March 2006

Report on New Patented Drugs - Solagé

Under its transparency initiative, the PMPRB publishes the results of the reviews of new patented drugs by Board Staff, for purposes of applying the PMPRB's Excessive Price Guidelines (Guidelines), for all new active substances introduced after January 1, 2002.

Brand Name: Solagé

Generic Name: (*mequinol/tretinoin)*

DIN: 02243257 topical solution 2% /0.01%

Patentee: Galderma Canada[1]

Indication - as per product monograph:

For the treatment of solar lentigines and related hyperpigmented lesions resulting from cumulative exposure.

Date of Issuance of First Patent(s) Pertaining to the Medicine: April 18, 1995

Date of First Sale: January 26, 2002

Notice of Compliance: March 8, 2002

ATC Class: D11AX56
Dermatologicals, Other Dermatological Preparations, Other Dermatological Preparations; Other Dermatologicals

[1] As of 2005, Barrier Therapeutics Canada Inc. is the patentee of Solagé for the purposes of the Patented Medicine Prices Review Board (PMPRB).

APPLICATION OF THE GUIDELINES

Summary

The introductory price of Solagé was found to be within the Guidelines because the daily cost of therapy did not exceed the daily cost of therapy of existing drug combinations in the therapeutic class comparison and did not exceed the range of prices in other comparator countries where Solagé was sold.

Scientific Review

Solagé is a combination of a new active substance, mequinol, and an existing substance, tretinoin. The Human Drug Advisory Panel (HDAP) reviewed it as a category 3 new medicine (provides moderate, little or no therapeutic advantage over comparable medicines).

The Therapeutic Class Comparison (TCC) test of the Guidelines provides that the price of a category 3 new drug product cannot exceed the prices of other drugs that treat the same disease or condition. Comparators are generally selected from among existing drug products in the same 4th level of the Anatomical Therapeutic Chemical (ATC) System that are clinically equivalent in addressing the approved indication. See the PMPRB's *Compendium of Guidelines, Policies and Procedures* for a more complete description of the Guidelines and the policies on TCCs.

The HDAP recommended combinations of hydroquinone 2% and tretinoin 0.01% as the most appropriate comparators for the purpose of a TCC test.

The Guidelines provide that the dosage recommended for comparison purposes will normally not be higher than the maximum of the usual recommended dosage. The recommended comparable dosage regimens for Solagé and the comparators are supported by clinical literature.

Price Review

Under the Guidelines, the introductory price of a new category 3 drug product will be presumed to be excessive if it exceeds the prices of all of the comparable drug products in the TCC test, or if it exceeds the prices of the same medicine in the seven countries listed in the *Patented Medicines Regulations*. The price of Solagé was within the Guidelines as the daily cost of therapy did not exceed the daily cost of therapy with the comparator medicines.

Hydroquinone 2% is available as: Eldoquin, Banishing Cream, Conditioning Gel, Ultraplus Skin Lightening Cream, Esoterica Regular, Fading Fluid, Obagi Protocols Clear, and Palmer's Skin Success Fade Cream (for Dry Skin, for Oily Skin, for Normal Skin). Tretinoin 0.01% is available as Retin-A Cream, Retin-A

Micro Microspheres Gel, Stieva-A Forte Cream, and Vitamin A Acid Cream. Given the number of possible combinations, the range of prices for the combinations is provided below.

Introductory Period (January to June 2002)

Name	Strength	Cost per day
Solagé (mequinol/ tretinoin)	2% / 0.01% topical solution	$1.6487 [1]
hydroquinone tretinoin	2% Cream 0.01% Cream	$0.3560 [2] - $1.3083 [3] + $0.2840 [2] – +$0.6111 [4] $0.6400 – $1.9194

[1] PPS Pharma, January 2004
[2] Liste de médicaments, Régie de l´assurance maladie du Québec, October 2003
[3] McKesson Canada, (Ontario list), January 2003
[4] Association Québecoise des Pharmaciens Propriétaires, October 2003

In 2002, Solagé was also sold in the United States. In compliance with the Guidelines, the price in Canada did not exceed the price in the United States.

Where comparators and dosage regimens are referred to in the Summary Reports, they have been selected by the PMPRB Staff and the HDAP for the purpose of carrying out the PMPRB's regulatory mandate, which is to reviewthe prices of patented medicines sold in Canada to ensure that such prices are not excessive. The publication of these reports is also part of the PMPRB's commitment to make its price review process more transparent.

The information contained in the PMPRB's Summary Reports should not be relied upon for any purpose other than its stated purpose and is not to be interpreted as an endorsement, recommendation or approval of any drug nor is it intended to be relied upon as a substitute for seeking appropriate advice from a qualified health care practitioner.

References - Solagé

1. Amer M, Metwalli M. Topical hydroquinone in the treatment of some hyperpigmentary disorders. Inter J Dermatol 98;37(6):449.

2. Arndt KA, Bowers KE. Manual of Dermatologic Therapeutics with Essentials of Diagnosis. 6th ed. Lippincott Williams & Wilkins. Philadelphia, PA. 2002. P. 118-24.

3. Engasser PG, Maibach HI. Cosmetics and dermatology: bleaching creams. J Am Acad Dermatol 81;5:143-7.

4. Fitzpatrick TB, Johnson RA, Wolff K, Suurmond D. Color Atlas and Synopsis of Clinical Dermatology. 4th ed. McGraw-Hill Medical Publishing Division. New York, NY. 2001. P. 217.

5. Fleisher AB Jr, Schwartzel EH, Colby SI, et al. The combination of 2% 4-hydroxyanisole (Mequinol) and 0.01% tretinoin is effective in improving the appearance of solar lentigines and related hyperpigmented lesions in two double-blind multicenter clinical studies. J Am Acad Dermatol 2000;42(3):459-67.

6. Gano SE, Garcia RL.. Topical tretinoin, hydroquino ne, and betamethasone in the therapy of melasma. Cutis 79:23:239-41.

7. Gladstone HB. Efficacy of hydroquinone cream (USP 4%) used alone or in combination with salicylic acid peels in improving photodamage on the neck and upper chest. Dermatol Surg 2000;26(4):333-7.

8. Health Canada. Drug Product Database [index online]. Available from: http://www.hc-sc.gc.ca/hpb/drugs-dpd/index.html.

9. Kakita LS, Lowe NJ. Azelaic acid and glycolic acid combination therapy for facial hyperpigmentation in darker-skinned patients: a clinical comparison with hydroquinone. Clin Therap 98;20(5):960-70.

10. Odom RB, James WD, Berger TG. Andrews' Diseases of the Skin. 9th ed. W.B. Saunders Company. Philadelphia, PA. 2000. P. 869-71.

11. Repchinsky C, ed. Compendium of Pharmaceuticals and Specialties. Canadian Pharmacists Association. Ottawa, ON. 2003.

12. Repchinsky C, ed. Compendium of Self-Care Products 2002-3. Canadian Pharmacists Association. Ottawa, ON. P. 215.

13. Sanchez JL, Vazquez M. A hydroquinone solution in the treatment of melasma. Inter J Dermatol 82;21:55-8.

14. WHO Collaborating Centre for Drug Statistics Methodology. New ATC codes and DDDs. Available from: http://www.whocc.no/atcddd/