



## Erfaringer fra arbeid med retningslinjer og betydningen for fagmiljøene



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Rigshospitalet Glostrup



Photo: Unsplash



## Children with cerebral palsy receive different treatment in the Nordic countries

NEWS

A SOCIALLY SUSTAINABLE NORDIC REGION

HEALTH AND WELFARE

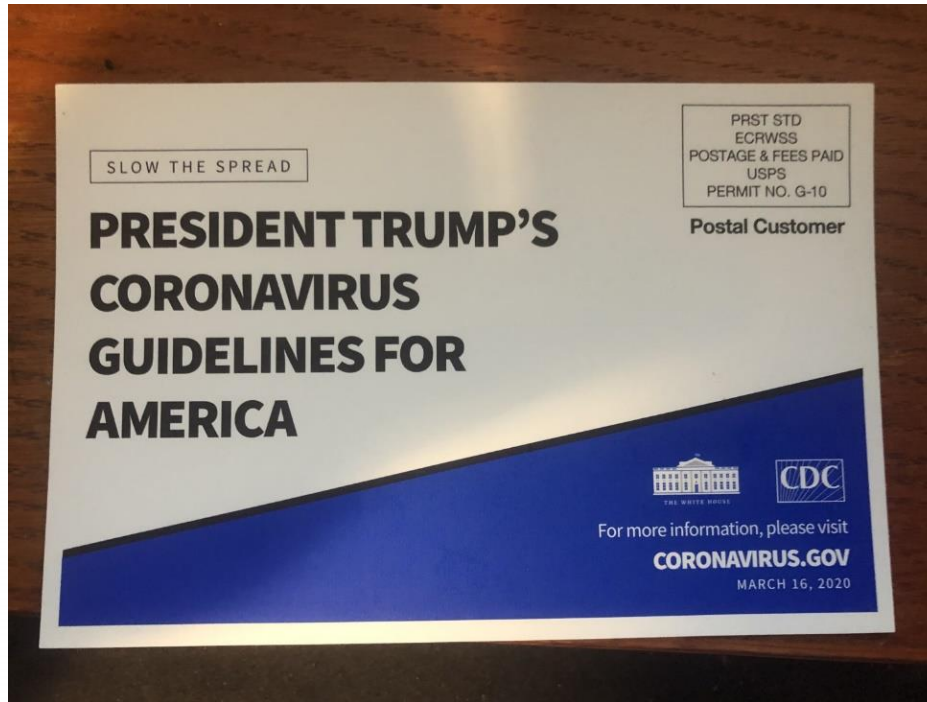
Children with cerebral palsy receive good help thanks to a comprehensive follow-up programme which is based on unique Nordic health data, but treatment options vary depending on where in the Nordics they live.

# Are guidelines important?



- Is based on the latest evidens
- Ensures that all patients are assessed and treated the same and in the best possible way
- Can be used for educational purpose
- Can be used if National or International clinical exams are implemented
- Should be easy to comprehend and give a good overview of the topic (**Practical guidelines**)
  - Should be easy to use in daily clinical practice
  - Might have a long and a short version
- Ensure collaboration across the country developing and updating the guidelines
- Can be used for research

**Guidelines are not a one man show! And it has to be evidens based!**



Reference: Google picture

**Guidelines are practical and easy understandable! Can even be read when on the toilet!**



Reference: Google picture

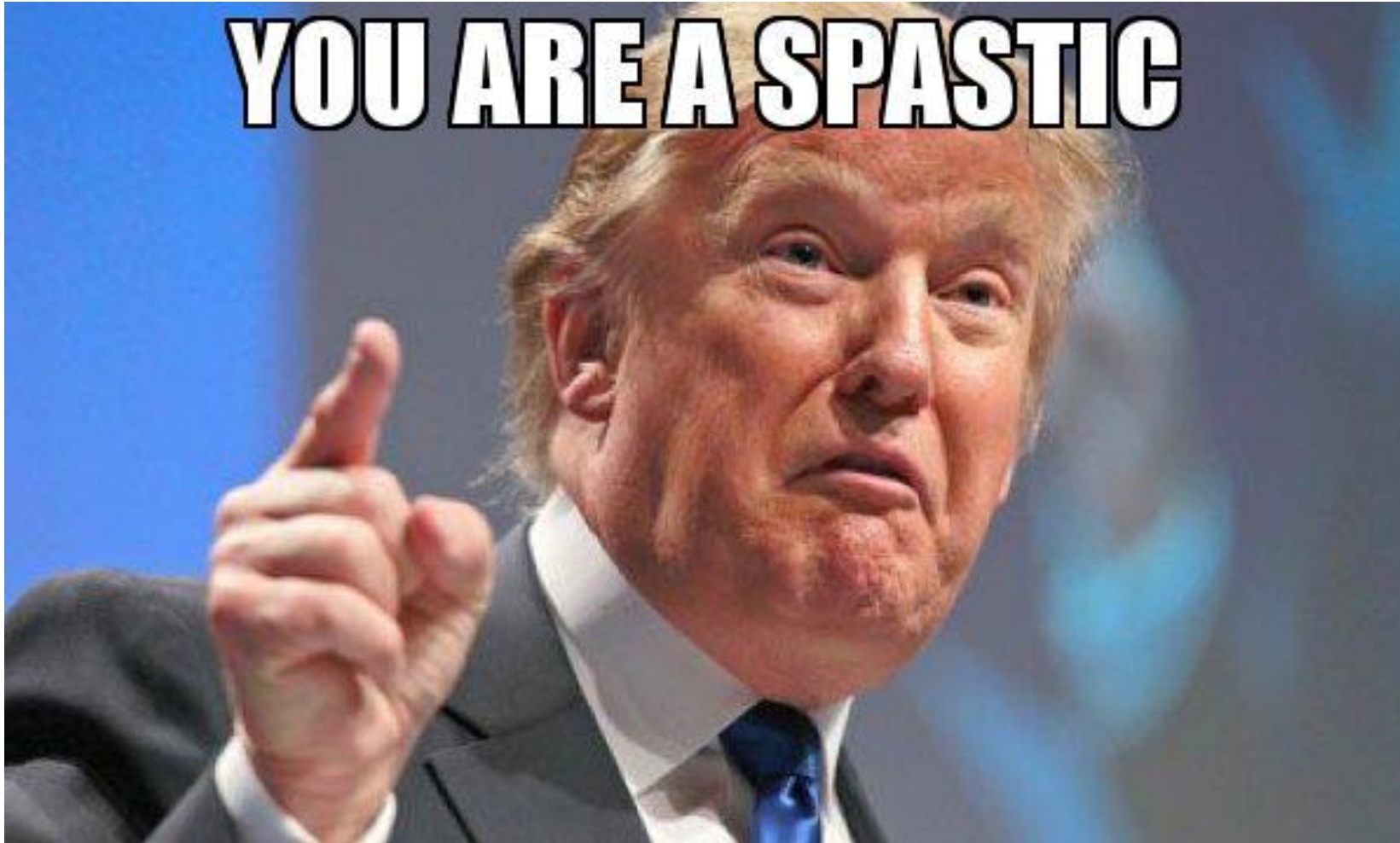
## Guidelines on spasticity treatment - Considerations and challenges

