#### CLINICAL PRACTICE GUIDELINE



# Prevention and treatment of peri-implant diseases—The EFP S3 level clinical practice guideline

5 | RECOMMENDATIONS FOR THE PREVENTION OF PERI-IMPLANT DISEASES

# 5.1 | Recommendations for primordial prevention of peri-implant diseases

- **R5.1.** In patients awaiting implant placement, do the following behaviours or interventions, prior to implant placement, reduce the incidence of perimplant mucositis and peri-implantitis?
- **R5.2.** Prior to and during implant placement, what are the considerations related to implant positioning to reduce the risk of incident peri-implant diseases?
- **R5.3.** During implant-supported prosthesis design and placement, are there specific considerations to reduce the risk of incident peri-implant diseases.

# 5.2 | Recommendations for primary prevention of peri-implant diseases

- **R5.4.** How should the peri-implant health status be assessed at each clinical examination?
- **R5.5.** In patients with diabetes and healthy perimplant tissues, does glycemic control reduce the risk of incident peri-implant diseases?
- **R5.6.** In patients with healthy peri-implant tissues, does provision of regular supportive peri-implant care (SPIC) reduce the risk of incident peri-implant diseases?
- **R5.7.** In patients who smoke and have healthy perimplant tissues, does the cessation of cigarette smoking reduce the risk of incident peri-implant diseases?
- **R5.8.** In patients with healthy peri-implant tissues, does augmentation of peri-implant soft tissues lower the likelihood of incident peri-implant diseases?
- **R5.9.** In patients with healthy and thin peri-implant tissues (<2 mm in thickness), does soft tissue augmentation lower the likelihood of incident peri-implant diseases?
- **R5.9.** In patients with healthy peri-implant tissues, does improved oral hygiene prevent incident peri-implant diseases?
- **R5.10.** In patients with healthy peri-implant tissues, does reducing bruxing/parafunctional habits reduce the risk of incident peri-implant diseases?

### 5.3 | Secondary and tertiary prevention: Recommendations for SPIC

**R5.11.** In patients treated for peri-implantitis, does supportive peri-implant care (SPIC) prevent

recurrence of peri-implantitis in the medium to long term (≥3 years)?

- **R5.12.** In patients treated for peri-implantitis, what is the recommended frequency of supportive peri-implant care (SPIC)?
- **R5.13.** In patients treated for peri-implantitis, what is the appropriate protocol for supportive peri-implant care provision (SPIC)?
- **R5.14.** In patients treated for peri-implantitis is there a specific regime for professional mechanical plaque removal (PMPR) that reduces risk of disease recurrence?
- **R5.15.** In patients treated for peri-implantitis, is there a specific oral hygiene method that reduces risk of disease recurrence?
- **R5.16.** In patients treated for peri-implantitis does the professional administration of adjunctive local antimicrobial agents as part of a supportive peri-implant care (SPIC) program reduce the risk of disease recurrence?

# 6 | RECOMMENDATIONS FOR THE MANAGEMENT OF PERI-IMPLANT MUCOSITIS

- **R6.1.** In patients with peri-implant mucositis, which are the goals/end points of treatment?
- **R6.2.** In patients with peri-implant mucositis, what is the effect of **oral hygiene** as an adjunct to professional mechanical plaque removal (PMPR)?
- **R6.3.** In patients with peri-implant mucositis, what is the efficacy of oral irrigators adjunctively used to PMPR?
- **R6.4.** In patients with peri-implant mucositis, what is the effect of any single mode of PMPR, compared with other single modes of PMPR?
- **R6.5** In patients with peri-implant mucositis, what is the effect of combinations of PMPR procedures, compared to single modes?
- **R6.6.** In patients with peri-implant mucositis, what is the effect of repeating PMPR procedures, compared to a single administration of PMPR?
- **R6.7.** In patients with peri-implant mucositis, which is the effect of modifying the implant-supported prosthesis to enable oral hygiene access?
- **R6.8** In patients with peri-implant mucositis, what is the efficacy of locally administered antibiotics adjunctive to PMPR?



