

**Ultrasound - Assisted Botulinum
Toxin Injection for Neuromuscular
Disorders in Limbs**

Feedback - July 2015

Ultrasound - Assisted Botulinum Toxin Injection for Neuromuscular Disorders in Limbs

This unique two-day course provided the participant with the required knowledge and information about the indications and technique for injecting botulinum toxin in patients with neuromuscular disorders in limbs.

With a high tutor-to-participant ratio, this practical course was delivered using a combination of demonstrated functional and ultrasound anatomy, with interactive small group discussions and ultrasound-assisted injection of botulinum toxin on unembalmed freeze-preserved cadavers, under direct supervision by consultant surgeons. Patients were not used on this course.

On completion of the course, the participant are able to:

- Understand the pertinent pathophysiology of neuromuscular disorders in limbs.
- Appreciate the pharmacology and action of botulinum toxin.
- Demonstrate the indications for injecting botulinum toxin in patients with neuromuscular disorders in the limbs.
- Appreciate the contraindications, risks and limitations of this procedure.
- Apply anatomy knowledge to aid ultrasound-assisted botulinum injection in limbs.

Course Information

Course date: 4th and 5th July 2015

Venue: Anatomy Department,
Cardiff University,
Wales, UK

Attendance: 13 Delegates

Aimed at:

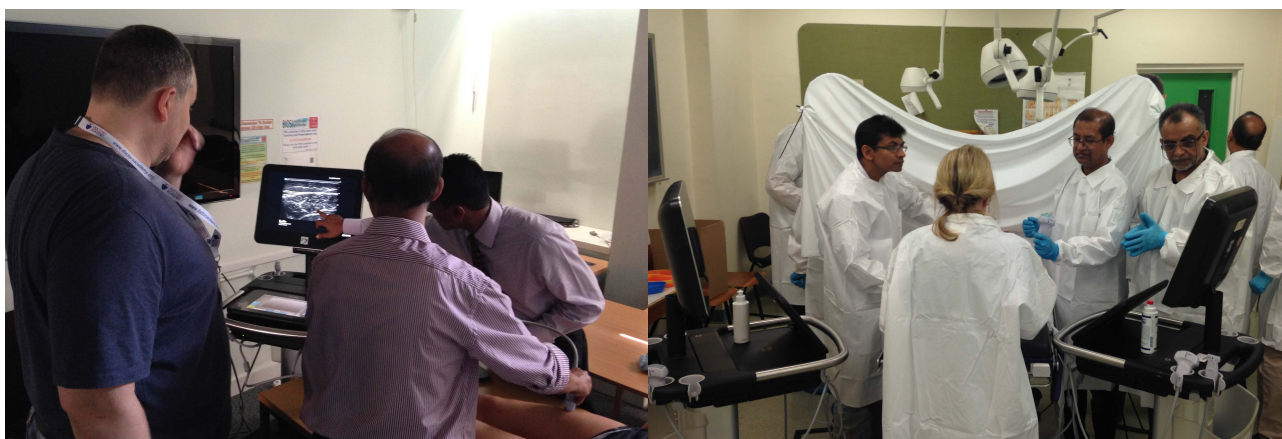
- Consultants
- Speciality Registrars
 - ST3
 - ST4
 - ST5
 - ST6
 - ST7
 - ST8
- Registrar-level doctors
- Specialist Nurses
- Physiotherapists
- Occupational Therapists

Relevant to the following disciplines:

- Paediatrics
- Elderly care
- Stroke unit
- Neurology
- Orthopaedic surgery
- Plastic surgery

Course fee: FREE

Sponsored places available through



Course Programme

Day 1

1000 – 1015	Welcome, Registration and Coffee
1015 – 1100	Gross Anatomy of the upper & lower limb Prof Stuart Enoch
1100 – 1200	Ultrasound anatomy of the upper limb Dr Peter Mullaney
1200 – 1300	Ultrasound anatomy of the lower limb Dr Ramakrishna Kishore

1300 – 1345 **Lunch**

1345 – 1500	USS practical Miss Clare Carpenter
1500 – 1530	An overview on Botulinum treatment Miss Clare Carpenter

1530 – 1545 **Break for refreshments**

1545 – 1645	Botox and its use in the upper & lower limb Miss Clare Carpenter
1645 – 1650	Summary and Closure

End of Day 1

Course Programme

Day 2

0830 – 0930 **USS anatomy review**

0930 – 1045 **USS practical sessions (Small group teaching)**
Mr Dean Boyce
Mr Robert Freeman
Miss Clare Carpenter

1045 – 1115 **Coffee**

1115 – 1300 **Cadaveric Workshop in the Dissection Room**
Mr Dean Boyce
Mr Robert Freeman
Miss Clare Carpenter

1300 – 1330 **Lunch**

1330 – 1530 **Cadaveric Workshop in the Dissection Room**
Mr Dean Boyce
Mr Robert Freeman
Miss Clare Carpenter

1530 – 1545 **Closure, remarks and assessment**

End of Course

Faculty

Ms Clare Carpenter

Course Convenor and Consultant Orthopaedic Surgeon
University Hospital of Wales, Cardiff

Mr Dean Boyce

Consultant Plastic and Hand Surgeon
Morrison Hospital, Swansea

Mr Robert Freeman

Consultant Orthopaedic Surgeon
The Robert Jones and Agnes Hunt Orthopaedic Hospital, Oswestry

Mr Stuart Enoch

Consultant in Surgical Education and Director of Education
Doctors Academy (Intl)