- As many centers as possible have to take part, or comment on the guideline, to make sure that everyone takes ownership of the guideline
- Aviod:
  - *"I don't know the guideline"*
  - *"Why should we use the guideline, we have made our own guideline at our center" - "Why was our center not asked to participate in developing the guideline?"*
- Some topics are not always easy to agree upon, especially in cases where there is a lack of evidence
  - *"I have always done it this way and with good effect" – why change that?*
- Different logistical and resource conditions can make a difference in relation to what is possible to offer at different centers



**Rigshospitalet**

**Do we all agree on what spasticity is and when to treat it?  
Can we make a guideline for best treatment without agreeing on  
this aspect?**



Reference: Google picture

# Why is terminology important?

## The whole team and collaborators, treating the same patient - Having the same language

- We need the same definition of disabling spasticity so that we know when to treat and when not to treat
- We need the same language of phenomenology to assess the muscle overactivity in the same way
- We need the same definition of the distribution of muscle overactivity, to agree on the right treatment
- We need the same language to set goals that everyone are treating towards
- To determine treatment effectiveness according to the goals as well as how treatment should proceed
- Different type of muscle overactivity needs different treatment

Type of hypertonicity	Study	Definition proposed
Spasticity	1980 Lance and McLeod <sup>1</sup>	Spasticity is a motor disorder characterized by velocity-dependent increase in tonic stretch reflexes ('muscle tone') with exaggerated tendon jerks, resulting from hyperexcitability of the stretch reflex, as one component of the upper motor neuron syndrome
	Young <sup>12</sup>	A motor disorder characterized by a velocity-dependent increase in tonic stretch reflexes that results from abnormal intraspinal processing of primary afferent input
	Sanger et al. <sup>2</sup>	Hypertonia in which one or both of the following signs are present: (1) resistance to externally imposed movement increases with increasing speed of stretch and varies with the direction of joint movement, and/or (2) resistance to externally imposed movement rises rapidly above a threshold speed or joint angle
	Burridge et al. <sup>13</sup>	Disordered sensory-motor control, resulting from an upper motor neuron lesion, presenting as intermittent or sustained involuntary activation of muscles
	2005 Pandyan et al. <sup>14</sup>	Spasticity is a disordered sensorimotor control, resulting from an upper motor neuron lesion, presenting as intermittent or sustained involuntary activation of muscles
	2018 Nielsen et al. <sup>8</sup>	Conditions related to an alteration of central processing of sensory input, excluding structural changes in the muscle
	2021 Dressler et al. <sup>15</sup>	Involuntary muscle hyperactivity in the presence of central paresis, where 'spasticity sensu strictu' describes involuntary muscle hyperactivity triggered by rapid passive joint movements
	Li et al. <sup>16</sup>	Spasticity is manifested as velocity- and muscle length-dependent increase in resistance to externally imposed muscle stretch. It results from hyperexcitable descending excitatory brainstem pathways and from the resultant exaggerated stretch reflex responses. Other related motor impairments, including abnormal synergies, inappropriate muscle activation, and anomalous muscle coactivation, coexist with spasticity and share similar pathophysiological origins



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**But how do we describe what we are seeing?  
Can we agree on the phenotypes?**

+ Secondary soft-tissue changes

### Spastic / dystonic movement disorder

Phasic reflex overactivity

Increased tendon reflexes

Clonus

Paratonia

Stimuli induced overactivity

Muscle spasms

Activity induced dystonia

Velocity dependent muscle tone

Action tremor

Tonic Reflex

Constant tonic overactivity

Static/ Persistent dystonia

Spastic rigidity

Lack of coordination /Selectivity

Increased trans-segmental reflex spread = associated reactions

Co-contraction

Rest tremor

**How does the muscle overactivity impact the patients function, activities and participation?**



# Rigshospitalet When to treat – what is disabling spasticity? We need to have the same definition!

J Rehabil Med 2022; 54: jrm00241

## ORIGINAL REPORT



JRM

### EUROPEAN EXPERT CONSENSUS ON IMPROVING PATIENT SELECTION FOR THE MANAGEMENT OF DISABLING SPASTICITY WITH INTRATHECAL BACLOFEN AND/OR BOTULINUM TOXIN TYPE A

Bo BIERING-SØRENSEN, MD, MPG<sup>1\*</sup>, Valerie L. STEVENSON, MBBS, MD<sup>2\*</sup>, Djamel BENSMAIL, MD, PHD<sup>3</sup>, Klemen GRABLJEVEC, MD<sup>4</sup>, Mercedes MARTÍNEZ MORENO, MD<sup>5</sup>, Elke PUCKS-FAES, MD<sup>6</sup>, Joerg WISSEL, MD, FRCP<sup>7</sup> and Mauro ZAMPOLINI, MD<sup>8</sup>

**Table I.** Definitions of disabling spasticity and location used in the current paper

#### Disabling spasticity

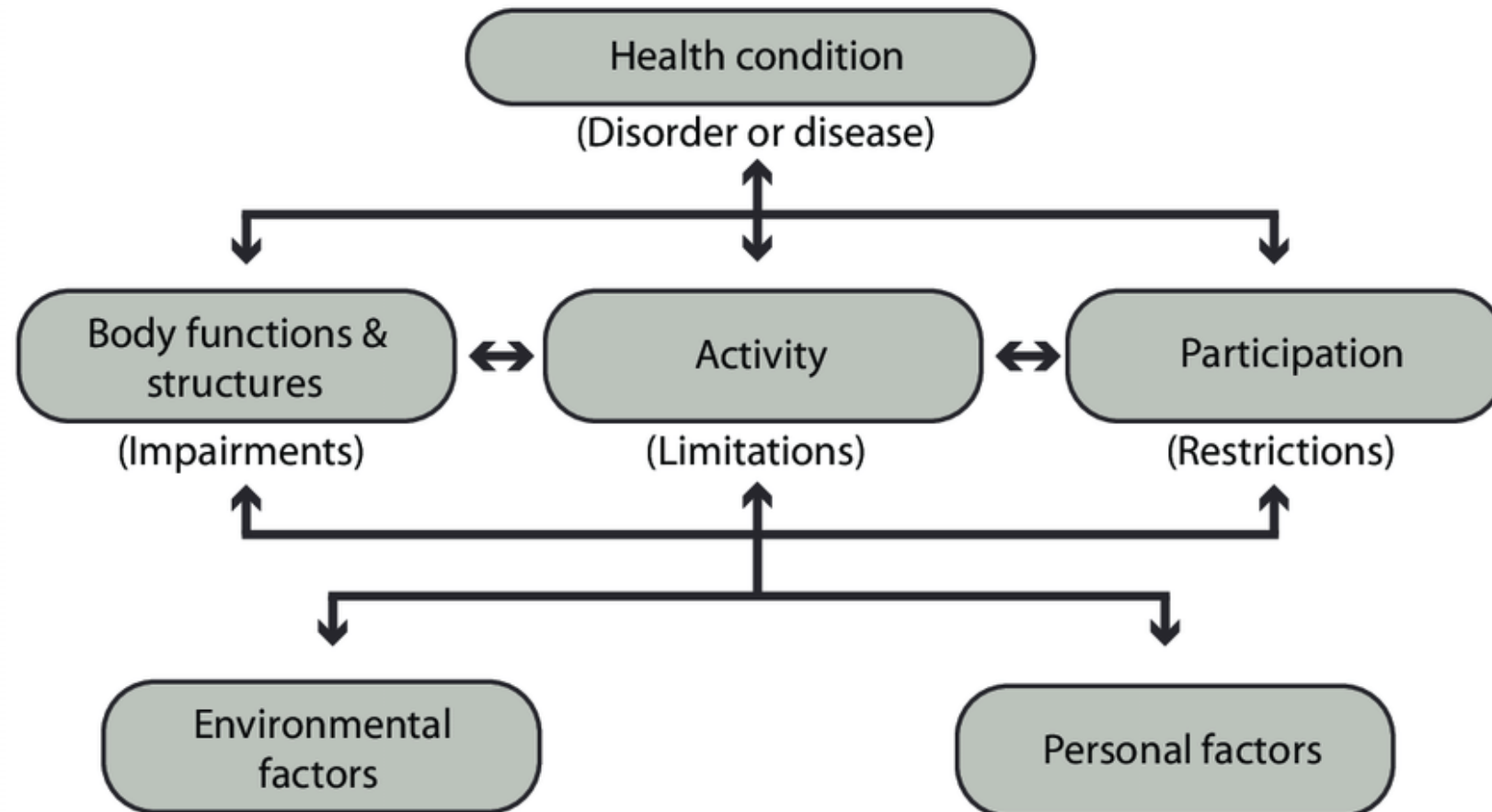
Term	Definition
Disabling spasticity	Spasticity which is perceived by the individual or caregivers as hindering body function, activities, and/or participation. This definition is based on clinical expertise and conceptually incorporates the domains of the International Classification of Functioning, Disability and Health (ICF).

