In accordance with the Rules and Procedures of the 2015-2020 Council of Experts, the Chemical Medicines Expert Committees 1 to 6 has revised the monographs listed below. The purpose of the revision is to replace the requirement to comply with the entire content of the USP general chapter *Ophthalmic Products—Quality Tests* <771> with a requirement to comply only with the subsection for *Particulate and Foreign Matter* in *Ophthalmic Products—Quality Tests* <771>, and with the section for *Container Content* for those monographs where the requirement for Minimum Fill was deleted.

- Atropine Sulfate Ophthalmic Ointment
- Bacitracin Ophthalmic Ointment
- Bacitracin Zinc and Polymyxin B Sulfate Ophthalmic Ointment
- Bland Lubricating Ophthalmic Ointment
- Chloramphenicol and Polymyxin B Sulfate Ophthalmic Ointment
- Chloramphenicol Ophthalmic Ointment
- Chlortetracycline Hydrochloride Ophthalmic Ointment
- Ciprofloxacin Ophthalmic Ointment
- Dexamethasone Sodium Phosphate Ophthalmic Ointment
- Erythromycin Ophthalmic Ointment
- Gentamicin and Prednisolone Acetate Ophthalmic Ointment
- Gentamicin Sulfate Ophthalmic Ointment
- Hydrocortisone Acetate Ophthalmic Ointment
- Idoxuridine Ophthalmic Ointment
- Neomycin and Polymyxin B Sulfates, Bacitracin Zinc, and Hydrocortisone Acetate Ophthalmic Ointment
- Neomycin and Polymyxin B Sulfates and Bacitracin Ophthalmic Ointment
- Neomycin and Polymyxin B Sulfates and Dexamethasone Ophthalmic Ointment
- Neomycin and Polymyxin B Sulfates Ophthalmic Ointment
- Neomycin and Polymyxin B Sulfates, Bacitracin Zinc, and Hydrocortisone Ophthalmic Ointment
- Neomycin Sulfate and Dexamethasone Sodium Phosphate Ophthalmic Ointment
- Neomycin Sulfate Ophthalmic Ointment
- Oxytetracycline Hydrochloride and Polymyxin B Sulfate Ophthalmic Ointment
- Sodium Chloride Ophthalmic Ointment
- Sulfacetamide Sodium and Prednisolone Acetate Ophthalmic Ointment
- Sulfacetamide Sodium Ophthalmic Ointment
- Tobramycin and Dexamethasone Ophthalmic Ointment
- Tobramycin Ophthalmic Ointment

The Revision Bulletins for the monographs listed above supersede the currently official version of these monographs. The Revision Bulletin will be incorporated in the *First Supplement to USP 40–NF 35*.

Should you have any questions, please contact Margareth R. C. Marques, M.Sc., Ph.D. (301-816-8106 or mrm@usp.org).
Sulfacetamide Sodium and Prednisolone Acetate Ophthalmic Ointment

DEFINITION
Sulfacetamide Sodium and Prednisolone Acetate Ophthalmic Ointment is a sterile ointment containing NLT 90.0% and NMT 110.0% of the labeled amounts of sulfacetamide sodium (C₈H₉N₂NaO₃S · H₂O) and prednisolone acetate (C₂₃H₃₀O₆).

IDENTIFICATION

Change to read:

A. ▲ The retention time of the major peak of the Sample solution corresponds to that of the Standard solution, as obtained in the tests for Sulfacetamide Sodium and Prednisolone Acetate in the Assay.

▲USP39

Add the following:

B. ▲ The UV absorption spectra of the major peak of the Sample solution and that of the Standard solution exhibit maxima and minima at the same wavelengths, as obtained in the tests for Sulfacetamide Sodium and Prednisolone Acetate in the Assay.

▲USP39

ASSAY

Change to read:

