

# Developing a Stroke Aftercare Program

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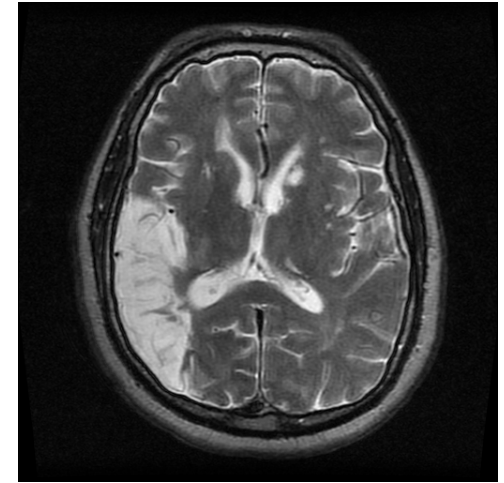
JFK Johnson Rehabilitation Institute

# Objectives



- Describe the components and benefits of the Stroke Recovery Program
- Identify JFK Johnson Rehabilitation Institute's Systems Based Process for supporting a patient with Stroke through the continuum of care.

# Stroke



- In the United States
  - Stroke a major leading cause of death
  - The leading cause of adult disability
- Overall ~30% of stroke survivors will have a recurrent stroke in their lifetime.
- Recurrent strokes have higher rates of mortality.

Billinger SA, et al. Physical Activity and Exercise Recommendations for Stroke Survivors: A Statement for Healthcare Professionals From the American Heart Association/American Stroke Association. *Stroke*. 2014;45:2532-2553.

# Impact of Stroke



- In the US, someone has a stroke every **40 seconds**.
- Every year, about **795,000 people** in the United States have a stroke (610,000 (77%) - first or new strokes; 185,000 (23%) - recurrent strokes).
- Stroke **reduces mobility in more than 50%** of stroke survivors age 65 and over.
- Stroke costs the nation **\$38.6 billion** annually, including the cost of health care services, medications, and lost productivity.

CDC.gov Stroke Fact Sheet

Roger VL, et al. Heart Disease and Stroke Statistics—2012 update: a report from the American Heart Association. *Circulation*. 2012;125(1):e2–220.



According to the National Stroke Association:

- 10% of stroke survivors recover almost completely
- 25% recover with minor impairments
- **40% experience moderate to severe impairments that require special care**
- 10% require care in a nursing home or other long-term facility
- 15% die shortly after the stroke

[http://www.ninds.nih.gov/disorders/stroke/stroke\\_rehabilitation.htm](http://www.ninds.nih.gov/disorders/stroke/stroke_rehabilitation.htm)

NIH National Institute of Neurologic Disorders and Stroke, updated March 13, 2014

# JRI Aftercare Program

- Post acute care model

- Seamless transition from Inpatient hospitalization to coordinated Outpatient care



- **Physiatrist evaluation & management**
  - ▣ After hospital discharge – **Identify trouble with transition to home**
- Overall Goal: help patients maximize their functional potential
- **Community demand has expanded scope**

# Outpatient Stroke Rehabilitation

Go et al. *Circulation*. 2014;129:e173.

**Circulation**



## AHA Statistical Update

### Heart Disease and Stroke Statistics—2014 Update A Report From the American Heart Association

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Melanie B. Turner, MPH; on behalf of the American Heart Association Statistics Committee and  
Stroke Statistics Subcommittee

“30.7% of stroke survivors  
received outpatient  
rehabilitation

... lower than would be  
expected if clinical practice  
guideline recommendations  
for all stroke patients had  
been followed.”

