They Are Called Vital Signs Because They Are Vital: Ensuring Safe Physical Activity in Your Physical Therapy Practice Audioconference

NOVEMBER 6, 2008

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Objectives

- Discuss the role of PT regarding health indicators and vital signs
- Identify cardiovascular risk factors and their impact to PT care planning and outcomes
- Classify patients using CV risk stratification
- Incorporate CV risk stratification and physical activity in PT management
  - Identify guidelines for monitoring patients based on CV risk stratification
Safe Physical Activity

- Patient warming up on bicycle experiences shortness of breath with chest tightness and becomes faint.
- What do you need to know about the patient to decrease the likelihood of this experience?
  - Cardiovascular risk
  - Current comorbid conditions
- What can you do to ensure safety?
  - Know normal vital signs at rest and exercise
  - Measure vital signs and prescribe exercise appropriately
  - Monitor and adjust exercise (requires judgment of PT)

Risk of Cardiovascular Events

- Sudden cardiac death 1 death per year for every 7600 joggers
- Fitness center system: 1 death per 82,000 members and 1 death per 2.5 million workouts
- Risk of exercise related acute myocardial infarction (AMI) is 6.75 times higher than sudden cardiac death
- Annual incidence of exercise related acute MI is 1 per 590-3500 apparently healthy middle aged men
- Vigorous exercise increases the rate of exercise related MI events. (Thompson, 2007)
Physical Activity is a Key Component of Health

- People who are usually inactive can improve their health and well-being by becoming even moderately active on a regular basis.
  - Physical activity need not be strenuous to achieve health benefits.
- Greater health benefits can be achieved by increasing the amount (duration, frequency, or intensity) of physical activity.
- Regular exercise decreases risk of cardiac events:
  - Total incidence of cardiac arrest (rest and exercise) decreases with increasing exercise levels.

USDOHHS. Physical activity and health: A report of the surgeon general. Atlanta, GA: Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion; 1996.

Physical Activity & Physical Fitness

**Physical Activity**
- Any bodily movement produced by skeletal muscles that results in energy expenditure
- Measured by:
  - Self report
  - Movement device (accelerometer)

**Physical Fitness**
- Physical activity required to improve physical fitness
- Not all physical activity caused improved fitness
- Need Regular exercise
- Measured by:
  - Aerobic capacity testing

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**ACSM/AHA Recommendations 2007**

- All healthy adults (18-65) need:
  - Moderate intensity aerobic (endurance) physical activity
    - Minimum of 30 minutes
    - 5 days each week OR
  - Vigorous intensity aerobic (endurance) physical activity
    - Minimum of 20 minutes
    - 3 days each week OR
  - Combination of these activities
  - These are IN ADDITION TO routine activities of light intensity
ACSM/AHA Recommendations 2007-- Muscle Strength

- All healthy adults (18-65) will benefit from performing:
  - Activity that will maintain or increase muscle strength or endurance
    - 2 days each week (non-consecutive)
    - 8-10 exercises
    - Major muscle groups

Dose-Response Relationship for Physical Activity

- Benefit
- Low to High Baseline activity status
- A = Sedentary
- B = Moderately active
- C = Active
- Dose-response curve
How do you know if you are doing moderate physical activity?

- Estimate based on activities
- Measure HR during exercise
  - Calculate Maximum heart rate
  - Determine if the patient's heart rate is 60% of max
- Measure Rating of Perceived Exertion (RPE)

Moderate Physical Activity

<table>
<thead>
<tr>
<th>Moderate-intensity Physical Activity (Approximately 3-6 METs)</th>
<th>Vigorous-intensity Physical Activity (Approximately &gt;6 METs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Requires a moderate amount of effort and noticeably accelerates the heart rate.</td>
<td>Requires a large amount of effort and causes rapid breathing and a substantial increase in heart rate.</td>
</tr>
<tr>
<td>Examples of moderate-intensity exercise include:</td>
<td>Examples of vigorous-intensity exercise include:</td>
</tr>
<tr>
<td>* Brisk walking</td>
<td>* Running</td>
</tr>
<tr>
<td>* Dancing</td>
<td>* Walking / climbing up a hill</td>
</tr>
<tr>
<td>* Gardening</td>
<td>* Fast cycling</td>
</tr>
<tr>
<td>* Housework and domestic chores</td>
<td>* Aerobics</td>
</tr>
<tr>
<td>* Traditional hunting and gathering</td>
<td>* Fast swimming</td>
</tr>
<tr>
<td>* Active involvement in games and sports with children / walking domestic animals</td>
<td>* Competitive sports and games (e.g. Traditional Games, Football, Volleyball, Hockey, Basketball)</td>
</tr>
<tr>
<td>* General building task (e.g. rooting, throwing, painting)</td>
<td>* Heavy shoveling or digging ditches</td>
</tr>
<tr>
<td>* Carrying / moving moderate loads (≤20kg)</td>
<td>* Carrying / moving heavy loads (≥20kg)</td>
</tr>
</tbody>
</table>

