



Effectiveness of the MUSICA (Muscle Ultrasound for Spasticity Intelligent CARE) Education Program: A Pre-post Analysis of an Ultrasound Spasticity Framework

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OBJECTIVE

Evaluate the impact of the MUSICA curriculum (interactive virtual sessions and live workshops) using a pre and post course structured knowledge check and participant feedback surveys

CONCLUSIONS

The pre and post knowledge check demonstrated physicians agreed that the MUSICA Education Program, centered on the Five Clinical Pearls, complements existing ultrasound spasticity courses

Preliminary results suggest a strong gain in knowledge that may enhance physicians' knowledge, confidence, and procedural skills in ultrasound-guided spasticity management

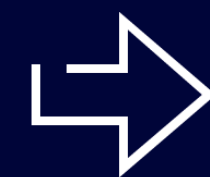
Positive participant feedback supports further expansion of the MUSICA program and highlights the importance of a framework-based approach when using ultrasound as a relevant tool in spasticity management

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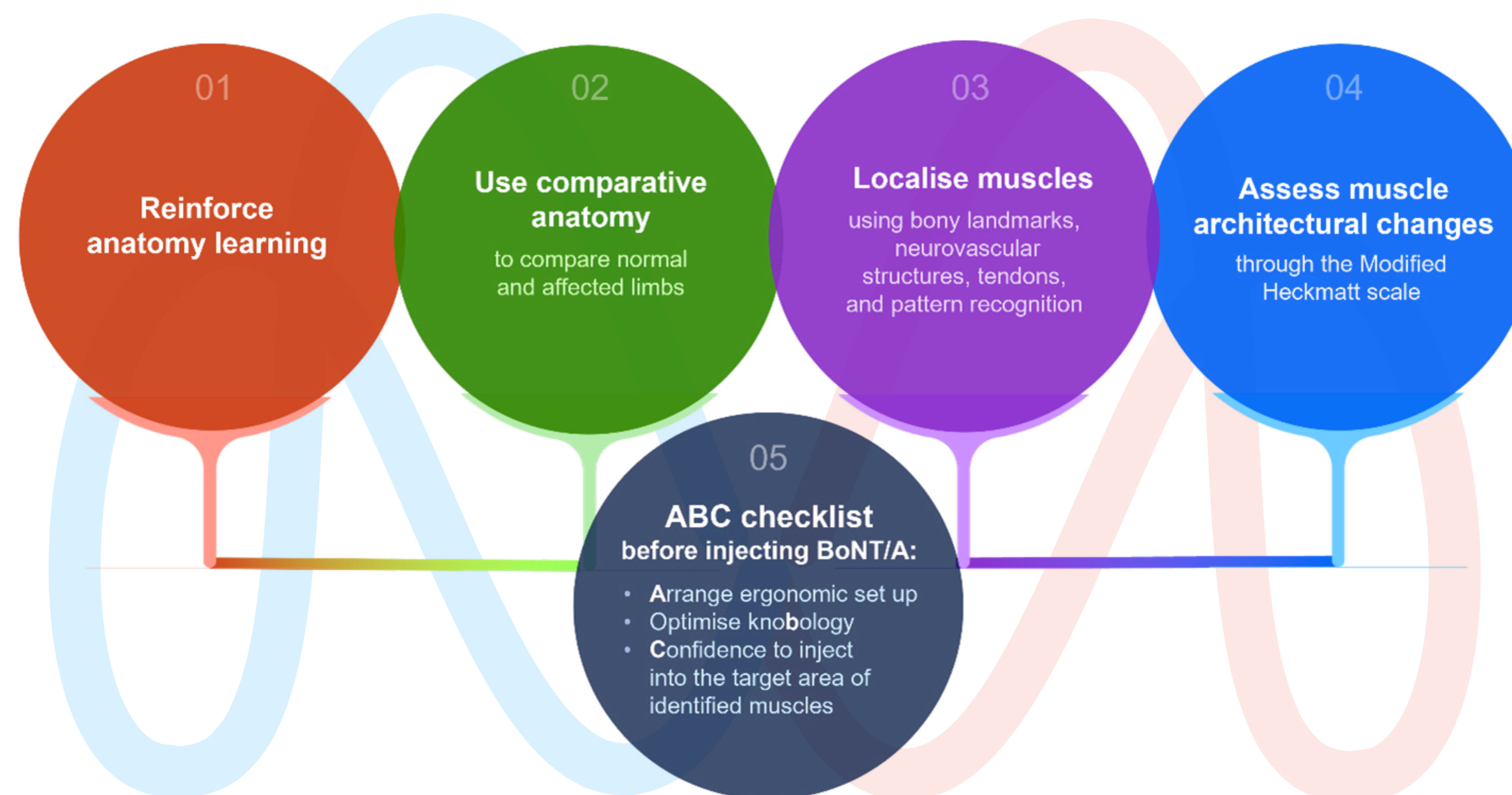
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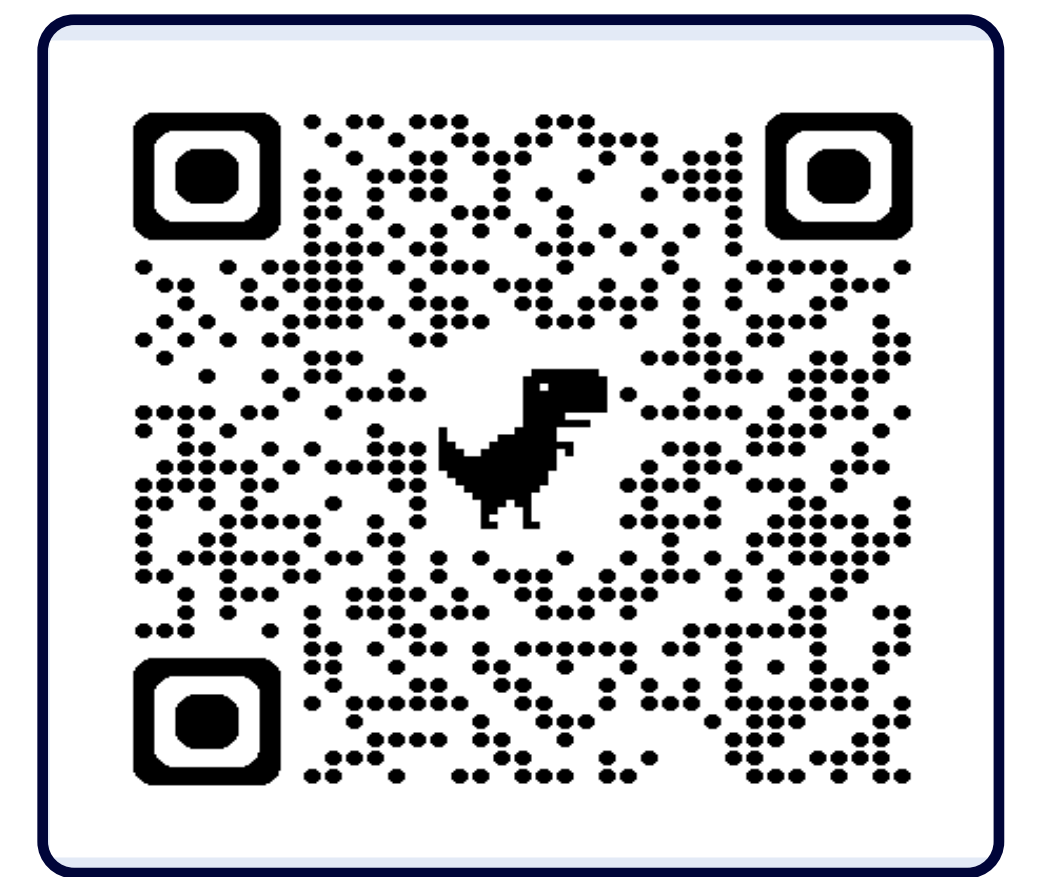
INTRODUCTION

