# Treatment of Skin Disease

### **Comprehensive Therapeutic Strategies**

*Edited by* Mark G. Lebwohl | Warren R. Heymann John Berth-Jones | Ian Coulson

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**Fifth Edition** 

# *Treatment of* Skin Disease

# Comprehensive Therapeutic Strategies

FIFTH EDITION

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## **Table of Contents**

Cover image

Title page

Copyright

Preface

List of Contributors

Acknowledgments

Dedication

**Evidence** Levels

Credits

1. Acanthosis nigricans

Management Strategy

2. Acne keloidalis nuchae

3. Acne vulgaris

Management Strategy

4. Acrodermatitis enteropathica

Management Strategy

5. Actinic keratoses

Management Strategy

6. Actinic prurigo

Management Strategy

7. Actinomycosis

Management Strategy

8. Acute generalized exanthematous pustulosis

Management Strategy

9. Allergic contact dermatitis and photoallergy

Management strategy

10. Alopecia areata

Management Strategy

11. Amyloidosis

- 12. Androgenetic alopecia Management Strategy
- 13. Angiolymphoid hyperplasia with eosinophilia Management Strategy
- 14. Angular cheilitis Management Strategy
- 15. Antiphospholipid syndrome Management Strategy
- 16. Aphthous stomatitis Management Strategy
- 17. Atopic dermatitis Management Strategy
- 18. Atypical fibroxanthoma Management Strategy
- 19. Atypical nevi

**Specific Investigations** 

**First-Line Therapies** 

20. Autoimmune progesterone dermatitis Management Strategy

- 21. Bacillary angiomatosis Management Strategy
- 22. Balanitis

23. Basal cell carcinoma

Management Strategy

24. Becker nevus

Management Strategy

25. Bed bugs

Management Strategy

26. Behçet disease

Management Strategy

#### 27. Bioterrorism

Smallpox

**Management Strategy** 

Anthrax

Management Strategy

Tularemia

Management Strategy

Plague

Viral hemorrhagic fevers

Management Strategy

28. Bites and stings

Management Strategy

29. Blastomycosis

Management Strategy

Guidelines

- 30. Blistering distal dactylitis Management Strategy
- 31. Body dysmorphic disorder (dermatologic nondisease) Management Strategy
- 32. Bowen disease and erythroplasia of Queyrat

Diagnosis

Management Strategy

33. Bullous pemphigoid

Management Strategy

34. Burning mouth syndrome (glossodynia)

Management Strategy

**Specific Investigations** 

35. Calcinosis cutis

36. Calciphylaxis

Management Strategy

- 37. Capillaritis (pigmented purpuric dermatoses) Management Strategy
- 38. Cat scratch disease

Management Strategy

39. Cellulite

Management Strategy

40. Cellulitis and erysipelas

Management Strategy

41. Chancroid

**Diagnosis and Management Strategy** 

Special considerations: Evacuation of buboes and unusual manifestations

42. Chilblains

Management Strategy

43. Chondrodermatitis nodularis helicis chronicus

Management Strategy

44. Chromoblastomycosis

45. Chronic actinic dermatitis

Management Strategy

- 46. Coccidioidomycosis Management Strategy Current Guidelines
- 47. Confluent and reticulated papillomatosis

Management Strategy

48. Cryopyrin-associated periodic syndromes (CAPS)

Management Strategy

Second-Line Therapy

49. Cryptococcosis

Management Strategy

**Third-Line Therapies** 

Guidelines

50. Cutaneous candidiasis and chronic mucocutaneous candidiasis

Cutaneous candidiasis

Management Strategy

Chronic mucocutaneous candidiasis

**Management Strategy** 

51. Cutaneous larva migrans

**Specific Investigations** 

- 52. Cutaneous polyarteritis nodosa Management Strategy
- 53. Darier disease

- 54. Decubitus ulcers Management Strategy
- 55. Delusions of parasitosis Management Strategy
- 56. Dermatitis artefacta Management Strategy
- 57. Dermatitis herpetiformis Management Strategy
- 58. Dermatofibrosarcoma protuberans Management Strategy
- 59. Dermatomyositis Management Strategy
- 60. Diaper dermatitis

