

**APPLICATION
OF ANTINFEK 10G™ & 30P™
FOR CONTROL & ERADICATION OF
MENINGOCOCCEMIA**



*Total Renewable, Sustainable Organic Solutions
to the Global Energy, Water & Environment.*



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1.0 INTRODUCTION

1.1 WHAT IS MENINGOCOCCEMIA

Meningococemia is an acute (sudden onset) infection of the bloodstream and subsequent **vasculitis** (inflammation of the blood vessels) caused by the bacteria *Neisseria meningitidis* which is categorized as a **TYPE “B”** bacterium. (**Vasculitis** occurs because of inflammation and damage to blood vessels.)

A *Neisseria meningitidis* bacterium is an encapsulated (**Gram-negative**) diplococcus and the causative agent of meningococemia. Acquisition of the organism can result in asymptomatic pharyngeal colonization or invasive disease. Dissemination of Meningococci into the bloodstream defines meningococemia and is a medical emergency, making early recognition of the disease essential.



(The infected arm of a five year old boy who contracted meningococemia in Baguio City, Philippines)

1.2 HOW MENINGOCOCCEMIA SPREADS

Meningococemia is an air-born “Type B” bacteria, which is spread by infected people coughing, healthy people coming in contact with cooking utensils, drinking glasses etc, that have been used by an infected person and by healthy people coming in contact with the bacteria which has the capacity to live in physical environments like “wet” markets, public transportation systems, schools and work places. *Neisseria meningitidis* frequently lives in the upper respiratory tract with no evidence of illness. Some event is thought to trigger the onset of aggressive behavior of the organism and sporadic cases of **meningococemia** and meningococcal meningitis appear.

To avoid contracting the disease, it is essential to stay away from the possible infected person or areas and utensils used or touched by the infected individual. It is also important to maintain hygienic practices, healthy diet, adequate rest and sleep. It is also essential to maintain a clean environment and avoid crowded places.



(The infected legs of a five year old boy who contracted meningococemia in Baguio City, Philippines)

1.3 CURRENT STATUS OF MENINGOCOCCEMIA IN THE PHILIPPINES

The Department of Health (DOH) has recorded 18 cases of meningococemia in Baguio City and Benguet since August. The disease has killed eight people in these two areas in northern Luzon in November.

The disease has a high fatality rate of 30-50 percent, which means one out of every two meningococemia patients dies after contracting the disease. In Manila, 10 of the 32 meningococemia patients admitted to the San Lazaro Hospital in have died.