# Objective - Stroke Recovery Program

Expands the Rehab  
Continuum of Care



**Ongoing Medical and Rehabilitation  
Follow-up**



# Continuum of Rehab Care

- Acute Care Hospital
- Post Acute Care
  - Inpatient Rehabilitation Hospital
  - Skilled Nursing Facility / Long Term Care Facility
  - Home Based Therapy through Home Care services
  - Outpatient Therapy
  - Independent Exercise

# Acute Care Hospital - RWJUH



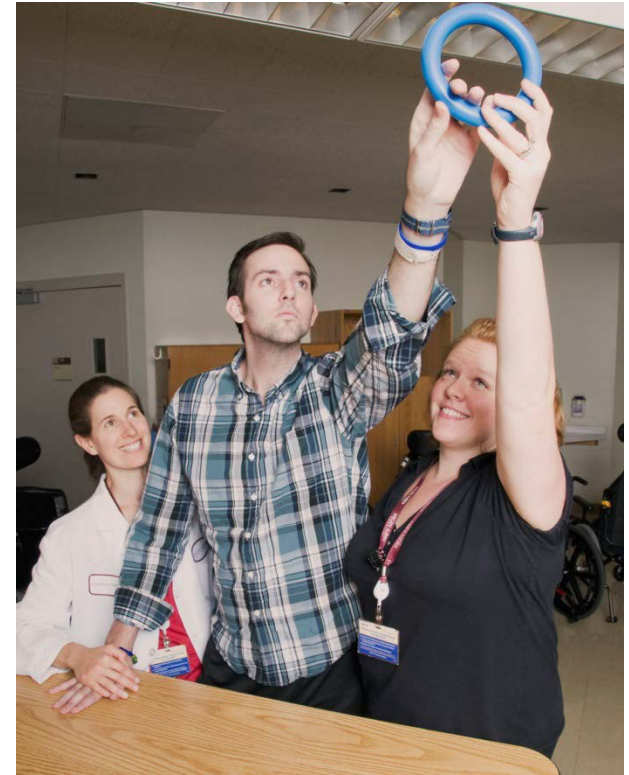
- Goals
  - Early mobilization
  - Prevent complications
  - Assessment for next level of care

# Continuum of Rehab Care

- Acute Care Hospital
- Post Acute Care
  - Inpatient Rehabilitation Hospital
  - Skilled Nursing Facility / Long Term Care Facility
  - Home Based Therapy
  - Outpatient Therapy
  - Independent Exercise

# JRI - Inpatient Rehabilitation Hospital

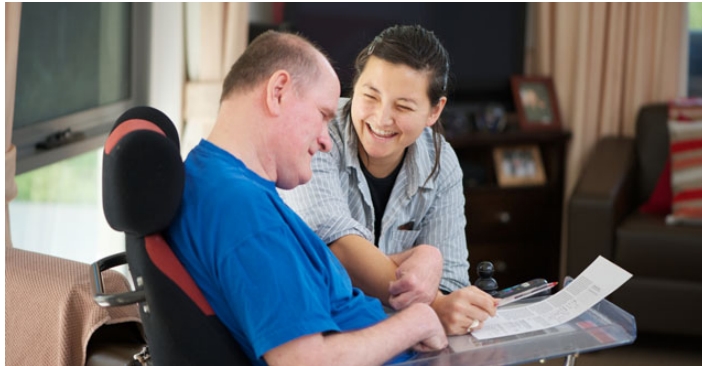
- Brain Injury Medicine Board Certified  
Physiatrists
  - Acute Brain Trauma Unit
  - Stroke Unit
- 24 hour Rehab Nursing
- PT/OT/ST
- Rehab Psychology / Neuropsychology
- SW/Nutrition
- Therapeutic Recreation



❖ **After discharge, patients are directly referred to the Stroke Recovery Program for Outpatient therapy services**

# Skilled Nursing Facility / Long Term Care Facility

- Center for Head Injuries
  - Extended Recovery Unit – SAR
  - Day Rehab Program – Outpatient setting
    - PT/OT/ST/Cognitive therapy



HBO documentary on TBI

❖ After discharge, patients are directly referred to the Stroke Recovery Program for Outpatient therapy services

# Home Based Therapy

- Organized through Home Care Services
  - Visiting Skilled Nursing (Meds, Wound care)
  - In Home PT/OT/ST
  - Must meet specific criteria



