Table 1a. Classification of periodontitis based on **Stages** defined by Severity (according to the level of interdental clinical attachment loss, radiographic bone loss and tooth loss), Complexity and Extent and Distribution.

Periodontitis stage		**Stage I**	**Stage II**	**Stage III**	**Stage IV**
Severity	Interdental CAL at site of greatest loss	1-2 mm	3-4 mm	≥ 5 mm	≥ 8 mm
	Radiographic bone loss	Coronal third (< 15%)	Coronal third (15-33%)	Extending to middle third of the root	Extending to apical third of the root
	Tooth loss	No tooth loss due to periodontitis		Tooth loss due to periodontitis of ≤ 4 teeth	Tooth loss due to periodontitis of ≥ 5 teeth
Complexity	Local	Maximum probing depth ≤4 mm Mostly horizontal bone loss	Maximum probing depth ≤5 mm Mostly horizontal bone loss	In addition to Stage II Complexity: Probing depth 6-7 mm Vertical bone loss ≥ 3 mm Furcation involvement Class II or III Moderate ridge defect	In addition to Stage III Complexity: Probing depth ≥8 mm Need for complex rehabilitation due to: Masticatory dysfunction; Secondary occlusal trauma; (Tooth mobility degree ≥ 2); Bite collapse, drifting, flaring; Less than 20 remaining teeth (10 opposing pairs); Severe ridge defect
Extent & distribution	Add to Stage as	For each Stage, describe extent as localized (<30% of teeth involved), generalized or molar incisor pattern			

	descriptor	

The initial Stage should be determined using CAL; if not available then RBL should be used. Information on tooth loss that can be attributed primarily to periodontitis – if available – may modify stage definition. This is the case even in the absence of complexity factors. Complexity factors may shift the Stage to a higher level, for example furcation II or III would shift to either Stage III or IV irrespective of the CAL. The distinction between Stage III and Stage IV is primarily based on complexity factors. For example, a high level of tooth mobility and/or posterior bite collapse would indicate a Stage IV diagnosis. For any given case only some, not all, complexity factors may be present, however, in general it only takes 1 complexity factor to shift the diagnosis to a higher Stage. It should be emphasized that these case definitions are guidelines that should be applied using sound clinical judgment to arrive at the most appropriate clinical diagnosis.

For post-treatment patients CAL and RBL are still the primary stage determinants. If a stage shifting complexity factor(s) were eliminated by treatment, the stage should not retrogress to a lower stage since the original stage complexity factor should always be considered in maintenance phase management. Abbreviations: CAL – clinical attachment loss; RBL = radiographic bone loss.

Table 1b. Classification of periodontitis based on **Grades** that reflect biologic features of the disease including evidence of, or risk for, rapid progression, anticipated treatment response, and effects on systemic health.

Periodontitis Grade			**Grade A** **Slow rate of progression**	**Grade B** **Moderate rate of progression**	**Grade C** **Rapid rate of progression**
Primary Criteria	Direct evidence of progression	Longitudinal data (PA radiographs or CAL loss)	Evidence of no loss over 5 years	<2 mm over 5 years	≥ 2 mm over 5 years
	Indirect evidence of progression	Bone loss/age	< 0.25	0.25-1.0	> 1.0
		Case phenotype	Heavy biofilm deposits with low levels of destruction	Destruction commensurate with biofilm deposits	Destruction exceeds expectation given biofilm deposits; Specific clinical patterns suggestive of periods of rapid progression and/or Early onset disease … e.g. Molar incisor pattern; Lack of expected response to standard bacterial control therapies
Grade modifiers	Risk Factors	Smoking	Non-Smoker	Smoker <10 cigarettes/day	Smoker ≥10 cigarettes/day
		Diabetes	Normoglycaemic with or without prior diagnosis of diabetes	HbA1c < 7.0 in diabetes patient	HbA1c ≥ 7.0 in diabetes patient

Grade should be used as an indicator of the rate of periodontitis progression. The primary criteria are either direct or indirect evidence of progression. Whenever available, direct evidence is used; in its absence indirect estimation is made using bone loss as a function of age at the most affected tooth or case presentation (radiographic bone loss expressed as percentage of root length divided by the age of the subject, RBL/age). Clinicians should initially assume Grade B disease and seek specific evidence to shift towards grade A or C, if available. Once grade is established based on evidence of progression, it can be modified based on the presence of risk factors.

