

CARDIOVASCULAR & PULMONARY SECTION

CSM 2010

EDUCATIONAL PROGRAMMING

THURSDAY -- FEB 18

10:30- 12:30

TITLE: Feasibility of the Nintendo Wii™ for Improving Aerobic Capacity and Cardio-respiratory Function to Enhance Community Engagement

AUTHORS/INSTITUTIONS: D.M. Hayes, C.A. Miller, T.L. Millard, Physical Therapy, North Georgia College and State University, Dahlonega, GA.

DESCRIPTION: Improving aerobic capacity and cardiorespiratory function in individuals with physical disability present a challenge for physical therapists. Equipment complexity and poor adaptability lead to low participation in many traditional aerobic activities by persons with disability. Lack of aerobic activity participation lessens the ability to improve or maintain sufficient cardiorespiratory function necessary for every day activities and productive community engagement. Additionally measurement options commonly used such as vital signs are limiting and do not correlate with actual oxygen consumption or energy use during physical activity. Alternative methods for measuring functional reserve and quantifying aerobic intensity during activity in persons with disability are available and need to be further explored. The purpose of this course is to illustrate the effectiveness of using gaming technology, Nintendo Wii™ Sports and Wii™ Fit programs, for promoting improved functional aerobic reserve across the lifespan. Quantification of aerobic intensity during use of interactive video game activity will be presented. Additionally a pediatric and geriatric case study will provide a forum for discussion about using the Nintendo Wii™ interactive gaming as an effective physical therapy intervention for improving dynamic balance, economy of movement, and cardiorespiratory function.

12:30- 2:30

TITLE: Sternal Precautions – What Do They Mean?

AUTHORS/INSTITUTIONS: L.P. Cahalin, Physical Therapy, Northeastern University, Boston, MA; T. Kinney LaPier, Physical Therapy, Eastern Washington University, Spokane, WA; D.K. Shaw, Physical Therapy, Midwestern University, Glendale, AZ.

DESCRIPTION: The purposes of this course are to provide the audience with an overview of the (1) surgical procedures used during a median sternotomy, (2) potential sternotomy complications and associated risk factors, (3) history of sternal precautions, (4) current practice of sternal precautions, (5) effect of a sternotomy on function and quality of life, and (6) role of the physical therapist in sternal precautions. An open forum discussion will end the course during

which an exchange of information between the audience and speakers will be provided.

2:30- 3:30

2010 Linda Crane Memorial Lecture

Striving for Excellence – Sherrill H. Hayes, PT, PhD, Professor and Chair, Department of Physical Therapy, Miller School of Medicine, University of Miami, Coral Gables, FL 33146

Historically, past McMillan Lecturers have challenged us to define excellence in Physical Therapy academic programs. While some have addressed “environmental excellence,” there are other qualities like “institutional sagas” and “stories” that help create a unique and lasting bond between the faculty and their students, inspiring a legacy of belonging and lasting commitment. Building upon those qualities of a saga: loyalty and a credible story of uncommon effort and achievement, and juxtaposing these with Dr. Crane and her life, a vision of excellence in physical therapy educational programs will be explored.

FRIDAY -- FEB 19

8:00- 11:00: Research Platforms

1:00- 3:00: Research Platforms

TITLE: Pulmonary Rehabilitation: How to Set up a Program According to National Guidelines

AUTHORS/INSTITUTIONS: E. Hillegass, Cardiopulmonary Specialists, Inc., Dunwoody, GA; Department of PT, North Georgia College and State University, Dahlonega, GA; R. Crouch, Physical Therapy, Duke University, Durham, NC.

DESCRIPTION: This program will provide information for setting up a pulmonary rehabilitation program based on the current National Coverage Determination for Pulmonary Rehabilitation (January 2010). Program components, appropriate criteria for patient referral, staff roles, outcome measures and reimbursement will be discussed. This program is especially important and timely as the new national coverage guidelines will be implemented January 2010.

1:00- 3:00

TITLE: Endurance in the Rehab Population: Assessment, Intervention, and Outcome Measures

AUTHORS/INSTITUTIONS: P. Bartlo, Physical Therapy, D’Youville College, Buffalo, NY; A. Joco, Physical Therapy, Erie County Medical Center, Buffalo, NY.

