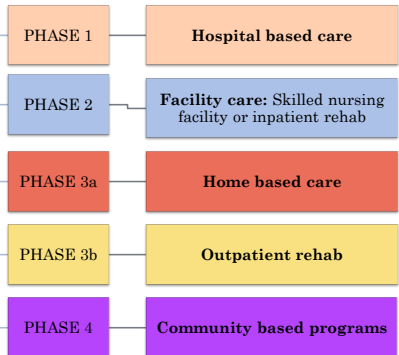
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### PHASE OF REHAB




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**Stroke Rehabilitation**

**Checklist for Four Phases of Recovery:**

**Phase 1: Hospital based care**

Goals:

- Medical stabilization
- Initiate therapy
  - o Physical therapy: balance, strength, mobility
  - o Occupational therapy: dressing, grooming, balance, home safety and equipment
  - o Speech therapy: communication, speech, thought processing, swallowing

**Phase 2: Facility care: skilled nursing facility or inpatient rehab**

Goals:

- Further management of medical conditions
- Preparing therapy to prepare for home:
  - o Physical therapy: balance, walking, transfers, and all other forms of mobility
  - o Occupational therapy: progressing independence with daily activities
  - o Speech therapy: progressing communication, swallowing, and thought processing

**Phase 3a: Home based care: Home health with progression to outpatient**

Goals:

- Maximize safety in home environment and prepare for outpatient therapy

**Phase 3b: Home based care: outpatient therapy**

Goals:

- Medical: Patient/caregiver is independent with medications, follow ups with physician as needed
- Progressing therapy towards independence:
  - o Physical therapy: address balance, walking, transfers, wheelchair mechanics
  - o Occupational therapy: fine motor and arm control, and adaptations for daily activities
  - o Speech therapy: cognition, swallowing, and communication

**Phase 4: Community based program**

Goals:

- Return to community programs and support groups
- Keep enjoying life!

Samaritan Physical Rehabilitation Specialists-Corvallis  
815 West 4th St., Suite 500, Corvallis, OR 97330  
Phone: 541-768-5137

**INITIATION  
AT  
HOSPITAL  
ADMISSION**

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**DISCHARGE FOLLOW UP**

1 MONTH

3 MONTHS

6 MONTHS

**Mail:**  
-Four Phases  
Outline  
- Referral

**Phone call:**  
- Follow up

**Mail:**  
-Four Phases  
Outline  
- Referral  
- Community  
resources

**Phone call:**  
- Follow up

**Phone call:**  
- Follow up

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**Therapy Does Not Stop Here!**

**Are you ready for stage 3b of recovery?**

**Still struggling with memory, concentration, and/or communication? Still having difficulties with your balance or walking? Do you need help with daily activities?**

**Phase 1: Hospital based care**

**Phase 2: Facility care: skilled nursing facility or inpatient rehab**

**Phase 3a: Home based care**

**Phase 3b: Home health with progression to outpatient therapy**

Goals:

- Therapy in your home environment to maximize safety and prepare for outpatient therapy
- **3b: Outpatient therapy**
  - o Samaritan Rehabilitation Specialists: Neurologic Group
    - A comprehensive team approach to neurological conditions offering Physical Therapy, Occupational Therapy, and Speech Therapy
    - Focused on address issues that are ongoing
    - Maximizing your potential for highest level of independence
    - Addressing issues that impact your quality of life

**Phase 4: Community based program**

**Your journey is not over. Let us help you take the next step in your recovery!**

**Talk to your physician today about coming to Samaritan Physical Rehabilitation Specialists of Corvallis**

Samaritan Physical Rehabilitation Specialists-Corvallis  
815 West 4th St., Suite 500, Corvallis, OR 97330  
Phone: 541-768-5137

**FOUR  
PHASES  
OUTLINE  
(1 MONTH AND  
3 MONTHS)**

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**Are you ready for stage 3b of recovery?**  
Consider coming to Samaritan Physical Rehabilitation Specialists-Corvallis for your subsequent therapy.

Please take this script below to your doctor to start the process.

