Rehabilitation within Palliative Care

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Questions we’ll cover

• What is rehabilitation?
• Why is rehabilitation important in palliative care?
• Where is the evidence in this context?
  – Exercise programmes
  – Breathlessness services
  – Goal focused therapy
• What can we do today?

Disclaimer: this isn’t so new


Lunt, Jenk. Int J Nurs 1983;8:495-505
What is rehabilitation?

- Rehabilitation is a **process** aimed at enabling people to reach and maintain their **optimal** levels of physical, emotional, psychological and social **function**

- Rehabilitation provides people with the **tools** they need to attain **independence** and self-determination

Rehabilitation works across boundaries

Rehabilitation crosses boundaries, helping people to move safely into a new life, and equipped to adapt further.

Rehabilitation is work of patient, family & carers during daily activities at home/ward; therapists teach & advise

Rehabilitation is concerned with function

Healthy condition
(disorder or disease)

Body Functions & Structure

Activity

Participation

Environmental Factors

Personal Factors

Contextual factors

WHO, 2001
Disability involves a problem in one or more domains

Function can be improved by addressing the person or the environment

Disability

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Participation

Impairments

Limitations

Restrictions

Environmental Factors

Personal Factors

WHO, 2001

Rehabilitation practices in palliative care

Occupational therapy

Physiotherapy

• Countering and supporting a declining physical function
• Informing, guiding and educating
• Observing, assessing and evaluating
• Attending to signs and symptoms
• Listening, talking with and understanding
• Caring for basic needs
• Organizing, planning and coordinating

Morgan et al. BMJ SuPac 2017;7:179-88

Moller et al. BMC Palliative Care 2018;17:20


Rehabilitation may help early acceptance of palliative care

• Dual approach that prepares for the worst but allows hope for the best
• Gradual switch in focus of care
• Shows patients the services included in their care

Howley et al., JPM 2014;47:2-5
**Why is function relevant to palliative care?**

Functional capacity

Wishes

Needs

**Exercise during chemotherapy**

*Multidisciplinary high-intensity exercise intervention in cancer patients undergoing chemotherapy: randomized controlled trial*

- 269 patients (one-third palliative)
- Hospital-based *high intensity* training
- 120 min, four times weekly, 6 weeks
- Improved fatigue, exercise capacity, leg strength, activity levels
- No effect on overall QoL.

Adamsen et al. BMJ 2009;339:b3410

**Exercise in advanced cancer**

*Effect of collaborative telerehabilitation on functional impairment and pain among patients with advanced-stage cancer: a randomized clinical trial*

- 516 patients (~80% on anti-cancer treatment)
- Physio- and physician-led exercise
  - Step counts and indoor resistance training
  - 90 min, four times weekly, 8 weeks
- ± Nurse-led pharmacological pain management
- Outcomes: function, pain, quality of life, hospital use

Cheville et al. JAMA Oncol 2019
Trajectories of functional decline

Cheville et al. JAMA Oncol 2019

CAPACITY

Trajectories of functional decline

Lunney et al. JAMA 2003;289:2387-92

CAPACITY

Scott A Murray et al. BMJ 2017;356:j878

CAPACITY

South A Maria et al. BMJ 2017;356:j5792

CAPACITY
Trajectories of functional decline

Gill et al. NEJM 2010;362:1173-80

Activities of Daily Living

Essential activities that an individual needs to perform to live independently

- Basic Activities of Daily Living (BADLs)
  - Feeding/eating
  - Dressing
  - Bathing/showering
  - Toileting
  - Transfers e.g. bed/chair
  - Ambulation

- Instrumental Activities of Daily Living (IADLs)
  - Preparing food
  - Housekeeping
  - Shopping
  - Doing laundry
  - Using transportation
  - Handling medications
  - Handling finances

Symptoms, Disability and Hospice Admission

During any month the likelihood of hospice admission:

- ↑ 66% in the presence of any restricting symptom
- ↑ 9% for each additional restricting symptom
- ↑ 10% for each additional disability

Gill et al. JAGS 2018;66:41-47
Symptoms before and after US hospice admission

- 37 studies relating to 18 services
- Philosophy: rehabilitation and self-manage breathlessness, focus on the person before the disease
- Staffing: multidisciplinary team of experts in breathlessness and dignified care
- Setting: face-to-face clinics and/or at home, with phone support
- Contacts: 4-6 across 4-6 weeks

Breathlessness services

Breathlessness service components

- Self-management strategies
  - Relaxation / calming techniques
  - Pacing
  - Goal setting
  - Hand-held fan / water spray
  - Exercise plan
  - Breathing techniques
- Psychosocial support
  - Social support
  - Psychological support
  - Care / Family support
- Information & education
  - Smoking cessation advice / support
  - Sleep hygiene
  - Nutritional advice / support
  - Education / advice
- Other
  - Occupational aids
  - Acupuncture / TENS
Patient reported experiences

Perceived outcomes
- Increased confidence
- Feeling less isolated
- Increased understanding
- Feeling ‘in control’
- Reduced anxiety

Valued characteristics
- Education and information
- Simple, portable, tools
- Psychological support
- Involving family and carers
- Staff skills & dignity