- Musculoskeletal ultrasound (US) is an important tool to optimize targeting of botulinum toxin type A treatment^{1,2,3}
- The MUSICA curriculum consists of 4 interactive virtual sessions and live (4-6 hours) workshops designed for physicians that are confident and experienced in using US for botulinum toxin type A injections
- The MUSICA framework is a conceptual framework created by international experts. It is based on the Five Clinical Pearls; reinforce anatomy learning, use comparative anatomy, localize muscles, assess muscle architectural changes, and the ABC-checklist
- The MUSICA framework complements existing US courses by providing a higher level framework with the aim of optimizing spasticity management and the outcomes of patients treated with botulinum toxin type A

The Five Clinical Pearls:



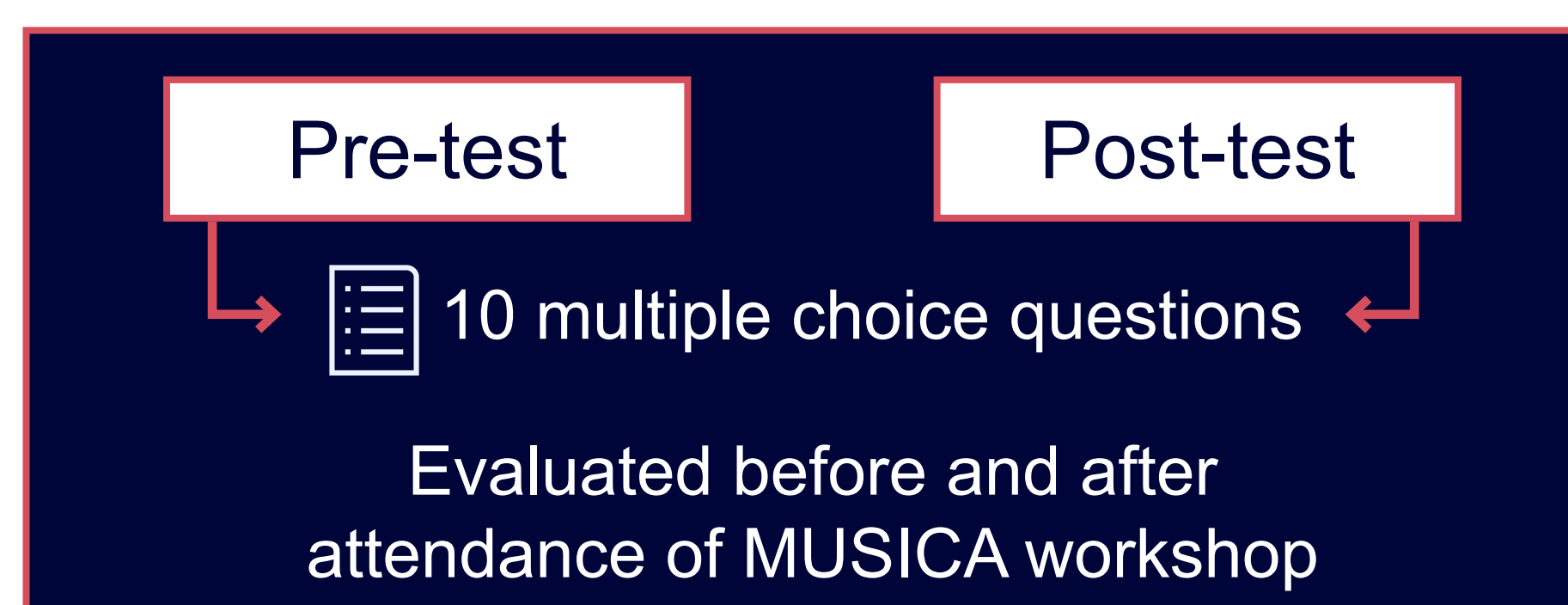
Scan here for a short video of Professor Rajiv Reebye discussing the MUSICA Education Program



METHODS

- Program impact was measured using a pre and post course structured knowledge check for 1 workshop and participant feedback surveys for all virtual sessions and live workshops
- Pre and post knowledge check consisted of 10 multiple choice questions that were evaluated before and after attendance at a MUSICA workshop

Attendance of MUSICA workshop

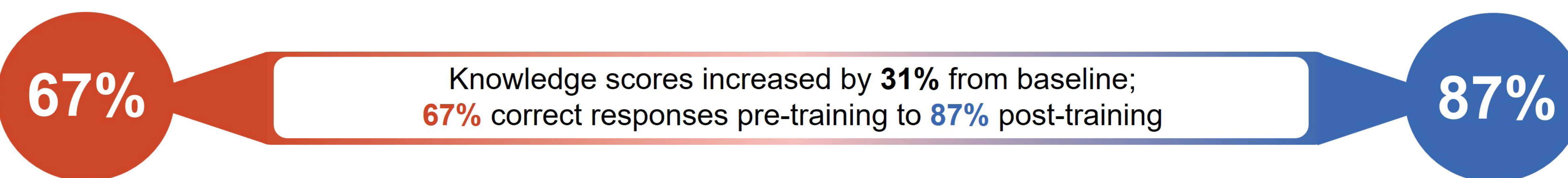


Poll Questions:

- Responses were captured to evaluate demographics (eg, time in practice), proportion of attendees who endorsed the MUSICA program, and proportion of attendees who valued the MUSICA Framework and the workshop content

RESULTS

- Live workshop included **14 physicians** (85% with >5 years of US experience)



Pre-Training

The following two questions had ~50% of attendees with the correct answer pre-training improved to ~90% of attendees with the correct answer post-training

Post-Training

45%	Question What is the definition of Grade 2 on the Modified Heckmatt Scale?	87%
	Answer Increased muscle echogenicity in 10-50% of tissue, with distinct bone echo and areas of normal muscle echo	
50%	Question In muscle US, insonation angle refers to which of the following statements:	93%
	Answer The angle between the US beam and the muscle fibers – the optimal angle for standard grayscale (B-mode) imaging of muscles in 90° (perpendicular)	

The Endorsement:



Among 70 workshop attendees across 3 workshops, over **90% endorsed the MUSICA Framework's value** for daily practice and expressed high satisfaction with the workshop content

The Value:



93% of >300 participants reported high value in MUSICA educational virtual sessions