Bend and Not Break:
Controlling spasticity
before it controls your loved ones

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What is spasticity?
Why does spasticity matter?
What triggers spasticity?
Treatments for spasticity
Caregiver’s role in managing spasticity
Carl, a fiercely independent 65-year old gentleman with MS for 40 years. Lives alone in a duplex with his caregiver next door

- Independent with transfers and mobility from a manual wheelchair
- Recently started having difficulty with transfers due to his legs shaking when he gets up to stand and pivot
What is spasticity?

Georgia, a 35-year-old female with MS for 10 years. She lives with her sister, who acts as her caregiver.

- Functionally quadriplegic in a power chair
- Caregiver notices increasing difficulty performing catheterizations, cleaning her perineal/groin region due to tightness in the thighs
What is spasticity?

Frank, a 55-year old gentleman with MS x 30 years. He lives with his wife on a farm and is very active.

- Able to walk, but with L-sided body weakness
- New difficulty lifting his left arm away from his body to clean the underarm region
- Increasing pain when he attempts to put his splint on
What is spasticity?

Nick, a 50-year-old former musician with MS. He is functionally quadriplegic and lives alone with intermittent paid and family caregiver support.

Recently began having severe leg spasms causing him to slide out of his power chair.
Spasticity, defined

- **Dynamic** stiffness in the muscles following an injury to the brain or spinal cord
  - More quickly the limb is moved, the more stiffness/difficulty is encountered
  - Exaggerated reflex response
  - Brain normally inhibits this response, but the disconnect from MS/injury interferes with the control
  - Not a fixed joint (contracture) from immobility
Good spasticity

- Stiffness can sometimes help with transfers/walking
- Provides exercise for weak muscles, can maintain muscle bulk
- Sense of connection with an individual's body
- Might be a nuisance, but not painful or interfering with function
Bad spasticity

- Causes pain
- Immobility or contracture
- Skin breakdown
- Interferes with hygiene
- Interferes with function

Uninhibited contraction of muscles
Contractures
Difficulty with movement
Pain
Debility
Immobility
Ulceration
Spasticity in MS

- Up to 80% of individuals with MS experience spasticity
- 1/3 of persons with MS have spasticity that interferes with daily function
- Some conditions can provoke spasticity:
  - Bladder infections
  - Kidney/bladder stones
Treatments for spasticity

- Physical treatments (modalities)
- Complementary/alternative medicine
- Therapy
  - Stretching
  - Splinting
- Medications
- Injections
- “The Pump”
Physical Agents/Modalities

- Ice
- Vibration
- Electrical Stimulation
Complementary/Alternative Medicine

- Acupuncture
- Yoga
- Massage
- Chiropractic
Therapy

- Stretching
- Splinting
Medications for spasticity

- Baclofen
- Tizanidine
- Dantrolene
- Valium
- Gabapentin
- Cannabidiol (FDA trials)
Injections for spasticity

- Botulinum toxin (Botox®)
- Phenol/alcohol blocks
Intrathecal baclofen pump

- Delivers baclofen directly to spine
- Dosing regimens highly personalized to meet patient symptoms
- Refills generally occur every six months
Pitfalls in spasticity management

- Failure to recognize spasticity symptoms
  - “tightness,” “jumpiness”
- Failure to discuss with medical provider
  - Thought to be inevitable part of the disease process
- Failure to follow up results of treatment with medical provider
  - Need to report when treatment not working
Questions?