❖ **After discharge, patients are directly referred to the Stroke Recovery Program for Outpatient therapy services**

# Outpatient Therapy



PT



OT



ST

- 2015 – IP & OP Certified Stroke Rehabilitation Specialist
- Identify limitations in functional recovery
- Frequent Physiatrist communication
- Multidisciplinary team based approach to improve outcomes

# Independent Exercise

## Fitness Center

- Transition from Outpatient therapy to Independent Exercise
- Actively engage patients in the Community
- Specialized Fitness Program





# Multidisciplinary Stroke Recovery Team

- Multiple Stroke Specialists, *ALL UNDER ONE ROOF*
  - Board Certified physicians address special needs of individuals with stroke
    - ▣ Physical Therapist
    - ▣ Occupational Therapist
    - ▣ Speech-Language Pathologist
    - ▣ Rehabilitation Psychologist
    - ▣ Nutritionist
    - ▣ Certified Driver Rehabilitation Specialist
    - ▣ Social Worker
    - ▣ Neuropsychologist
    - ▣ Vocational Rehabilitation Specialist
    - ▣ Audiologist
    - ▣ Health and Fitness Center
    - ▣ Stroke Support Group

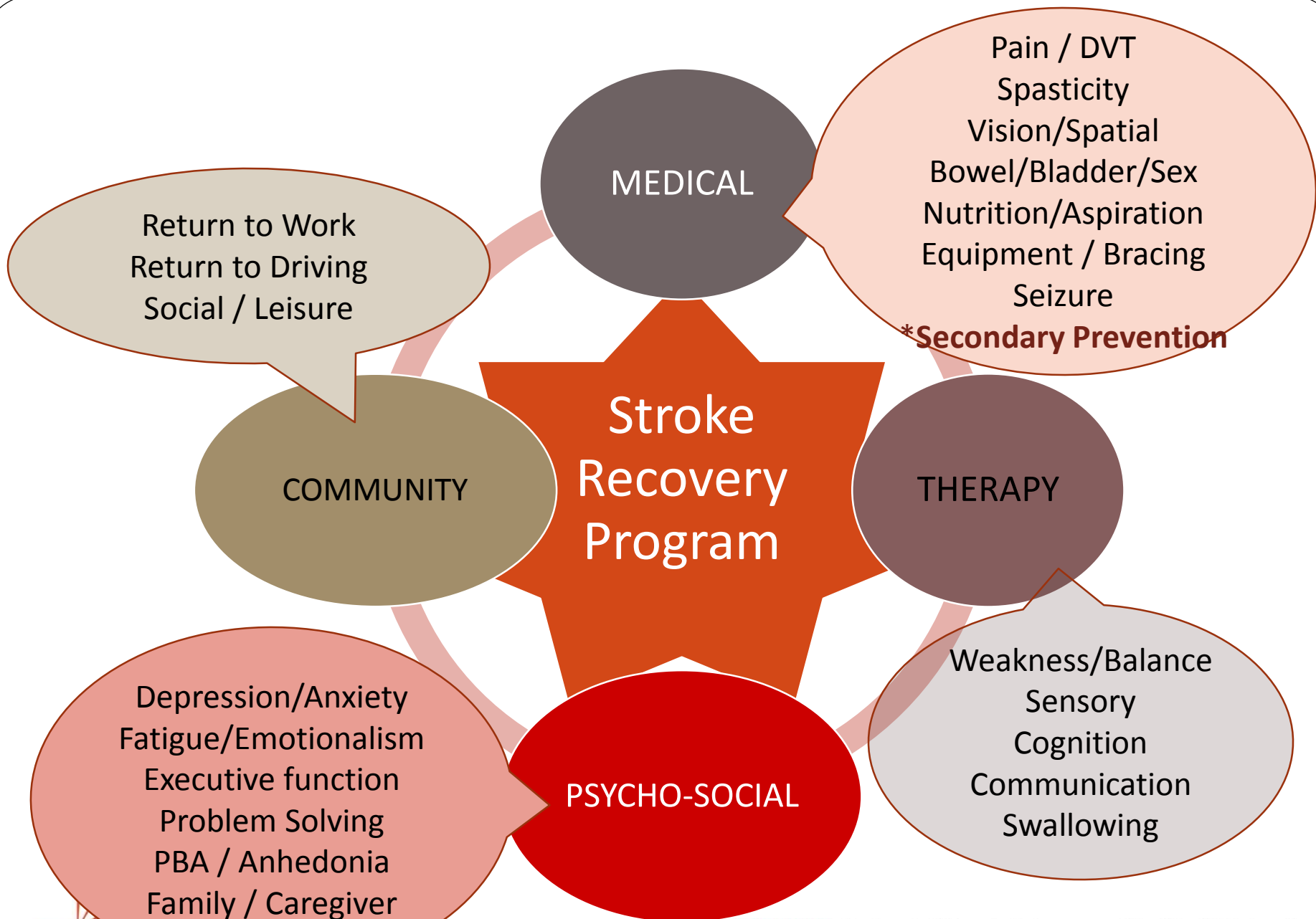


# Physiatry Sub-specialists

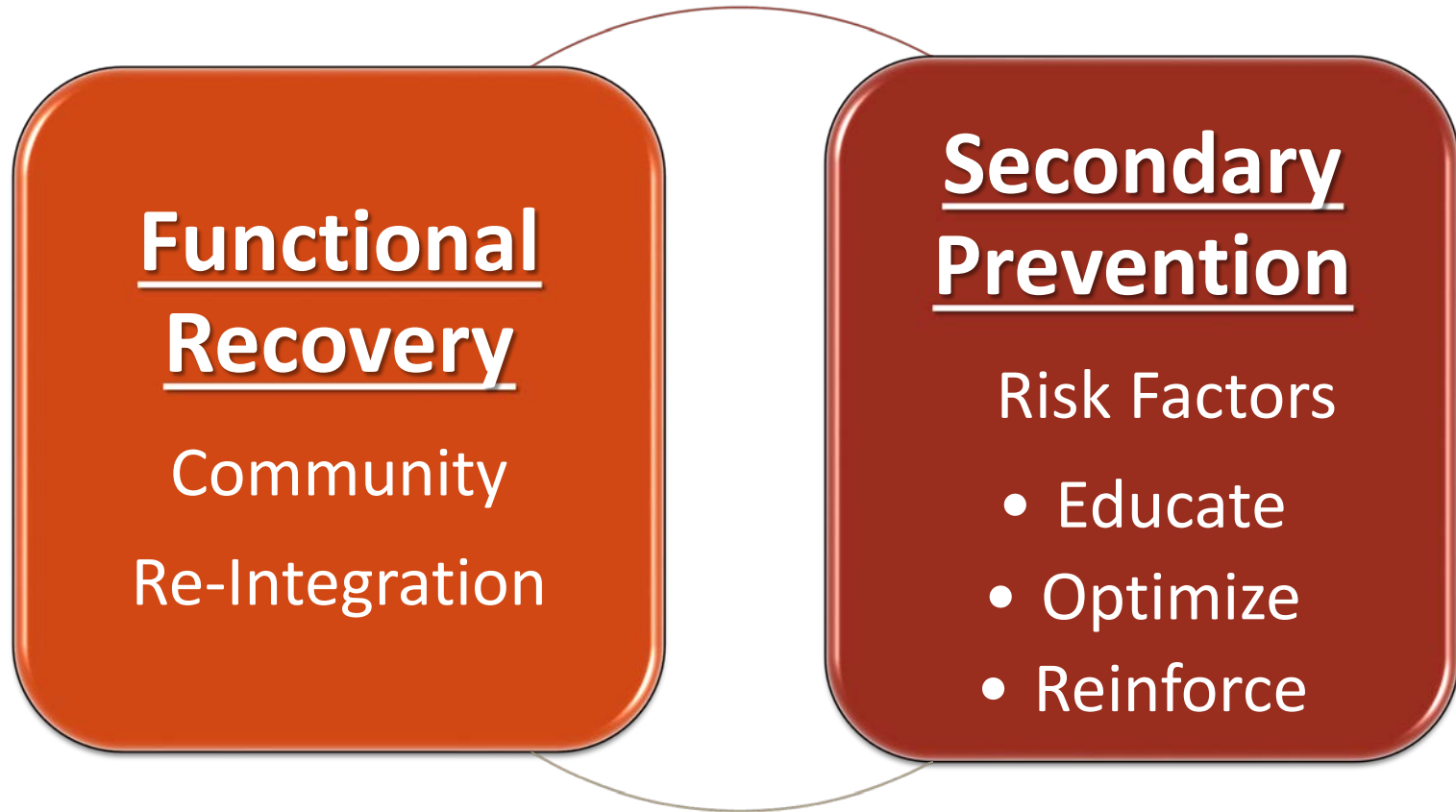
❖ Stroke Recovery Program has unique access to Physiatry Sub-specialty areas:



