

## Temporomandibular Disorders and Dysfunctions Module

<b>Module Title</b>	Temporomandibular Disorders and Dysfunctions
<b>Module Number</b>	3
<b>Module ECTS</b>	10
<b>Module Code</b>	TBC
<b>Module Delivery</b>	8 weeks + 1 week bootcamp
<b>Module Coordinator</b>	Dr Philip Hardy
<b>Teaching Staff</b>	Prof Glenn Clark USC Prof. Mariela Padilla and Dr. Kamal Al-Eryani USC Dr Dermot Canavan, Assistant Professor, Trinity Dr Philip Hardy, Assistant Professor, Trinity Dr Michael O’Sullivan, Associate Professor, Trinity
<b>Module Content</b>	<p><b>Lecture topic areas will include:</b></p> <ul style="list-style-type: none"> <li>- Masticatory, TMJ and Cervical Anatomy</li> <li>- Definitions and Classification systems used for TM disorders</li> <li>- Diagnosis of Internal Derangements, Dislocations and Locking</li> <li>- Diagnosis of Acute and Chronic Muscle Pain</li> <li>- Diagnosis of Uncommon TM Disorders and Dysfunctions</li> <li>- Diagnosis of Localized and Generalized TMJ Arthritis</li> <li>- Non-Surgical Treatment of Internal Derangements</li> <li>- Office-Based and Home-Based Treatment of Chronic Muscle Pain</li> <li>- Treatment of TMJ Arthritis</li> <li>- Surgical Intervention for TMJ disease</li> <li>- Behavioural Treatment for TMD</li> <li>- Appropriate Use of Botulinum Toxin for TMD and Bruxism</li> </ul> <p><b>Hands-on Training (bootcamp) in Trinity will cover the following areas:</b></p> <ol style="list-style-type: none"> <li>1. Diagnostic Procedures <ul style="list-style-type: none"> <li>- Comprehensive Head and Neck Examination</li> <li>- CBCT of the TMJ</li> <li>- MRI image of the TMJ</li> <li>- Stretch Localization of Jaw Motion Restrictions</li> </ul> </li> <li>2. Physical Medicine Therapeutic procedures <ul style="list-style-type: none"> <li>- Thermal Therapy</li> <li>- Jaw and Neck Exercises</li> <li>- Jaw and Neck Stretch Therapy</li> <li>- Injections for Pain, Spasm and Inflammation</li> <li>- Appliances and Counter-stimulation Devices</li> <li>- Closed Lock - TMJ Mobilization</li> <li>- Open Lock - TMJ Manipulation</li> </ul> </li> <li>3. Injections for Muscle Hyperactivity Disorders <ul style="list-style-type: none"> <li>- Trigger Point Identification</li> <li>- TMJ Injection (corticosteroid and hyaluronate)</li> <li>- Botulinum Toxin for spasm/dystonia management</li> <li>- Botulinum Toxin for repetitive wide open dislocation</li> <li>- Botulinum Toxin for masticatory muscle hypertrophy</li> </ul> </li> <li>4. Patient Instructions and Explanations in Orofacial Pain <ul style="list-style-type: none"> <li>- Myofascial Pain Stretching Exercises Instructions</li> <li>- Jaw Resting Exercises Instructions</li> </ul> </li> </ol>

	<ul style="list-style-type: none"> <li>- Thermal Therapy Instructions</li> <li>- Soft Diet Instructions</li> <li>- Avoidance Instructions</li> <li>- Relaxation Exercise Instructions</li> <li>- Occlusal Appliance Instructions</li> <li>- Avoiding Open Locking with Treatment Instructions</li> </ul>
<b>Module Learning Outcomes</b>	<p>On successful completion of the module, the student should be able to:</p> <p>M3-01. Describe and demonstrate how to perform a medical history interview and examination data, a diagnosis, including identifying the significant contributing factors, and a treatment plan for a patient with a motor disorder, mobility and growth disorder or a temporomandibular arthritic disease/dysfunction occurring in the orofacial region.</p> <p>M3-02. Describe the anatomical and physiological basis of neurogenic pain disorders, motor disorders, mobility and growth disorders and temporomandibular arthritic disease and dysfunctions that occur in the orofacial region.</p> <p>M3-03. Describe and demonstrate how to perform basic radiographic interpretation of orofacial disease using both local dental, panoramic and advanced CBCT and MRI imaging techniques to identify developmental, traumatic and congenital abnormalities of the face and jaws and TMJ.</p> <p>M3-04. Describe how to perform the appropriate diagnostic anaesthetic blocks, trigger-point injections, botulinum toxin injections, sodium hyaluronate and corticosteroid injections for Orofacial pain and temporomandibular disease.</p> <p>M3-05. Describe how to perform the spray and stretch, thermal therapy, and instruct patients in an effective home based physical medicine procedures used to manage chronic musculoskeletal pain.</p> <p>M3-06. Describe how to create, insert and manage orthotic devices (stents and splints) for Orofacial pain and Temporomandibular disease and dysfunctions.</p> <p>M3-07. Describe how to perform an anaesthesia assisted mobilization of the TMJ when it exhibits acute onset limited motion.</p>
<b>Module Assessment</b>	<ol style="list-style-type: none"> <li>1. Written assignments. Asynchronous interactive (embedded quizzes and hotspots) video lectures and post-lecture quizzes, final course examination and written homework assignments (30%) (formative).</li> <li>2. Practical assignments. Year-end Objective Structured Clinical Examinations given in the summer bootcamp (30%) (summative).</li> <li>3. Case study analysis. Weekly Live Video Conferences (seminar participation) 40% (formative).</li> </ol>