

Effectiveness of abobotulinumtoxinA in stroke survivors with lower limb spasticity

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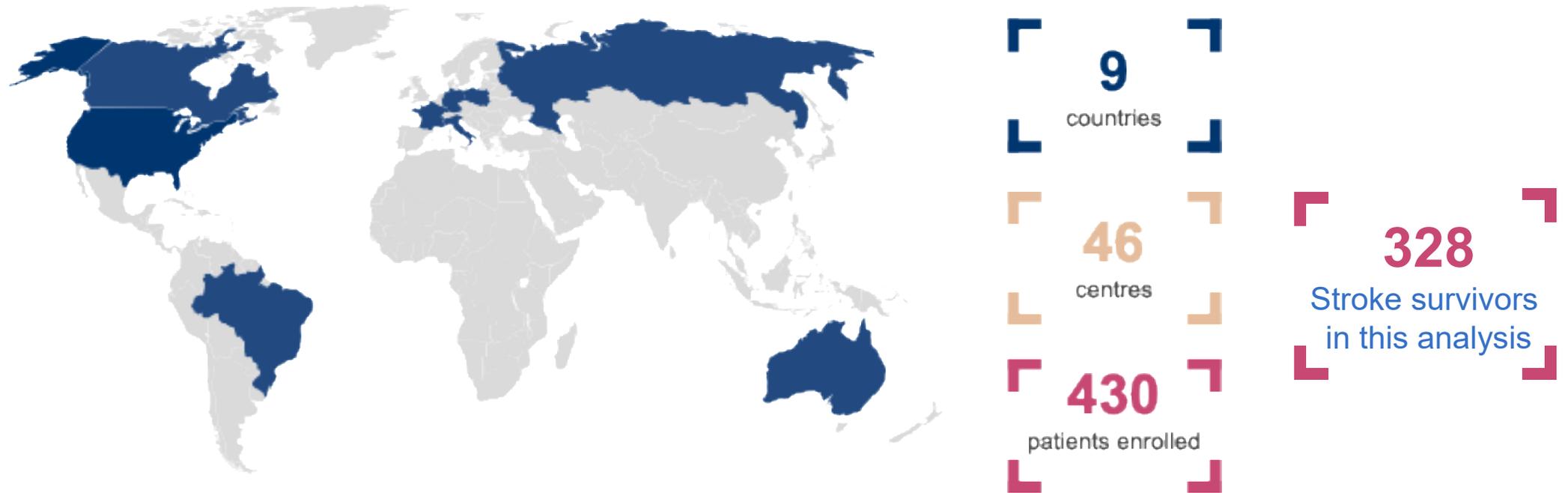
Introduction

- Up to 40% of stroke survivors develop spasticity, which can affect walking and cause issues such as pain

Spasticity: A condition that causes stiff or rigid muscles due to prolonged muscle contraction

- Botulinum toxin, such as abobotulinumtoxinA, helps reduce leg spasticity, but most research takes place in highly controlled settings, not in everyday care
- Observational studies track patients in real-life care, offering insights into what works best in practice
- Previous research focused mainly on reducing spasticity or improving tasks like walking
- In reality, every patient has unique goals and expectations

