

Discover the Cause and Treat accordingly!

Therapy options have been revised.

Your therapeutic decisions depend on whether the bacterial species detected belong to a single or to different complexes. In case of simultaneous occurrence of various complexes, the selection of appropriate therapy depends on those pathogens with the highest pathogenicity. If a patient demonstrates clinical signs and a bacterial load that require treatment, a detailed individual therapy recommendation is given.

II. Isolated

If the analysis select a proper into considera quiring treatm

Scenario

Isolated occurrence of single bacterial species or complexes

If the analysis of a patient demonstrates a load requiring treatment with bacterial species of only a single complex, therapy follows scenarios 1-5.

III. Combined

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Scenario

Combined occurrence of bacterial species or complexes

When pathogens of various complexes occur together, this might require combination therapy (scenarios 6-8).

IV. Alternative

Should one o follows.

Antib

Alternative drugs in case of antibiotic allergies

In case a patient demonstrates hypersensitivity to specific antibiotics, an alternative treatment using alternative active agents may be necessary. See separate table (IV.) for details.



Result report micro-IDent[®] plus

DNA test for periodontopathogenic marker bacteria

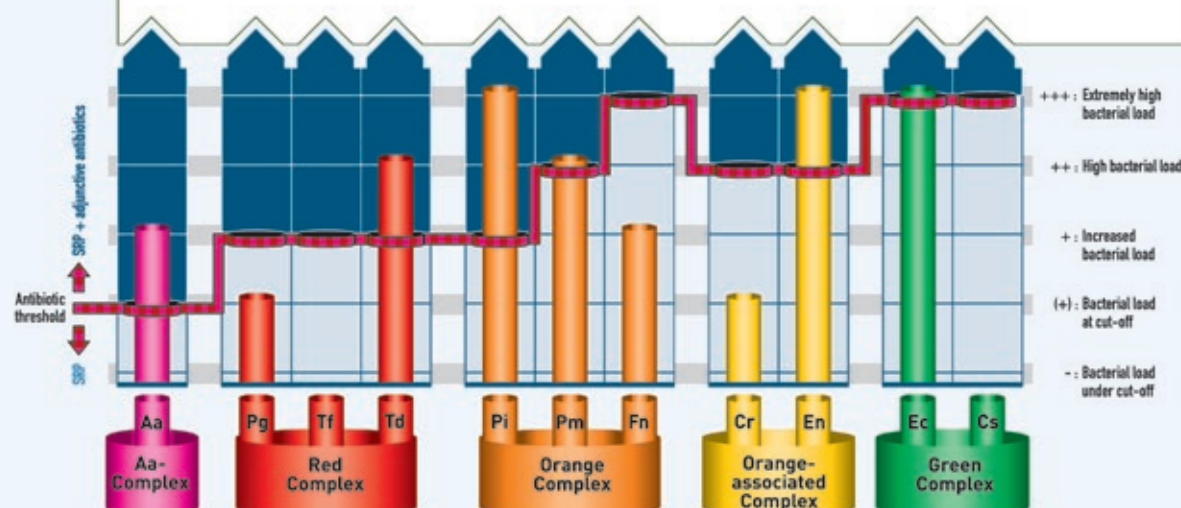
Hain Diagnostics, LLC | 7010 E. Acoma Drive, Suite 102 | Scottsdale, AZ 85254

William F. Somebody, D.D.S.
105 N. Examplestreet
Chicago, IL 60610

Name of patient	Michael Anyone
Date of birth	09/04/1943
Sample Sampling Date	Multi-site sample 08/09/2007
Analysis	Initial analysis
Number of analysis	ANA0045321
Date of analysis	07/05/2006
Tooth / Teeth	12m 14d 15m 45b 46l
Maximum pocket depth	6 mm

Result

Microbiological analysis for patient Michael Anyone resulted in a bacterial concentration requiring treatment due to the following complexes: Aa-Complex [Aa], Red Complex [Td, Orange Complex [Pi, Pm], Orange-associated Complex [En], Green Complex [Ec]. Depending on the clinical findings this requires, in addition to mechanical treatment (SRP), an adjunctive antibiotic administration (scenario 8, amoxicillin [3 x 500 mg/day] & clindamycin [4 x 300 mg/day], 8 days). For evaluating therapy success a control analysis is recommended approx. 8 weeks after cessation of antibiotic intake.



