WHO Technical Report Series, No. 745,1987

SUMMARY PROTOCOL FOR DRIED BCG VACCINE PRODUCTION AND TESTING

Based on Requirements for Biological Substances No. 11.

Requirements for Dried BCG Vaccine

Identification of Final Lot

Name and address of manufacturer _____

_____

_____

Lot No. and type of vaccine Intradermal/Percutaneous/Other

Date of manufacture of final lot _____

Seed Lot

1. Information on seed lot

Reference of seed lot _____

Origin of seed lot _____

Date of preparation of seed lot _____

Date of receipt of seed lot

(if applicable) _____

Date of reconstitution of seed lot ampoule _____

2. Tests on seed lot (If these data have been submitted before, completion of this paragraph is not necessary.)

(a) *Identity test*

Has the seed lot been identified

as BCG? yes/no

(b) *Test for absence of contaminating microorganisms*

Date of start of test _____

Date of end of test _____

Results _____

	First test	*Repeat test if necessary*
(c) *Test for absence of virulent mycobacteria*		
Dose injected	_____	_____
No. of guinea-pigs given injection	_____	_____
Weight range of guinea-pigs	_____	_____
Observation period	_____	_____
Health of animals during test	_____	_____
Weight gains (losses)	_____	_____
Results (passed/failed)	_____	_____
Seed lot approved	yes/no	
Date of approval	_____	_____

Information on Manufacture

1. Single harvest

No. of passages from primary seed _____

Medium _____

No. and volume of containers inoculated _____

Date of inoculation _____

Date of harvest _____

Results of visual inspection _____

2. Final bulk

Date of preparation _____

No. of single harvests included _____

	First test	*Repeat test if necessary*
(a) *Absence of contamination*		
Quantity tested	_____	_____
Media	_____	_____
Duration of test	_____	_____
Results	_____	_____

	First test	*Repeat test if necessary*
(b) *Absence of virulent mycobacteria*		
No. of human doses injected per guinea-pig	_____	_____
No. of guinea-pigs given injection	_____	_____
Observation period	_____	_____
Health of animals during test	_____	_____
Weight gains (losses)	_____	_____
Results (passed/failed)	_____	_____

3. Freeze-drying

Type and size of containers	_____
No. of doses per container	_____
Method used for sealing the containers	vacuum-sealing/sealing under gas _____
No. of containers in the final lot	_____

Information on Final Product Controls

Recommended reconstitution fluid	_____
Volume of reconstitution fluid per final container	_____

1. Identity test

Type of test _____

Results _____

	First test	*Repeat test if necessary*
2. Absence of contamination		
No. of containers tested	_____	_____
Media	_____	_____
Duration of test	_____	_____
Results	_____	_____

3. Safety test		
(a) *Absence of virulent mycobacteria (if test not performed on final bulk)*	*First test*	*Repeat test if necessary*
No. of human doses injected per guinea-pig	_____	_____
Dilution factor applied if percutaneous vaccine	_____	_____
No. of guinea-pigs	_____	_____
Observation period	_____	_____
Health of animals during test	_____	_____
Weight gains (losses)	_____	_____
Results (passed/failed)	_____	_____

(b) *Skin reaction test*	*First test*	*Repeat test*
Number of guinea-pig	_____	_____
Dilution injected	_____	_____
Observation period	_____	_____
Mean diameter of lesions (for each dilution)	_____	_____

4. Total bacterial content

Method of estimation _____

Result (per ml) _____

5. Tests for viability

(a) *Cullturable particles*

Medium _____

	Before lyophilization	*After lyophilization*
No. of containers tested	_____	_____
Mean count of culturable particles per ml	_____	_____
Mean survival rate (%)	_____	_____

(b) *ATP content (optional)*

Mean survival rate (%) _____

6. Test of thermostability

	Vials	
	Unheated	*Heated*
No. of containers tested	_____	_____
Culturable particles in each container per ml	_____	_____
Mean survival (%)	_____	_____

Information on Release

Is the batch satisfactory? _____

Has the lot been released by the national control authority? _____

If yes, date _____

Has a certificate been supplied by the national control laboratory? yes/no

Name and signature of head of laboratory _____

Certification by person taking overall responsibility for production of the vaccine:

I certify that lot No. _____ of BCG vaccine statisfies Part A of the WHO Requirements for BCG Vaccine.

Date _____

Signature _____

Name typed _____

The protocol must be accompanied by a sample of the label, a copy of the leaflet, and if the vaccine is to be exported, by a copy of the national control release certificate.

Information on the Manufacturer's product

When was the vaccine last tested in humans?

Summary of results:

No. of children examined _____

Age group _____

Vaccination-testing interval _____

Mean postvaccination tuberculin reaction _____

Mean vaccination lesion size _____

Mean percentage of lymphadenitis _____