#### Disabling spasticity location

Term	Definition
Focal spasticity	Spasticity limited to muscles in a close anatomical region, including only 1 or 2 joints (excluding finger and toe joints, e.g. hand and forearm or foot and ankle) (19).
Segmental spasticity	Spasticity limited to several adjacent anatomical regions (e.g. hand, forearm, elbow and/or shoulder) (19).
Multi-segmental spasticity	Spasticity distributed to anatomically separate and distant sites and affecting at least 2 limbs, including the trunk (e.g. arm and leg, leg and trunk, or arm and trunk) (19).
Generalized spasticity	Spasticity diffused in more than 2 limbs.
Multi-focal spasticity*	Spasticity affecting multiple joints that are not adjacent (e.g. ankle and hip or wrist and shoulder).

\*This definition was proposed by the advisory board.

International Classification of Functioning, Disability and Health (ICF) - can be used in goal setting



# Do we have the same terminology when we talk about the distribution of the muscle overactivity? We need to have the same language!

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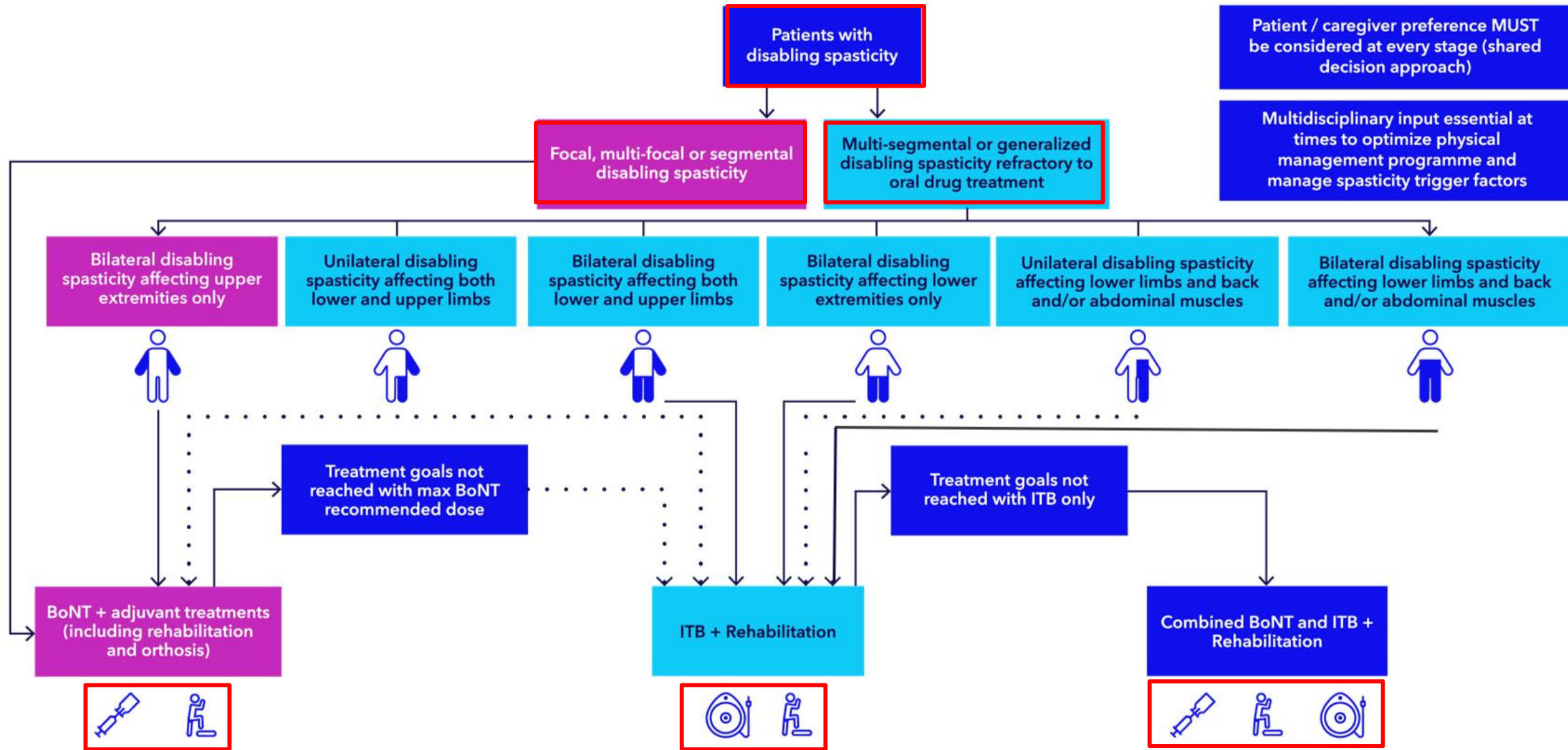
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\*This definition was proposed by the advisory board.

# European Expert Consensus on improving patient selection for the management of disabling spasticity with intrathecal baclofen and/or Botulinum toxin Type A. JRM 2021

Bo Biering-Sørensen<sup>1</sup>, Valerie L Stevenson, Djamel Bensmail, Klemen Grabljevec, Mercedes Martínez Moreno, Elke Pucks-Faes, Joerg Wissel, Mauro Zampolini



