Fourth Edition, *Third Supplement*

The Third Supplement to the Fourth Edition of *The International Pharmacopoeia* was published in 2013. The Fourth Edition then comprised the two main volumes published in 2006, the First Supplement published in 2008, the Second Supplement published in 2011 and this Third Supplement in 2013. The major news, updates, changes and revisions of the Fourth Edition through its Third Supplement are described in the following.

General notices. The Expert Committee on Specifications for Pharmaceutical Preparations adopted in 2010 the Test for sterility developed by the Pharmacopoeial Discussion Group (PDG) (*European Pharmacopoeia*, *Japanese Pharmacopoeia* and *United States Pharmacopeia*). The harmonized text includes the clause “unless otherwise justified and authorized”. In order to explain the meaning of “justified and authorized” in the context of *The International Pharmacopoeia* the following wording has been included in the *General notices* of *The International Pharmacopoeia:*

> *“The expression ‘unless otherwise justified and authorized’ means that the requirements have to be met or instructions to be followed, unless the relevant national or regional authority authorizes an exemption or modification, where justified in a particular case.”*

New, revised and withdrawn texts. New and revised texts are introduced for 10 monographs on pharmaceutical substances, 31 monographs on dosage forms, two general monographs, 10 methods of analysis and six texts for the section on *Supplementary information*. The new, revised and withdrawn texts are as follows:

NEW TEXTS

Pharmaceutical substances

- -Zinc acetate
- -Zinc gluconate

Dosage forms

- -Amikacin for injection
- -Amoxicillin powder for oral suspension
- -Artesunate for injection
- -Capreomycin for injection
- -Efavirenz , emtricitabine and tenofovir tablets
- -Efavirenz tablets
- -Emtricitabine and tenofovir tablets
- -Emtricitabine capsules
- -Kanamycin for injection
- -Levamisole tablets
- -Levonorgestrel and ethinylestradiol tablets
- -Metronidazole oral suspension
- -Oseltamivir capsules
- -Paracetamol oral solution
- -Paracetamol oral suspension
- -Pyrantel chewable tablets
- -Pyrantel oral suspension
- -Retinol oral solution
- -Ritonavir tablets
- -Sodium bicarbonate intravenous infusion
- -Sulfadoxine and pyrimethamine tablets
- -Sulfamethoxazole and trimethoprim tablets

Methods of analysis

- -Microbial enumeration tests (3.3.1)
- -Tests for specified microorganisms (3.3.2)

Supplementary information

- -Bulk density and tapped density of powders
- -Measurement of consistency by penetrometry

-Resistance to crushing of tablets
-Tablet friability
-Release procedure for International Chemical Reference Substances

REVISED TEXTS

Pharmaceutical substances

-Abacavir sulfate
-Artenimol
-Artesunate
-Cloxacillin sodium
-Cycloserine
-Nevirapine
-Rifampicin
-Tenofovir disoproxil fumarate

Dosage forms

-Abacavir oral solution
-Artemether and lumefantrine powder for oral suspension
-Artesunate tablets
-Cycloserine capsules
-Nevirapine oral suspension
-Nevirapine tablets
-Retinol concentrate, oily form
-Rifampicin capsules
-Rifampicin tablets

General monographs

-Capsules
-Tablets

Methods of analysis

-High-performance liquid chromatography (1.14.4)
-Sulfated ash (2.3)
-Test for sterility (3.2)
-Test for bacterial endotoxins (3.4)
-Uniformity of content for single-dose preparations (5.1)
-Disintegration test for tablets and capsules (5.3)
-Extractable volume for parenteral preparations (5.6)
-Tests for particulate contamination (5.7)

Supplementary information

-Microbiological quality of non-sterile products: recommended acceptance criteria for pharmaceutical preparations

WITHDRAWN TEXTS

Dosage forms

-Artemisinin capsules

Artemisinin and its derivatives should no longer be used as monotherapy according to WHO guidelines for the treatment of malaria, since fixed-dose combination formulations are now recommended. The forty-seventh meeting of the Expert Committee on Specifications for Pharmaceutical Preparations therefore decided to withdraw the monographs on Artemisinin capsules and Artemisinin tablets from *The International Pharmacopoeia*.

Pharmacopoeial Discussion Group (PDG)-harmonized general texts. A number of PDG texts have been adapted to the editorial style of *The International Pharmacopoeia* and are included in this supplement. These PDG texts are:

-Residue on ignition/sulphated ash
-Test for extractable volume for parenteral preparations
-Disintegration
-Test for particulate contamination: sub-visible particles
-Microbiological examination of non-sterile products: acceptance criteria for pharmaceutical preparations and substances for pharmaceutical use
-Microbial examination of non-sterile products: tests for specified micro-organism
-Microbial examination of non-sterile products: microbial enumeration tests
-Test for sterility
-Tablet friability
-Bulk and tapped density of powders
-Bacterial endotoxins test.

This support from the PDG is gratefully acknowledged.

Reproductions from the European Pharmacopoeia. The following two new tests are based on texts published in the *European Pharmacopoeia*, which granted permission for reproduction in *The International Pharmacopoeia*:

-Measurement of consistency by penetrometry
-Resistance to crushing of tablets.

This support from the *European Pharmacopoeia* is gratefully acknowledged.

Infrared reference spectra. Many monographs in *The International Pharmacopoeia* include an identification test using infrared spectroscopy; these tests usually allow comparison either with a spectrum obtained from the ICRS or with an International Infrared Reference Spectrum (IIRS). Seven additional spectra of the following substances are added to the IIRS collection with this supplement:

-Ciprofloxacin
-Clofazimine
-Erythromycin ethylsuccinate
-Gallamine triethiodide
-Glibenclamide
-Proguanil hydrochloride
-Pyrimethamine.

International Chemical Reference Spectra. The release procedure for ICRS was revised and is included in the section on *Supplementary information*.