

THEORETICAL-PRACTICAL COURSE:

Special 3-day Clinical Residency – From Analogical to Digital

(Dr. Armando Lopes e Dr.ª Ana Ferro)

21 hours

3 DAYS

ON SITE

Training Dates:

Start (07/09/2022) – Ending (09/09/2022)

Framework: MALO CLINIC Education has created an observation program where the participant follows the daily work and surgical schedule of the MALO CLINIC Clinical Team.

The All-on-4® concept is one of the breakthroughs in Implant Dentistry, allowing the rehabilitation of the majority of edentulous arches without the need of bone grafting. Created at MALO CLINIC, the All-on-4® concept it is backed up by more than 20 years of clinical research with excellent long-term results.

The secret for that success has been the constant evolution of the protocols that receive great attention from our side. Today, the All-on-4® concept is up to date with the digital revolution in Implant Dentistry, allowing to upgrade surgical and prosthodontic protocols following a full digital workflow.

Our Clinical Residencies are typically for much smaller groups of participants with a lot more focus on the daily work of the clinic rather than just on lectures and pure training programs. The participant can observe surgeries or other treatments, interacting closely with the Clinical and Lab Teams throughout the practice’s day.

Participants |

Requirements: Professionals experienced in implant dentistry.

General objectives:

At the end, trainees should be able to:

1. Differentiate the treatment options for full-arch rehabilitation in the maxilla/mandible
2. Perform digital planning for the All-on-4 Concept
3. Recognize the different clinical and surgical steps of the All-on-4 Concept procedure
4. Identify the main prosthetic options for the All-on-4 rehabilitation in the maxilla /mandible
5. Implement the main surgical steps in an All-on-4 rehabilitation in the maxilla/mandible
6. Identify the main prosthetic and laboratorial aspects of an All-on-4 rehabilitation workflow in the maxilla/mandible for provisional and definitive prosthesis

7. Recognize the main aspects of implant maintenance for short- and long-term success

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 Identify the essential steps of All-on-4 digital planning using the DTX Studio Implant software;
 - 2.2 Perform a proper digital planning for the patient's All-on-4 Concept rehabilitation using the DTX Studio Implant software;
 - 3.1 Evaluate the pre-treatment phase (planning) considering the anatomical limitations;
 - 3.2 Identify the essential steps during surgery (Incision, flap elevation, bone reduction, implant-site preparation, implant insertion, abutment connection, suturing);
 - 4.1 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);
 - 4.2 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);
 - 5.1 To evaluate the anatomical limitations involved in the All-on-4 rehabilitation in the maxilla/mandible;
 - 5.2 To perform a proper implant site preparation procedure;
 - 5.3 To correctly insert the implants following the All-on-4 configuration;
 - 5.4 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).
 - 6.1 Identify the main prosthetic and laboratorial aspects of an All-on-4 rehabilitation workflow in the maxilla/mandible for provisional prosthesis;
 - 6.2 Identify the main prosthetic and laboratorial aspects of an All-on-4 rehabilitation workflow in the maxilla/mandible for definitive prosthesis;
 - 7.1 Recognize the main aspects of peri-implant diagnosis and prophylaxis during the functional osseointegration period;
 - 7.2 Recognize the main aspects of peri-implant diagnosis and propylaxis during long term maintenance.

Modules Program Content	Workload (h)	
	Theory	Practice
• MODULE 1 – THE ALL-ON-4 CONCEPT: DIGITAL PLANNING, SURGICAL, PROSTHODONTIC AND LABORATORIAL CONSIDERATIONS	8	
• MODULE 2 – THE ALL-ON-4 CONCEPT IN THE MANDIBLE: PRE-TREATMENT, SURGICAL AND POST-TREATMENT CONSIDERATIONS	4	
• MODULE 3 – THE ALL-ON-4 CONCEPT SURGICAL HANDS-ON		4
• MODULE 4 – THE ALL-ON-4 CONCEPT IN THE MAXILLA: PRE-TREATMENT, SURGICAL AND POST-TREATMENT CONSIDERATIONS	4	
• MODULE 5 – THE ALL-ON-4 CONCEPT: PROVISIONAL AND DEFINITIVE PROSTHESIS, SHORT AND LONG TERM MAINTENANCE,		4
<i>Total</i>	16	8
	24 H	

Training Methodology: The course includes a face-to-face component with a total duration of 24 hours, organized into theoretical and practical sessions, in conjunction with a training component of direct learning in the context of surgery 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 lectures online with the name MALO CLINIC: ALL-ON-4® | Complete course that must be viewed and studied by trainees before starting the Special 3-day Clinical Residency Course. 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.