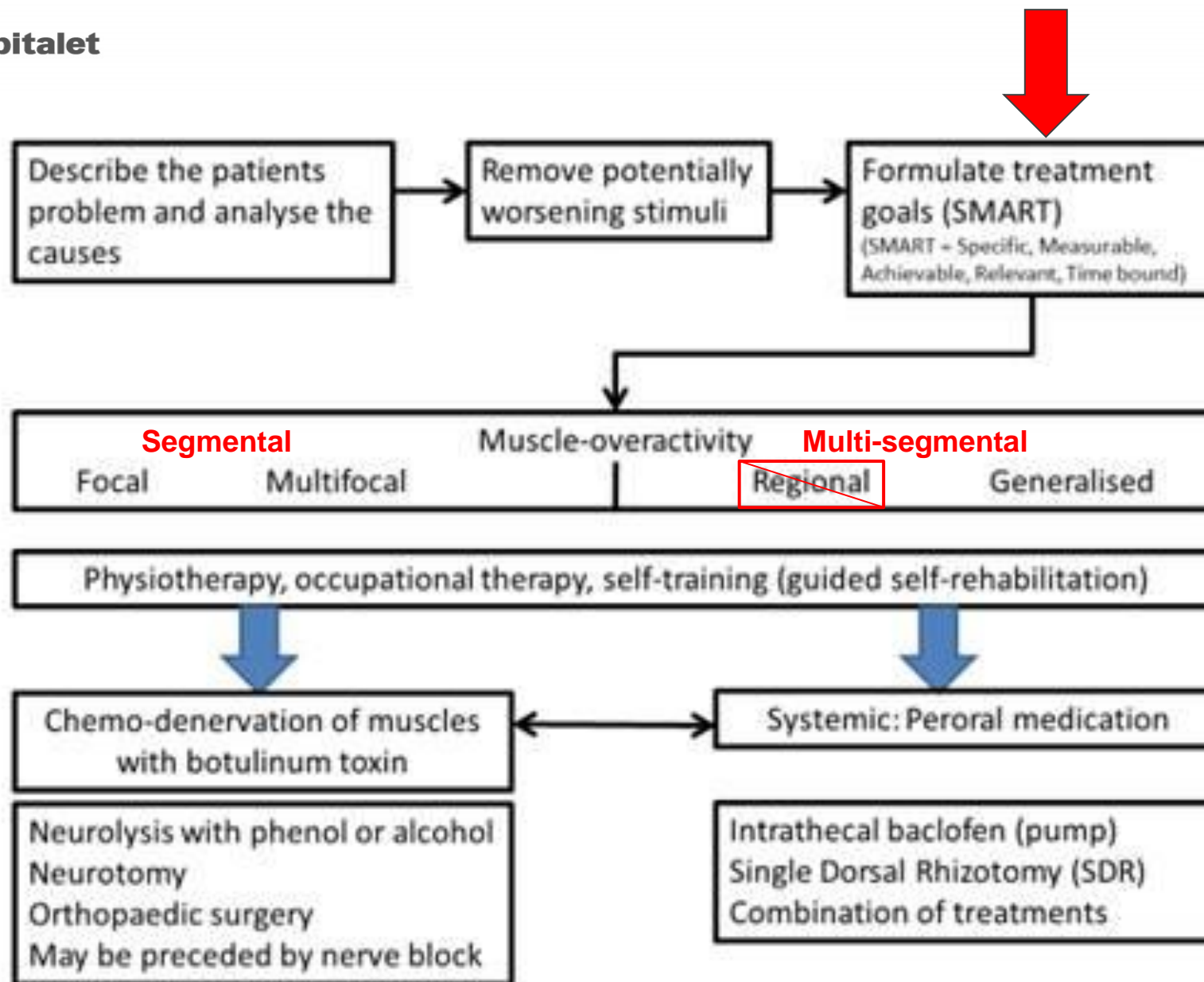


# Assessment of the patient

## Do we all agree on the scales to use?



"It may be more inconvenient, but the 'Reverse Prostate Exam' is a lot less embarrassing for the both of us."

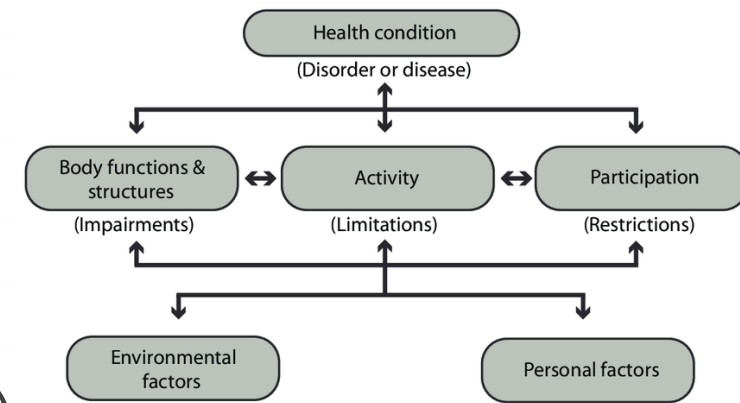


## Defining goals

- Ask the patient what matters
- Define one or more treatment goals (not too many)
- May be focused on different levels of ICF\*
  - reduce the symptoms of impairments
  - improvement of activity / participation
  - quality of life (QOL)
- Use an instrument for standardizing the procedure
  - Goal Attainment Scaling (GAS)
- See to it that the goals are **SMART**
  - (Specific, Measurable, Achievable, Relevant, Timely)

*\*The ICF offers a broad framework for setting patient-centered, easily understandable goals for patients with spasticity – Fheodoroff K. et al. Disability and Rehabilitation August 2020*

*\*An ICF-based goal-setting framework may increase the comparability of clinical data across studies*



# What European guidelines do we have on Spasticity Treatment

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# No specifik guidelines on spasticity treatment in neurorehabilitation

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### Neurorehabilitation

COGNITIVE REHABILITATION: EFNS GUIDELINES ON COGNITIVE REHABILITATION

Handbook of Neurological Management, Volume 1, 2nd edition, 2011

### Neurorehabilitation

Diagnostik und Therapie von Aufmerksamkeitsstörungen bei neurologischen Erkrankungen

DGN, 030/135, 2014

### Neurorehabilitation

Diagnostik und Therapie von exekutiven Dysfunktionen bei neurologischen Erkrankungen

DGN, 030/125, 2015

# Spasticity in adults: management using botulinum toxin

National guidelines  
2018

2nd edition

Published with:



British Society of  
Rehabilitation Medicine  
Promoting quality through  
education and standards



Royal College of  
Occupational  
Therapists



Specialist Section  
Neurological  
Practice

## Cerebral palsy in adults

[A1] Management of abnormal muscle tone:  
pharmacological treatments for spasticity

NICE guideline NG119


Evidence reviews

January 2019

JRM

Original Article

### Italian consensus on treatment of spasticity in multiple sclerosis

G. Comi , A. Solari, L. Leocani, D. Centonze, S. Otero-Romero, on behalf of the Italian Consensus Group on treatment of spasticity in multiple sclerosis

First published: 25 October 2019 | <https://doi.org/10.1111/ene.14110> | Citations: 4

All authors of the Italian Consensus Group on the treatment of spasticity in multiple sclerosis are listed in Appendix S1.

[Correction added on 4 February 2020, after first online publication: The affiliations for D. Centonze have been updated.]

> *Disabil Rehabil.* 2022 Feb;44(4):509-519. doi: 10.1080/09638288.2020.1769207. Epub 2020 Jun 5.

## A synthesis and appraisal of clinical practice guidelines, consensus statements and Cochrane systematic reviews for the management of focal spasticity in adults and children

Gavin Williams <sup>1 2</sup>, Barby J Singer <sup>3 4</sup>, Stephen Ashford <sup>5 6 7</sup>, Brian Hoare <sup>8 9</sup>, Tandy Hastings-Ison <sup>10</sup>, Klemens Fheodoroff <sup>11</sup>, Steffen Berwick <sup>12 13</sup>, Edwina Sutherland <sup>1</sup>, Bridget Hill <sup>1 2</sup>

J Rehabil Med 2022; 54: jrm00241

ORIGINAL REPORT



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# **Systematic Review of Clinical Guidelines Related to Care of Individuals With Cerebral Palsy as Part of the World Health Organization Efforts to Develop a Global Package of Interventions for Rehabilitation**

**Diane L. Damiano, PT, PhD, FAPTA<sup>a</sup>, Egmar Longo, PT, PhD<sup>b</sup>, Ana Carolina de Campos, PT, PhD<sup>c</sup>, Hans Forssberg, MD, PhD<sup>d</sup>, Alexandra Rauch, PhD<sup>e</sup>**

Arch Phys Med Rehabil. 2021 September

**Data Extraction:** All 339 recommendations from the 5 final guidelines, with type (assessment, intervention, or service), strength, and quality of evidence, were extracted, and an International Classification of Functioning, Disability and Health Functioning (ICF) category was assigned to each.

