AD HOC GROUP OF THE STATES PARTIES TO THE CONVENTION ON THE PROHIBITION OF THE DEVELOPMENT, PRODUCTION AND STOCKPILING OF BACTERIOLOGICAL (BIOLOGICAL) AND TOXIN WEAPONS AND ON THEIR DESTRUCTION

BWC/AD HOC GROUP/WP.342
12 January 1999

ENGLISH
Original: RUSSIAN

Thirteenth session
Geneva, 4_22 January 1999

Working paper submitted by the Russian Federation

EVALUATION OF THE SIN NOMBRE VIRUS, TETRODOTOXIN AND THE DIPHTHERIA TOXIN

INTRODUCTION

Evaluations were carried out on the Sin Nombre virus, tetrodotoxin and the diphtheria toxin from the List of human pathogens.

The results of these evaluations are discussed.

SIN NOMBRE VIRUS

The area of distribution is South and North America. The vectors are rodents, primarily deer or certain hamsters and rats. The virus causes severe sickness, whose principal manifestation is haemorrhagic fever with pulmonary syndrome. Lethality is 47 per cent.

Evaluation according to criteria

1. [Vectors or] Agents known to have been developed, produced, stockpiled or used as weapons	**No data**
2. Low infection dose or high toxicity	**Yes**
3. [Short incubation and] High level of morbidity	**No**
4. High level of contagiousness in population	**No**
5. Infection or intoxication [by variety of route, especially] by respiratory route	**Yes**
6. High level of incapacity or mortality	**Yes**
7. No effective prophylaxis (i.e. immune sera, vaccines, antibiotics) and/or therapy available and widely in use	**Yes**
8. Stability in the environment	**No data**
9. Difficulty of detection or identification [at the	

early stage] **No data**

10. Ease of production [and transportation] **No data**

Since this pathogen satisfies the principal criteria for human pathogens, it can be recommended for inclusion in the List.

TETRODOTOXIN

This toxin causes paralysis of the respiratory musculature as a result of a direct effect on the respiratory and vasomotor centres, and is most dangerous in aerosol use. Inhalation of tetrodotoxin causes death within a few minutes. The mode of attack is inhalation, absorption through the skin or the per-oral route.

Evaluation according to criteria

1. [Vectors or] Agents known to have been developed, produced, stockpiled or used as weapons **Yes**
2. Low infection dose or high toxicity **Yes**
3. [Short incubation and] High level of morbidity **Yes**
4. High level of contagiousness in population **No**
5. Infection or intoxication [by variety of route, especially] by respiratory route **Yes**
6. High level of incapacity or mortality **Yes**
7. No effective prophylaxis (i.e. immune sera, vaccines, antibiotics) and/or therapy available and widely in use **Yes**
8. Stability in the environment **Yes**
9. Difficulty of detection or identification [at the early stage] **Yes**
10. Ease of production [and transportation] **No**

Since this pathogen satisfies the principal criteria for human pathogens, it should be included in the List.

DIPHTHERIA TOXIN

Mode of attack: absorption through the skin or inhalation.

Evaluation according to criteria

1. [Vectors or] Agents known to have been developed, produced, stockpiled or used as weapons **No data**
2. Low infection dose or high toxicity **Yes**
3. [Short incubation and] High level of morbidity **Yes**

4.	High level of contagiousness in population	**No**
5.	Infection or intoxication [by variety of route, especially] by respiratory route	**Yes**
6.	High level of incapacity or mortality	**Yes**
7.	No effective prophylaxis (i.e. immune sera, vaccines, antibiotics) and/or therapy available and widely in use	**No**
8.	Stability in the environment	**No**
9.	Difficulty of detection or identification [at the early stage]	**No**
10.	Ease of production [and transportation]	**No**

Since this pathogen does not satisfy the bulk of the criteria for human pathogens, it should be deleted from the List.

The analysis was carried out using data from the scientific literature.
