

**THEORETICAL-PRACTICAL COURSE:**

**All-on-4® Surgical Protocol Clinical Course**

(Dr. Ana Ferro & Dr. Armando Lopes)

**16 hours**

**2 DAYS**

ON SITE

**Training Dates:**

Start (07/09/2023) – Ending (08/09/2023)

**Framework:** The All-on-4® protocol is an innovative surgical procedure for the rehabilitation of edentulous jaws focusing entirely on the patient. By taking advantage of the dense bone available in the anterior maxilla and between the mandibular foramina, this widely applicable surgical technique allows for the treatment of a significantly greater number of patients, while avoiding the need for complex, time consuming and often debilitating bone grafting procedures.

During 2 days, the MALO CLINIC clinical team will show you how the patient will have immediate function and excellent esthetics with a limited number of implants. This course will teach you the skills and know-how to treat edentulous patients using the All-on-4® surgical protocol following the MALO CLINIC Rehabilitation Protocol, from patient selection to treatment planning, all the way through to the fitting of the prosthesis so you can offer immediate function to your patients.

Giving you a comprehensive overview of the All-on-4® Proto this course focus specially on how to solve clinical complications, which implants are best to each case type an mastering of the standard approach when it comes to highly skilled cases that are not illegible for the hybrid and ext maxilla approaches. This will give you the tools to improve understanding of the technique with advantages to you and y patients.

**Participants | Requirements:** Professionals experienced in implant dentistry.

**General objectives:** At the end, trainees should be able to:  
1. Differentiate the several treatment options for full-arch rehabilitation in the maxilla/mandible

2. Recognize the different clinical and surgical steps of the procedure
3. Identify the main prosthetic options for the All-on-4 rehabilitation in the maxilla/mandible
4. To implement the main surgical steps in an All-on-4 rehabilitation in the maxilla/mandible
5. To implement the main prosthetic steps in an All-on-4 rehabilitation in the maxilla/mandible producing a functional and aesthetic acrylic resin prosthesis

**Specific objectives:**

- At the end, trainees should be able to:
- 1.1 Recognize the difference between full-arch rehabilitation using more than 4 standard in axial position, using the different All-on-4 configurations;
  - 1.2 Identify the advantages and disadvantages of each rehabilitation option;
  - 2.1 Evaluate the pre-treatment phase (planning) considering the anatomical limitations;
  - 2.2 Identify the essential steps during surgery (Incision, flap elevation, bone reduction, implant-site preparation, implant insertion, abutment connection, suturing).
  - 3.1 Identify the essential steps of prosthetic options for the provisional prosthesis using a pre-made prosthesis (impression tacking, cylinder caption, prosthetic try-in, prosthetic connection, occlusion check).
  - 3.2 Identify the essential steps of prosthetic options for the provisional prosthesis using a new fabricated prosthesis (impression tacking, implant-position capture, prosthetic try-in, prosthetic connection, occlusion check). Recognize the different clinical and surgical steps of the procedure.
  - 4.1 To evaluate the anatomical limitations involved in the All-on-4 rehabilitation in the maxilla/mandible;
  - 4.2 To perform a proper implant site preparation procedure;
  - 4.3 To correctly insert the implants following the All-on-4 configuration;
  - 4.4 To correctly connect the specific abutments to the implants following the All-on-4 configuration (straight abutments on the

anterior implants and tilted abutments on the posterior implants).

5.1 To correctly perform a cylinder caption without compromising passive fit;

5.2 To correctly remove the metal excess from the cylinders achieving a smooth surface;

5.3 To correctly produce acrylic-resin during the correct curing time (below 2 minutes);

5.4 To achieve a smooth surface on the interface between prosthesis and the model's surface.

Modules   Program Content	Workload (h)	
	Theory	Practice
• MODULE 1 – THE ALL-ON-4 CONCEPT IN THE MANDIBLE: PRE-TREATMENT, SURGICAL AND POST-TREATMENT CONSIDERATIONS	4	
• MODULE 2 – THE ALL-ON-4 CONCEPT SURGICAL HANDS-ON		4
• MODULE 3 – THE ALL-ON-4 CONCEPT IN THE MAXILLA: PRE-TREATMENT, SURGICAL AND POST-TREATMENT CONSIDERATIONS	4	
• MODULE 4 – THE ALL-ON-4 CONCEPT PROSTHODONTIC HANDS-ON		4
<b>Total</b>	<b>8</b>	<b>8</b>
	<b>16 H</b>	