**Conclusions:** Despite the great need for high quality guidelines, this review demonstrated the limited number and range of interventions and lack of explicit use of the ICF during development of guidelines identified here. A lack of guidelines, however, does not necessarily indicate a lack of evidence. Further evidence review and development based on identified gaps and stakeholder priorities are needed

About 574 results (0,39 seconds)

Behandlingen må med andre ord individualiseres efter såvel fænotypen for spasticiteten og den bagvedliggende sygdom. Indikationen for antispastisk behandling kræver en analyse af symptomer og funktion samt forventningsafstemte mål. Muskeloveraktivitet kan udvikles tidligt efter en skade på CNS.



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### Behandling af spasticitet: Oversigt - Dansk Neurologisk Selskab

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### Klinisk vurdering af spasticitet - Dansk Neurologisk Selskab

7 Feb 2022 — Klinisk vurdering af **spasticitet** · Symptomer og kropsfunktioner: Smerter, stivhed, spasmer, låsning af led · Aktivitet: mobilitet, ADL funktioner ...



sundhed.dk

<https://www.sundhed.dk> › neurologi · [Translate this page](#) ⋮

### Spasticitet - Lægehåndbogen på sundhed.dk

26 Feb 2023 — Medicinsk behandling · Baclofen. Startdose 5 mg x 3; Øgning med 5 mg x 3 hver 3. · Tizanidin som depotformulering. Start dosis: 6 mg, 1-2 gange ...

## Danish National Guidelines on Spasticity management



## Danish National Guidelines on Spasticity management

### neurologisk National BehandlingsVejledning

MYOPATI ▶

NEUROINFEKTIONER ▶

NEUROMUSKULÆRE  
TRANSMISSIONSSYGDOMME ▶NEUROPATI, PLEXOPATI OG  
RADIKULOPATI ▶

NEUROPATISKE SMERTER ▶

REHABILITERING ▶

SCA OG GENETIK ▶

**SYMPTOMGRUPPER** ▶

SØVNFORSTYRRELSER ▶

TRAUMER ▶

TUMORER I CNS ▶

UDVIKLING OG GRAVIDITET ▶

muskeloveraktivitet.

Symptomer og klager som kan give indikation for behandling af muskel overaktiviteten:

- Smerter
- Kramper og ubehag
- Søvnbesvær som følge af spasmer og kramper
- Vandladnings- og afføringsproblemer (forårsaget af spasticitet i bækkenbunden)
- U hensigtsmæssige sidde- og liggestillinger
- Decubitus
- Besværet bevægelse som begrænser funktion
- Besværet påklædning
- Besværet hygiejne

AFASI

**SPASTICITET** ▶

SVIMMELHED

SYNSFORSTYRRELSER ▶

#### 4. Væsentlige bivirkninger

1. Sedation (for de fleste pr
2. Forværring af parese
3. Forringelse af gangfunkt

gør stand og gangfunktion

BEHANDLING AF SPASTICITET:  
OVERSIGT

KLINISK VURDERING AF  
SPASTICITET

PERORAL BEHANDLING AF  
SPASTICITET

BEHANDLING AF SPASTICITET  
MED BOTULINUM TOXIN

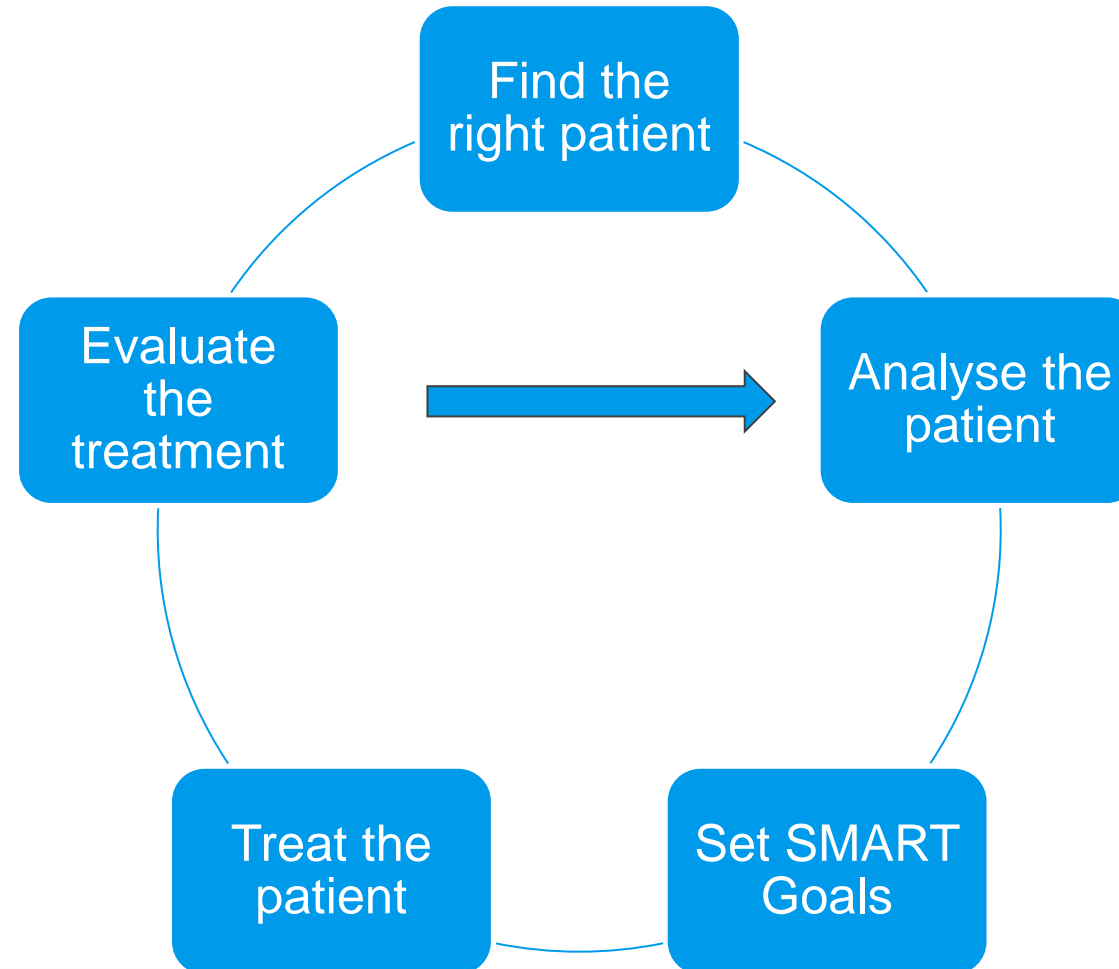
BEHANDLING AF SPASTICITET  
MED NEUROLYSE OG KIRURGI