SULFACETAMIDE SODIUM
Diluent: Dilute methanol (1 in 5)
Mobile phase: Methanol, glacial acetic acid, and water (100:10:890), filtered and degassed
Standard solution: Transfer about 50 mg of USP Sulfacetamide Sodium RS to a 40-mL centrifuge tube. Add 10.0 mL of Diluent, insert the stopper in the tube, and mix using a vortex mixer for about 3 min to dissolve. Add 7.5 mL of heptane, insert the stopper in the tube, and mix using a vortex mixer for another 3 min. Centrifuge to effect separation of the phases. Withdraw and discard the upper heptane layer. Transfer the 3.0 mL of the bottom layer to a 500-mL volumetric flask, add Diluent to volume, and mix.
System suitability solution: Dissolve 3 mg of sulfanilamide in 100 mL of the Standard solution, and mix.
Sample solution: Transfer a quantity of Ophthalmic Ointment nominally equivalent to about 100 mg of sulfacetamide sodium to a 40-mL centrifuge tube. Add 15.0 mL of heptane, insert the stopper in the tube, and mix using a vortex mixer for about 3 min to dissolve the Ophthalmic Ointment. Add 20.0 mL of Diluent, insert the stopper in the tube, and mix using a vortex mixer for 3 min. Centrifuge to effect separation of the phases. Withdraw and discard the upper heptane layer. Transfer 3.0 mL of the bottom layer to a 500-mL volumetric flask, dilute with Diluent to volume, and mix.
Chromatographic system
(See Chromatography (621), System Suitability.)

PREDNISOLONE ACETATE
Diluent: Dilute methanol (9 in 10)
Mobile phase: Acetonitrile and water (400:600), filtered and degassed
Internal standard solution: 0.7 mg/mL of norethindrone in Diluent
Standard stock solution: 0.8 mg/mL of USP Prednisolone Acetate RS in Diluent
Standard solution: 0.04 mg/mL of USP Prednisolone Acetate RS prepared as follows. Transfer 5.0 mL of Standard stock solution to a 100-mL volumetric flask, add 5.0 mL of Internal standard solution, dilute with Diluent to volume, and mix.
Sample solution: Transfer a quantity of Ophthalmic Ointment nominally equivalent to about 4 mg of prednisolone acetate to a 50-mL centrifuge tube. Add 10.0 mL of heptane, and mix using a vortex mixer for about 2 min to dissolve the Ophthalmic Ointment. Add 5.0 mL of Internal standard solution and 20.0 mL of Diluent, and mix using a vortex mixer for 2 min. Centrifuge to effect separation of the phases. Withdraw and discard the upper heptane layer. Transfer the lower layer to a 100-mL volumetric flask. Add Diluent to volume, and mix.
Chromatographic system
(See Chromatography (621), System Suitability.)
Mode: LC
Detector: ▲254-nm diode array USP39
Column: 3.9-mm × 30-cm; packing L1
Flow rate: 1.5 mL/min
Injection volume: 40 µL

System suitability
Sample: Standard solution
[NOTE—The relative retention times for prednisolone acetate and norethindrone are about 1.0 and 1.5, respectively.]
Suitability requirements
Resolution: NLT 4.5 between the prednisolone and norethindrone peaks
Column efficiency: NLT 3000 theoretical plates for the prednisolone peak USP39
Tailing factor: NMT 2.5 for the prednisolone peak USP39
Relative standard deviation: NMT 1.5% for the peak response ratio of prednisolone acetate to norethindrone USP39

Analysis
Samples: Standard solution and Sample solution
Calculate the percentage of the labeled amount of prednisolone acetate (C_{23}H_{30}O_{6}) in the portion of Ophthalmic Ointment taken:

\[
\text{Result} = \left( \frac{R_D}{R_I} \right) \times \left( \frac{C_S}{C_U} \right) \times 100
\]

\(R_D\) = peak response ratio of prednisolone acetate to the internal standard peak from the Sample solution
\(R_I\) = peak response ratio of prednisolone acetate to the internal standard peak from the Standard solution
\(C_S\) = concentration of USP Prednisolone Acetate RS in the Standard solution (mg/mL)
\(C_U\) = nominal concentration of prednisolone acetate in the Sample solution (mg/mL)

Acceptance criteria: 90.0%–110.0%

PERFORMANCE TESTS

Delete the following:

▲ Minimum Fill (755): Meets the requirements USP39

SPECIFIC TESTS

• Sterility Tests (71): Meets the requirements

Delete the following:

▲ Metal Particles in Ophthalmic Ointments (751): Meets the requirements USP39

Change to read:

▲ Other Requirements: It meets the requirements for Particulate and Foreign Matter and Container Contents (88.1, Aug-2016) in Ophthalmic Products—Quality Tests (771), Drug Product Quality, Universal Tests, Particulate and Foreign Matter and Container Contents. USP Prednisolone Acetate RS USP Sulfacetamide Sodium RS

ADDITIONAL REQUIREMENTS

• Packaging and Storage: Preserve in collapsible ophthalmic ointment tubes that are tamper-proof so that sterility is assured at time of first use.

• USP Reference Standards (11)
  USP Prednisolone Acetate RS
  USP Sulfacetamide Sodium RS