- 61. Discoid (Nummular) eczema Management Strategy
- 62. Discoid lupus erythematosus Management Strategy
- 63. Dissecting cellulitis of the scalp Management Strategy
- 64. Drug eruptions Management Strategy
- 65. Eosinophilic fasciitis Management Strategy
- 66. Epidermal nevi
  - Management Strategy
  - Verrucous epidermal nevi
  - Inflammatory/dysplastic epidermal nevi
- 67. Epidermodysplasia verruciformis
  - Management Strategy
- 68. Epidermolysis bullosa
  - Management Strategy

- 69. Epidermolysis bullosa acquisita Management Strategy
- 70. Erosive pustular dermatosis Management Strategy
- 71. Erythema annulare centrifugum Management Strategy
- 72. Erythema dyschromicum perstans Management Strategy Therapy
- 73. Erythema elevatum diutinum Management Strategy
- 74. Erythema multiforme Management Strategy
- 75. Erythema nodosum

**Management Strategies** 

76. Erythrasma

Management Strategy

77. Erythroderma

- 78. Erythrokeratodermas Management Strategy
- 79. Erythromelalgia Management Strategy
- 80. Erythropoietic protoporphyria Management Strategy
- 81. Extramammary Paget disease Management Strategy
- 82. Fabry disease

83. Flushing

Management Strategy

84. Follicular mucinosis

Management Strategy

85. Folliculitis

- 86. Folliculitis decalvans Management Strategy
- 87. Fox–Fordyce disease

88. Furunculosis

Management Strategy

- 89. Condyloma acuminata Management Strategy
- 90. Geographic tongue Management Strategy
- 91. Gianotti–Crosti syndrome Management Strategy
- 92. Gonorrhea

Management Strategy

**Special Considerations** 

93. Graft-versus-host disease

Management Strategy

Acute GVHD

Chronic GVHD

94. Granuloma annulare

Management Strategy

Localized Granuloma Annulare

Generalized (Disseminated) Granuloma Annulare

95. Granuloma faciale Management Strategy

- 96. Granuloma inguinale Management Strategy Special considerations
- 97. Granulomatous cheilitis Management Strategy
- 98. Hailey–Hailey disease Management Strategy
- 99. Hand and foot eczema (endogenous, dyshidrotic eczema, pompholyx)

Management Strategy

100. Hemangiomas

Management Strategy

#### 101. Hereditary angioedema

Management Strategy

Acute Angioedema

Acute Angioedema

Long-Term Prophylaxis of Hereditary Angioedema

Prevention of Relapse Due to Dental and Surgical Interventions

Treatment in Children

Hereditary Angioedema With Normal C1inh

#### 102. Hereditary hemorrhagic telangiectasia

Management Strategy

#### 103. Herpes genitalis

Management Strategy

Novel and Other Therapies

Prevention

#### 104. Herpes labialis

Management Strategy

**Other Therapies** 

#### 105. Herpes zoster

Management Strategy

#### 106. Hidradenitis Suppurativa

Management Strategy

Specific Investigation

#### 107. Histoplasmosis

Management Strategy

#### 108. Hydroa vacciniforme

Management Strategy

#### 109. Hyperhidrosis

#### 110. Hypertrichosis and hirsutism

Introduction

Management Strategy

#### 111. Hypopigmented disorders

Management Strategy

#### 112. Ichthyoses

**Management Strategy** 

#### 113. Impetigo

Management Strategy

#### 114. Inducible urticarias, aquagenic pruritus, and cholinergic pruritus

Inducible urticarias

Management Strategy

Aquagenic pruritus

**Management Strategy** 

Cholinergic pruritus

Management Strategy

#### 115. Irritant contact dermatitis

Management Strategy

#### 116. Jellyfish stings

**Clinical Features** 

Cutaneous Manifestations Of Jellyfish Stings

- Management Strategy
- 117. Jessner lymphocytic infiltrate Management Strategy
- 118. Juvenile plantar dermatosis Management Strategy
- 119. Juvenile xanthogranuloma Management Strategy
- 120. Kaposi sarcoma

Management Strategy

- 121. Kawasaki disease Management Strategies
- 122. Keloids

Management Strategy

123. Keratoacanthoma

- 124. Keratosis pilaris and variants Management Strategy
- 125. Langerhans cell histiocytosis

126. Leg ulcers

Management Strategy

127. Leiomyoma

Management Strategy

128. Leishmaniasis

Management Strategy

129. Lentigo maligna

Management Strategy

130. Leprosy (including reactions)

Management Strategy

- 131. Leukocytoclastic vasculitis Management Strategy
- 132. Lichen myxedematosus Management Strategy
- 133. Lichen nitidus

