

Case Study: Exercise Management of CHF Patient after Debilitating Fall

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Abstract:

HISTORY: A 64-year-old male (160.5 kg) was referred to our cardiopulmonary rehabilitation exercise program in October of 2015. Medical history and initial baseline physical assessments were measured including resting 12-lead ECG, SaO₂- 95 %, HR- 65 bpm, BP- 146/82 mmHg, glucose- 128 mg/dL, weight- 160.5 kg, and the Duke Activity Status Questionnaire and HSQ-SF36® quality of life questionnaire. He was cleared for exercise and given a basic orientation to exercise equipment including Nu-Step® and six different band resistance exercises prescribed at 2 sets of 20 (RPE rating = 13). An exercise prescription for attending the program three days per week was developed for approximately one hour at 2 to 3 METs with intermittent exercise on the Nu-Step® at a 4:1 ratio at 80% of estimated max METs to 20 percent of estimated max METs.

DIFFERENTIAL DIAGNOSIS:

1. Hypertension
2. Third degree heart block (Pacemaker)
3. Atrial flutter
4. Type II diabetes
5. Congestive heart failure

PHYSICAL EXAMINATION AND SYMPTOMOLOGY: The client was consistently attending the program, tolerating exercise well, increased his workload on the Nu-Step to a level 5, as well as improved his MET capacity up to 3.2 until the 2015 holiday break. He fell while leaving a restaurant and spent two weeks recovering from the injury.

TESTS AND RESULTS: He declined being admitted to the ER. After his fall the participant went to see his primary care physician for his injury to be examined where he received an x-ray which was negative for fracture. The entire left leg was contused and swollen with excessive swelling at the knee. Once he was cleared to exercise, January 27th, severe bruising and edema in the left leg continued, and he reported significant knee pain.

FINAL MANAGEMENT PLAN: The participant was placed on the Nu-Step® (1.5 METs) for 15 minutes. He returned to seated resistance exercises with a slow progression into the use of his left leg. He has since worked his way back up to 2.1 METs for 15 minutes.