Evaluation methodology:

The assessment of trainees' learning is carried out throughout the course, and the final classification results from the trainee's performance in the modules 1, 3 and 5, whose weights in the final grade have different weights: module 1- 5 points, module 3- 10 points and module 5 – 5 points

Training Mode:

Other continuous training actions (not included in the National Qualifications Catalogue)

Form of Organization:

On Site- Presential

Spaces and Logistics Requirements:

On-site Training:
 - 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.

- Practical Component – Medical office and hands-On training room space properly equipped with all the equipment and utensils necessary for clinical practice.

Didactic and Pedagogical Resources:

Theoretical part- 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.

Practice Part: Computer, DTX Studio Implant Software; Osseosets; Surgery Kits; Surgery Model with Dummy Implants; Multi-unit abutments; 30º Multi-unit abutments; 3D printed anatomical models of real patient.

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
- Lopes A, de Araújo Nobre M, Santos D. The Workflow of a New Dynamic Navigation System for the Insertion of Dental Implants in the Rehabilitation of Edentulous Jaws: Report of Two Cases. J Clin Med. 2020;9(2). doi:10.3390/jcm9020421
- 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/josnusa.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
- Lopes A, Maló P, de Araújo Nobre M, Sánchez-Fernández E, Gravito I. The NobelGuide®All-on-4®Treatment Concept for Rehabilitation of Edentulous Jaws: A Retrospective Report on the 7-Years Clinical and 5-Years Radiographic Outcomes. *Clin Implant Dent Relat Res.* 2017;19(2). doi:10.1111/cid.12456
- 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
- Maló P, de Araújo Nobre MA, Lopes AV, Rodrigues R. Immediate loading short implants inserted on low bone quantity for the rehabilitation of the edentulous maxilla 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
 - Lopes A, Maló P, de Araújo Nobre M, Sanchez-Fernández E. The NobelGuide® All-on-4® Treatment Concept for Rehabilitation of Edentulous Jaws: A Prospective Report on Medium- and Long-Term Outcomes. Clin Implant Dent Relat Res. Published online 2015. doi:10.1111/cid.12260
 - 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
 - Nobre de AM, Maló PS, Oliveira SH. The influence of implant location and position characteristics on peri-implant pathology. Eur J Prosthodont Restor Dent. 2014;22(3).
 - 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.
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 - 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 10 Years of Follow-Up. J Prosthodont. 2012;21(4). doi:10.1111/j.1532-849X.2011.00824.x
 - Malo P, Nobre M de A, Lopes A. Immediate rehabilitation of completely edentulous arches with a four-implant prosthesis concept in difficult conditions: an open cohort study with a mean follow-up of 2 years. Int J Oral Maxillofac Implants. 2012;27(5):1177-1190.
 - 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). doi:10.14219/jada.archive.2011.0170

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- Malo P, de Araujo Nobre M, Lopes A. The use of computer-guided flapless implant surgery and four implants placed in immediate function to support a fixed denture: Preliminary results after a mean follow-up period of thirteen months. *J Prosthet Dent.* 2007;97(6 SUPPL.). doi:10.1016/S0022-3913(07)60005-5
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- Maló P, Rangert B, Nobre M. "All-on-four" immediate-function concept with brånemark system® implants for completely edentulous mandibles: A retrospective clinical study. *Clin Implant Dent Relat Res.* 2003;5(SUPPL. 1). doi:10.1111/j.1708-8208.2003.tb00010.x