Explanation of pathogen concentrations

- = $<10^4$ [Exception Aa: $<10^3$]
(+) = 10^4 [Exception Aa: 10^3]
+ = $<10^5$ [Exception Aa: $<10^4$]
++ = $<10^6$ [Exception Aa: $<10^5$]
+++ = $>10^7$ [Exception Aa: $>10^6$]

Abbreviations of bacteria names

Aa = *Aggregatibacter actinomycetemcomitans* Fn = *Fusobacterium nucleatum/periodonticum*
Pg = *Porphyromonas gingivalis* Cr = *Campylobacter rectus*
Tf = *Tannerella forsythia* En = *Eubacterium nodatum*
Td = *Treponema denticola* Ec = *Eikenella corrodens*
Pi = *Prevotella intermedia* Cs = *Capnocytophaga spec. (gingivalis, ochracea, sputigena)*
Pm = *Peptostreptococcus micros*

Smoking

Patient is smoker. This risk factor should be considered in the individual therapy plan. A genetic risk determination with the GenoType PSTplus assay is recommended.

Antibiotic allergies

As stated on the order form, no antibiotic hypersensitivities are known. Please note that the clarification of hypersensitivities is mandatory prior to any antibiotic intake.

Additional comments

No statement on the order form.

Sample analyzed in cooperation with the Hain Lifescience laboratory. Results approved by laboratory director Dr. Jan Bartel.

Important: The selection of therapy must take into account: 1) Periodontal status, 2) Patient's medical status and 3) Possible adverse patient reactions to antibiotics. The treating dentist is responsible for deciding on the use and choice of antibiotic therapy, and Hain Diagnostics will not be liable for any direct, indirect, consequential, special, exemplary, or other damages arising from treating Dentist's negligence. High risk patients should be consulted with a periodontist.

Hain Diagnostics, LLC

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Therapy schemes for periodontopathogenic marker pathogens based on microbiological diagnostics with micro-IDent^{plus}

Information modified according to the AAP position paper "Systemic antibiotics in periodontics" [Slots J & Research, Science and Therapy Committee: J Periodontol. 2004 Nov;75(11):1553-65] and the scientific paper "Microbiological diagnostics in periodontics: biological significance and clinical validity" [van Winkelhoff AJ & Winkel EG: Periodontol 2000. 2005;39:40-52].

I. Selection of individual therapy

The selection of an individual therapy is always based primarily on the clinical findings and the detection of the bacteria with the highest pathogenicity. The individual therapy is normally a combination of mechanical treatment (SRP) and adjunctive antibiotic administration. In the first step you should check which bacteria and bacterial complexes are present in concentrations that need to be treated. These are highlighted in dark-blue in the figures of the result report and discussed in detail in the text.

II. Isolated occurrence: How should bacterial species or complexes be treated when occurring alone?

If the analysis of a patient demonstrates a load requiring treatment with bacterial species of only a single complex, it is relatively simple to select a proper therapy from the following table [scenarios 1-5]. Please note that possible antibiotic allergies of a patient have always to be taken into consideration. In this case, you should select an alternative drug [see IV]. In the case that multiple complexes occur in concentrations requiring treatment, please proceed to III [combined occurrence].

Scenario	Complex	Antibiotic threshold	Active agent, Adult dosage
1	Aa-Complex	From [+]	Amoxicillin: 2 x 500 mg/day, 8 days
2	Red Complex and/or Orange Complex	Pg, Tf, Td, Pi from +, in severe clinical cases also from [+]. Fn from +++. Please be aware of the exception Pm [scenario 3].	Metronidazole: 2 x 500 mg/day, 8 days
3	Red Complex and/or Orange Complex	Exception: Pm from ++ requires clindamycin therapy. If other pathogens of the red or orange complex occur in concentrations requiring therapy, they are also susceptible to clindamycin.	Clindamycin: 4 x 300 mg/day, 7 days
4	Orange-associated Complex	From ++	Clarithromycin: 2 x 500 mg/day, 7 days
5	Green Complex	From +++	Amoxicillin: 2 x 500 mg/day, 8 days

III. Combined occurrence: How should bacterial species or complexes be treated when occurring together?

When pathogens of various complexes occur together, this might require combination therapy, which primarily depends on those pathogens with the highest pathogenicity. Please note that possible antibiotic allergies of a patient have always to be taken into consideration. In this case, you should select an alternative drug [see IV].