DESCRIPTION: Endurance is a key impairment seen in the adult neurological rehabilitation population. Impairments in cardiorespiratory endurance will affect activity tolerance,

rehabilitation participation, and patient function. As integral parts of the rehab team, physical therapists and physical therapist assistants must address issues of endurance assessment, intervention, and measurement of outcomes. This session will guide the therapist through the utilization of appropriate standardized tests, as well as general interventions for endurance. Measurement of endurance outcomes will also be presented. The primary patient populations for this session will be spinal cord injury (SCI), traumatic brain injury (TBI), and stroke. Some minor information will be presented in regards to patients with multiple sclerosis and post-polio syndrome.

4:00- 6:00

TITLE: Cardiovascular and Pulmonary Research Update - Two Years (2008 & 2009) in Review.

AUTHORS/INSTITUTIONS: L.P. Cahalin, Physical Therapy, Northeastern University, Boston, MA.

DESCRIPTION: An interactive review of cardiovascular and pulmonary research published in 2008 and 2009 which has clinical implications for physical therapy examination and management. The review will focus on the methods and results of the reviewed literature to facilitate a better understanding of the results as presented by the original authors in their tables and figures.

6:00- 9:00: *Cardiovascular & Pulmonary Section Membership Meeting*

SATURDAY -- FEB 20

8:00 - 11:00

TITLE: Quitters are Winners - The Role of PTs in Smoking Cessation

AUTHORS/INSTITUTIONS D. Frownfelter, PT, DPT, MA, CCS, RRT, FCCP (Roselind Franklin University, North Chicago, IL); P.J. Ohtake, PT, PhD (SUNY Buffalo, Buffalo, NY).

DESCRIPTION: Physical therapists commonly work with individuals of all ages who use tobacco. Smoking is an independent risk factor for cardiovascular /respiratory diseases, cancers, diabetes and impairs healing thus slowing the resolution of many musculoskeletal injuries. This course will examine the impact of tobacco use on conditions that are commonly managed by physical therapists and the importance for physical therapists to actively advocate smoking cessation. Use of the evidence-based, nationally recognized 5 A's approach to smoking cessation will be described, and tips for implementation in both clinical practice and PT curricula will be shared. The session will conclude with an opportunity for participants to explore their personal barriers to engaging in smoking cessation dialogue with patients through open discussion with a seasoned smoking cessation counselor. Upon completion of this course, you'll be able to: 1) Explain the impact of tobacco use on healing and health across the lifespan. 2)

Apply the 5's program, the Ask, Advice, Refer program, and the Ask and Act program. 3) Discuss the effectiveness of different nicotine replacement therapies, behavioral counseling, and combination treatments for smoking cessation. 4) Use effective communication strategies when providing smoking cessation counseling. 5) Identify web based resources for smoking cessation.

1:00- 3:00

TITLE: A Systematic Evaluation of Endurance Impairments: The Reversible and Irreversible Components

AUTHORS/INSTITUTIONS: K.J. Dias, Physical Therapy, Maryville University of St Louis, St Louis, MO; S. Collins, Physical Therapy, University of Massachusetts, Lowell, Lowell, MA.

DESCRIPTION: Impaired endurance is a primary cause of reduced activity and participation in patients with cardiopulmonary diseases. Endurance emerges from complex multi system interaction for the sustained transfer of chemical to mechanical energy required for all work demands. Impaired endurance has many etiologies and results in an inability to sustain work for a requisite period of time to achieve necessary goals. Central impairments of the cardiovascular and pulmonary systems along with peripheral skeletal muscle impairments lead to overall deficits in oxygen delivery and interact with a concomitant reduction in endurance. Skeletal muscle weakness from deconditioning and atrophy may be considered the largest reversible component of compromised endurance within the burgeoning population of individuals with chronic medical conditions. This course provides clinicians with practical examination techniques for measuring central and peripheral components of endurance caused by cardiac pump dysfunction or failure, pulmonary pump dysfunction (hyperinflation) or failure and skeletal muscle impairments. Clinicians will be guided through an evaluation process in recognizing the individual and integrated use of information collected from the examination tests and measures of endurance components. Participants will be challenged to synthesize the reversible and irreversible components of endurance in creating effective treatment interventions and an appropriate prognosis for given patient scenarios.