PACMen: A Feasibility Study
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SIGNIFICANCE
Recent evidence has led to the recommendation for the engagement in moderate intensity physical activity (PA) in adults diagnosed with cancer, from time of diagnosis through treatment
- May reduce symptom burden
- Improve response to cancer treatment
- Yet, there is limited evidence on what type of PA patients with cancer may be more likely to engage in and sustain over time

PURPOSE
This feasibility study explores PA preferences and incorporation into daily activities over a 2-week timeframe in 15 men newly diagnosed with prostate cancer

Aims:
1) Measure PA and functional capacity in men newly diagnosed with prostate cancer prior to treatment
2) Explore feasibility of a 2-week PA intervention during pre-treatment.

Additional exploratory aims are to:
- Assess intervention safety and tolerability
- Change in functional capacity
- Change in symptoms

Hypothesis:
Providing a structured 2-week physical activity intervention of choice will be safe, well tolerated, and improve the functional capacity in men newly diagnosed with prostate cancer

METHODS
- Research nurse discusses various PA they may perform to meet their individualized intervention prescription
- Individual prescription is based on baseline measures of:
  - Functional capacity
  - Rate of exertion
  - Current engagement in PA
- All measures are repeated in 2-weeks
- All subjects have the option to continue in a companion study exploring PA through treatment

- Descriptive statistics are used for all baseline and post-intervention
- Repeated measures & Wilcoxon t-tests will be performed on:
  - Functional capacity
  - Symptom impact
  - Daily PA diary for type, duration, rating of exertion

OUTCOMES
- Study recruitment is ongoing
  Preliminary results indicate:
  - Increased functional capacity by 6 MWT
  - Less exertion, fatigue, and shortness of breath reported after performing physical activity for a 2-week duration
  - Subjects are willing to participate in a ‘continuation study’ by opt-in phrasing:
    - Treatment start
    - Once during treatment
    - Treatment completion

Preference of activities
- Walking
- Outdoor activities
- Yard work, mowing
- Gardening

IMPLICATIONS
- Men newly diagnosed with prostate cancer and awaiting treatment decisions afford the opportunity to study effects of PA prior to treatment
- The response has been positive which will permit the research team to increase sample size and study duration
- Providing choice in physical activity interventions appears to promote engagement and willingness to continue in study participation
- Future work is necessary and will be determined as we continue to recruit for this pilot study

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2. Our dedicated recruiting oncologist: Dr. Sundhar Ramalingam

PHYSICAL ACTIVITY INTERVENTION PROTOCOL

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<td>Diagnosis, stage, treatment recommendations, comorbidities</td>
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<td>Outcome Variables</td>
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<td>Timed up and go test</td>
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<td>Physical activity</td>
<td>Physical Activities Readiness Questionnaire</td>
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<td>Godin Leisure Time Exercise Questionnaire</td>
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<td>Daily physical activity diary with Rate of Perceived Exertion Scale (RPE) and Metabolic Equivalent of Task calculations (METs)</td>
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<td>Symptom Presence</td>
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<td>Self Efficacy Scale</td>
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<td>Qualitative perceptions on intervention</td>
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T1 Protocol
1. Obtain consent
2. Obtain baseline vital signs, weight, height, abdominal and hip circumference
3. Obtain baseline symptom presence scores
4. Perform baseline functional capacity tests
   - 5-minute walk test
   - Timed Up and Go Test
   - Balance Test
5. Obtain Rate of Perceived Exertion, Pain, Fatigue, and Shortness of Breath with each functional capacity test
6. Utilize a modified Godin Leisure Time Exercise Questionnaire to obtain current engagement in physical activities
7. Discuss benefits of physical activity
8. Obtain interest in physical activities that subject may perform over the 2-week timeframe.
   - The general recommendation, consistent with ACSM recommendations for cancer survivors (Rock et al., 2012; Schmidt et al., 2009), will be for the subject to perform 150 minutes of physical activity per week (the equivalent of 30 minutes per day over 5 days of the week).
   - For those with lower functional capacity at baseline, the physical activity intervention recommendation is to increase their physical activity level to 15 minutes per day for at least 5 days during the first week; they will then increase physical activity to 30 minutes per day for at least 5 days by the end of the second week.
   - Note that physical activity does not have to occur all at one time session in the day but may occur over 3-4 sessions spread throughout the day to equal the desired time of 15-30 minutes total.
   - If they are at risk for falling, physical activities that place them at a lesser risk for falling will be emphasized for their individualized intervention.
9. Discuss Daily Diary of Physical Activities
10. Schedule 2-week return appointment for T2 measures

T2 Protocol
1. Complete measures 2-4
2. Perform structured interview

T2 Protocol
1. Complete measures 2-4
2. Perform structured interview