Our services are located at:  
815 NW 9<sup>th</sup> Street, Suite 180  
Corvallis, OR 97330  
P: (541) 768-8127  
F: (541) 768-9880

Patient Name: \_\_\_\_\_ DOB: \_\_\_\_\_

By: \_\_\_\_\_

Diagnosis code: \_\_\_\_\_

Dr. Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Dr. Printed Name: \_\_\_\_\_

Provider's Phone Number: \_\_\_\_\_

## REFERRAL

(1 MONTH AND 3 MONTHS)

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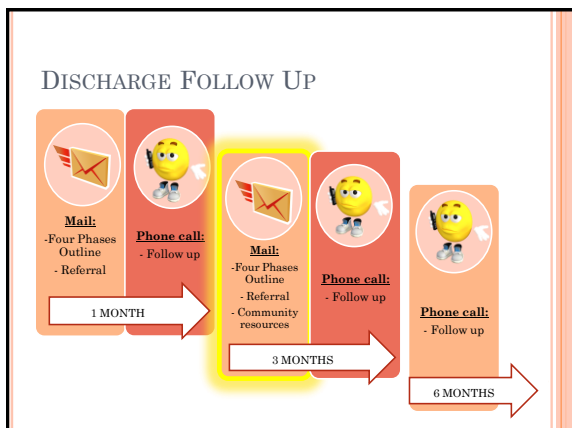
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### Stroke Rehabilitation

**Phase 4: Community Based Resources**

- Stroke Support Group:**
  - Church of the Good Samaritan, 333 NW 35th St., Corvallis, OR 97330
  - First Tuesday of each month 1:30 pm - 3:00 pm
  - Sponsored by Good Samaritan Regional Medical Center
  - 541-768-8127
- Grace Center:**
  - Adult day services, respite care, assistance with self-care, social activities, exercise classes, leisure activities, assistance with exercise program, meals, health monitoring, memory care, massage
  - 900 NW Spruce Ave, Corvallis, OR 97330
  - Monday - Friday 7:30 am-5:30 pm
  - 541-754-8817
- Osborne Aquatics:**
  - 1940 NW Highland Dr., Corvallis, OR 97330
  - Therapeutic exercise Class: Tuesday/ Thursday 9 am-9:45 am or 5:10 pm-5:55 pm
  - Stroke Rehab Class: Tuesday/ Thursday 12 pm-1 pm
  - 541-766-7944
- Fitness Over 50:**
  - Facility is able to provide extra assistance to participants
  - 6735 SW County Club Dr. Ste. 103, Corvallis, OR 97330
  - Monday/Friday 8 am-7 pm, Saturday 7 am-2 pm, Sunday 1 pm-5 pm
  - 541-929-6555
- SamFit Balance Class:**
  - 777 NW 9th St. Suite 310, Corvallis, OR 97330
  - Wednesday/ Friday 9:30am-9:30 am
  - 541-768-9850

Good Samaritan Regional Medical Center  
8005 NW Samaritan Dr., Corvallis, OR 97330  
Phone 541-768-8127

## COMMUNITY RESOURCES

(3 MONTHS)

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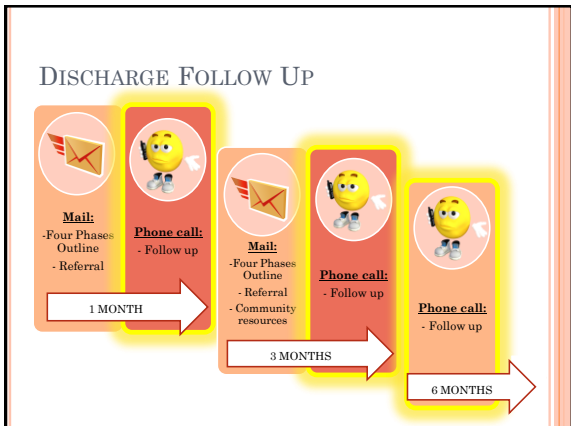
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### PATIENT OUTREACH

- MRN & Name \_\_\_\_\_
- Today's Date \_\_\_\_\_
- Discharge Date \_\_\_\_\_
- What therapy has the patient had since discharge from hospital? (check all that apply)
  - Yes, Phase 1: Inpatient hospital
    - Same diagnosis
    - Other diagnosis
  - Yes, Phase 2: Inpatient rehab/ SNF
  - Yes, Phase 3a: Home health rehab
  - Yes, Phase 3b: Outpatient rehab
  - Yes, Phase 4: Community programs
  - None
  - Unknown
- Rehab plan
  - Accepted the information and will contact provider
  - Declined need for further rehab at this time
  - Not interested at this time and would like follow up at a later time
  - Declined phase 3 but was given information on phase 4 of recovery
  - Patient could not be reached and a voicemail was left
  - Other- see note
- Documented in Epic