- ❑ Spasticity
- ❑ EMG/NCS, MSK
- ❑ Orthotics / P+O Lab
- ❑ Pain Management, including interventional procedures
- ❑ Neurodegenerative
- ❑ Medical Acupuncture

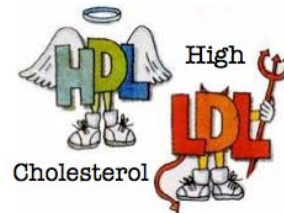


# Main Goals of Successful Integrative Program

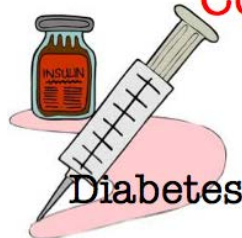


# Risk Factor Education/Modification

High Blood Pressure



**Controllable  
Risk  
Factors**



Diabetes



Overweight  
and Obesity



Cigarette Smoking

# Warning Signs and Symptoms



# From Rehab...*Through* Recovery

## Emerging Models of Post Acute Care Integration

- Importance of Psychiatry medical supervision
- Coordination of Outpatient services
- Early assessment of functional decline & prompt intervention
- Work with Neurology team to reduce risk factors
- Reduce Hospital Readmissions
- Improve Outcomes



## STROKE RECOVERY PROGRAM

Have you or a loved one been diagnosed with a stroke? You are not alone.

Stroke is a leading cause of long term disability in the United States.

Make an appointment to see our Stroke Team and improve your chance at recovery while reducing your modifiable risk factors.



To arrange an appointment call  
732-321-7000 Ext. 62134 | [www.jfkmc.org](http://www.jfkmc.org)

 **JFK** Johnson Rehabilitation Institute  
65 James Street, Edison, NJ 08820

## From Rehab... Through Recovery.

Multiple Stroke specialists,  
**ALL UNDER ONE ROOF...**

Our Stroke Recovery Team offers person-centered care from rehabilitation professionals who collaborate to ensure that you receive the individualized treatment plan that will best help you recover.

- Physiatrist – Board Certified physicians specializing in the special needs of individuals with stroke
- Physical Therapist
- Occupational Therapist
- Speech-Language Pathologist

### Other Rehabilitation Professionals on Our Team:

- Rehabilitation Psychologist
- Nutritionist
- Neuropsychologist
- Certified Driver Rehabilitation Specialist
- Social Worker
- Vocational Rehabilitation Specialist
- Audiologist
- Health and Fitness Center
- Stroke Support Group

Research shows that having a stroke puts you at higher risk for having another stroke. Helping you learn to reduce your risk factors decreases your risk of having another stroke.

### Benefits of our Comprehensive Team Strategy:

- Using a multidisciplinary team based approach to improve outcomes.
- Identify limitations in your functional recovery.
- Incorporating subspecialty referrals for interventions such as spasticity management, pain management, bracing and acupuncture as necessary.

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THE  
END