**Training Methodology:** The course includes a face-to-face component with a total duration of 16 hours, organized into theoretical and practical sessions, in conjunction with a training component of direct learning in the context of surgery through live viewing through video projection of the surgeries that will take place in the operating room. In the face-to-face component, the training methodology will be centered on the articulation of the expository, interrogative, demonstrative and active method, in order to enhance the appropriation of the course contents, based on the analysis of real cases. The Access to the course includes a series of 7 lectures online with the name MALO CLINIC: ALL-ON-4® | Complete course that must be viewed and studied by trainees before starting the course MALO CLINIC Protocol: ALL-ON-4®. These lectures can be found on the Education platform

**Attendance and Punctuality Rules:**

Attendance in the face-to-face component of training must be 100%.

In the face-to-face component of the training, each training session has an associated tolerance of 15 minutes after the start defined for its beginning.

<b>Evaluation methodology:</b>	The assessment of trainees' learning is carried out throughout the course, and the final classification results from the trainee's performance in the modules 2 and 4, whose weights in the final grade have different weights: module 2- 10 points and module 4 - 10 points.
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<b>Training Mode:</b>	Other continuous training actions (not included in the National Qualifications Catalogue)
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<b>Form of Organization:</b>	On Site- Presential
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<b>Spaces and Logistics Requirements:</b>	
On-site Training:	
<ul style="list-style-type: none"> <li>- Theoretical Component - Room with good lighting, ventilation, temperature and isolated from disturbing noises to the proper functioning of the training sessions, equipped with all the necessary didactic-pedagogical resources (computer, LCD, sound equipment, video system, whiteboard/flipchart and pens, Wi-Fi network), as well as all the technical equipment associated with the themes of the various modules that make up the course.</li> <li>- Practical Component - Medical office space properly equipped with all the equipment and utensils necessary for clinical practice.</li> </ul>	

<b>Didactic and Pedagogical Resources:</b>	
Theoretical room- Computer, LCD, sound equipment, video system, whiteboard/flipchart and pens, Wi-Fi network; Lectures online with the name MALO CLINIC: ALL-ON-4®   Complete course.	
Hands-On 1 <sup>st</sup> day:	
<ul style="list-style-type: none"> <li>- Osseosets with contra-angle; Surgery Kits;</li> <li>- Surgery Model with Dummy Implants; Multi-unit abutments; 30° Multi-unit abutments;</li> </ul>	
Hands-On 2 <sup>nd</sup> day:	
<ul style="list-style-type: none"> <li>- Laboratory Handpiece; Prosthesis Kits; Prosthesis to Rebase; Temporary coping Multi-unit; Multi-unit abutment plus; Guide-pin multi-unit; Lab-screw multi-unit; Dental Dam; Acetate Pen/Marker; Dental Dam Punch; Scalpels and Scissors; Unifast Pink + Liquid (1 bottle of powder + liquid on the stand); Pipettes; Spatula ;Syringe; Syringe Tip (Ultradent White Mac);Brush Handles; Brush Tips; Black tungsten drill; Blue tungsten drill; Gray Polishing Rubber; Yellow Polishing Rubber; Cotton buffs; Silicone cup for mixing Acrylic; Mandrel; Carburundo Cutting Disc; Visor masks; Disposable gloves; Surgical Fields.</li> </ul>	