www.who.int/entity/dietphysicalactivity/moderate
Moderate Physical Activity in Relation to Heart Rate

- Heart rate increases to approximately 60% of maximum

- Maximum heart rate based on age:
  - Standard formula of 220-age underestimates exercising HR for older adults and overestimates HR for younger.
  - **208 minus [(0.7)*(age)]**

- Adult age 70
  - Max heart rate old method = 150
  - Max heart rate new method = 159


Rating of Perceived Exertion

- During the workout we want you to rate your perception of exertion, i.e. how heavy and strenuous the exercise feels to you and how tired you are. The perception of exertion is mainly felt as strain and fatigue in your muscles and breathlessness or aches in the chest.
Case Example

- 75 y.o. s/p total knee arthroplasty
- Warm up on bike:
  - Max HR: 152
  - Heart rate measured on bike: 140
  - RPE 17
- How hard is this patient working?

Physical Therapist’s Role

Physical Therapists have 2 primary roles:
1. Promote health and fitness
2. Prescribe physical activity
   - Need to individualize physical activity recommendations
     - Identify CV risk status of clients
     - Ensure safe physical activity
     - Ensure effective physical activity
Current Status

- 75% of orthopedic PTs do some form of screening  
  (Scherer 2005)

- 54% of PTs incorporate physical activity for health benefits into plan of care  
  (Rea, 2004)

- Less than 50% of PTs (including clinical educators) measure vital signs at rest
- Even fewer measure vital signs during exercise  
  (Scherer 2005, Frese 2002)

Physical Therapy Health goals

- Improve patient’s health indicators to recommended levels
  - Performing health indicator evaluation
    - Includes vital signs
  - By use of physical activity or exercise
  - Through recommendations for follow up

Every healthcare visit should include a blood pressure reading.
Health Indicators

- Health indicators including aerobic capacity have a significant impact on physical function that is relevant to Physical Therapists
  - Hypertension
  - Obesity
  - Cardiovascular Risk
  - Physical activity
  - Aerobic capacity

HTN and Physical Therapy Outcomes

- Hypertension management may affect post-stroke outcomes. (Zorowitz, 2005)

- HTN associated with faster rates of mental (logical reasoning tasks) and physical decline (SF-36 in community dwelling older adults). (Kuo, 2005)

- Cormorbidty (including HTN) has negative effect on physical functioning. (Fried, 1999)

- Patients with LBP, those that used narcotics had higher incidence of HTN. (Rhee, 2007)
**Obesity and Physical Function**

- Negative effect on physical performance
  - Children limited in standing long jump & vertical jump
    (Hills, 2002)
- Slower gait speed and inability to adjust speed to conditions
  (Hills & Parker, 1992)
- Difficulty in rising from chair (69% obese children needed assist)
  (Hills, 2002)
- Increased musculoskeletal pain limiting work
  (Peltonen, 2003)
- Increased frequency of total hip and knee surgery and poorer total knee outcomes
  (Foran, 2004)

**Physical Activity and PT Outcomes**

- Adults with arthritis who learned exercise through physical activity interventions had decreased pain and increased physical function compared to controls.
  (Conn et al 2008)
- Exercise interventions improve glucose control in patients with diabetes.
  (Conn et al 2007)
- The Arthritis, Diet and Activity Promotion Trial (ADAPT): design, rationale, and baseline results indicate improved physical function and physical performance with exercise and diet.
  (Miller et al, 2003)
- Exercise after lumbar disc surgery had less pain and disability by Oswestry score.
  (Ostelo, 2008)
What do we need to know in order to provide SAFE physical activity?