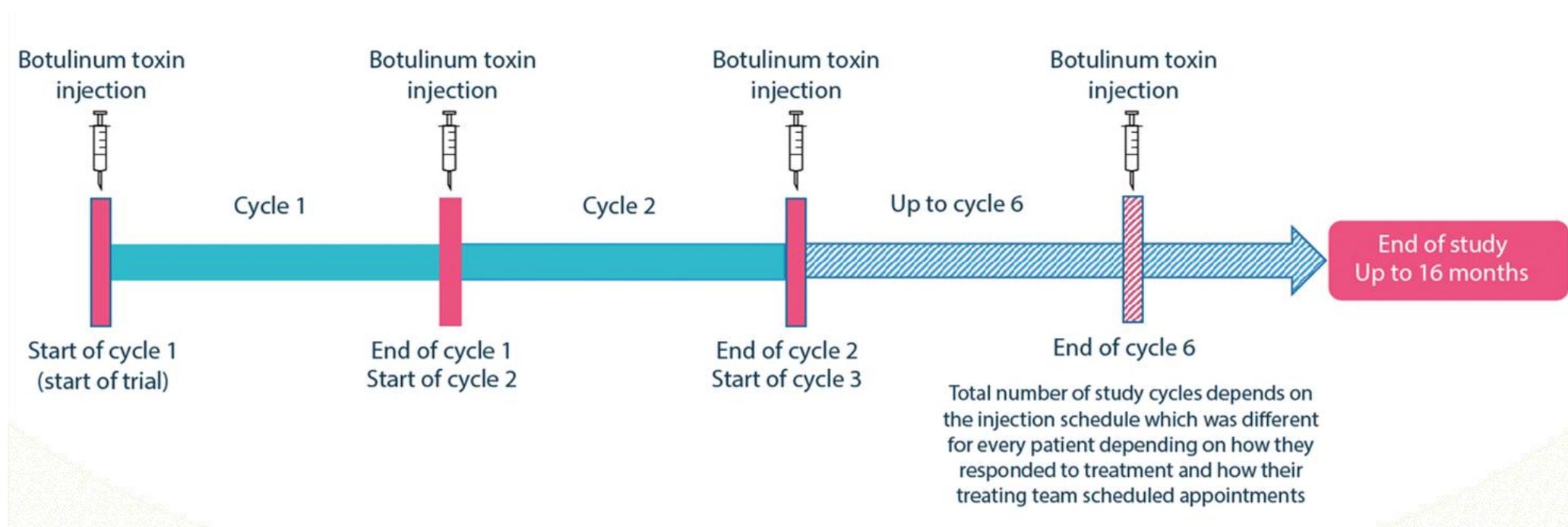
Aim and study locations



Aim: Evaluate how well repeated treatments with abobotulinumtoxinA (aboBoNT-A) helped people with spasticity achieve their personal goals over time

Study treatment cycles

- Improvement often requires **multiple treatment cycles** of botulinum toxin
- This study followed participants for **16 months** (up to six cycles) to understand outcomes over time



Assessing treatment success

- A practical approach for evaluating treatment success is to assess **goal achievement**, not just symptom reduction
- Before each treatment, patients and their healthcare team decided on goals together. At the next visit, they checked how well those goals had been met



Goal achievement was evaluated using the GAS-leg

SMART goals are:

Specific: Clearly defined and focused

Measurable: Progress can be tracked

Achievable: Realistic and attainable

Relevant: Important to the person being treated

Time-bound: Set within a specific timeframe

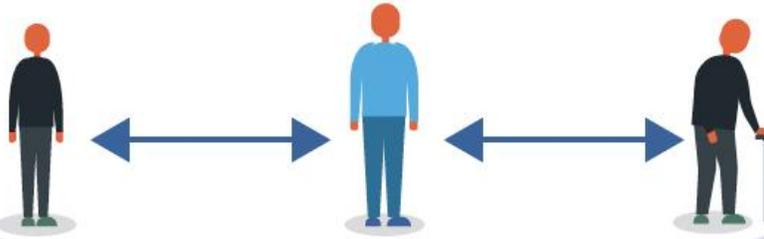
Goal Attainment Scaling – Leg

Patient stated goal	SMART goal	Achieved	Extent achieved
Domain 1: Impairment/symptoms			
Pain or discomfort	Example: Reduce pain from 7 to 3 points on the <i>Pain scale</i> by Week 4 of the injection cycle	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> +2 A lot more <input type="checkbox"/> +1 A little more <input type="checkbox"/> 0 As expected <input type="checkbox"/> -1 or -2 Same <input type="checkbox"/> -2 Less
Involuntary movements/Spasms			
Contracture			
Prevention			
Domain 2: Activities/function			
Active function Locomotion	Example: To walk from home to the end of the road (20m), using a walking aid and ankle foot orthosis, in 12 weeks.	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> +2 A lot more <input type="checkbox"/> +1 A little more <input type="checkbox"/> 0 As expected <input type="checkbox"/> -1 or -2 Same <input type="checkbox"/> -2 Less
Active function Transfers/ Standing			
Passive function (Caring for the affected limb*)			
Facilitation of therapy or other			

* Whether care is done by someone else or by the person him/herself.

Participant characteristics (stroke survivors)

