The technical difficulty of the inhalation experiments led Clark (6) to draw up a protocol for the study of the toxic effects of an aerosol at stages of increasing complexity:

Stage I: Acute toxicity.

Determination of the LD 50 by oral, intravenous, and intra-tracheal means.

Simple irritation studies (eyes, etc.).

Stage II: Acute inhalation.

Determination of the LC 50 (lethal concentration) in four hours of "breathable" atmosphere, with particles of an aerodynamic size of 1-5 μ.

Stage III: Sub-acute inhalation.

Determination in two species (rat, dog) of the MPD (maximum permissible dose) in a "breathable" atmosphere, increasing the doses every three to four days until clinical indications appear. A histopathological examination is then made.

Stage IV: Chronic inhalation.

(This, like the succeeding stages, would not be important for the purposes of the treaty).

The use of two types of animal, rodents and non-rodents (such as dogs or monkeys) is recommended.

Stage V: Teratology.

The use of rats and rabbits is recommended for this stage (foetal mortality, foetal development or growth).

Stage VI: Special studies.

(Possible synergisms between propellants, adjuvants; hypertensive or sympathomimetic activity, etc.).

Since the variety of toxicological methods described in the literature and used by toxicologists is very considerable, it would be of interest to adopt a standardized method for the purposes of the treaty and to homologate a group of methods which each State could use and which would be contrasted with that adopted, using reference substances, with a statistical analysis of differences in means and the homogeneity of variances.

In this way, the national verification bodies would be at liberty to use their own toxicological methods for the purposes of the convention on chemical weapons with homologation and contrast with the international method as the only requisites.