- What is the patient’s CV risk level?
- What is the risk of a CV event during physical activity?
- What is the exercise intensity?
- What do I do to ensure SAFE physical activity?
  - Screen carefully
  - Classify CV risks
  - Monitor vitals and S & S during any physical activity

Risk Factor Example

- 38 year old male patient who’s father died of a heart attack at age 52. His mother was put on medication for hypertension 2 years ago at the age of 69. He is a non-smoker. He reports he plays basketball 1x week.

- His weight is 170lbs, height is 5’8” (BMI=25.9kg/m²)
- Resting HR 74bpm, resting BP 132/84 mmHg
Cardiovascular Risk Factors

<table>
<thead>
<tr>
<th>Non-modifiable Risk Factors</th>
<th>Modifiable Risk Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Age</td>
<td>• Smoking</td>
</tr>
<tr>
<td>• Gender</td>
<td>• Blood pressure</td>
</tr>
<tr>
<td>• Family history</td>
<td>• Dyslipidemia</td>
</tr>
<tr>
<td></td>
<td>• Obesity &amp; waist circumference</td>
</tr>
<tr>
<td></td>
<td>• Physical Activity</td>
</tr>
<tr>
<td></td>
<td>• Abnormal glucose metabolism</td>
</tr>
</tbody>
</table>

Family History Risk Factor

- Myocardial infarction or coronary revascularization
- Sudden death due to CV event
  - Before age 55 in father or 1st degree male relative
  - Before age 65 in mother or 1st degree female relative
Smoking Risk Factor

- Current tobacco smoker OR
- Quit smoking within the previous 6 months

Classification of Blood Pressure in Adults

<table>
<thead>
<tr>
<th>Systolic</th>
<th>Diastolic</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 120</td>
<td>and</td>
<td>&lt; 80</td>
</tr>
<tr>
<td>120-139</td>
<td>or</td>
<td>80-89</td>
</tr>
<tr>
<td>140-159</td>
<td>Or</td>
<td>90-99</td>
</tr>
<tr>
<td>= 160</td>
<td>or</td>
<td>&gt; 100</td>
</tr>
</tbody>
</table>

Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure, JAMA 2003; 289(19) JNC7
Hypertension Risk Factor

- Systolic Blood pressure = 140 mmHg OR
- Diastolic Blood pressure = 90 OR
- Taking a anti-hypertension medication
  - Diuretic
  - Angiotensin converting enzyme inhibitor (ACE inhibitor)
  - Angiotensin receptor blocker (ARB)
  - Beta blocker

National Cholesterol Education Program (NCEP)

Adult Treatment Panel ATP III Guidelines

<table>
<thead>
<tr>
<th></th>
<th>Desirable</th>
<th>Borderline</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>LDL</td>
<td>&lt; 100</td>
<td>130-159</td>
<td>= 160</td>
</tr>
<tr>
<td>Total Cholesterol</td>
<td>&lt; 200</td>
<td>200-239</td>
<td>= 240</td>
</tr>
<tr>
<td>HDL</td>
<td>= 60</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Cholesterol Risk Factor

- Low density lipoprotein > 130 mg/dl OR
- High density lipoprotein < 40 mg/dl OR
- Total cholesterol > 200 mg/dl OR
- Taking a lipid lowering medication
  - Statins
  - Fibrates (gemfibrozil, Lopid)
  - Cholestyramines (Questran)
  - Niacin
  - Ezetimibe (Zetia)

BMI – Body Mass Index

- Good for screening
- BMI is independent risk factor for CV disease
- BMI = weight (kgs)/height (m)^2
- BMI calculator
  - http://www.nhlbisupport.com/bmi/
- Obesity is a risk factor when BMI > 30

<table>
<thead>
<tr>
<th>BMI</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 18.5</td>
<td>Underweight</td>
</tr>
<tr>
<td>18.5-24.9</td>
<td>Normal</td>
</tr>
<tr>
<td>25-29.9</td>
<td>Overweight</td>
</tr>
<tr>
<td>30.0 or above</td>
<td>Obese</td>
</tr>
</tbody>
</table>
Waist Circumference

- Waist circumference not helpful with normal BMI
- When BMI is overweight (25-29), waist circumference can indicate whether weight is muscle or fat
- **Measure Waist circumference when BMI is > 25**