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### REDCAP CHECKLIST



### INDIVIDUAL RECORD

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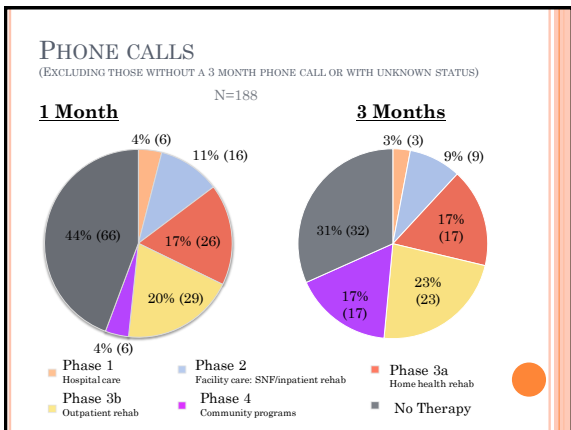
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### ACHIEVING BASELINE LEVEL OF FUNCTION

Level of Function (based on patient's self report)		% of population
1 Month	At baseline	22%
	Deficits remain	78%
3 Months	At baseline	55%
	Deficits remain	45%

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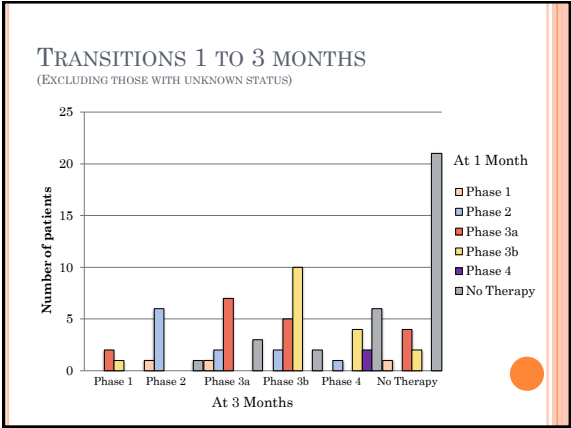
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### REHAB PLAN

Plan	1 Month Phone Call (Total N=123)	3 Month Phone Call (Total N=89)
Declined phase 3 but was given information about phase 4 of recovery	2% (3)	30% (27)
Not interested at this time and would like follow up at a later time	33% (40)	7% (6)
Declined need for further rehab at this time	37% (45)	42% (37)
<b>Accepted the information and will contact their provider</b>	<b>28% (35)</b>	<b>21% (19)</b>

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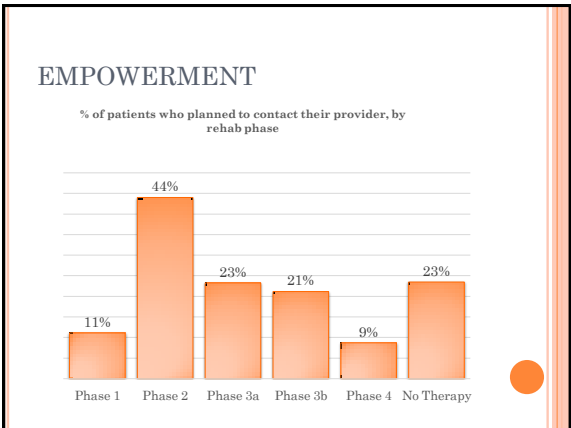
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### LOOKING FORWARD

- Quality improvement:
  - Incorporate 6 month phone follow up
  - Incorporate 1 year follow up to evaluate services provided and areas for improvement
  - Formulate list of community resources for surrounding areas
  - Incorporate standardized questionnaire for severity of disability
- Expansion:
  - Hospital system: adding The Four Phases System to the following hospitals:
    - Albany General Hospital
    - Lebanon Community Hospital
    - North Lincoln Hospital
    - Pacific Communities Hospital
  - Benton County, Linn County, and Lincoln County (255,000 general population) will be served with guidance along transitions of care promoting optimal rehabilitation care
  - Community system: develop more services for Stroke Rehab in Phase 4 to prevent functional decline



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### SUMMARY:

- The 4 Phases of Stroke Rehab program improved patient support post stroke by providing guidance through rehab stages. Guidance reduced potential gaps in transitions of care and provided patients an understanding of expectations from the healthcare system.
- Aim to continue empowering patients to attain the assistance needed for maximizing personal outcomes.



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### QUESTIONS



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