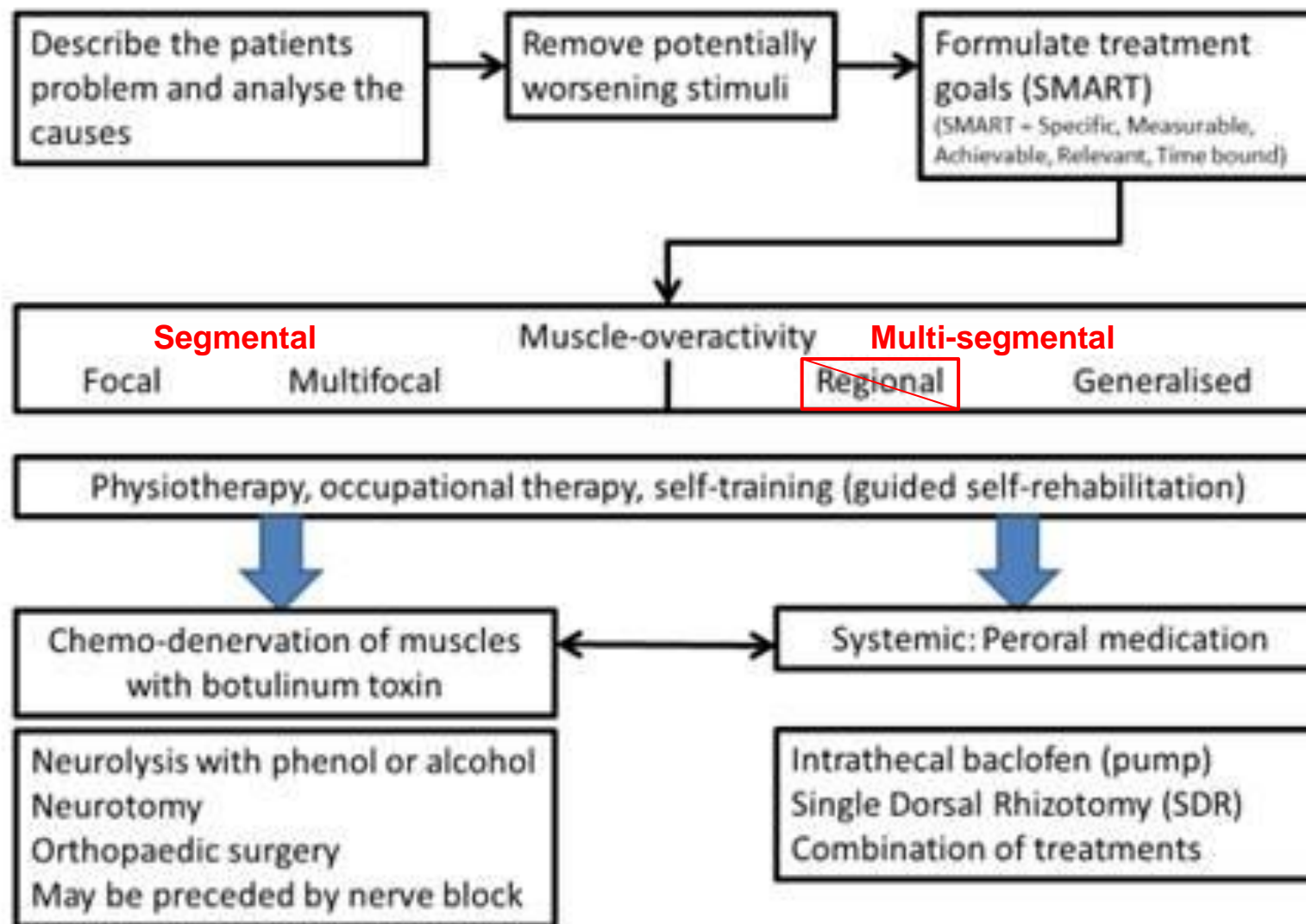
rater

ning af dosis til effektivt niveau)

på sin spasticitet).

# Guidelines on spasticity treatment – made simple







BEVÆGEFORSTYRRELSER +

CEREBROVASKULÆRE SYGDOMME +

DEMENS SYGDOMME +

ARVELIGE NEURODEGENERATIVE SYGDOMME +

DEMYELINISERENDE LIDELSER +

ENCEPHALITTER (IKKE INFEKTIOSE) +

EPILEPSI +

FUNKTIONELLE LIDELSER

GENETIK +

HOVEDPINE OG ANSIGTSSMERTER +

INTRAKRANIEL TRYKFORSTYRRELSE +

KØREKORT +

MOTORNEURONSYGDOMME +

MYOPATI +

NEUROINFEKTIONER +

NEUROMUSKULÆRE TRANSMISSIONSSYGDOMME +

## Klinisk vurdering af spasticitet

### Instruks

#### Definition af spasticitet

#### Definition

Forstyrret sensorimotorisk kontrol som følge af en øvre motorneuronlæsion visende sig ved intermitterende eller vedvarende spontan/ufrivillig aktivering af muskler.

Ufrivillig muskeloveraktivitet eller spasticitet er en øgning i muskeltonus forårsaget af en skade på det centrale nervesystem, der medfører en øvre motorneuronlæsion som følge af en cerebral (f.eks. cerebral parese, traumatisk hjerneskade, apopleksi) eller rygmarv (f.eks. rygmarvsskade, multipel sklerose) ætiologi.

#### Klinisk præsentation

#### Phenotypes

Muskeloveraktiviteten kan objektivt præsentere sig klinisk jf. skema:

#### Hypokinetisk (hæmning af bevægelser)

Spasticitet\*

Statisk spastisk dystoni

Spastisk co-contractions

#### Hyperkinetisk (ufrivillige bevægelser)

Spasmer (flexor, extensor, adductor)

Associerede reaktioner

Aktions-induceret spastisk dystoni

Klonus

SØG

#### FORFATTERE

Bo Biering-Sørensen

Peter Vestergaard Rasmussen

Fandt du hvad du ledte efter?

Ja

Nej



BEVÆGEFORSTYRRELSER +

CEREBROVASKULÆRE SYGDOMME +

DEMENS SYGDOMME +

ARVELIGE NEURODEGENERATIVE SYGDOMME +

DEMYELINISERENDE LIDELSER +

ENCEPHALITTER (IKKE INFEKTIOSE) +

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MYOPATI +

NEUROINFEKTIONER +

NEUROMUSKULÆRE TRANSMISSIONSSYGDOMME +

NEUROPATI, PLEXOPATI OG RADIKULOPATI +

NEUROPATISKE SMERTER +

REHABILITERING +

**SYMPTOMGRUPPER +**

Terminologi

**Distribution**

Definition

Fokal spasticitet

Spasticitet begrænset til muskler i en tæt anatomisk region, inklusive kun 1 eller 2 led (eksklusive finger- og tåled, f.eks. hånd- og underarm eller fod og ankel)

Segmental spasticitet

Spasticitet begrænset til flere tilstødende anatomiske områder (f.eks. hånd, underarm, albue og/eller skulder)

Multi-fokal spasticitet

Spasticitet, der påvirker flere led, der ikke er tilstødende (f.eks. ankel og hoftel eller håndled og skulder).

Multi-segmental spasticitet

Spasticitet fordelt til anatomisk adskilte og fjerne områder og påvirkende mindst 2 ekstremiteter, inklusive thorax (f.eks. arm og ben, ben og thorax eller arm og thorax)

Generaliseret spasticitet

Spasticitet spredt til mere end to ekstremiteter

Symptomer og klager

- Smerter
- Krampes og ubehag
- Søvnbesvær
- Spasticitetsbetinget vandladnings- og afføringsproblemer
- U hensigtsmæssige sidde- og liggestillinger
- Decubitus
- Besværet bevægelse som begrænser funktion
- Besværet påklædning
- Besværet hygiejne
- Fodklonus besværliggørende stand- og gangfunktion
- fl.