Dr Peter Mullaney

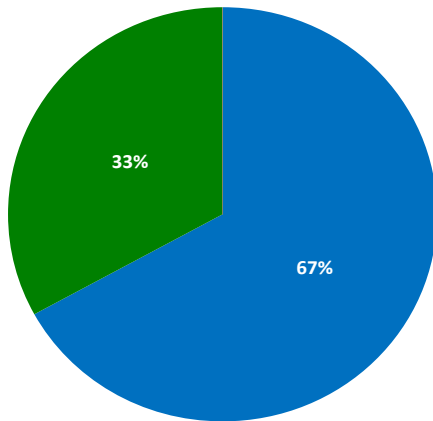
Consultant Musculoskeletal Radiologist
University Hospital of Wales, Cardiff

Dr Ramakrishna Kishore

Consultant Musculoskeletal Radiologist
University Hospital of Wales, Cardiff

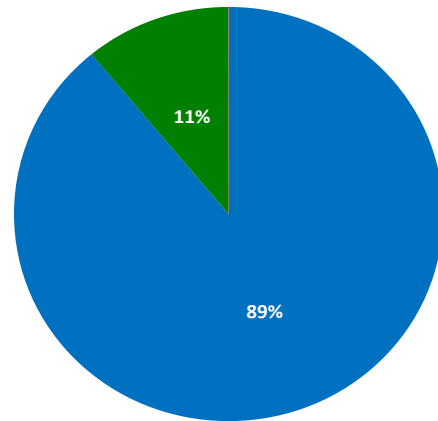
Overall Teaching Feedback

How would you rate the materials provided?



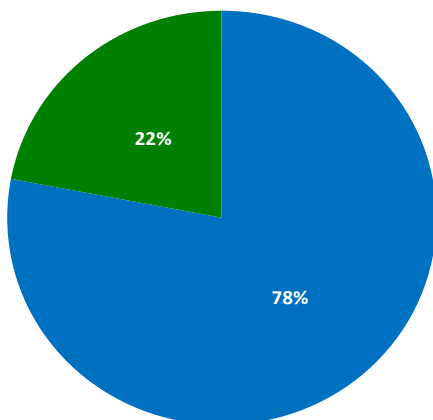
■ Excellent ■ Very good ■ Good ■ Satisfactory ■ Poor ■ Very Poor

How would you rate the resources provided?



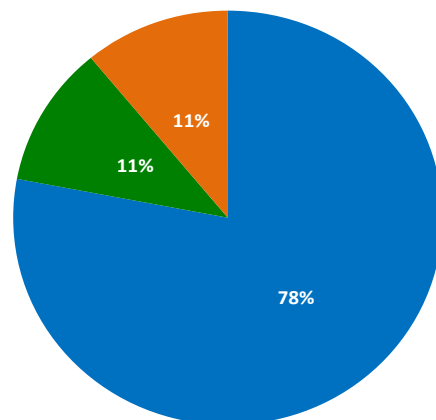
■ Excellent ■ Very good ■ Good ■ Satisfactory ■ Poor ■ Very Poor

What is your overall rating for the whole session?



■ Excellent ■ Very good ■ Good ■ Satisfactory ■ Poor ■ Very Poor

How would you rate the Organisation?



■ Excellent ■ Very good ■ Good ■ Satisfactory ■ Poor ■ Very Poor

Individual Comments

What did you like best about the course?

- Good reflection of key areas in different methods (USS/lecture based/PowerPoint).
- Lecture session not too formal.
- Good opportunity for hands on experience.
- Good number of participants.
- Ultrasound assisted injections.
- Hands on practice with ultrasound and injections.
- Very practical, interactive with plenty of hands on practice.
- Very good hands on course, well organized.
- Hands on training.
- Hands on experience with ultrasound.
- Excellent anatomy presentation.
- Excellent hands on experience.

Is there anything that could be improved?

- Fantastic, no improvement is needed.
- One presentation about management of spasticity to generate discussion and share experiences.
- Could not have been better. It's already an excellent course.
- More muscles to be covered.

What is your opinion about the Teaching Content (lectures, demonstrations)?

- Key points clearly described.
- Very good knowledge & facilities.
- Perfect.
- Excellent.
- Excellent.
- Excellent, learnt a lot of new stuff.
- Excellent.
- Good.
- Good lecture material and demonstration.

Are there other topics that you would like to cover in the course that are not adequately covered elsewhere?

- Content was perfect, anything more would be too much.
- More on uses of Botulinum can also be included.
- It will be better if Pain Management comments were also included.



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- MRCS Part B OSCE
- DOHNS: Intensive Revision & OSCE
- Structured Introduction to Surgical Skills
- Future Surgeons: Key Skills (RCSEd delivered)
- Intercollegiate Basic Surgical Skills (RCSEd delivered)
- MRCP PACES Part 2
- MCEM Part A
- FRCS (General Surgery) Exit Exam
- Intensive Surgical Anatomy Revision
- Training the Clinical Anatomy Trainer - Level 1
- Training the Clinical Anatomy Trainer - Level 2
- Surgical Anatomy of Important Operative Procedures
- Surgical Revision Course for Final Year Medical Students
- Medical Revision Course for Final Year Medical Students
- Clinical Anatomy as Applied to Trauma and Emergency Medicine
- Cadaveric Ultrasound-guided Musculoskeletal Intervention Course
- Ultrasound-Assisted Botulinum Toxin Injection for Neuromuscular Disorders in Limbs
- Live Advanced Laparoscopic Colorectal Course



Key Events:

- International Medical Summer School
- International Academic Research Conference
- World University Anatomy Competition

Publications

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