**Learning support:** Video Lectures, Reference bibliography, scientific articles:

- Maló P, Lopes I, De Araújo Nobre M. The All-on-4 Concept. In: Babbush CA, Hahn JA, Krauser JT, eds. Dental Implants: The Art and Science. Maryland Heights, USA: Saunders Elsevier, 2011: 435-447.
- Maló P, de Araújo Nobre M, Lopes A. An overview of the All-on-4™ implant philosophy. Faculty Dental Journal, January 2012; 3: 20-27. DOI 10.1308/204268512X13207759526256.
- Ferro AS, de Araújo Nobre MA, Simões R. Ten-year follow-up of full-arch rehabilitations supported by implants in immediate function with nasal and full-length palatine bicortical anchorage on the anterior maxilla. J Oral Sci. 2022;64(2):129-134. doi:10.2334/josnusd.21-0378
- de Araújo Nobre M, Lopes A, Antunes E. The 10 Year Outcomes of Implants Inserted with Dehiscence or Fenestrations in the Rehabilitation of Completely Edentulous Jaws with the All-on-4 Concept. J Clin Med. 2022;11(7). doi:10.3390/jcm11071939
- de Araújo Nobre M, Moura Guedes C, Almeida R, Silva A, Sereno N. Hybrid Polyetheretherketone (PEEK)-Acrylic Resin Prostheses and the All-on-4 Concept: A Full-Arch Implant-Supported Fixed Solution with 3 Years of Follow-Up. J Clin Med. 2020;9(7):2187. doi:10.3390/jcm9072187
- Maló P, de Araújo Nobre M, Lopes A, Ferro A, Nunes M. The All-on-4 concept for full-arch rehabilitation of the edentulous maxillae: A longitudinal study with 5-13 years of follow-up. Clin Implant Dent Relat Res. 2019;21(4):538-549. doi:10.1111/cid.12771
- de Araújo Nobre M, Salvado F, Nogueira P, Rocha E, Ilg P, Maló P. A Peri-Implant Disease Risk Score for Patients with Dental Implants: Validation and the Influence of the Interval between Maintenance Appointments. J Clin Med. 2019;8(2):252. doi:10.3390/jcm8020252
- Maló P, de Araújo Nobre M, Lopes A, Ferro A, Botto J. The All-on-4 treatment concept for the rehabilitation of the completely edentulous mandible: A longitudinal study with 10 to 18 years of follow-up. Clin Implant Dent Relat Res. 2019;21(4):565-577. doi:10.1111/cid.12769
- Maló P, Lopes A, de Araújo Nobre M, Ferro A. Immediate function dental implants inserted with less than 30 N·cm of torque in full-arch maxillary rehabilitations using the All-on-4 concept: retrospective study. Int J Oral Maxillofac Surg. 2018;47(8). doi:10.1016/j.ijom.2018.04.008
- Maló PS, de Araújo Nobre MA, Ferro AS, Parreira GG. Five-year outcome of a retrospective cohort study comparing smokers vs. Nonsmokers with full-arch mandibular implant-

supported rehabilitation using the All-on-4 concept. *J Oral Sci.* Published online 2018. doi:10.2334/josnusd.16-0890