Management Strategy

134. Lichen planopilaris

135. Lichen planus

- 136. Lichen sclerosus Management Strategy
- 137. Lichen simplex chronicus Management Strategy
- 138. Linear IgA bullous dermatosis Management Strategy
- 139. Lipodermatosclerosis Management Strategy
- 140. Livedo reticularis Management Strategy
- 141. Livedoid vasculopathy Management Strategy
- 142. Lyme borreliosis Management Strategy Specific Investigations
- 143. Lymphangioma circumscriptum Management Strategies

144. Lymphedema

**Management Strategies** 

- 145. Lymphocytoma cutis Management Strategy
- 146. Lymphogranuloma venereum Management Strategy
- 147. Lymphomatoid papulosis Management Strategy
- 148. Malignant atrophic papulosis Management Strategy
- 149. Malignant melanoma Management Strategy
- 150. Mastocytoses

Management Strategy

151. Melasma

Management Strategy

152. Merkel cell carcinoma

Management Strategy

153. Methicillin-resistant Staphylococcus aureus and Panton-

Valentine leukocidin Staphylococcus aureus infections

Management Strategy (MRSA)

Specific Investigations

PVL-SA Management Strategy

#### 154. Miliaria

Management Strategy

#### 155. Molluscum contagiosum

Management Strategy

#### 156. Morphea

Management Strategy

157. Mucoceles

Management Strategy

#### 158. Mucous membrane pemphigoid

Management Strategy

#### 159. Mycetoma: Eumycetoma and actinomycetoma

#### Management Strategy

#### 160. Mycobacterial (atypical) skin infections

Fish Tank (Swimming Pool) Granuloma

Management Strategy

Mycobacterium ulcerans

Mycobacterium Kansasii

Management Strategy

Rapidly Growing Mycobacteria

Management Strategy

161. Mycosis fungoides and Sézary syndrome

Management Strategy

162. Myiasis

Management Strategy

163. Myxoid cyst

Management Strategy

164. Nail psoriasis

Management Strategy

#### 165. Necrobiosis lipoidica

Management Strategy

#### 166. Necrolytic acral erythema Management Strategy

167. Necrolytic migratory erythema Management Strategy

168. Nephrogenic systemic fibrosis

169. Neurofibromatosis, type 1

Management Strategy

- 170. Nevoid basal cell carcinoma syndrome Management Strategy
- 171. Nevus sebaceus Management Strategy
- 172. Notalgia paresthetica

Management Strategy

173. Onchocerciasis

Management Strategy

Other therapies

174. Oral lichen planus

Management Strategy

175. Orf

Management Strategy

176. Palmoplantar keratoderma Management Strategy

177. Palmoplantar pustulosis

#### 178. Panniculitis

Management Strategy

Lupus Panniculitis

**Nodular Vasculitis** 

**Pancreatic Panniculitis** 

Cytophagic Histiocytic Panniculitis

α1-Antitrypsin Deficiency Panniculitis

#### 179. Papular urticaria

Management Strategy

#### 180. Paracoccidioidomycosis (South American blastomycosis)

Management Strategy

#### 181. Parapsoriasis

Management Strategy

**Small Plaque Parapsoriasis** 

Large Plaque Parapsoriasis

#### 182. Paronychia

Management Strategy

#### 183. Parvovirus infection

Management Strategy

#### 184. Pediculosis

**Pediculosis Capitis** 

**Pediculosis Corporis** 

**Pediculosis Pubis** 

Phthiriasis Palpebrarum

- 185. Pemphigus Management Strategy
- 186. Perforating dermatoses

Management Strategy

187. Perioral dermatitis

Management Strategy

- 188. Peutz–Jeghers syndrome Management Strategy
- 189. Pinta and yaws

- 190. Pitted and ringed keratolysis (keratolysis plantare sulcatum) Management Strategy
- 191. Pityriasis rubra pilaris Management Strategy
- 192. Pityriasis lichenoides chronica Management Strategy

