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Mary Free Bed®
Rehabilitation Hospital

THE INSTITUTE FOR KNOWLEDGE TRANSLATION IN REHABILITATION

WALK THE WALK:

High-Intensity Gait Training in Stroke Rehabilitation

iKT institute for KNOWLEDGE TRANSLATION IN REHABILITATION

2019 DATES:

Online Training: Sept. 9–23
In-Person Training: Sept. 28–29

Mary Free Bed Professional Building
Meijer Conference Center
350 Lafayette Ave. SE
Grand Rapids, MI 49503

Mentoring (optional): 8 p.m. Nov. 18, Dec. 9 and Jan. 20

Community of Practice Meeting (optional, access for one year): 9 p.m. First Monday of the month

Institute for Knowledge Translation
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Carmel, IN 46082
www.knowledgetranslation.org
317.660.1185; jmoore@knowledgetranslation.org

ABOUT THE INSTITUTE FOR KNOWLEDGE TRANSLATION

Research indicates that traditional methods of providing education, such as in-person and online continuing education courses, may improve knowledge and skill, but they do very little to change the care provided in clinical practice. The Institute for Knowledge Translation provides an innovative and evidence-based solution to maximize the impact of education and quality-improvement efforts. The iKT offers a variety of evidence-based knowledge translation programs, from comprehensive educational packages to help individuals build knowledge to comprehensive solutions to assist health care organizations in improving clinical practice.

PROGRAM OVERVIEW

More than 17 years could pass before the evidence that is published today is used in the care of rehabilitation patients. Knowledge translation (KT) is a process to expedite the use of evidence in clinical practice. It includes the generation of new knowledge and the clinical implementation of established evidence. Research suggests that use of KT processes, such as the Knowledge-to-Action Framework, may facilitate successful implementation efforts. Multi-component KT interventions that target barriers to evidence-based practices have a greater impact on clinical practice than education courses provided without additional interventions. Online mentoring sessions and an ongoing community of practice will provide implementation support for the year following the in-person training.

When delivering gait training interventions to individuals with stroke, specific training parameters, including the amount, intensity and variability of task-specific practice, can profoundly influence learning and patient outcomes. This multi-component training program provides an overview of the evidence related to high-intensity gait training. Online courses will provide a foundation for knowledge needed to apply high-intensity gait training in practice. In-person training will primarily focus on the application of this information to patients and clinical practice.

This program uses a variety of evidence-based KT strategies to maximize the use of high-intensity gait training by program participants. Participants also will be asked to complete an online survey on current knowledge, skills, barriers and facilitators related to High-Intensity Variable Gait Training and knowledge translation. Information obtained from the survey will guide the tailoring of information for each KT program cohort.

- Online course on high-intensity gait training (5.0 CEUs)
- In-person training on the gait-training program and knowledge translation concepts (1.5 days)
- High-Intensity Variable Gait Training knowledge tools (i.e. cheat sheets)
- Three post-course online group mentoring sessions (three one-hour sessions)
- Access to the program faculty for six months for KT support
- Participation in an online community of practice for one year, which will offer implementation support from peers and experts.

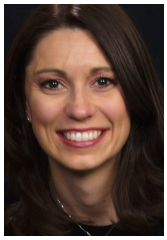
PROGRAM OBJECTIVES

After this KT program, participants will be able to:

1. Describe the rationale and evidence regarding the importance of amount, intensity and variability of locomotor practice
2. Apply and progress high-intensity variable gait training in patient care
3. Identify weaknesses in the biomechanical subcomponents of gait in an individual with stroke
4. Explain how to safely monitor patients during application of the gait training program
5. Describe how to safely mobilize a maximum-assistance patient
6. Describe knowledge translation strategies to implement high-intensity, variable gait training program