When the BMI is between 25 and 34.9 (overweight to obese)
- High Waist Circumference and abdominal adiposity is associated with an increased risk for:
  - type 2 diabetes
  - cardiovascular disease
- Risk increases when BMI is > 25 AND waist circumference measures
  - Women > 35 inches (88 cm)
  - Men > 40 inches (102 cm)

Source: NIH: NHLBI

Physical Activity Risk Factor

- No regular exercise OR
- Not meeting minimal physical activity recommendations (ACSM)

- Do you do physical activity such as walking?
  - 5 days of week
  - 30 minutes each of those times
  - Is the exercise moderate or vigorous?
Risk Factor Example

- 38 year old male patient who’s father died of a heart attack at age 52. His mother was put on medication for hypertension 2 years ago at the age of 69. He is a non-smoker. He reports he plays basketball 1x week.
- His weight is 170 lbs, height is 5’8” (BMI=25.9kg/m²)
- Resting HR 74bpm, resting BP 132/84 mmHg
- How many risk factors do you observe in this patient?

PT Measurement of Risk Factors

- PT should capture information on risk factors through interview:
  - Family history
  - Smoking
  - Hypertension and Cholesterol
  - Physical Activity
  - Current disease
  - Signs and symptoms
- And measurement:
  - Obesity & waist circumference
  - Blood pressure
Current Disease

- **Cardiovascular**
  - Coronary disease (angina)
  - Peripheral arterial disease
  - Cerebrovascular disease (stroke or TIA)

- **Pulmonary**
  - COPD/Emphysema
  - Asthma
  - Fibrosis

- **Metabolic disease**
  - Diabetes mellitus (IDDM, NIDDM)
  - Thyroid (hyper or hypo)
  - Renal
  - Liver

Major signs/symptoms of CV or Pulmonary Disease

- Pain, discomfort (or other anginal equivalent) in the chest, neck, jaw, arms, or other areas that may be due to ischemia
- Shortness of breath at rest or with mild exertion
- Dizziness or syncope
- Orthopnea or paroxysmal nocturnal Dyspnea
- Ankle edema
- Palpitations or tachycardia
- Intermittent claudication
- Unusual fatigue or shortness of breath with usual activities
Risk Stratification

Low
• younger individuals (men < 45 years of age; women < 55 years of age) who are asymptomatic and meet no more than one risk factor threshold from the table above

Moderate
• Older individuals (men = 45 years of age; women = 55 years of age) or those who meet the threshold for two or more risk factors from the table above

High
• individuals with one or more signs/symptoms listed in the box above or known cardiovascular, pulmonary or metabolic disease

Cardiovascular Risk Minimum Data Set

<table>
<thead>
<tr>
<th>Comorbidities:</th>
<th>BP</th>
<th>Measured</th>
<th>Patient Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measured</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Smoker: [ ] Current [ ] Past [ ] Never  Physical Activity: [ ] Meets [ ] Does not meet

- CVD (Patient/Family History)
- CV Meds (including BP Meds)
- DM (Patient/Family History)
- DM Meds
- Pulmonary Disease (Patient/Family History)
- Pulmonary Disease Meds
- No Comorbidities Reported

Other Conditions: _____________________________
CV Risk Stratification

- 43 year old male patient who’s grandfather died of a heart attack at age 52. His mother was put on medication for hypertension 2 years ago at the age of 69.
- He quit smoking 3 months ago. He reports he plays doubles tennis 2x week. He is taking Lipitor and Atenolol (beta blocker)
- His weight is 170lbs, height is 5’8” (BMI=25.9kg/m²)
- Resting HR 74bpm, resting BP 122/74 mmHg

What do I do with this information?

- Change monitoring strategy based on risk stratification
- Participate in achieving health goals for patients
- Prescribe physical activity for health benefits and plan of care
Clinical Decisions Based on CV Risk Category

- Low Risk
- Moderate Risk
- High Risk

ACTION: Low Risk

- Recommend follow up for existing risk factor
  - Example: follow up with physician for hypertension, smoking cessation, etc.