193. Pityriasis lichenoides et varioliformis acuta

Management Strategy

194. Pityriasis rosea

Management Strategy

195. Polycystic ovary syndrome

Management Strategy

196. Polymorphic light eruption

Management Strategy

197. Porokeratoses

Management Strategy

198. Porphyria cutanea tarda

Management Strategy

199. Port wine stain ("nevus flammeus")

Management Strategy

200. Postinflammatory hyperpigmentation and other disorders of hyperpigmentation

Postinflammatory Hyperpigmentation

Freckles

Lentigines

Melasma

Periorbital Hyperpigmentation

**Riehl Melanosis** 

**Phototoxic Dermatitis** 

Erythema Dyschromicum Perstans

Lichen Planus Pigmentosus

Poikioderma of Civatte

**Management Strategy** 

201. Pregnancy dermatoses

Polymorphic Eruption of Pregnancy

Management Strategy

Pemphigoid Gestationis

Management Strategy

Intrahepatic Cholestasis of Pregnancy

Management Strategy

Atopic Eruption of Pregnancy

Management Strategy

202. Pretibial myxedema

Management Strategy

203. Prurigo nodularis

Management Strategy

204. Prurigo pigmentosa Management Strategy

205. Pruritus

Neuropathic itch

Cholestatic itch

Itch associated with cholestasis of pregnancy

**Renal itch** 

Itch associated with malignancy

Itch associated with hematologic disorders

Miscellaneous diseases associated with itch

206. Pruritus ani

Management Strategy

#### 207. Pruritus vulvae

Management Strategy

#### 208. Pseudofolliculitis barbae

#### Management Strategy

#### 209. Pseudoxanthoma elasticum

Management Strategy

#### 210. Psoriasis

Management Strategy

**Guttate Psoriasis** 

**Inverse Psoriasis** 

Impetigo Herpetiformis

**Erythrodermic Psoriasis** 

**Pustular Psoriasis** 

- 211. Psychogenic excoriation Management Strategy
- 212. Pyoderma gangrenosum Management Strategy
- 213. Pyogenic granuloma Management Strategy
- 214. Radiation dermatitis Management Strategy
- 215. Raynaud disease and phenomenon

Management Strategy

216. Reactive arthritis

Management Strategy

217. Regional pain and complex regional pain Complex Regional Pain Syndrome Management Strategy

Prevention

218. Relapsing polychondritis

#### 219. Rhinophyma

#### Management Strategy

#### 220. Rocky Mountain spotted fever and other rickettsial infections

**Rickettsial Spotted Fevers** 

Management Strategy

Typhus Group

**Management Strategy** 

Rickettsialpox

**Management Strategy** 

**Q** Fever

**Management Strategy** 

Ehrlichiosis

Management Strategy

#### 221. Rosacea

Management Strategy

Inflammatory rosacea

Erythematotelangiectatic rosacea

**Rosacea flushing** 

Rosacea lymphedema (Morbihan disease)

Ocular rosacea

Rosacea fulminans

#### 222. Sarcoidosis

#### 223. Scabies

Management Strategy

224. Scleredema

**Management Strategy** 

#### 225. Scleroderma

Management Strategy

Other: Internal Organ Involvement

#### 226. Sebaceous hyperplasia

Management Strategy

#### 227. Seborrheic eczema

Management Strategy

Nonscalp Disease

Scalp Disease

#### 228. Seborrheic keratosis

Management Strategy

#### 229. Sporotrichosis

Management Strategy

Guidelines

#### 230. Squamous cell carcinoma Management Strategy

231. Staphylococcal scalded skin syndrome

Management Strategy

232. Steatocystoma multiplex

Management Strategy

233. Stoma care

**Management Strategy** 

234. Striae

Management Strategy

235. Subacute cutaneous lupus erythematosus

Management Strategy

- 236. Subcorneal pustular dermatosis Management Strategy
- 237. Subcutaneous fat necrosis of the newborn

Management Strategy

238. Sweet syndrome

Management Strategy

239. Syphilis

Management Strategy

**Diagnostics and Treatment** 

#### 240. Syringomata

Management Strategy

241. Tinea capitis

Management Strategy

242. Tinea pedis and skin dermatophytosis

Management Strategy

243. Tinea unguium

Management Strategy

**Topical Therapies** 

244. Tinea versicolor (pityriasis versicolor)

Management Strategy

- 245. Toxic epidermal necrolysis and Stevens–Johnson syndrome Management Strategy
- 246. Transient acantholytic dermatosis (Grover disease) Management Strategy
- 247. Trichotillomania