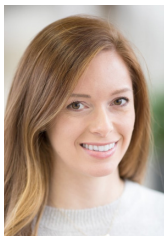
FACULTY

T. George Hornby, PT, Ph.D. is a professor of Physical Medicine and Rehabilitation at Indiana University and the director of the Locomotor Recovery Laboratory at the Rehabilitation Hospital of Indiana. Dr. Hornby's work is focused on optimizing rehabilitation interventions to improve lower-extremity function in patients with stroke and spinal cord injury, with a primary focus on restoration of walking ability. By integrating both quantitative and clinical measures of motor function, Dr. Hornby's work aims to understand the biomechanical and physiological impairments underlying limitations in locomotor activity in these populations, and the relative efficacy and mechanistic basis of specific interventions to enhance function. Recently, his activity has focused on direct translation of his research to clinical practice in rehabilitation. Dr. Hornby has co-authored more than 90 research publications in scientific journals. He is principal investigator or co-principal investigator on active Research Project Grant, Department of Defense and National Institute on Disability and Rehabilitation Research grants, with national and international collaborations. He also is the director of Research for the Academy of Neurologic Physical Therapy.



Jennifer Moore, PT, DHSc, NCS is an advisor to the South Eastern Norway Center for Knowledge Translation in Rehabilitation and the founder of The Institute for Knowledge Translation. Her work and research is focused on the selection and implementation of evidence-based practices within hospital systems and across networks of hospitals in the United States and Norway. Previously, Dr. Moore was the clinical practice leader of Neurologic Physical Therapy where she conducted implementation projects within all levels of care. She also created the Rehabilitation Measures Database (rehabmeasures.org), a free, online repository of summaries of psychometric properties and clinical utility of hundreds of assessments used in rehabilitation. Dr. Moore is an author of the APTA-sponsored Clinical Practice Guideline on a core set of outcome measures for neurologic physical therapy and was the guest editor for the Journal of Neurologic Physical Therapy Special Issue on Knowledge Translation.

Chris Henderson, PT, Ph.D., NCS is an assistant research professor within the Indiana University School of Medicine's Department of Physical Medicine and the director of residency programming for the Institute of Knowledge Translation. He has his doctorate in Biomechanics and Movement Science, doctorate of Physical Therapy, and a master's degree in Mechanical Engineering from the University of Delaware. He has completed a Neurologic Physical Therapy Residency jointly supported by the Clement J Zablocki Veterans Affairs Hospital and Marquette University. Dr. Henderson's work is focused on optimizing the rehabilitation of individuals following acute onset neurologic injuries and translating evidence-based interventions into routine neurologic physical therapy.



Lauren Lenca, PT, DPT graduated from Grand Valley State University with a Bachelor of Science in Biomedical Sciences in 2007 and her doctorate in physical therapy in 2010. She is a clinical lead physical therapist II and a research physical therapist at Mary Free Bed Rehabilitation Hospital in Grand Rapids, Michigan. She is a board-certified specialist in Neurologic Physical Therapy through the American Board of Physical Therapy Specialties, American Physical Therapy Association since. Lauren is an adjunct professor in the department of physical therapy at Grand Valley State University in Grand Rapids. She is an equipment trainer for Aretech. She has given many presentations, both locally and nationally.

PROGRAM TIMELINE

Dates	Activity	Description
Sept. 9–23	Complete survey Take online gait course	Participants will complete a 15-minute survey on current knowledge, perspectives and use of high-intensity variable gait training. Barriers and facilitators to use of this practice also will be collected. Participants will take the online gait course and generate a list of questions for the in-person course. Online course will take approximately three hours to complete and includes a post-test.
Sept. 28-29	In-person course	1.5 day in-person course
Nov. 18 Dec. 9 Jan. 20 All dates, 8 p.m.	One-hour online mentoring sessions	Participants will attend an online discussion about the application of the gait-training program in practice (patient-related questions, barriers, facilitators and other participant questions will be addressed). Participants will be asked to submit any challenging cases, questions or issues for discussion one week prior to mentoring meeting. *Mentoring hours = Three CEUs
Sept. 9 to Sept. 30, 2020 Meetings, first Monday of the month, 8 p.m.	Online community of practice (CoP)	Participants have access to an online community of practice. This forum provides a location for in-depth discussion about patient cases, barriers and KT efforts related to gait training. Relevant literature also will be disseminated and discussed in this forum. *Participants in the CoP are required to have a Google account to participate in the online forum. *CoP meetings occur online at 8 p.m. on the first Monday of every month.

