

Management of Spasticity After Stroke Checklist

Dr. SalmahAnim Abu Hassan, Dr. Thanalactchumy Chandra Bose,
 Assoc. Prof. Anwar Suhaimi and Prof. Lydia Abdul Latif

The Management of Spasticity After Stroke Checklist has been developed to assist the healthcare team, doctors and allied health professionals, in managing spasticity for post-stroke patients. The checklist is meant for usage both in the inpatient and outpatient setting. This activity is part of the World Stroke Academy Life After Stroke project, that aims to improve the quality of support and educational material available globally on the topic of Life After Stroke.

Question	Answer selection
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1

Is spasticity present?

Shoulder	Internal rotation/ adduction	Internal rotation/ adduction	Internal rotation/ adduction	Internal rotation/ adduction	Internal rotation/ retroversion
Elbow	Flexion	Flexion	Flexion	Flexion	Extension
Forearm	Supination	Supination	Neutral	Pronation	Pronation
Wrist	Flexion	Extension	Neutral	Flexion	Flexion

Upper limb spasticity patterns. Note: All five upper limb patterns could be combined with any spastic hand and finger position (e.g. claw, spastic flexed, intrinsic lumbrical).

Plantar Flexed Foot/ Ankle	Equinovarus Foot	Striatal Toe	Flexed Toe

Yes

 No

2

Time since
onset of spasticity

years
 months
 weeks
 days

3

Which part of the body is affected by spasticity? Check all that apply:

Orofacial

Upper limb

Either one region or a mixture of locations:

Shoulder

Elbow

Arm

Forearm

Wrists

Fingers

Lower Limb

Either one region or a mixture of locations:

Hip

Knee

Ankle

Toes

4

Distribution of spasticity?

Bilateral

Unilateral

Which side? Left Right

5

Does the spasticity cause pain?

Yes

No

6

Is the spasticity associated with fatigue?

Yes

No

7

Is the spasticity associated with spasms?

Yes

No

8

Does the spastic limb have contractures?

Yes

No

9	Does spasticity limit patient care or activities of daily living ?(Examples are hygiene, grooming, dressing and feeding)	<input type="radio"/> Yes <input type="radio"/> No
10	Does spasticity limit mobility ?(Examples are transfer, gait, standing)	<input type="radio"/> Yes <input type="radio"/> No
11	Does spasticity limit the patient's participation in any other activities? Examples are leisure activities, driving, employment, social, family and professional participation)	<input type="radio"/> Yes <input type="radio"/> No
12	What are the treatments given for spasticity?	Stretching <input type="text"/> Range of motion exercises <input type="text"/> Physical modalities <input type="text"/> Oral medication <input type="text"/> Botulinum toxin injection <input type="text"/> Casting <input type="text"/> Intrathecal baclofen <input type="text"/> Surgery <input type="text"/>
13	Is the patient compliant to spasticity treatment? Stretching Medications Orthosis usage	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No

What barriers to spasticity management have you faced, if any?

Difficulty to access a spasticity specialist

Yes

No

Difficulty to perform positioning/exercises

Yes

No

Lack of access to occupational or physical therapy

Yes

No

Others, please state:

Treatment options for spasticity:

1. NONPHARMACOLOGIC TREATMENT OF SPASTICITY

- Stretching
- Fitting of splints/braces and serial casting
- Thermotherapy
- Neuromuscular electrical stimulation (NEMS)
- Functional electrical stimulation of upper and lower extremity
- Kinesiotherapy (PT/OT)
- Muscle strengthening
- Task training
- Aerobic training
- Use of robotics
- Use of virtual reality

2. PHARMACOLOGIC TREATMENT OF SPASTICITY

- Oral medications (Baclofen, Tizanidine, Dantrolene, Diazepam)
- Phenol/alcohol neurolysis
- Botulinum toxin
- Intrathecal baclofen
- Cryoneurolysis

3. SURGICAL TREATMENT OF SPASTICITY

- Orthopedic procedures
- Neurosurgical procedures

References

- Bickenbach, J., Cieza, A., Rauch, A., & Stucki, G. (Eds.). (2020). *ICF core sets: Manual for clinical practice (2nd ed.)*. Hogrefe Publishing.
- Platz, T. (Ed.) (2020). *Clinical pathways in stroke rehabilitation: Evidence-based clinical practice recommendations*. Springer.
- Doussoulin A, Rivas C, Bacco J, Sepúlveda P, Carvallo G, Gajardo C, Rivas R. (2020). Prevalence of Spasticity and Postural Patterns in the Upper Extremity Post Stroke. *Journal of Stroke and Cerebrovascular Diseases*, 29(11), 105253. doi:10.1016/j.jstrokecerebrovasd
- Bethoux F. (2015) Spasticity Management After Stroke. *Physical Medicine and Rehabilitation Clinics of North America*; 26(4), 625–639.
- Esquenazi A, Alfaro A, Ayyoub Z, Charles D, Dashtipour K, Graham GD, McGuire JR, Odderson IR, Patel AT, Simpson DM. (2017). OnabotulinumtoxinA for Lower Limb Spasticity: Guidance From a Delphi Panel Approach. *PM R*. 9(10):960-968. doi: 10.1016/j.pmrj.2017.02.014.