# Rigshospitalet Danish National Treatment Guidelines for Spasticity treatment.

<https://nnbv.dk/peroral-behandling-af-spasticitet/>

Receptorniveau	GABA <sup>a</sup> præparater	GABA <sup>b</sup> præparater	ALPHA-2 ADRENERGE præparater	Hæmning af Calcium frigørelse	GABA analoge præparater
<b>Præparat</b>	Bensodiazapiner <ul style="list-style-type: none"> <li>Diazepam</li> <li>Clonazepam</li> </ul>	Baklofen	Tizanidin	Dantrolene natrium	Gabapentin  Pregabalin
<b>Virkningsmekanisme</b>	Præsynaptisk hæmning gennem membran hyperpolarisering  Aktivitet på rygmarsniveau, men har ligeledes mange supraspinale "binding sites". Den supraspinale effect medfører signifikante bivirkninger	Binder til GABA <sup>b</sup> receptorer både pre- and postsynaptisk  Effekten på spasticitet er primært medieret via hæmning af spinale mono- og polysynaptisk reflekser  Der findes ligeledes supraspinale receptorer, som kan medføre signifikante bivirkninger	Virkning på spasticitet menes at være relateret til både præsynaptisk inhibering af de sensoriske afferente, samt hæmning af frigivelse af glutamat (En excitatorisk aminosyre) på rygmarsniveau	Virkning primært perifert  Blokerer calcium frigivelse fra sarkoplasmiske reticulum i skeletmuskulatur, hvilket resulterer i nedsat kontraktilitet	Virkningsmekanisme ved spasticitet er ikke fuldt belyst og er ikke medieret via GABA-receptorerne  Binder sig til spændingsafhængige calciumkanaler
<b>Bemærkninger</b>	Eneste præparat der potentielt kan bruges ved graviditet			Er forbundet med symptomatisk hepatitis (dødelig i 0,1-0,2% af patienterne) hvorfor det er påkrævet at der tages leverenzymmer hver tredje måned  Kræver udleveringstilladelse	Pregabalin har ofte flere bivirkninger og er mindre tolereret

	Dosering børn	Dosering voksne	Oftest bivirkninger
<b>Diazepam</b>	0,12 mg/kg/dag kan stige til 0,8 mg/kg/dag delt på hver 6-8 time	2 mg som kan stige til 10 mg 2-4 x pr. dag	Træthed og muskelsvaghed  Fysisk og psykisk afhængighed, Toleransudvikling.
<b>Clonazepam</b>	Initialt 0,01-0,025 mg/kg legemsvægt i døgnet fordelt på 2-3 doser stigende til vedligeholdelsesdosis 0,05-0,1 mg/kg legemsvægt i døgnet fordelt på 1-2 doser.	Initialt 0,5 mg dgl., øges med 0,5 mg hver 3. dag til højst 6 mg i døgnet fordelt på 1-2 doser.	Træthed og muskelsvaghed  Fysisk og psykisk afhængighed, Toleransudvikling.
<b>Baklofen</b>	Børn < 30 kg. Initialt ca. 0,3 mg/kg legemsvægt fordelt på 4 doser, evt. gradvis stigning med ugentlige intervaller til sædvanlig vedligeholdelsesdosis 0,75-2 mg/kg legemsvægt. Døgndosis bør ikke overstige 40 mg for børn < 8 år eller 60 mg for børn > 8 år.	Voksne og børn > 30 kg. Initialt 5 mg 3 gange dgl., stigende med 5 mg hver 3. dag indtil vedligeholdelsesdosis på 30-80 mg dgl., sædvanligvis ikke over 100 mg dgl	Slaphed, sedation, kvalme og svimmelhed
<b>Tizanidin</b>	Erfaring med Pædiatrisk dosering mangler	Tabletter: Initialt. 2 mg 2-4 gange dgl. med efterfølgende dosisøgning afhængigt af effekt og tolerabilitet.  Den daglige dosis øges hver halve eller hele uge med 2-4 mg til højst 36 mg i døgnet fordelt på 3-4 doser.  Depotkapsler: Initialt. 6 mg 1 gang dgl. til natten.  Den daglige dosis kan øges gradvis hver halve eller hele uge med 6 mg.  Det vil ofte være nødvendigt at dosere 2 gange dgl. for at opnå tilstrækkelig døgndækning	Gastro-intestinale gener, Mundtørhed. Muskelsvaghed. Sedation, Svimmelhed

<b>Clonidin</b>	5 mikrogram/kg/dag fordelt på 2-3 doseringer stigende til 10 mikrogram/kg/dag	0,1mg x2 dagligt	Mundtørhed. Ortostatisk hypotension. Sedation, Svimmelhed
<b>Dantrolene natrium</b>	Initial dosis 0,5 mg/kg/dosis 2 gange dagligt. Øg til 3-4 gange dagligt med 4-7 dages intervaller	25 mg pr dag. Øg hyppigheden til 2-4 gang om dagen. Derefter øges dosering med 25 mg hver 4-7 dag til 100 mg 2-4 gange om dagen	Træthed, svaghed, utilpashed og diaré
<b>Gabapentin</b>	Initial dosis 10-15 mg/kg/døgn  Optrappes til 25-35 mg/kg/døgn over en periode på 3 døgn.  Doser op til 50 mg/kg/døgn kan anvendes fordelt på 3 doser.	1. dag 300 mg 1 gang dgl. 2. dag 300 mg 2 gange dgl. 3. dag 300 mg 3 gange dgl.  Derefter 300-400 mg 3-4 gange dgl. Døgndosis kan evt. øges til 1,8-4,8 g fordelt på 3-4 doser afhængig af effekt	Feber, Træthed. Ataksi, Svimmelhed, Søvnhed
<b>Pregabalin</b>	Erfaring med Pædiatrisk dosering mangler	Initialt 75 mg 1 gang dagligt. Øges efter 1 uge til 2 gange dagligt. Kan derefter øges med 75 mg op til 600 mg/ dag fordelt på 2-3 doseringer	Hovedpine, Somnolens, Svimmelhed

- Special circumstances

- Baklofen – Spinal cord injured up to 200mg
- Gabapentin – eg. up to 4800mg divided on 4 doses

- Frequently used order of treatment

Baklofen → Sirdalud R → Gabapentin → Dantrolene

- The oral medications can be combined incl. with other treatments!
- Combination with gabapentin early in neuropathic pain
- *1st choice of treatment for focal/ Multifocal/ segmental spasticity is BTX-A*

# National behandlingsvejledning for neuropatiske smerter – farmakologisk behandling af voksne

<b>Udgiver</b>	Dansk Neurologisk Selskab (DNS), Dansk Selskab for Anæstesiologi og Intensiv Medicin (DASAIM) og Dansk Smerteforum	
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<b>Fagligt ansvarlige</b>	Formandskaber for Sundhedsfagligt Råd (SFR) neurologi samt anæstesiologi og intensiv medicin	<b>Revisionsdato:</b>
<b>Søgeord</b>	Neuropatiske smerter, kroniske smerter, <u>hyperalgesi</u> , <u>allodyn</u> i, tricykliske antidepressiva (TCA), <u>gabapentin</u> , <u>pregabalin</u> , serotonin- og <u>noradrenalingenoptagshæmmere</u> (SNRI)	



