A Day in our **PAD Exercise Program**

A Practical Review

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Community Hospital St. Catherine Hospital St. Mary Medical Center East Chicago, Indiana Hobart, Indiana

Objectives

- > An overview of an existing PAD Exercise program
- Review of the basics: staffing, equipment, routine
- Review of patient care: FITT, education
- Practical advice for program development based on experience and history

Special thanks to Laura York, RN



- Foresight and vision into our PAD Rehab program
 - Started our program in 2003

Our Setting

- Phase 3 Cardiac Rehab setting
- > Off campus, across street from main hospital
- 2 structured classes and 1 Open Gym (self-structured) class per week
- Self-pay
- Staffed by Registered Nurses and Masters-prepared Exercise Physiologists (usually 1 RN/1 EP on floor)
- > Case Management approach
- Required MD order
 - Stress test per MD discretion
 - Lipid Profile (<1 year old)</p>

History/Progression of our PAD Program

Initially (2003):

- Orientation: health history, PAD assessment, graded treadmill PAD testing
- Exercised 2 times per week in a structured PAD only class
- Instructor-led stretching warm-ups/muscular strengthening/cool-downs
- Home exercise program to do on off days. Walking encouraged most days of week
- Education:

Classroom: Vascular Disease Pathophysiology Exercise Therapy Diet/Cholesterol Foot/leg Care

Specific PAD risk factors addressed 1:1 (smoking cessation, foot wear)

History/Progression of our PAD Program (cont.)

Presently:

- > Exercises 3 times per week within our Phase 3 program
 - > 2 structured classes
 - > 1 Open Gym (self-structured) class per week
- Patient joins regular Phase 3 class for warm-ups /muscle strengthening, then performs own exercise protocol. Typically a seated recovery.
- Home exercise program to do on off days. Usually consists of home treadmill, walking around home/neighborhood/big box store.

History/Progression of our PAD Program (cont.)

Presently:

Attends our Phase 3 education classes:

- Anatomy/Physiology Arteriosclerosis Disease
- PAD/Stroke
- Heart Healthy Diet
- Lipid Physiology
- Hypertension

- Stress
- Weight Management
- Heart Failure
- Diabetes
- Exercise

Specific PAD risk factors addressed 1:1 (smoking cessation, walking program)

Typical Patient seen/referred

- Cardiac referral (Phase 2 graduate/outside referral) and upon health history, shown to have activity limited by PAD
- > MD referral with classic PAD symptomology
- Self referral from information received at health fair/screening
- Post-PAD intervention-unsuccessful
- Post-PAD intervention-successful: reconditioning
 - May not qualify for reimbursable PAD Rehab if no longer symptomatic

If a true PAD patient ...think low functioning, deconditioned, using assisted device

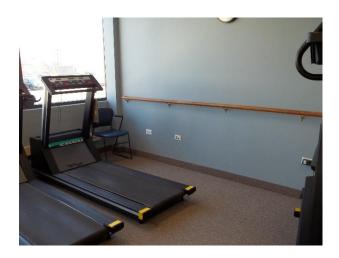


Orientation

- General Phase 3 Orientation
 - Phase 2 graduate/Group setting: Phase 3 program specifics, tour, paperwork
 - Outside referral/Individual: Health history, 6 minute walk test, Phase 3 program specifics, goal setting, paperwork
- PAD Specific Orientation/Individual
 - > Done during original orientation or prior to first class
 - Claudication history, 6 minute walk test (noting stopping/resting times)
 - > Do not do any graded exercise testing protocol
 - Resting ABI per staff discretion
 - Review of PAD walking protocol
 - Emphasizing a different kind of "rehab"...painful vs pain-free
 - > What is their goal for PAD Rehab

Environment...Things to consider

- Low platform treadmill for ease to get on/off
- Chair located next to for rest periods
- Areas for holding on to for balance/fall prevention (treadmill railing/wall railing/etc.)
- Space for walker/cane





Environment...Things to consider (cont.)

- Easy accessibility to clipboard/training form and timer
- Close to restroom
- Posted claudication scale
- Reserve sign to save specific treadmill for patient









Intermittent Claudication Rating Scale

- 0 No claudication pain
- 1 Initial, minimal pain
- 2 Moderate, bothersome pain
- 3 Intense pain
- 4 Maximal pain, cannot continue

Typical Day of Exercise

- One staff is scheduled for approximately 1 week to work 1:1 with patient
 - After 1:1 session, patient self-responsible for walk protocol and training form
 - Clinic staff assist when needed
- First session continuously tele-monitored
 - > THR: 60-80% APMHR
- Resting vitals: HR/BP/rhythm check
- Warm-ups: Stretching, active
 - Patient specific: Seated if needed
- Walking program
 - Exercise vitals: HR/rhythm check/once weekly BP
- Cool Downs:
 - > If done with walking protocol, joins Phase 3 cool-down portion
 - Seated rest

Typical Day of Exercise (cont..)

