FOOD AND DRUGS AUTHORITY GHANA

GUIDELINES FOR BATCH RELEASE OF VACCINES

WHOLE CELL DTP

FDA/BPU/BR-V/2013/01

1 Introduction

These guidelines outline the minimum Ghana Food and Drugs Authority Batch Release requirements for the registration of immunological products.

All general and specific monographs relevant to the product apply (Refer to section 112 of the Ghana Public Health Act 851).

2 Sampling and tests to be performed by the Control Laboratory

The number of samples (in final containers) used for batch release laboratory test should be statistically justified.

The Control Laboratory should perform the following tests:

On every new final bulk:

- Assay (potency) (for each component)
- Specific toxicity for pertussis (CHO cell and endotoxin tests may be used for screening. If abnormal results are obtained then the mouse weight gain test should be used.)

(Assay and specific toxicity test is required only whenever a new final bulk has been used. It is not required on subsequent final lots filled from the same final bulk. For the purpose of batch release assay (potency testing), a final bulk vaccine divided over several intermediate containers is considered as one final bulk)

On every batch of finished product (final lot):

-Appearance
-Identity (for diphtheria and tetanus toxoid, a test for degree of adsorption may serve as the identity test)

3 Protocol submission

A model protocol is given below. The protocol for a specific product may differ in detail but it is essential that all relevant details demonstrating compliance with the registration requirements and the official monograph should be given. WHO requirements may also serve as the model for the content and the presentation of the protocol data. Results of tests are required (pass or fail is not sufficient, results of re-tests if applicable should be given).

Sufficient detail should be supplied to allow re-calculation of test values. Specifications for each test and dates when they were performed should also be included. Results of qualification tests on reference materials should

be given for each new in-house reference material.

3.1 Summary information on the finished product (final lot)

Proprietary, Commercial or Trade name: ……...

International Non- proprietary Name (INN): ……

Common name of product: ..……. ……..

Batch number(s):

Finished product (final lot): ……...

Final bulk: ……

Type of container: ……...

Total number of containers in this batch: ……...

Number of doses per container: ……...

Composition/volume of single human dose: ……...

Date of expiry: ……

Storage temperature: ……...

Name and address of manufacturer: ……..

Name and address of registration holder if different: ……...

3.2 Production information

Site of manufacture: ……...

Date of manufacture: …….....

Summary information scheme on batch specific production data including dates of different production stages, identification numbers and blending scheme.

3.2.1 Starting materials

The information requested below is to be presented on each submission. Full details on Master seed-lots and working seed-lot upon first submission only.

Identification and source of starting materials (particularly any materials of human or animal origin e.g. strain of bacteria; master, working seeds; excipients and preservatives etc.): …….

Preparation date and reference number of seed-lot(s). Date of approval of protocol indicating compliance with the requirements of the relevant monographs and with the conditions of registration (for B. pertussis strain(s), specify serological types): ……..

Production details and in process controls: ……..

Tests on starting materials: ……..

Dates of test: ……..

3.2.2 Intermediate stages

3.2.2.1 Single harvests

Annex list of single harvests, indicate medium, date of reconstitution of seed-lot ampoule(s), dates of inoculation, time and temperature of incubation, dates of harvests, volumes, results of tests for identity and bacterial purity, method and dates of inactivation, dates and results of tests for inactivation, yields, storage temperatures, storage times and approved storage periods.

For B. pertussis, specify dates and results of tests for opacity and presence of agglutinogens.

3.2.2.2 Bulk purified diphtheria or tetanus toxoid

Batch number: ……..
Date of manufacture: ……..
Volume, storage temperature, storage time and approved storage period: ……..

Toxoid content

Method: ……..
Specification: ……..
Date: ……..
Result (Lf/ml): ……..

Absence of diphtheria or tetanus toxin

Method (specify Lf injected): …….
Specification: …….

Date: ……..
Result: ……..

Test for sterility
Method: ……..
Media: ……..
Volume inoculated: ……..
Date test on: ……..
Date test off: ……..
Result: ……...

Irreversibility of toxoid: *(specify dates of beginning and end of incubation, dates of beginning and end of test, number of animals, volume inoculated into cell culture (for diphtheria only) or injected into animals, stating the number of animals and test results).*

Method (specify Lf injected) : ……..
Specification: ……..
Date: ……...
Result: ……...

Antigenic purity
Method: …….
Specification: …….....
Date: …….
Result (Lf/mg protein N): …….

3.2.2.3 Inactivated B. pertussis suspension
Batch number: …….
Date of manufacture: …….
Volume, storage temperature,
storage time and approved storage period: …….

Opacity
Method: …….
Specification: …….
Date: …….
Result: …….

Presence of agglutinogens
Method: …….
Specification: …….
Date: …….
Result: …….

Test for sterility
Method: …….
Media : …….
Volume inoculated: …….
Date test on: …….
Date test off: …….
Result: …….

3.2.2.4 Final bulk vaccine
Batch number: ……..
Date of manufacture: …….
Volume, storage temperature,
storage time and approved storage period: …….

Information on composition of the final bulk:
Specify relevant (adsorption, blending)
production dates: …….
Reference number(s): …….
Volume(s): …….
Concentrations (in Lf/ml for each of Diphtheria and Tetanus, in Opacity Units calculated from single harvests for B. pertussis): …….

Antimicrobial preservative
Method: …….
Specification: …….
Date: …….
Result: …….

Free formaldehyde
Method: …….
Specification: …….
Date: …….
Result: …….

Test for sterility
Method: …….
Media: …….
Volume inoculated: …….
Date test on: …….

Date test off: …….
Result: ……..

Specific toxicity *(specify number of animals, dates of beginning and end and result of test. For the mouse weight gain test give all relevant details for each of the control and the test group of mice (survival, mean weight on days zero, 3 and 7 after injection) and indicate percentage of weight gain of test group as compared with control group)*

Method: …….
Specification: …….
Date: …….
Result: ……

Assay *(specify strain, sex, weight and number of animals, dates, volumes, route and doses of immunisation and challenge (for B. pertussis specify number of colony forming units in challenge dose), nature, batch number and potency in International Units of reference vaccine and responses at each dose-level. Express results in International Units, specify confidence interval, slope of parallel line model and outcome of tests for absence of linearity and parallelism)*

Method: ……...
Specification: ……..
Date test on: ……...
Date test off: ……...
Result: ……...

3.3 Batch of finished product (Final lot)
Batch number: ……...
Date of filling: ……..
Type of container: ……..
Number of containers after inspection: ……..
Filling volume: ……..

Appearance
Method: ……..
Specification: ……..
Date: ……..
Result: ……..

Identity

Method: ……
Specification: ……
Date: ……
Result: ……

Extractable volume
Method: ……..
Specification: ……..
Date: ……
Result: ……

pH
Method: ……....
Specification: ……
Date: ……
Result: ……

Aluminium content
Method: ……
Specification: ……
Date: …… ..
Result: ……

Test for sterility
Method: ……...
Media: ……...
Volume inoculated: ……
Date test on: ……...
Date test off: ……...
Result: ……

Date of start period of validity: ……..

4 Certification

Certification by qualified person taking the overall responsibility for production and control of the product:

I herewith certify that _____ (name of the product) batch number_____ was manufactured and tested according to the procedures approved by the competent authorities and complies with the quality requirements. This includes that, for any materials derived from ruminants (bovine, ovine, caprine) used in the manufacture and/or formulation of the batch of product specified above, all measures have been taken to demonstrate that the

material is free from transmissible spongiform encephalopathy.

Name: _____

Designation: _____

Date: _____

Signature: _____