How Rehabilitation Medicine Can Help Patients with Graft-versus-Host Disease

Celebrating a Second Chance at Life Survivorship Symposium

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Rehabilitation in Chronic Graft-versus-host Disease

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Outline

- Describe roles of rehabilitation providers
- Review potential areas of the body affected by chronic Graft-versus-Host disease (cGVHD) that can impact function
- Describe the side effects of steroids
- Exercise precautions
- How to advocate for self

Rehabilitation Providers

- Physical Medicine and Rehabilitation (PM&R) Physician
- Physical Therapy (PT)
- Occupational Therapy (OT)
- Speech Language Pathology (SLP)
- Other includes nutrition services, social support services, emotional support services, prosthetist/orthotist

Additional services that may be part of your rehabilitation care: [Link to image of rehabilitation word cloud](https://depositphotos.com/124755282/stock-illustration-rehabilitation-word-cloud.html), Accessed 3/18/22

Additional services that may be part of your rehabilitation care: [Link to image of rehabilitation word cloud](https://healthcare.utah.edu/huntsmancancerinstitute/treatment/rehabilitation.php), Accessed 3/17/22
Physical Therapy

| Goal                                                                 | • Restore and maintain mobility and function  
|                                                                     | • Treat physical source of injury & help reduce future injury |
| Focus                                                                | • Ability to walk or use devices to help with mobility including wheelchair/walker/cane, maintain balance, sit and stand up or transfer between surfaces |
| Tools                                                                | • Stretching, strengthening, exercise equipment, manipulations, electrical stimulation, etc  
|                                                                     | • Durable medical equipment use – wheelchair, walker, cane, crutches, etc |
| Setting                                                              | Wide Range (Hospitals, Skilled Nursing Facilities, Outpatient, Homes) |

Occupational Therapy

| Goal                                                                 | • Restore and maintain ability to do daily tasks  
|                                                                     | • Optimize independence  
|                                                                     | • Treat physical source of injury and help reduce future injury. Typically in arms/hands |
| Focus                                                                | • Ability to manage daily tasks and hygiene. Brushing teeth, getting dressed, bathing, toileting, cooking, cleaning  
|                                                                     | • Adapting to jobs or hobbies |
| Tools                                                                | • Same as Physical Therapy but with different focus and goals.  
|                                                                     | • Durable medical equipment use – shower bench/chair, toilet adaptations, grab bars, adapted food utensils, etc. |
| Setting                                                              | Wide Range (Hospitals, Skilled Nursing Facilities, Outpatient, Homes) |
### Speech Therapy

<table>
<thead>
<tr>
<th><strong>Goal</strong></th>
<th>• Restore and maintain communication skills, swallow, and cognition</th>
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| **Focus** | • Ability to communicate with voice or signs or technology  
• Ability to swallow  
• Ability to use cognitive abilities to engage with environment and others |
| **Tools** | • Strengthening of oral and swallow muscles  
• Adapted communication devices |
| **Setting** | Wide Range (hospitals, skilled nursing facilities, outpatient, homes) |

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### Physiatrist – Physical Medicine & Rehabilitation Physician

<table>
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<tr>
<th><strong>Physiatrist</strong></th>
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| **Goal** | • Maximize patients’ daily function  
• Maximize quality of life |
| **Focus** | • Diagnose, treat, and prevent impairments of function  
• Identify contributors to reduced function: such as, cancer itself, cancer treatments and their side effects (such as cGVHD), other  
• Assist with creating functional goals with the patient |
Physiatrist – Physical Medicine & Rehabilitation Physician

<table>
<thead>
<tr>
<th>Tools</th>
<th>Physiatrist</th>
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<tbody>
<tr>
<td>Diagnostic evaluations</td>
<td>• Imaging, labs, neuropsychology testing, driving assessment, vocational</td>
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<td></td>
<td>assessment, etc.</td>
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<td>• Appropriate referrals to therapy interventions (physical therapy,</td>
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<td>occupational therapy, speech-language pathologist, psychology assistance,</td>
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<tr>
<td></td>
<td>etc.)</td>
</tr>
<tr>
<td></td>
<td>• Interventions – injections, prescribing appropriate durable medical</td>
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<tr>
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<td>equipment</td>
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<tr>
<td>Setting</td>
<td>Hospitals and outpatient offices</td>
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Areas of the Body affected by cGVHD Can Impact Function

• Skin and connective tissues (fascia)- includes mouth

• Eyes (ocular)

• Heart/lungs (cardiopulmonary)

• Muscle
Skin & Fascia

- Impacts -
  - Movement & Mobility
  - Daily hygiene and tasks
  - Job & Hobbies
  - Stretching, but monitor skin integrity
  - Avoid pools with open wounds

Skin tightening may decrease joint mobility


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How chronic GVHD may affect the skin, hair, and nails

Skin tightening may decrease joint mobility

Other symptoms may include
Genital redness, dryness, and pain
Oral ulcers, dry mouth
Skin sores
Hair loss

cGVHD – Skin & Fascia – Way to Monitor

The P-ROM assessment and scoring system

The P-ROM assessment and scoring system

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cGVHD - oral

- Impacts:
  - Swallow
  - Speech

- Assistance
  - Speech therapy
  - Dietitian assistance
  - Therabite/Dynasplint

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**cGVHD – Cardiopulmonary – Heart & Lungs**

- **Impacts:**
  - Fluid in the lungs
  - Changes to lung function
  - Breathing muscles weakness
  - Constriction around the heart
- **Assistance**
  - Cardiopulmonary Rehabilitation
  - Monitor increase in activity supervised

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**Steroid-Induced Myopathy**

- **Impact:**
  - Weakness in proximal muscles and neck
  - Slow onset of weakness
  - Difficulty going from sitting to standing
- **Assistance**
  - Can improve off steroids or with reduced dose
  - Rehab can help maintain and eventually restore function

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## Things to keep in mind

### Blood levels
- **Anemia** – *low red blood cell count* can make you tired/faint/dizzy and have difficulty doing activity
- **Neutropenia** – *low white blood cell count* puts you at risk for infection
- **Thrombocytopenia** – *low platelet count* puts you at risk for easy bruising and bleeding

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## Things to keep in mind

### Skin breakdown
- Avoid water/pool exercise
- Avoid stretching that pulls/tugs at a wound
Things to keep in mind

- **Weakened bones**
  - Steroids can contribute to osteoporosis and weakened bones like femur heads
  - Weight bearing activity (such as walking) and resistance training (lifting light weights) is beneficial for bone integrity
  - If having pain in bones, have it evaluated before starting exercise programs

Rehabilitation can help

- Maintain function
- Prevent worsening of function
- Restore function
Which rehabilitation providers and why?

- Physical Medicine & Rehabilitation Physicians
  - diagnose conditions that affect patient’s function
- Physical Therapists work on
  - mobility (walking, wheelchair, walker)
  - stretching, strengthening
- Occupational Therapists work on
  - arm and hand function
  - activities of daily living (bathing, dressing, toileting, etc.)
- Speech Therapists work on
  - swallow difficulty
  - communication difficulty

How to find a rehabilitation physician?

- Ask your oncologist for a referral to Physical Medicine and Rehabilitation
- Search the American Academy of Physical Medicine and Rehabilitation (AAPM&R) directory and put “Cancer” under areas of practice
  
  members.aapmr.org/AAPMR/AAPMR_FINDER.aspx
- Talk to support/patient groups
Thank You!

Questions?

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