Diagnosis

Management Strategy

248. Tuberculosis and tuberculids

#### 249. Urticaria and angioedema

Urticaria

Management Strategy

Angioedema

Management Strategy for Bradykinin-Mediated Angioedema

#### 250. Varicella

Management Strategy

Pregnancy

Prophylaxis

251. Viral exanthems: rubella, roseola, rubeola, and enteroviruses

Rubella

**Management Strategy** 

Roseola

Management Strategy

Rubeola

Management Strategy

Enteroviruses

**Management Strategy** 

#### 252. Viral warts

Management Strategy

#### 253. Vitiligo

**Emerging Treatments** 

254. Vulvodynia

Management Strategy

255. Wells syndrome

Management Strategy

256. Xanthomas

Management Strategy

257. Xeroderma pigmentosum

Management Strategy

258. Xerosis

Management Strategy

259. Yellow nail syndrome

Management Strategy

Index

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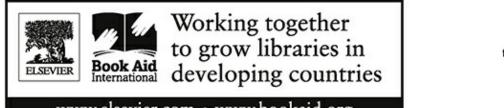
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### Preface

Every four years, as we plan the next edition of *Treatment of Skin Disease*, the editors ask ourselves these questions: Do we need another edition? Has enough changed in the practice of dermatology to justify all the work needed for another edition? Thanks to extraordinary advances in our specialty, the answer has always been an emphatic *yes*.

The last four years has seen dramatic changes in the treatment of common dermatologic conditions like psoriasis and atopic dermatitis. Anti-IL-17 antibodies were only investigational four years ago, and now two, secukinumab and ixekizumab, are approved and a third antibody to the IL-17 receptor, brodalumab, has also been approved and is about to enter the market for psoriasis. Pure anti-IL-23 antibodies were only in experimental stages based on the earlier success of ustekinumab which blocks both IL-23 and IL-12. Guselkumab has now been released and tildrakizumab has completed phase III trials and will hopefully be approved in the coming months. Another anti-IL-23 antibody, risankizumab, is already in phase III trials and has very promising results in phase II, and other anti-IL-23 antibodies are already in development for psoriasis. Dupilumab, an anti-IL-4/IL-13 antibody has just been approved for moderate to severe atopic dermatitis, and crisaborole, a topical phosphodiesterase 4 inhibitor has been introduced for the treatment of mild to moderate atopic dermatitis. Tofacitinib, a janus kinase inhibitor, has shown substantial efficacy in psoriasis and atopic dermatitis, though regulators have not allowed approval for those diseases thus far. Because the drug is available for rheumatoid arthritis in the US, it has been used to treat other inflammatory skin diseases like alopecia areata and vitiligo with striking success.

Treatment of less common conditions has advanced as well. Four years ago, we were just beginning to use the first hedgehog inhibitor for catastrophic basal cell carcinomas. We now have a second oral hedgehog inhibitor, sonidegib. We also have many new uses for drugs introduced earlier. The best example is the approval of adalimumab for the treatment of hidradenitis. Dermatologists were only starting to prescribe omalizumab for chronic idiopathic urticaria, and that treatment, first approved for asthma, is now well established for chronic urticaria.

Advances in the treatment of rare diseases have been extraordinary as well. Sildenafil is now commonly used for lymphatic malformations, and topical rapamycin is commonly used for facial angiofibromas. In some countries, afamelanotide has been approved for the treatment of erythropoietic protoporphyria.

Off label uses of many old therapies have also been tried for many dermatologic diseases and are covered well in the updated versions of our chapters. Many of the drugs approved for adults are also being studied in children, and hopefully we will see many new therapy approvals for pediatric indications.

The commercial successes of multiple biologic, oral and topical therapies for dermatologic indications, has sparked a tremendous amount of research and innovation in our field. As we send this edition to the printer, new oral agents are being studied for inflammatory skin diseases. Both topical and oral janus kinase inhibitors including ruxolitinib, baricitinib, and tofacitinib are being studied for alopecia areata, vitiligo, psoriasis, and atopic dermatitis. Investigation of phosphodiesterase inhibitors for itch and for other inflammatory skin conditions are underway. Creams that change the bacterial flora of conditions like atopic dermatitis are also in development, and numerous biologic therapies like nemolizumab for itch and anti-IL-13 antibodies like lebrikizumab and tralokinumab are being studied for atopic dermatitis.

Every chapter of this new edition has been carefully revised and updated with the latest innovations. As you read on, it will become clear how profoundly the rapid pace of progress is impacting on the benefits we can offer our patients - this is such an exciting time to be practising dermatology.

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