- Measure baseline heart rate and blood pressure
- No modifications to PT needed
**ACTION: Moderate Risk**

- Recommend follow up for existing risk factors
- Measure HR/BP prior to physical activity
- **DO NOT exercise if:**
  - Heart rate: > 120 or < 50 bpm
  - Resting SBP: > 200 mmHg or < 100 mmHg
  - DBP: > 110 mmHg
  - O2 Sats: < 90% unless indicated
- Monitor HR/BP, and RPE during physical activity
  (SaO2 if indicated or available)
- Monitor HR/BP for 3-5 minutes after exercise

**ACTION: High Risk**

- Determine whether current condition is *stable*
- Consult physician for current disease status if needed
- Measure HR/ BP prior to physical activity
- Measure baseline status relevant to condition:
  - Asthma (peak flow) OR DM (blood glucose)
- Monitor HR/ BP, (SaO2) and RPE during physical activity
- Monitor HR/BP 5 minutes after activity
- Limit exercise intensity: monitor using HR or RPE
When Not to exercise

- DO NOT start exercise if:
  - Heart rate: > 120 or < 50 bpm
  - Resting SBP: > 200 mmHg or < 100 mmHg
  - DBP: > 110 mmHg
  - O2 Sats: < 90% unless indicated
  - Symptoms
    - Unstable angina
    - Mental confusion
    - Leg pain at rest
    - Cyanosis
    - Increasing SOB
    - Severe fatigue
  - Acute Illness

Exercise Responses

- HR and SBP should increase as workload increases OR
- Stabilize if exercise stays the same

- Diastolic BP should remain the same ± 10 mmHg with exercise
Blood pressure and Steady State Exercise

- Vasodilation in active muscle reduces total peripheral resistance
- Blood flow enhanced in peripheral musculature
- Muscle contraction/relaxation propels blood from periphery to heart
- Increased blood flow at start of exercise = increased SBP during 1st few minutes
  - SBP levels off at 140-160
  - SBP may gradually decline as arterioles in active muscles dilated (decrease TPR)
  - DBP about the same

CV Response to Incremental Exercise

- SBP & HR increase in response to workload
  - Progressive increase in SBP
    - 10 ± 2 mmHg/MET
- DBP remains the same
- Widening of pulse pressure (systolic – diastolic)
SBP & DBP responses to Arm and Leg exercises

<table>
<thead>
<tr>
<th>Percent of VO2max</th>
<th>Systolic Pressure</th>
<th>Diastolic pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Arm</td>
<td>Leg</td>
</tr>
<tr>
<td>25%</td>
<td>150</td>
<td>132</td>
</tr>
<tr>
<td>50%</td>
<td>175</td>
<td>144</td>
</tr>
<tr>
<td>75%</td>
<td>205</td>
<td>160</td>
</tr>
</tbody>
</table>

Arm exercise leads to higher SBP/DBP than leg exercise at same percent of VO2max

Astrand, 1965

Abnormal Responses

- Exertional hypotension
  - Drop in SBP > 10 mmHg from baseline with increase in workload
  - Associated with CAD, myopathy, dysrhythmia
  - Correlates with myocardial ischemia & increased risk of cardiovascular events
  - Maximal SBP of < 140 mmHg is a poor prognosis
When to **Stop** Exercise

- Decrease in heart rate with increase in activity
- Stable heart rate as workload increases
- SBP > 220 mmHg or decrease > 10 mmHg with activity
- DBP >110 mmHg or ± 10 mmHg over baseline
- O2 Sats < 90% unless otherwise indicated
- Symptoms

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Post-exercise responses

- Normal = progressive decline in SBP to 10% of baseline
  - DBP may drop 10 mmHg
- Abnormal = hypotension
  - Upright position and peripheral pooling
Situations for Potential Consultation

- Critical issues to consider as PT
  - Vital Signs Abnormal at rest
  - Cardiovascular or pulmonary response to exercise abnormal
  - Signs and symptoms occur with exercise
    - Increasing dyspnea with pain
    - Angina at rest or low level of exercise
    - Decreased cardiac output (cyanosis, diaphoresis, pallor, confusion)
  - If you need more information

What to Document

- CV risk status
- Comorbidities
- Physiologic response to exercise
  - Include exercise parameters: intensity and time
- Use goals that include physiologic responses
- Include comorbidity in rationale for plan of care
- Refer or consult for risk factor management
Benefit of CV Risk Stratification in Sub-Acute or Acute Settings

- Reduces risk
- Promotes health
- Shorter length of stay
- Improved functional outcomes

Medicare Pay for Performance
Some criteria are appropriate for PT and use these skills

Physical Activity in PT Plan of Care?