# National behandlingsvejledning for Complex Regional Pain Syndrome (CRPS)

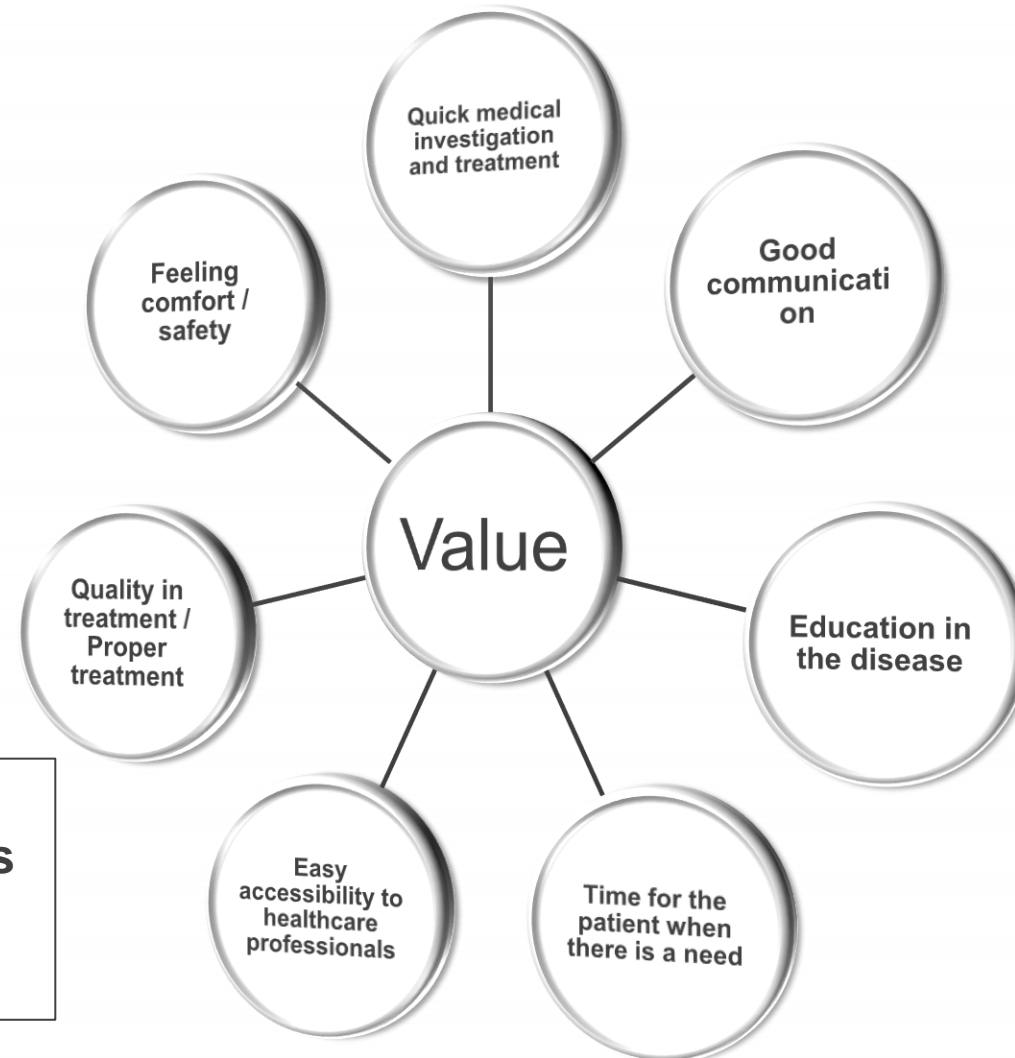
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# Value for patients in the public health service.

Unpublished data from semi-structured interviews and survey study with 203 patients from different specialities including spasticity patients



Putting the patients in the center of guidelines but knowing that no patients are the same

If a patient are treated according to guidelines, but not well informed and not feeling comfort / safety, you will not have a happy patient!

## Guidelines: Always think – Practical - Easy and fast to use (five w's)

- **Why** – Because we have to put the patient in the center, and treat all patients the best possible way
- **Who** – Structure the guidelines according to the target users. Make sure that everyone takes ownership of the guideline
- **What** – What is important to include, and what is not important to include. Make it useful!
- **Where** – What platform are we going to use (internet platform), always think practical, easy and fast to use
- **When** – Now! When ambitious and dedicated people get together, to improve the treatment of our patients



Teamwork occurs when diverse abilities and insights join together to work toward a common goal.



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# Need education and collaboration across borders for the whole team, so that we all treat patients in the same and best possible way and according to guidelines and best practices



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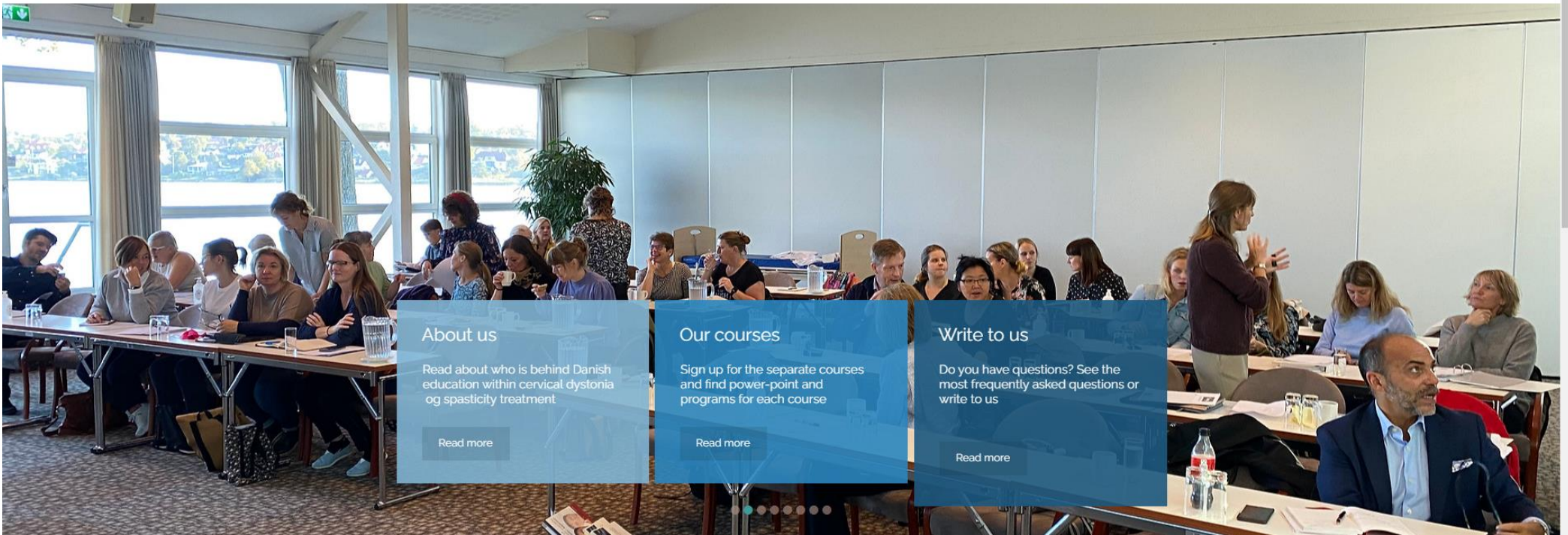
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# Questions about guidelines?