- Walking protocol
 - > No cookie cutter speed/grade
 - Trial and error for speed/grade
 - Speed: A comfortable speed that allows for a 5-10 minute walking period; provokes pain enough to stop
 - Goal is about 2.0 mph speed initially, increasing based on patient's ability
 - Grade: Patient specific for goals. Do not want to deter speed/safety/pain onset
 - Once at speed goal, can increase elevation (0.5-1% increments) to provoke pain
 - Pain scale: Patient specific. 2-3 on scale. Goal is to push to pain
 - > **Rest periods:** Until pain is subsided
 - Total walking time: 30 minutes minimum, Goal: 45 minutes
 - Open gym day: May choose non-weight bearing modalities to work on CV vs. PAD

Contraindications/Terminate of Exercise

Contraindications:

- Resting claudication pain
- > PAD wounds not medically attended to
- Cardiac contraindications (rest SOB/chest pain/symptomatic HF/etc.)
- Elevated resting BP (> 140/> 90)
 - Seated rest/slow warm-up, recheck
 - > MD order for new guideline if continuously over

Termination:

- Exceeds THR/safe limit
- Elevated exercise BP (<u>> 200/> 100</u>)
- Cardiac signs/symptoms (lightheaded/dizziness/chest pain/ severe fatigue/etc.)
- Drop of SBP (>20 mmHg)

Documentation...our training form

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| Date Weight Rest HR Rest BP Mode Wkld (spd/elv Init Pain (min Max min Claud Scale Exercise HR Rest Time Exercise BP Recovery HR Comments | | | | | | | | | | | | | | | | | | | | | FAD EXERCISE LOG | | | | | | | | | | |
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Documentation...our training form (cont.)

| Date | | Da | aily | | 3/15/18 | | | | | | |
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| Weight | W | eekly/D | Daily if I | ΗF | 175.2 | | | | | | |
| Rest HR | | Da | ily | | | 6 | 8 | | | | |
| Rest BP | | Da | aily | | | 112 | /64 | | | | |
| Mode | | | | | ТМ | ТМ | ТМ | NU | | | |
| Wkld (spd/elv) | | | | | 1.6/0 | 1.6/0 | 2.0/ 0.5 | L2 | | | |
| Init Pain (min) | | | | | 3:15 | 4:30 | 3:26 | | | | |
| Max min | | | | | 6:43 | 8:25 | 9:25 | 10:00 | | | |
| Claud Scale | | | | | 3 | 3 | 2 | 0 | | | |
| Exercise HR | | | | | 103 | 110 | 108 | 99 | | | |
| Rest Time | | | | | 4:15 | 3:45 | 3:50 | done | | | |
| Exercise BP | Once | Weekly | or mor | e if ↑ | 138/68 | | | | | | |
| Recovery HR | | Da | ily | | 72 | | | | | | |
| Comments | | | | Great day today | | | | | | | |

Initial Pain Time

Maximum Time Use treadmill timer

<u>Heart Rates</u>

pulse check/oximeter/device

Rest Time Kitchen timer

Exercise Program...FITT

Frequency: PAD Exercise program: 3 times/week Home: Encourage patient to continue walking on most non-rehab days

> Walking in a big box store. Shopping cart is great aid.

Intensity: Home: Can encourage to do using a "lower" pain scale

Time: Total 30-45 minutes

Can be multiple "mini" sessions through the day.
 10 minutes-morning/noon/night

Type: Cardiovascular-Walking preferred

> If not able to tolerate, can use a non-weight bearing modality

Muscle Strengthening-

- > 2-3 times/week
- > 6-12 exercises of major muscle groups
- 8-12 reps; 2-3 sets

Follow-up

- Case Management appointments to work on risk factors
- 6 minute walk test: 3 months/6 months/
 9 months/yearly
 - > A great motivator or can be a great revealer

Documentation

- Training form
- > PAD Individualized Treatment Plan
 - History of PAD/DM/smoking/orthopedic issues
 - Signs/symptoms (pain/tightness/fatigue/physical signs)
 - Physical assessment (color/hair loss/nails/skin condition)
 - Interventions (rehab/education)
 - ABI results
 - Narrative charting area
- Outcomes Flowsheet (6MWT data/lipid & HgA1c/Medical Utilization/Smoking)
- Paper chart
 - Progress notes (telemetry strips, charting)
 - Consents/orders
 - Stress test results
 - Lipid/HgA1c flow sheet
 - Miscellaneous

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Results

| Patient | Pre-PAD 6MWT Distance (feet) | Post-6MWT | % Change |
|---------|---------------------------------|-------------------------------|----------------|
| Jackie | 455' | 3 mos.: 910' | 455'/ 50.0% |
| Phil | 650' 2 stops/CS-3 | 3 mos.: 940' No stops/CS-2 | 290'/ 30.9% |
| Pat | 1442' | 6 mos.: 1778' | 336'/ 18.9% |



Ultimate Goals

- > IMPROVE QUALITY OF LIFE
- Patient specific
- Functional
 - Refer to patient goal
 - Increase in peak walking distance
 - > Improve pain free walking distance
- Physiological/mechanical improvement
 - Improving muscle metabolism/functioning/strength
 - Improving endothelial functioning
 - > Improved walking biomechanics
 - Reduce CV risk factors

Thank you...

Here's.....Susan Bauman on PAD Reimbursement



 Community Hospital
 St. Catherine Hospital
 St. Mary Medical Center

 Munster, Indiana
 East Chicago, Indiana
 Hobart, Indiana

