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Answers to questions from Senator Borja.

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"(2) Premature administration of antibiotics might have obscured medical indications for treatment ..."

Most bacteria will develop resistance to antibiotics after a period of time. Thus if one gives antibiotics prematurely and there is an invasion of commensal organisms taking place and the antibiotic would suppress the clinical signs of infection and at the same time, the bacteria may be developing resistance to the antibiotic. Thus, one would lose the capability of using a valuable agent if and when a frank infection developed. In my opinion, antibiotics are seldom needed prophylactically particularly when individuals are under continuous observation.

Certainly in animals, it has been demonstrated repeatedly that one can control the infections that develop in the irradiated animal by administering antibiotics when the infection develops.

Question: What is the normal procedure when a physician encounters a patient with a granulocyte count of 700 ?

The patients are observed carefully with white counts being performed at regular intervals and at the first sign of infection, bacterial cultures are made to isolate the offending organisms and determine its sensitivity to antibiotics. In the interim, while waiting for the bacteriological diagnosis, one administers a broad spectrum antibiotic in high dosage.

Question: What risk to the patient is involved in not immediately administering prophylactic treatment in such a case?

In my opinion there is no risk. One improves the probability of controlling the infection until the bone marrow regenerates and produces an adequate number of granulocytes. If antibiotics are given prematurely, one runs the risk of several different types of bacteria becoming resistant to this antibiotic thus depriving the patient of an antibiotic which may be needed at a later time to

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prior life to that time when the bone marrow regenerates.

Question: Does this indicate similar doses or would it indicate a minimum (or threshold) dose to produce similar effects?

Under highly controlled experimental circumstances in animals within limits, changes in the blood count reflect the dose of radiation. Accordingly, within limits, similar changes in blood counts, if performed under the same circumstances and at the same time intervals, without other complicating clinical factors, would suggest doses of relatively the same size. I do not understand the second part of the question "minimum (or threshold).

Question: Throughout most of the reports, the Rongelapese are mentioned as having received sublethal doses. Why is the "sublethal" rather than the "near lethal" terminology used?

To me sublethal means doses outside of the lethal range. Near lethal would simply mean in the upper part of the sublethal range as described by "the effective dose received by the Rongelape people approached the lethal range."

Question: On what basis can this last statement be justified?

If you will identify what page this is on in the green book, I will be pleased to try and answer it for you. I suggest that one ask Stan Cohn what the infinity dose from the Sr-90 and Cesium would be. I suspect it is of the order of one rad.

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