- Maló P, de Araújo Nobre M, Moura Guedes C, et al. Short-term report of an ongoing prospective cohort study evaluating the outcome of full-arch implant-supported fixed hybrid polyetheretherketone-acrylic resin prostheses and the All-on-Four concept. *Clin Implant Dent Relat Res.* 2018;20(5):692-702. doi:10.1111/cid.12662
- Hopp M, de Araújo Nobre M, Maló P. Comparison of marginal bone loss and implant success between axial and tilted implants in maxillary All-on-4 treatment concept rehabilitations after 5 years of follow-up. *Clin Implant Dent Relat Res.* 2017;19(5). doi:10.1111/cid.12526
- de Araújo Nobre M, Mano Azul A, Rocha E, Maló P, Salvado F. Attributable fractions, modifiable risk factors and risk stratification using a risk score for peri-implant pathology. *J Prosthodont Res.* 2017;61(1):43-53. doi:10.1016/j.jpor.2016.03.004
- de Araújo Nobre M, Maló P. Prevalence of periodontitis, dental caries, and peri-implant pathology and their relation with systemic status and smoking habits: Results of an open-cohort study with 22009 patients in a private rehabilitation center. *J Dent.* 2017;67. doi:10.1016/j.jdent.2017.07.013
- Maló P, Nobre MA, Lopes A, Ferro A, Gravito I. Complete edentulous rehabilitation using an immediate function protocol and an implant design featuring a straight body, anodically oxidized surface, and narrow tip with engaging threads extending to the apex of the implant: A 5-year retrospective clinica. *Int J Oral Maxillofac Implant.* 2016;31(1). doi:10.11607/jomi.4123
- Nunes M, Almeida RF, Felino AC, Malo P, Nobre MA. The influence of crown-to-implant ratio on short implant marginal bone loss. *Int J Oral Maxillofac Implant.* 2016;31(5). doi:10.11607/jomi.4336
- Maló P, de Araújo Nobre M, Lopes A, Rodrigues R. Preliminary report on the outcome of tilted implants with longer lengths (20-25mm) in low-density bone: One-year follow-up of a prospective cohort study. *Clin Implant Dent Relat Res.* 2015;17(S1):e134-142. doi:10.1111/cid.12144
- de Araújo Nobre M, Mano Azul A, Rocha E, Maló P. Risk factors of peri-implant pathology. *Eur J Oral Sci.* 2015;123(3):131-139. doi:10.1111/eos.12185
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using an All-on-4 design. J Oral Rehabil. 2015;42(8). doi:10.1111/joor.12291

- Maló P, de Araújo Nobre M, Lopes A, Ferro A, Gravito I. All-on-4® Treatment Concept for the Rehabilitation of the Completely Edentulous Mandible: A 7-Year Clinical and 5-Year Radiographic Retrospective Case Series with Risk Assessment for Implant Failure and Marginal Bone Level. Clin Implant Dent Relat Res. 2015;17. doi:10.1111/cid.12282
- Maló P, De Araujo Nobre M, Lopes A, Rodrigues R. Double Full-Arch Versus Single Full-Arch, Four Implant-Supported Rehabilitations: A Retrospective, 5-Year Cohort Study.; 2015. doi:10.1002/9781119115397.ch15
- Maló P, de Sousa ST, De Araújo Nobre M, et al. Individual Lithium Disilicate Crowns in a Full-Arch, Implant-Supported Rehabilitation: A Clinical Report. J Prosthodont. 2014;23(6). doi:10.1111/jopr.12137
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- de Araújo Nobre MA, Maló PS, Oliveira SH. Associations of clinical characteristics and interval between maintenance visits with peri-implant pathology. J Oral Sci. 2014;56(2).
- De Araújo Nobre M, Maló P, Antune E. Influence of systemic conditions on the incidence of periimplant pathology: A case-control study. Implant Dent. 2014;23(3). doi:10.1097/ID.0000000000000071
- De Araújo Nobre MA, Maló P. The Influence of Rehabilitation Characteristics in the Incidence of Peri-Implant Pathology: A Case-Control Study. J Prosthodont. 2014;23(1). doi:10.1111/jopr.12114
- Maló P, Nobre MA, Lopes A. Immediate loading of "All-on-4" maxillary prostheses using trans-sinus tilted implants without sinus bone grafting: A retrospective study reporting the 3-year outcome. Eur J Oral Implantol. 2013;6(3):273-283.
- Maló P, De Araújo Nobre M, Lopes A, Francischone C, Rigolizzo M. "All-on-4" Immediate-Function Concept for Completely Edentulous Maxillae: A Clinical Report on the Medium (3 Years) and Long-Term (5 Years) Outcomes. Clin Implant Dent Relat Res. 2012;14(SUPPL. 1):e139-150. doi:10.1111/j.1708-8208.2011.00395.x
- Maló P, de Araújo Nobre M, Borges J, Almeida R. Retrievable Metal Ceramic Implant-Supported Fixed Prostheses with Milled Titanium Frameworks and All-Ceramic Crowns: Retrospective Clinical Study with up to



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- Malo P, De Araújo Nobre M, Lopes A, Moss SM, Molina GJ. A longitudinal study of the survival of All-on-4 implants in the mandible with up to 10 years of follow-up. *J Am Dent Assoc.* 2011;142(3).  
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