Scenario	Combined occurrence of complexes	Important notice	Active agent, Adult dosage
6	Aa-Complex & Green Complex		Amoxicillin: 2 x 500 mg/day, 8 days
7	Aa-Complex and/or Green Complex & Red Complex and/or Orange Complex, but no occurrence of Pm in concentrations requiring therapy	No occurrence of Pm in concentrations requiring therapy	Winkelhoff cocktail of amoxicillin (3 x 500 mg/day) & metronidazole (3 x 500 mg/day), 7 days
8	Aa-Complex and/or Green Complex & Red Complex and/or Orange Complex, if Pm occurs in concentrations requiring therapy	Due to potential resistance, clindamycin is preferable if Pm occurs in concentrations requiring therapy.	Combination therapy of amoxicillin (3 x 500 mg/day) & clindamycin (4 x 300 mg/day), 8 days

IV. Alternative drugs in case of antibiotic allergies

Should one of your patients demonstrate hypersensitivity to specific antibiotics, an alternative treatment may be performed with other drugs as follows.

Antibiotic allergy against	Alternative active agent, Adult dosage
Amoxicillin (penicillin hypersensitivity)	Monotherapy: 1 st choice: Ciprofloxacin: 2 x 500 mg/day. Duration: 8 days; 2 nd choice: Doxycyclin: 1 x 200 mg/day (1st day) and 1 x 100mg/day (2nd -18th day). Total duration: 18 days; [photosensitivity]
	Combination therapy: In case of combination therapy: replace the Winkelhoff cocktail (amoxicillin & metronidazole) with ciprofloxacin (2 x 500 mg/day) & metronidazole (2 x 500 mg/day). Duration: 7 days
Metronidazole	Monotherapy: 1 st choice: Clindamycin: 4 x 300 mg/day. Duration: 7 days; 2 nd choice: Doxycyclin: 1 x 200 mg/day (1st day) and 1 x 100mg/day (2nd -18th day). Total duration: 18 days;[photosensitivity]
	Combination therapy: In case of combination therapy: replace the Winkelhoff cocktail (amoxicillin & metronidazole) with amoxicillin (3 x 500 mg/day) & clindamycin (4 x 300 mg/day). Duration: 8 days.

For further questions regarding your results reports, call our toll-free hotline: (866) 756-4246

From "Result Report" to "Individualized Therapy". It's as simple as that.

The Result Report and different treatment options are connected. With the information from the report, you will have important microbiological information that should be considered in creating a treatment plan for each individual patient.

How it works: The individual "bacterial load" (far right on graph) is described in the result report and linked to a specific "scenario" (found on reverse page). Based on the pathogens present, their virulence, and their concentration, a detailed therapeutic recommendation is suggested for every patient.

"Result Report" defined:

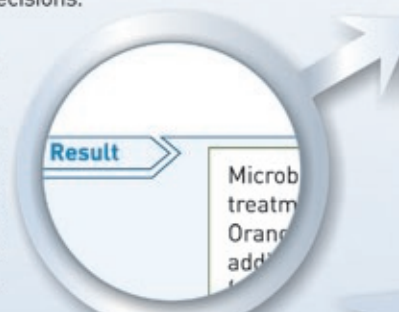
The result report contains relevant information for choosing an appropriate therapy. It summarizes the findings and suggests individualized and more effective periodontal treatment. At a glance:

1. "Result": summary is seen in text form.
2. "Antibiotic Threshold": seen as a red line.

The following will explain how this information should be considered in your therapeutic decisions.

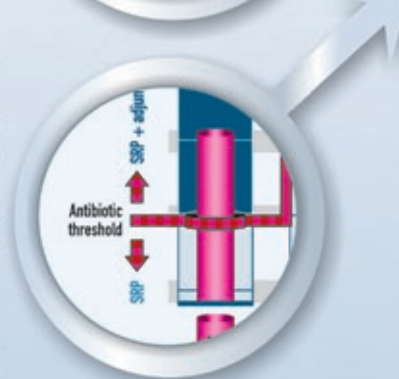
"Result" summary:

Individual results are easy to understand and are summarized to a "scenario". Each individual recommendation helps you to design a treatment plan tailored to the patient's specific needs.



Antibiotic threshold

The antibiotic threshold, symbolized by a red line, shows if the individual bacterial load can be reduced to acceptable levels by mechanical therapy alone or if adjunctive antibiotic administration is necessary. Due to tissue invasion, virulence and quantity, systemic antibiotics are required in some cases.



Additional information

Information concerning medical status, smoking status, and antibiotic allergies are of significant importance for therapeutic decisions.