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- **R6.9.** In patients with peri-implant mucositis, what is the efficacy of other locally administered agents adjunctive to PMPR?
- **R6.10.** In patients with peri-implant mucositis, what is the efficacy of locally administered photodynamic therapy adjunctive to PMPR?
- **R6.11.** In patients with peri-implant mucositis, what is the efficacy of patient self-administered antiseptics adjunctive to PMPR?
- **R6.12.** In patients with peri-implant mucositis, what is the efficacy of patient self-administered probiotics adjunctive to PMPR?
- **R6.13.** In patients with peri-implant mucositis, what is the efficacy of the oral administration of **systemic antibiotics** when used adjunctively to PMPR?

# 7 | RECOMMENDATIONS FOR NON-SURGICAL MANAGEMENT OF PERI-IMPLANTITIS

- **R7.1.** Is peri-implantitis treatable?
- **R7.2.** Which interventions should be provided as part of the non-surgical step of peri-implantitis treatment?
- **R7.3.** Which are the end points of the non-surgical step of peri-implantitis treatment, and when and how should they be evaluated?
- **R7.4.** What is the efficacy of sub-marginal instrumentation in the non-surgical step of perimplantitis treatment?
- **R7.5.** What is the efficacy of lasers in the sub-marginal instrumentation of the non-surgical step of perimplantitis treatment?
- **R7.6.** What is the efficacy of sub-marginal instrumentation with air-polishing in the non-surgical step of peri-implantitis treatment?
- **R7.7.** What is the efficacy of adjunctive antimicrobial photodynamic therapy in the non-surgical step of peri- implantitis treatment?
- **R7.8.** What is the efficacy of an adjunctive antiseptic desiccant solution in the non-surgical step of perimplantitis treatment?
- **R7.9.** Do adjunctive locally administered antimicrobials improve the clinical outcome of subgingival instrumentation?
- **R7.10.** Do adjunctive systemically administered antibiotics improve the clinical outcomes of nonsurgical treatment?

**R7.11.** What is the efficacy of adjunctive probiotics in the non-surgical step of peri-implantitis treatment?

### 8 | RECOMMENDATIONS FOR THE SURGICAL MANAGEMENT OF PERI- IMPLANTITIS

- **R8.1.** What is the importance of adequate self-performed oral hygiene in the context of surgical treatment of peri-implantitis?
- **R8.2.** What is the level of professional expertise required for surgical treatment of peri-implantitis?
- **R8.3.** What are the end points of successful surgical therapy of peri-implantitis?
- **R8.4.** What considerations should be made about the implant-supported prosthesis when performing surgical treatment of peri-implantitis?
- **R8.5.** When is surgical treatment of peri-implantitis indicated?
- **R8.6.** What is the efficacy of surgical treatment of peri-implantitis using access flap or resective procedures (resection of hard/soft peri-implant tissues aiming at reducing or eliminating pockets)?
- **R8.7.** Do reconstructive procedures used in the management of osseous defects (e.g., bone substitute materials) as part of surgical treatment of periimplantitis result in superior outcomes when compared with access flap alone?
- **R8.8.** What are the specific prerequisites (e.g., dimensions of intra-bony defects) for a reconstructive approach?
- **R8.9.** What are the preferred materials to be used in reconstructive procedures?
- **R8.10.** What is the preferable mode of healing (submerged versus transmucosal) to be used in reconstructive procedures?
- **R8.11.** Do photo/mechanical and physical implant surface decontamination procedures improve outcomes of surgical treatment?
- **R8.12.** Do chemical implant surface decontamination procedures improve outcomes of surgical treatment?
- **R8.13.** Do adjunctive systemically administered antibiotics improve clinical outcomes of surgical treatment of peri-implantitis?
- **R8.14.** Do adjunctive locally administered antibiotics improve clinical outcomes of surgical treatment of peri-implantitis?