



## Report on the Effectiveness of the Antimicrobial Formula 1 NSB in Treating Multiple Antibiotic Resistant Coagulase Negative Staphylococcus (MARCoNS)

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**Introduction:**

Chronic Inflammatory Response Syndrome (CIRS) describes a constellation of symptoms, associated laboratory findings and test results associated with biotoxin exposure in genetically susceptible individuals. First identified by Ritchie Shoemaker, M.D., his clinical research has resulted in a step-wise approach to patient care that has been demonstrated to treat and prevent symptoms in susceptible individuals.

In CIRS, MARCoNS have been found to colonize the deep nasal cavity in 80% of individuals with low MSH hormone. The presence of MARCoNS in the nasopharynx impairs the body to re-establish normal levels of MSH. Adequate MSH is required for recovery from biotoxin induced CIRS. MARCoNS may exist in a biofilm, which makes it more difficult to treat. A deep nasal culture is obtained and sent to Microbiology Dx, Bedford, MA. If Coagulase Negative Staphylococci are present and resistant to more than one class of antibiotics, then treatment is required.

This report shows the in-vitro evaluation of 33 patient nares cultures, 26 MARCoNS positive and 7 MARCoNS negative.

**I. Objective:**

To study the effectiveness of Formula 1 NSB on MARCoNS positive and MARCoNS negative bacteria in nutrient broth.

**II. Materials:**

A. Formula 1 NSB Solution (2X)

B. Organisms Tested

1. Staphylococcus epidermidis (SE) ATCC 35984, MARCoNS positive, biofilm positive strong (3+) control.
2. 33 Nares patient cultures, 26 MARCoNS positive and 7 Staph Coag Negative-Non MARCoNS. 25 of 26 MARCoNS cultures were biofilm positive

**III. Testing Protocol:**

- A. All testing was performed with a patient control.
- B. A McFarland Standard (MS) of 1.0 was prepared for the MARCoNS control ATCC 35984 and for each patient culture.
- C. All testing was performed in a liquid format.
- D. For the MARCoNS control and each patient culture, 2 polystyrene tubes 12 x 75 mm were labeled as test and control.
- E. The MS of 1.0, 100µl was pipetted into 900µl of Tryptic Soy Broth (TSB) for each patient and its control.
- F. Then 1000µl of test solution for the patient test was pipetted and 1000µl of water for each patient control tubes were pipetted.
- G. Both sets, 33 patients and the MARCoNS positive control were incubated for 24 hours at 37°C.
- H. At 24 hours of incubation, the tubes (test and control) were removed from the incubator and a 1µl loop was taken, planted on a Blood Agar Plate (BAP) and the plate was incubated at 37°C for 24 hours. Then growth was evaluated for each patient test compared to its own control.

#### **IV. Results:**

- A. The Formula 1 NSB was provided for testing in twice the concentration to take into consideration the dilution effect in the testing protocol.
- B. The testing values used were such that the final concentration in-vitro was equal to the treatment nasal spray concentration.
- C. There were 33 cultures, all Staph Coag Negative, 26 MARCoNS positive and 7 Staph Coag Negative-Non MARCoNS. 32 of the 33 cultures showed high level of inhibition, between 97.4% to 99.2% inhibition and 1 non-MARCoNS showed 40% inhibition. Therefore, 32 of 33 cultures represent 97% of the cultures tested and showed very high inhibition (97.4% - 99.2%).
- D. Additionally, the yeast, *Candida parapsilosis* was also tested and showed a high level of inhibition at 97.8%.

#### **V. Conclusion:**

The Formula 1 NSB preparation shows in-vitro, a strong potential as an alternative to current nasal spray treatment of MARCoNS in deep nasal cultures and provides a means to eradicate nares MARCoNS consistent with the requirement of the Dr. R. Shoemaker protocol for CIRS.

Dr. Dashore is a clinical herbalist and an accredited registered herbalist with the American Herbalist Guild.

Formula 1 NSB is a proprietary herbal formulation created by Dr. Dashore.