Table 2. Classification of Necrotizing Periodontal Diseases (NPD).

Category	Patients	Predisposing conditions	Clinical condition
Necrotizing periodontal diseases in chronically, severely compromised patients	In adults	HIV+/AIDS with CD4 counts <200 and detectable viral load	NG, NP, NS, Noma. Possible progression
		Other severe systemic conditions (immunosuppresion)	
	In children	Severe malnourishments*	
		Extreme living conditions**	
		Severe (viral) infections***	
Necrotizing periodontal diseases in temporarily and/or moderately compromised patients	In gingivitis patients	Uncontrolled factors: stress, nutrition, smoking, habits	Generalized NG. Possible progression to NP
		Previous NP: residual craters	
		Local factors: root proximity, tooth malposition	Localized NG. Possible progression to NP
		Common predisposing factors for NPD (see paper)	NG. Infrequent progression
	In periodontitis patients		NP. Infrequent progression

*Mean plasma/serum concentrations of retinol, total ascorbic acid, zinc and albumin markedly reduced, or very marked depletion of plasma retinol, zinc, and ascorbate; and saliva levels of albumin and cortisol, as well as plasma cortisol concentrations, significantly increased.
**Living in substandard accommodation, exposure to debilitating childhood diseases, living in close proximity to livestock, poor oral hygiene, limited access to potable water and poor sanitary disposal of human and animal faecal waste.
***Measles, herpes viruses (cytomegalovirus, Epstein-Barr virus-1, herpes simplex virus), chicken pox, malaria, febrile illness.

NG, necrotizing gingivitis; NP, necrotizing periodontitis; NS, necrotizing stomatitis.

Table 3. Classification of endo-periodontal lesions.

ENDO-PERIODONTAL LESION WITH ROOT DAMAGE	Root fracture or cracking	
	Root canal or pulp chamber perforation	
	External root resorption	
ENDO-PERIODONTAL LESION WITHOUT ROOT DAMAGE	Endo-periodontal lesion in periodontitis patients	*Grade 1* – narrow deep periodontal pocket in 1 tooth surface
		Grade 2 – wide deep periodontal pocket in 1 tooth surface
		Grade 3- deep periodontal pockets in more than 1 tooth surfaces
	Endo-periodontal lesion in non-periodontitis patients	*Grade 1* – narrow deep periodontal pocket in 1 tooth surface
		Grade 2 – wide deep periodontal pocket in 1 tooth surface
		Grade 3- deep periodontal pockets in more than 1 tooth surfaces

Table 4. Classification of periodontal abscesses based on the etiologic factors involved.

Periodontal abscess	In periodontitis (at a pre-existing periodontal pocket)	Acute exacerbation	Untreated periodontitis	
			Non-responsive to therapy periodontitis	
			Supportive periodontal therapy	
		After treatment	Post-scaling	
			Post-surgery	
			Post-medication	systemic antimicrobials
				other drugs: nifedipine
	Non-periodontitis (no pre-existing periodontal pocket)	Impaction		dental floss, orthodontic elastic, toothpick, rubber dam, or popcorn hulls
		Harmful habits		wire or nail biting, clenching
		Orthodontic factors		orthodontic forces or a cross-bite
		Gingival overgrowth		
		Alteration of root surface	Severe anatomic alterations	invaginated tooth, dens evaginatus or odontodysplasia
			Minor anatomic alterations	cemental tears, enamel pearls or developmental grooves
			Iatrogenic conditions	perforations
			Severe root damage	fissure or fracture, cracked tooth syndrome
			External root resorption	