ONLINE COURSE OUTLINE
Sept. 15–30

Walk the Walk: Applying High-Intensity Variable Stepping in Gait Training Intervention
Online course hours = 5.0 CEUs

Online Module Title	Module objectives: After this online module, you will be able to…
Biomechanical Subcomponents of Gait	1. Assess your patients' gait in terms of the major biomechanical subcomponents. 2. Identify deficits related to each of the biomechanical subcomponents. 3. Generally describe how therapists might modify intervention strategies based on a patient's deficits in a particular subcomponent.
Errors and Variability	1. Explain the importance of variability and error augmentation for motor learning. 2. Summarize the consequences of limiting errors during practice in patients with neurologic conditions. 3. Describe how to apply variability and error augmentation during gait training.
Specificity and Repetition	1. Explain the rationale for task-specific, repetitive practice. 2. Describe how specificity and repetition can be applied to walking interventions.
Intensity	1. Define Intensity as it relates to walking training intervention. 2. Discuss physiological rationale for high-intensity practice. 3. Describe how intensity can be applied to walking training interventions.
Application to Practice	1. Identify your patient's impairments in the biomechanical subcomponents of gait. 2. Assess your patient to determine whether it is necessary to provide guidance, assistance, trial-and-error practice or error augmentation. 3. Determine appropriate ways to challenge patients by augmenting error.
Development of the Protocol	1. Summarize the evidence behind the high-intensity variable stepping program. 2. Compare the locomotor outcomes following the application of this protocol in subacute stroke to conventional therapy.

IN-PERSON TRAINING AGENDA
Sept. 28-29

In-person course hours = 10.5 CEUs (6.25 hours day one, 4.25 Day two)

Day 1: Saturday, Sept. 28

Time	Activity	Speaker
8:30-9 a.m.	Arrival, registration and continental breakfast	
9-9:30 a.m.	Course introduction and participant goals	Jenni Moore, PT, DHSc, NCS
9:30-10:30 a.m.	Biomechanical Subcomponents of Gait: Case Applications	T. George Hornby, PT, Ph.D.
10:30-10:45 a.m.	Break	
10:45-11:45 a.m.	Workshop One: Biomechanical Subcomponents of Gait	T. George Hornby, PT, P.h.D Jenni Moore, PT, DHSc, NCS Chris Henderson, PT, Ph.D., NCS Lauren Lenca, PT, DPT, NCS
11:45 a.m.-12:45 p.m.	Lunch (provided)	
12:45-1:45 p.m.	Intensity: An Active Ingredient in Rehabilitation	T. George Hornby, PT, Ph.D.
1:45-2:45 p.m.	Workshop Two: Biomechanical Subcomponents of Gait	T. George Hornby, PT, Ph.D. Jenni Moore, PT, DHSc, NCS Chris Henderson, PT, Ph.D., NCS Lauren Lenca, PT, DPT, NCS
2:45-3 p.m.	Break	
3-3:45 p.m.	High-Intensity Gait Training: Demonstration One	T. George Hornby, PT, Ph.D.
3:45-4:30 p.m.	Myth Busters and a Discussion: Application of Intensity in Clinical Practice and Day One Wrap-up	T. George Hornby, PT, Ph.D. Jenni Moore, PT, DHSc, NCS

IN-PERSON TRAINING AGENDA Sept. 28-29		
In-person course hours = 10.5 CEUs (6.25 hours day one, 4.25 Day two)		
Day 2: Sunday, Sept. 29		
Time	**Activity**	**Speaker**
7:45-8 a.m.	Arrival, registration and continental breakfast	
8-9 a.m.	High-Intensity Gait Training: Who, What, When, Where, How?	Chris Henderson, PT, Ph.D.
9-10 a.m.	High-Intensity Gait Training: Demo Two	T. George Hornby, PT, Ph.D.
10-10:15 a.m.	Break	
10:15-11 a.m.	Knowledge Translation: Implementation of High-Intensity Gait Training into Clinical Practice	All faculty
11 a.m.–noon	Discussion: Barriers, Facilitators and Tips for Success	All faculty
12–12:30 p.m.	Discussion: iKT Community of Practice, Mentoring Sessions, Course Wrap-up	Jenni Moore, PT, DHSc, NCS

DRESS CODE

Business casual. The conference room temperature can fluctuate; it is recommended you bring a sweater or jacket.