- Physical Activity is beneficial for most plans of care

- Risk stratification, tests and measures that lead to an exercise Rx, management, outcomes assessment are the skilled services that can and SHOULD be offered by the physical therapist

- Risk stratification and results of tests/measures help PT determine the needs for supervision of an Exercise prescription
Can I include PA in my PT care plan?

For the legal question -
Co State Practice Act 12-41-103, Definitions.

- (6) (a) (I) "Physical therapy" means the examination, treatment, or instruction of patients and clients to detect, assess, prevent, correct, alleviate, or limit physical disability, movement dysfunction, bodily malfunction, or pain from injury, disease, and other bodily conditions.

- (E) The provision of consultative, educational, and other advisory services for the purpose of reducing the incidence and severity of physical disability, movement dysfunction, bodily malfunction, and pain.

Will I get reimbursed for such services?

- Insurance options
  - Code for Primary diagnosis and co-morbidities
  - Documentation/billing to include ICD-9 codes such as:
    - Diabetes 250.0
    - Obesity 278.0
    - Hypertension 401.0
- Private Pay options- transition to Fitness Center
  - Same Physical Therapist Model must be followed:
    - Examination, Evaluation, Diagnosis, Prognosis, Intervention
Case Report

- 60 yr old male presents with the following:
  - chronic low back pain x 2-3 yrs with radiating leg symptoms to buttocks and sometimes to knees R>L, that has worsened over the last 3 weeks.
  - Pain level 7/10 with standing or walking >50 ft to 2 blocks, 1/10 with sitting or a flexed posture
  - Oswestry Score: 42%, FABQ 14, SSS ss 14/33, pf 10/20
  - Activity Level: sedentary
  - History: HTN, otherwise unremarkable
  - Meds: Zestril (Lisinopril, ACE inhibitor), vitamins, various supplements

Test and Measures

- Resting BP 130/80, HR 88, BMI – 28, Waist circumference – 45 "
- Posture/Gait- mild thoracic kyphosis, decreased lumbar lordosis, stand/walk with ~25° hip flex, decreased stride length, slow gait pattern
- Limited active trunk mobility – 50%
- Limited thoraco/lumbar P/A, SB mobility, decreased caudal glides bilateral hips R>L,
- Limited muscle length in R hip flex/quad and L hams, bilateral piriformis L>R
- Treadmill @3 MPH flat – 2 min prior to R leg pain pain, 15° incline – 9 min prior to R leg pain
- 6 min walk 350 meters with 3 rests for leg pain, post test BP 165/88, HR 120
**Diagnosis/Prognosis/Co-morbidities**

- Dx
- Prognosis
- Risk Stratification

- Impact of patient’s CV Risk on prognosis and care plan??

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**Patient Goals**

- Increase spine/hip mobility so as to assume neutral standing postures
- Reduce Oswestry score to < 20 %, SSS by 25%, VAS to 2/10 with standing
- Increase standing tolerance to 30 minutes without LB/leg pain
- Walk 1/2 mile without symptoms and with normal physiological responses
- Independent in aerobic exercise program to reduce cardiovascular risk factors
- Reduce BMI to 25
Documentation/Billing

- ICD -9 codes
  - 724.4, 724.02, 401.9, 278.0

- CPT billing codes
  - 97001, 97002 evals
  - 97110, 97112, 97140 interventions
  - 97750 tests and measures

What to do Tomorrow?

- Review your clinic medical screening form to group cardiovascular risk factors in same place on form
- Find the BP cuff, stethoscope and scale
- Stratify patients for CV risk factors
- Measure HR/BP/RPE at rest and with activity
- Include PA/fitness programs as indicated in PT care plan
- Communicate with referral sources to share how PT can help their patients
What to do Tomorrow?
Documentation & Billing

- Determine how PT Care Plan can work within insurance carrier guidelines and what barriers need to be overcome
- Include comorbidity codes in Dx
- Include documentation terms that indicate and justify skilled PT

Future Directions for PT profession

- Assess the prevalence of cardiovascular risk in your clinic setting
- Analyze the effect of cardiovascular risk factors on PT outcomes for your patients
- Track number of patients you treat for health benefits (hypertension, obesity, etc) and how many patients you refer to others for disease management
  - We can help!
Summary and Questions

- Discussion of opportunities and barriers
- Questions
- Thank you!