

with differing antibiotic susceptibility, and infections caused by gram negative bacilli before antibiotic susceptibility is determined.

There is no question that subacute bacterial endocarditis caused by streptococcus fecalis—which is a fatal disease, I would say 100 percent when not treated appropriately.

Senator NELSON. Which one is that?

Dr. WISE. Streptococcus fecalis endocarditis. It has been mentioned as a group D streptococcus, as a cause of the infection of the heart valve.

Now, this should be treated with penicillin in a daily dose, which I think we would agree, of 10 to 20 million units of penicillin a day plus streptomycin, concurrently in a dose of one to two grams.

Senator NELSON. That is the only drug, penicillin?

Dr. WISE. At the present time, in a patient with streptococcus fecalis endocarditis, a fatal disease, if he is not allergic to penicillin or streptomycin, this would be the treatment of choice.

Senator NELSON. If he is allergic?

Dr. WISE. If he is allergic to penicillin, one has another choice to go to. I am making the point of flexibility here, which we do not get with prefixed antibiotics.

Dr. KUNIN. We would never achieve the proper proportion with any of the prefixed combinations of penicillin and streptomycin.

Dr. WISE. You have just read my next sentence, Dr. Kunin.

Dr. KUNIN. I am sorry.

Dr. WISE. However, only one of the prefixed combinations of penicillin and streptomycin provides a daily dose of 2.4 million units of penicillin without exceeding a toxic dose of 2.0 grams of streptomycin.

Now, if you were to use that combination, the patient would receive two grams of streptomycin, and at that point it begins to be toxic. And this patient has to be treated for 1 month to 6 weeks. And therefore the toxicity of streptomycin would be so great that one could not use that prefixed combination because the patient would only be getting 2.4 million units of penicillin, and if you tried to give that patient 20 million units of penicillin you would be giving over 10 grams of streptomycin, and therefore, you see, there is no flexibility, there is a limitation to adequate therapy in the example that I have given, which would be the result of the prefixed combination.

There is a lack of therapeutic advantage of prefixed combinations.

The combinations of tetracycline and novobiocin, tetracycline and oleandomycin, penicillin and sulfonamide, tetracycline and sulfonamide, erythromycin and sulfonamide, oleandomycin and sulfonamide afford no therapeutic advantage over single antibiotics, when there is single antibiotic susceptibility, such as is the case with pneumococci, streptococci, staphylococci, meningococci, gonococci, vibrios, spirochetes, anthrax, clostridial gangrene, and listeria—and I list these to make a point—that when one looks at the specific cause, there is a drug of choice. And in those that I have mentioned, penicillin, or one of its semi-synthetic preparations, are effective, proven effective with the single antibiotic, single without any mixture of anything else.

Nor in the case of bedsonia, rickettsia and myoplasma in which single effective antibiotics are indicated. The rest of the bacterial infections such as caused by Midea, Horrellea, and the gram negative nonspore forming rods, require in vitro susceptibility tests to deter-