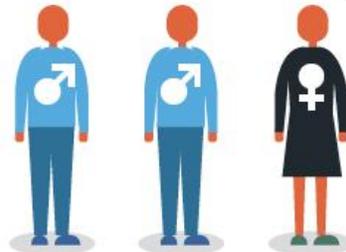
The average age was 56 years old



The average time since stroke event leading to leg spasticity was 6 years



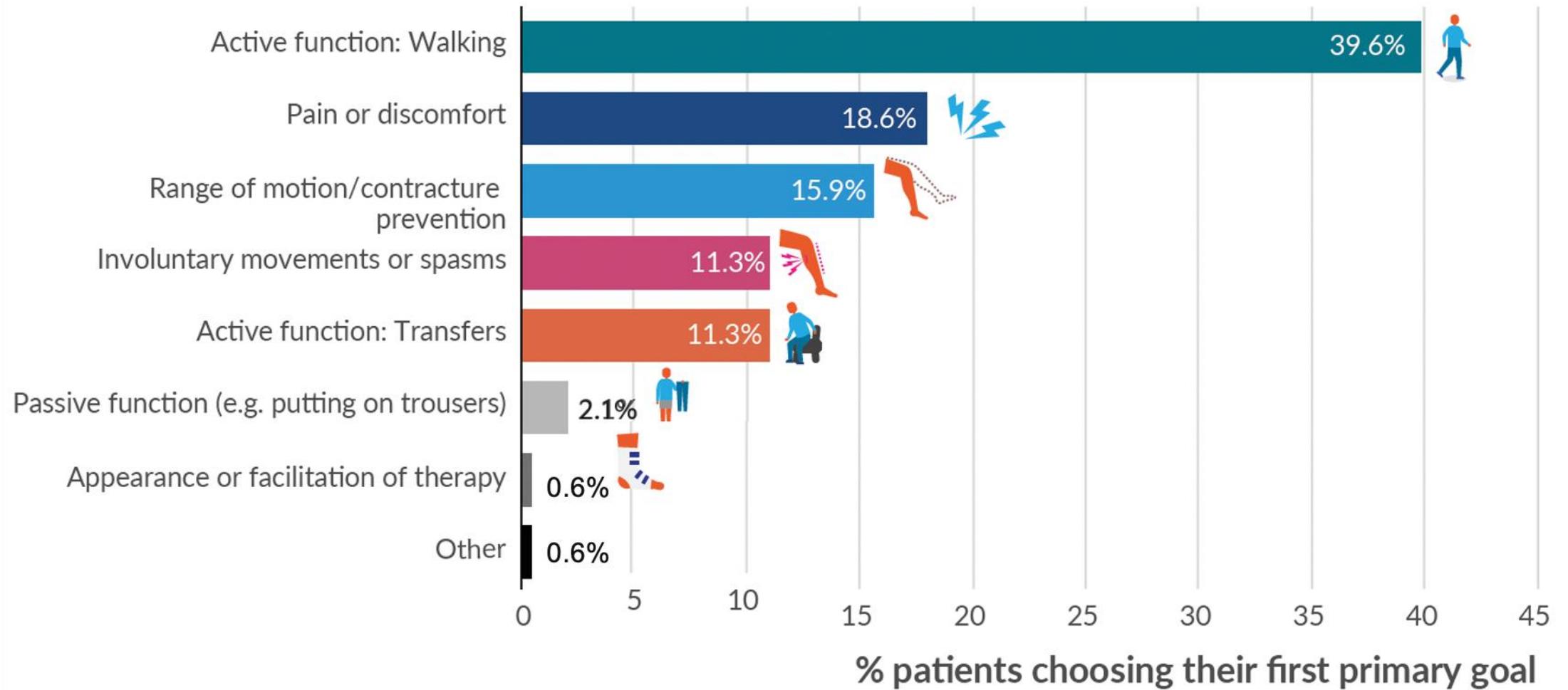
2 in 3 participants were male



Most (89%) also had arm and/or shoulder spasticity



Primary goals for Cycle 1

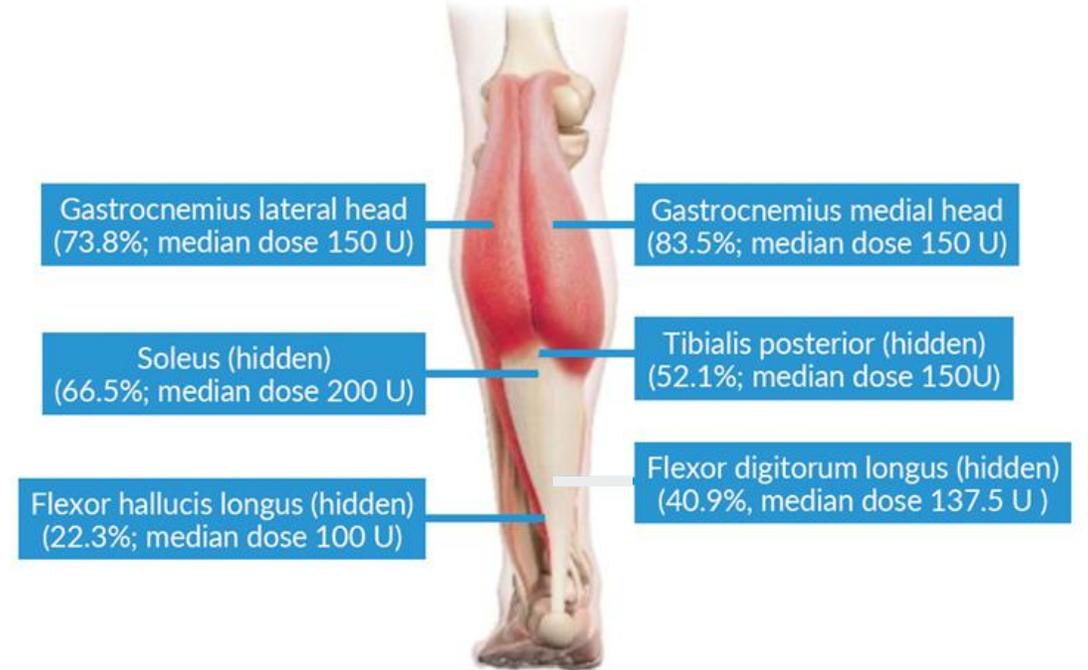


Results title

Injection parameter	N=328
aboBoNT-A total dose for lower limb* Median [Q1, Q3]	600U [440–900U]
Number of muscles injected Median [Q1, Q3]	4 [3–5]
Injection into upper limb	210 (64%)
Guidance for lower limb injection; n (%)**	256 (78%)

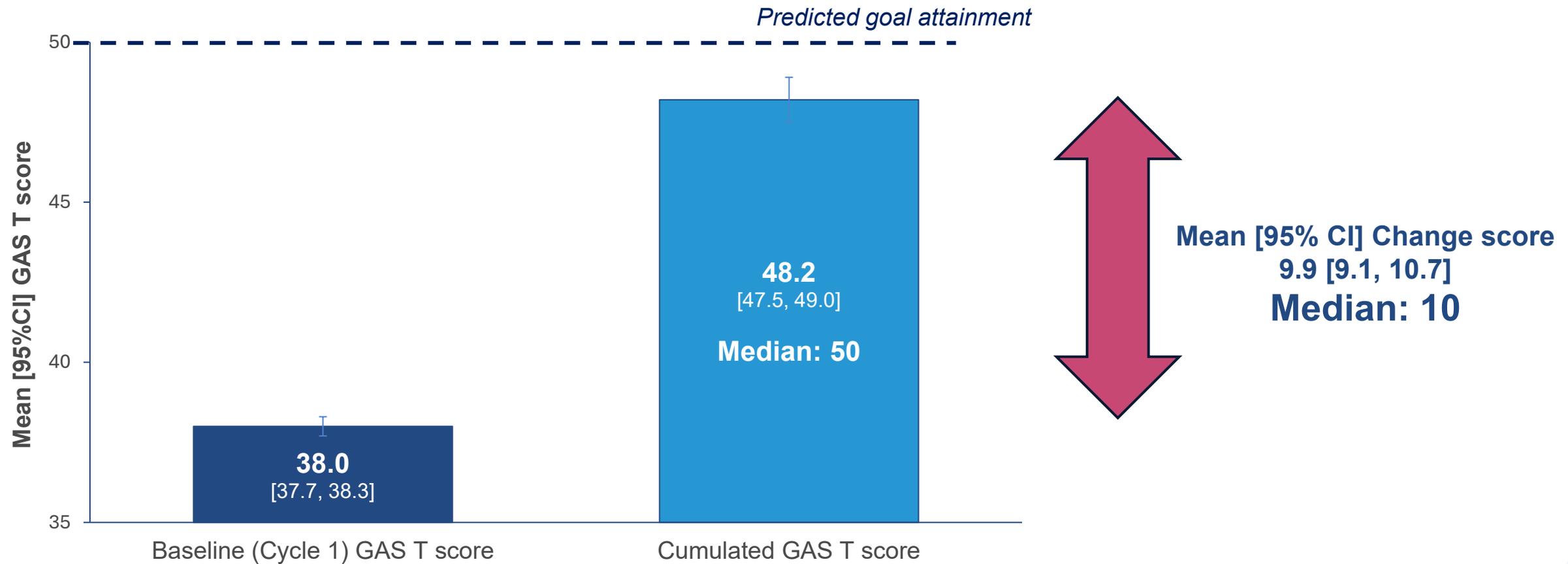
*on label muscles; **more than one technique could be used in the same patient

Most commonly injected muscles (>20% patients)



Cumulated GAS-leg T score

Primary measure of effectiveness



(N=328)

Conclusions

- Treatment with aboBoNT-A can help improve movement and comfort for stroke survivors with leg spasticity when treatment goals are clear and realistic
- Managing spasticity can support better daily function and overall care, making everyday activities easier
- Treatment was generally safe and well tolerated, with no new safety concerns found during the study

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Substantial contributions to study conception/design, or acquisition/analysis/interpretation of data: ALL; drafting of the publication, or reviewing it critically for important intellectual content: ALL; final approval of the publication: ALL

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Thank you for listening