

peculiar hospital infections we talked about caused by the gram negative rods. It implies perhaps certain very seriously ill people with pneumonia should get this. Most of these are caused by pneumococci. If you give chloramphenicol plus penicillin, which is a very common thing to do, it is quite likely that you may antagonize the activity of the penicillin, so you really get less effect in these patients than you would with penicillin alone.

There is a very small group of *Klebsiella* infections which are enteric organisms that occur particularly among the alcoholic patients as a primary pneumonia acquired outside the hospital. These we can usually pick out and they are picked out regularly by an initial smear examination of the sputum, on the basis of the staining characteristics of the organism. The relative merits of tetracycline and chloramphenicol is not settled in these cases. Unfortunately, neither works very well. Thus, chloramphenicol rarely, if ever, is indicated in respiratory infections.

In staphylococcal disease, during the late 1950's, there was a time when it was competitive drug. The major drugs, penicillin, tetracycline, and to a certain extent erythromycin, lost their effectiveness essential due to overuse and inbreeding of the resistant organisms. They were not chloramphenicol because its use had been somewhat restrained by aplastic anemia reports in the midfifties, had a marked resurgence in the late fifties because of the staphylococcal problem. I already indicated this led to its use in newborn nurseries, and the discovery of gray sickness.

It also was used extensively in the 1957 influenza epidemic. Here, the real deficit of the drug as a competitive drug with really good antistaphylococcal antibiotics was shown by fairly high failure rates in postinfluenza staphylococcal pneumonia. It is just not as active a drug as the new penicillins.

So, I think this is a historic use, that it is no longer a current indication.

There are many gram negative rod infections in which the drug probably is as good as others, but there are few in which there is not a better alternative, and this gets back to this statement that we should only use it when we know it is better than the others. And there are very few such situations.

Because of its broad range of activity, it is often turned to in seriously ill persons before the organism is known. And Dr. Best did refer to this use. This, in my opinion, is a mistake since one can usually make a reasonable diagnosis and often another drug is clearly preferable when you make that reasonable diagnosis.

For instance, it is difficult in the leukemia patient to differentiate between staphylococcal disease on the one hand and these gram negative rods on the other. Usually one can get enough information from microscopic examinations of smears, medical history and examination, and the nature of the portal of entry to get some idea of what is going on.

If you can't do that, and this is particularly true in persons who seem to have "septic" shock, that is, shock associated with an infection, and these are often caused by gram negative rods, you have to pick empirically. Some very good people have studied this syndrome and