Brighton et al Thorax 2019

Patient reported outcomes

What matters to people with advanced disease?
- Usual routines
- Continuing with important roles
- No longer feeling ‘who I once was’
- Being able to perform daily activities
- Adequate symptom control
- A sense of control
- Relieving burden
- Strengthen relationships with loved ones
- Maintaining dignity
- Maintaining a sense of humour
- Sharing time with friends and family
- Not being a burden

Singer et al. JAMA 1999; Chochinov et al JPSM 2009; Steinhausse et al. JAMA 2000
**Identifying what matters**

**Goal setting** can be used to:

- understand what patients want to achieve
- direct treatment in a manner that values patient priorities
- identify treatment outcomes that reflect meaningful change

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**Mapping of functional goals within palliative care**

<table>
<thead>
<tr>
<th>Goal</th>
<th>ICF code, domain</th>
<th>Frequency (n=645)</th>
</tr>
</thead>
<tbody>
<tr>
<td>To be able to walk to bus stop on my own with stick and no supervision in 4 weeks</td>
<td>15</td>
<td>116 (116)</td>
</tr>
<tr>
<td>To move around my bed with ease, reducing effort from 8 to 5/10 in 1 week</td>
<td>15</td>
<td>100 (100)</td>
</tr>
<tr>
<td>To go out for dinner at a level access restaurant with my friends for an hour within 3 weeks</td>
<td>16</td>
<td>99 (99)</td>
</tr>
<tr>
<td>To work with my daughter on meal preparation and participate 3 times a week in 1 month</td>
<td>17</td>
<td>55 (55)</td>
</tr>
<tr>
<td>Be able to wash my bottom half in shower independently within 3 weeks</td>
<td>18</td>
<td>29 (29)</td>
</tr>
</tbody>
</table>

Median (range) timescale of 28 (4-56) days

Goals (n=645) spanned 15/30 WHO-ICF domains

Fettes et al. (in preparation)
**Functional goal near end of life**

**Impairment**

- To feel safe mobilising with my walking stick without assistance within 4 weeks.
- To reduce my breathlessness after doing stairs to 3/10 Borg scale following 8 stairs in 8 weeks.
- To increase my confidence in standing time in the past and walking by 2 paces on NNE within 8 weeks.

**Activity**

- To be able to reach my overhead kitchen cupboard for dinner and empty/look washing machine without pain, as required in 6 weeks.
- To be able to walk to my sons house (~300 paces) within 6 weeks.
- To be able to walk to the bath (10m) from my bed in 1 week.
- To transfer safely on my own without supervision and walk to/from ward bathroom (10m) in 1 week.
- To help me during task whilst doing work on my laptop.
- Using a voice amplifier I will be able to make myself understood for 90% of the 30min conversation with my husband on the phone tonight.

**Participation**

- To ask dad to bring my puppy in twice in the next 10 days in order for me to take her into the garden to play with her in a paced way.
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**Goal Attainment Scaling**

Mean (SD): 8.9 (13.4)
Median (IQR): 10 (0-20)

**What can I do today?**

- Promote self-management
- Prioritise enablement
- Focus on function
- Discuss goals and wishes
What can I do tomorrow?

Processes to improve integration:

• Multidisciplinary team
• Routine symptom screening
• 'Cross care' possible in both services
• Follow agreed guidelines
• Early referral
• Clinical care pathways
• Team included in patient care discussions
• Communication, cooperation and coordination
• Routine discussion of core issues

Summary

• Rehabilitation is a key component of comprehensive palliative care that promotes function, independence and choice.
• Exercise and practical strategies to targeting restricting symptoms such as pain and breathlessness can enhance function.
• ADL disability represents an important outcome for patients, families, professionals and services.
• Rehabilitation focused on participation, directed by patient goals, can achieve gains including at the end of life.

Thank you

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Physical performance tests

Gait speed
- Timed walk along a set course
- Variation in course length, standing or walking start, timing parameters, walking pace, test number
- Most commonly:
  - 4 meter course (4MGS)
  - Standing start
  - Best of 2 attempts

Sit-to-stand
- Standardised chair height and instructions
- Either timing a set number of repetitions, or counting number of repetitions in a set time
- Sometimes incorporates a walking component, e.g. Timed Up & Go test

Short Physical Performance Battery

1. Balance Tests
   - Static balance tests (0-4 points)

2. Gait Speed Test
   - 4MGS (0-4 points)

3. Timed Up & Go Test
   - 5STS (0-4 points)

Exercise considerations / precautions

Considerations
- Monitor vital signs regularly
- Exercise with a partner
- Avoid public facilities with increased risk of viral and/or bacterial infection (swimming)
- Stop exercise if sudden:
  - Dizziness, blurred vision or fainting
  - Nausea, vomiting
  - Unusual shortness of breath
  - Palpitations, chest pain
  - Leg/calf, bone, or unusual pain

Precautions
- Anaemia (“low”) – scale back or avoid
- Neutropenia (>100°F / 38°C) - avoid
- Thrombocytopenia (“low”) - avoid contact sports or activities with high risk of injury
- Catheter / line – avoid exposure to infection or exercises that may disrupt or dislodge

ACS 2017; ACSM 2016
Mina et al. Lancet Oncol 2018;19 e433-e6