in the course of a year. Of the nontyphoidal salmonella infections, there are considerably greater numbers and I suspect that these will be increasing in number as years go on and our society prefers more and more to eat food that is prepackaged, that has been handled and prepared by somebody else. So, I have a more difficult time arriving at some figure for nontyphoidal salmonelloses. These do occur in epidemic proportions. For example, we had in the Salt Lake City area in 1963–64 an epidemic which resulted in the clinical occurrence of at least 1,000 cases.

Mr. Gordon. How many cases?

Dr. Hoefrich. At least 1,000, which were of such severity that a physician was consulted. Now, if you add to this the number of infections that were of lesser severity, you probably would have to multi-

ply by a figure of around 10.

All I am saying is that the nontyphoidal salmonelloses are much more common, much more frequent in occurrence and it is hard to arrive at an annual figure since there are, too, epidemic situations. By and large they are much less severe infections.

Mr. Gordon. Do they occur frequently?

Dr. Hoeprich. They are occurring, I think, with more frequency—at least we notice them more now than we did in times past.

Senator Nelson. For my information, I notice in the primary in-

dications you do not include the rickettsial infections.

Dr. Hoeprich. No, I do not, Senator Nelson. As we see them in this country, and this is the basis on which I excluded them, the agent of choice is one of the tetracycline group of drugs. The occurrence of gastro-intestinal side effects of such severity that one cannot give tetracycline to a patient who has a rickettsial infection does occur. But in our society, in this country, it is very simple. You then put a needle in the vein and run in the drug and you handle it in that fashion.

Now, if you are treating a rickettsial infection in Southeast Asia and you cannot conveniently or practically administer tetracycline by injection, and you have the choice of no therapy, which is the result if you give it by mouth and the patient vomits the material back up, or going to chloramphenicol. But that is not our situation here. I think

the context is very important.

CONTRAINDICATIONS

Infections caused by micro-organisms that are not susceptible to chloramphenical should never be treated with this agent. These include:

1. All parasitic infections—multicellular, for example, worms, and unicellular, for example, malaria.

2. All mycotic infections, for example, histoplasmosis.

3. Some bacterial infections, for example, those caused by Pseudomonas species. My point is that there are some bacteria that are always resistant to chloramphenical and these should never be occasion for use of this drug.

4. All viral infections, for example, influenza, the common cold.

Infections caused by micro-organisms that are susceptible to chloramphenical but are equally, or more, susceptible to other agents, should