1.4 CAUSES AND SYMPTOMS OF MENINGOCOCCEMIA

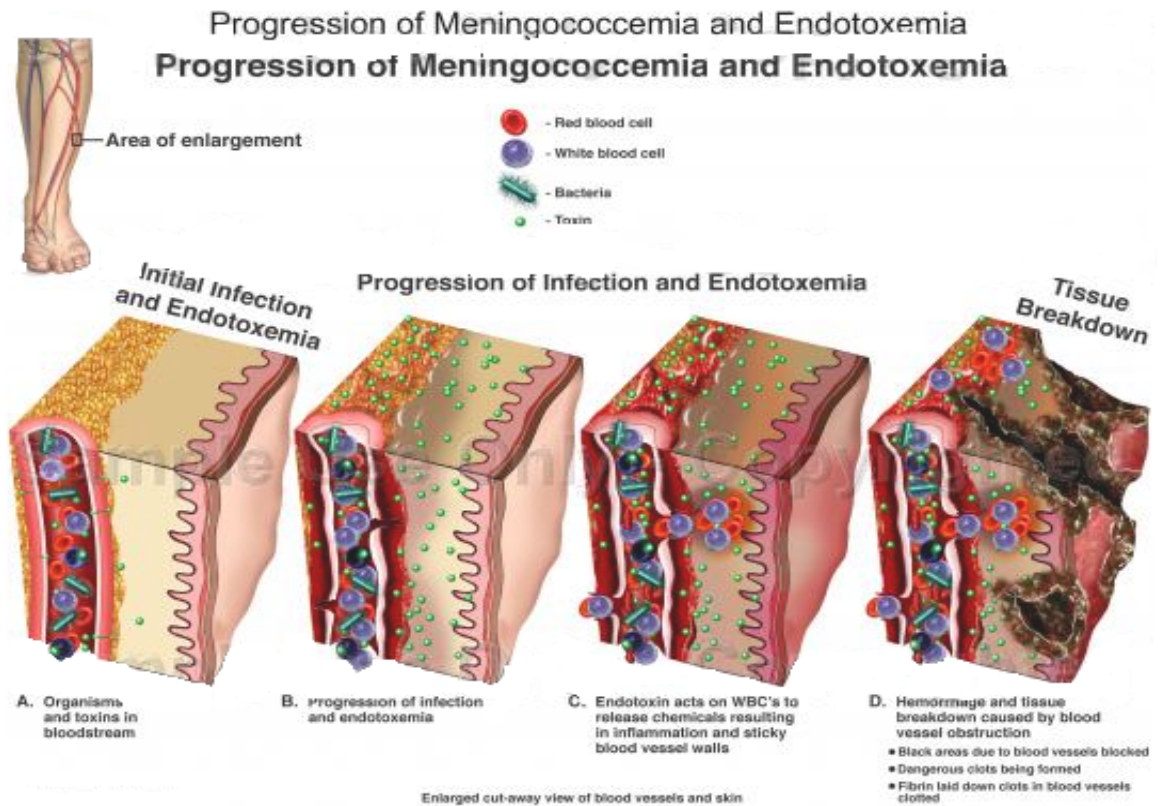
Its symptoms include fever, cough, colds, vomiting, bruises, rashes and diarrhea. Meningococemia, a relatively uncommon infection, occurs most commonly in children and young adults. In susceptible people, it may cause a very severe illness that can produce **death** within hours. The bacteria, which can spread from person to person, usually first causes a colonization in the upper airway, **but without symptoms**, and from there, it can penetrate into the bloodstream to the central nervous system and cause **meningitis** or develop into a full-blown bloodstream infection (Meningococemia).



After colonization is established, symptoms can develop within one day to one to two weeks. **It is important to note that during the period of colonization, by a simple coughing the virus could be transferred to other people.** After a short period of time (one hour up to one to two days) when the patient complains of **fever** and muscle aches, more severe symptoms can develop. Unfortunately during this early stage, **a doctor cannot tell this illness from any other illness**, such as a viral infection like **influenza**. Unless the case is occurring in a person known to have been exposed to or in the midst of an epidemic of meningococcal disease, there may be no specific symptoms or signs found that help the doctor diagnose the problem. Rarely, a low-grade bloodstream infection called chronic Meningococemia can occur.

After this initial period, the patient will often complain of continued fever, shaking chills, overwhelming weakness, and even a feeling of impending doom. The organism is multiplying in the bloodstream rapidly, unchecked by the immune system. The severity of the illness and its dire complications are caused by the damage the organism does to the small blood vessel walls. This damage is called a **Vasculitis** (an inflammation of a blood vessel). Damage to the small vessels causes them to become leaky. The first signs of the infection's severity are small bleeding spots seen on the skin (Petechiae). **Once the Petechiae starts, the patient will die, within hours.** A doctor should always suspect Meningococemia when he/she finds an acutely ill patient with fever, chills, and Petechiae.