REGISTRATION AND PRICING

Registration for the course is $595, which includes the online course, 1.5 days of in-person training, three hours of group online mentoring sessions, individual mentoring sessions (upon request) and access to resources, tools and a community of practice for one year after completion of in-person training. Register for the course at **knowledgetranslation.org** by Sept 5.

This program is designed to increase the knowledge and skill of clinicians and to assist them with the clinical application of high-intensity variable gait training in clinical practice. For information about implementation of the high-intensity gait training program into clinical practice within a health system (i.e. at a department or organizational level) or other KT programs, please email jmoore@knowledgetranslation.org.

This course has been approved for continuing education credit in the state of Indiana, CEUs are pending through PT aPTitude.

CANCELLATION POLICY

Cancellations must be provided in writing and must be provided 30 days prior to the start date for the implementation program. Refunds will be provided; however, a 15 percent administrative fee will be retained.

The Institute for Knowledge Translation reserves the right to change programs or cancel for due cause. If the iKT cancels the implementation program, a full refund will be provided. However, the iKT and Mary Free Bed will not be responsible for the refund of travel or hotel expenses.

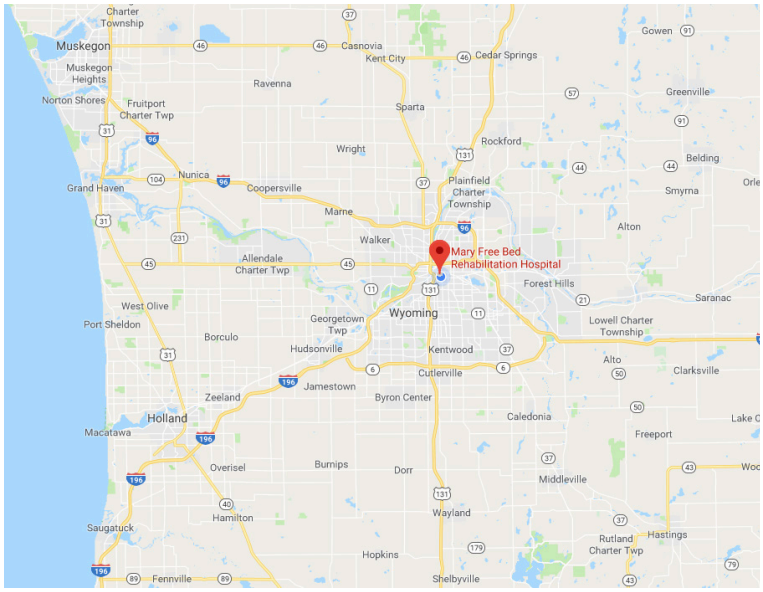
LOCATION

Mary Free Bed
Professional Building
Meijer Conference Center
350 Lafayette Ave. SE
Grand Rapids, MI 49503

Parking: Use the parking ramp directly south of 350 Lafayette Ave. SE, labeled C.

Airport: The closet airport (about 20 minutes from the hospital) is the Gerald R. Ford International Airport located, 44th St. SE, Grand Rapids, MI 49512. flygrandrapids.org

Many lodging options are available in and around the Grand Rapids area, including but not limited to:



AMWAY GRAND PLAZA HOTEL
187 Monroe Ave. NW
616.774.2000
0.9 miles west of Mary Free Bed

HOLIDAY INN
310 Pearl St. NW
616.235.7611
One mile northwest of Mary Free Bed

DOWNTOWN COURTYARD BY MARRIOTT
11 Monroe Ave. NW
616.242.6000 or 800.321.2211
One mile west of Mary Free Bed

HOMEWOOD SUITES BY HILTON
161 Ottawa Ave. NW
616.451.2300

HAMPTON INN & SUITES - DOWNTOWN
433 Dudley Place NE
616.456.2000
One mile north of Mary Free Bed

If you require special arrangements to fully participate in this workshop, please call 616.840.8292