

teriology and immunology at Harvard and in teaching hospitals in Boston, New Haven, and in Cleveland.

I am certified by the American Board of Internal Medicine and by the American Board of Microbiology. My particular interest is in infectious diseases.

In my academic capacities I have headed, and do now head, sections within the department of medicine that are concerned with infectious diseases.

Senator NELSON. Thank you very much. You may proceed to present your statement and at any time you may elaborate on any part of your statement if you think it will be helpful for the record.

Dr. HOEPFICH. Thank you, Senator Nelson.

Discovered in 1947, chloramphenicol is an antibiotic substance that is elaborated by the fungus *streptomyces venezuelae*. In concentrations that are readily attained in the blood and body fluids of humans given ordinary doses, chloramphenicol halts the growth of many kinds of micro-organisms that cause infectious diseases in man. These include:

1. Bacteria—both Gram positive, for example, pneumococcus, and Gram negative, for example, typhoid bacilli.
2. Rickettsiae—minute micro-organisms, smaller than bacteria, that cause diseases such as Rocky Mountain spotted fever.
3. Bedsoniae—smaller, even, than rickettsiae but larger in size than the true viruses, these micro-organisms cause infections such as psittacosis.
4. Mycoplasma—remarkably pleomorphic micro-organisms that frequently cause respiratory tract infections in man.

INDICATIONS

There are two primary indications for use of chloramphenicol. Note that this is in the context of what is presently available in the field of antimicrobial agents:

1. Typhoid fever.
2. Some infections caused by the so-called paratyphoid bacilli, that is, bacteria of the genus *salmonella* other than *Salmonella typhi*, the cause of typhoid fever.

The nontyphoidal salmonellosis should be treated with chloramphenicol in all patients when there is:

- (a) Bloodstream invasion.
- (b) Spread of infections outside the gastrointestinal tract, for example, to involve the joints or the bones.
- (c) Severe, protracted, actual dysentery.

In addition, all clinical forms of *salmonella* infection, regardless of severity, are indication for treatment with chloramphenicol in particularly vulnerable persons.

Senator NELSON. On the previous page, part c., severe protracted actual dysentery refers to that dysentery caused by *salmonella*; is that correct?

Dr. HOEPFICH. That is correct; yes. However, it must be understood that true dysentery of this severity is quite unusual as a consequence of *salmonella* infection. Gastroenteritis with nausea, vomiting, diarrhea, is the commonest clinical form of salmonellosis. This is best