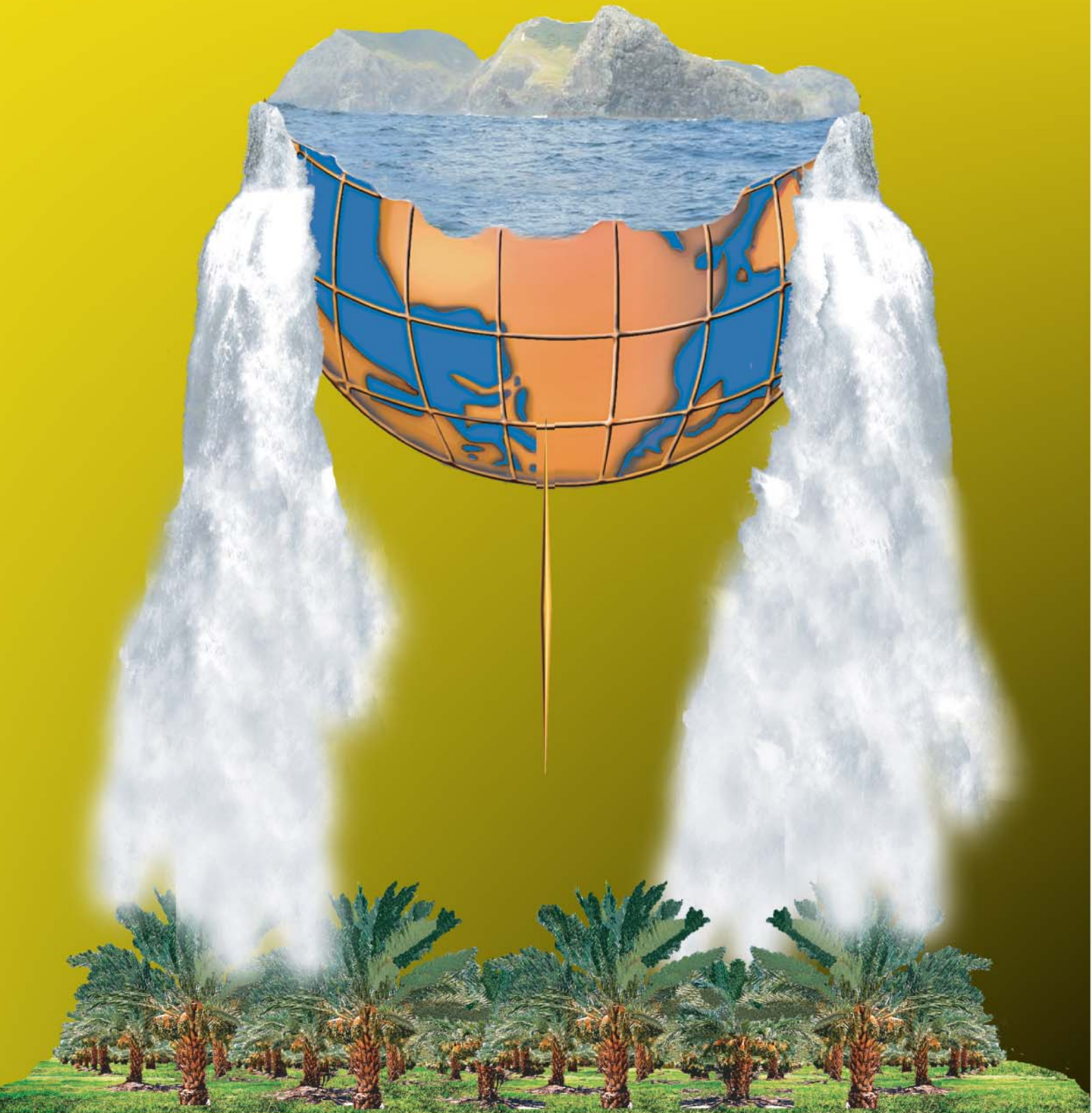
Quickly (within hours), the blood vessel damage increases and large bleeding areas on the skin (Purpura) are seen. The same changes are taking place in the affected person's internal organs. The blood pressure is often low and there may be signs of bleeding from other organs (like coughing up blood, nose bleeds, blood in the urine). The organism not only damages the blood vessels by causing them to leak, but also causes clotting inside the vessels. If this clotting occurs in the larger arteries, it results in major tissue damage. Essentially, large areas of skin, muscle, and internal organs die from lack of blood and oxygen. **Even if the disease is quickly diagnosed and treated, the patient has a high risk of dying.**



2.0 DOVE BIOTECH'S CONTROL & ERADICATION SOLUTION

Today societies must address disease prevention, and the majority of disease prevention takes place within the physical environments that we all live and work in. To that end **DOVE BIOTECH LIMITED** in it's ongoing research and development, have developed, tested and patented the ultimate organic solution that provides a 100% kill factor for the total eradication and destruction of the type (A, B, and C) viruses and bacterium, including Bird-Flu (H5N1) virus, Meningococemia, SARS, Tuberculoses, HIV, ANTRAX, etc., within any physical environment.

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