



	Mild		Moderate		Severe
	Comedonal	Papular/pustular	Papular/pustular	Nodular ¹	Nodular/ conglobate
1 st ³	Topical retinoid	Topical retinoid + topical antimicrobial	Oral antibiotic + topical retinoid +/- BP	Oral antibiotic + topical retinoid + BP	Oral isotretinoin ²
Alternative ³	Azelaic acid or salicylic acid	Alternative topical antimicrobial + alternative topical retinoid or azelaic acid ⁴	Alternative oral antibiotic + alternative topical retinoid +/- BP	Oral isotretinoin or alternative oral antibiotic + alternative topical retinoid +/- BP/azelaic acid ⁴	High dose oral antibiotic + topical retinoid + BP
Alternatives for females ³	See 1 st choice	See 1 st choice	Oral antiandrogen + topical retinoid/azelaic acid ⁴ +/- BP	Oral antiandrogen + topical retinoid +/- oral antibiotic +/- alternative antimicrobial	High dose oral antiandrogen + topical retinoid +/- alternative topical antimicrobial
Maintenance: Topical retinoid +/- BP					

¹Papulopustular acne with some nodular lesions; ²Second course in case of relapse; ³Consider physical removal of comedones. ⁴There was no consensus on this alternative recommendation. However, in some countries, azelaic acid prescribing is appropriate practice.

BP: benzoyl peroxide.

Figure 1. *Acne treatment algorithm suggested by Gollnick et al. (2003) [5]. Reprinted from the Journal of the American Academy of Dermatology, Vol. 49 (I suppl.); Gollnick et al. Management of acne: a report from a global alliance to improve outcomes in acne, pages S1-S38, © 2003, American Academy of Dermatology, Inc, with permission from Elsevier.*

oral antibiotics that can be used in the daily practice of physicians treating acne across Europe. This paper therefore presents the available clinical data and expert opinion, followed by a set of detailed and user-friendly recommendations on many aspects of the use of oral antibiotics in acne.

Methodology

These recommendations were developed over a series of three meetings in 2002 and 2003. During the first two meetings, a core of six independent European acne specialists reviewed current practices around Europe; conducted a systematic literature review (using Medline) covering the years 1992 to 2003; and discussed personal experiences. In a final workshop, the findings of this core group were presented to the wider group of 23 acne specialists, mainly from Europe, but also Brazil and Morocco (*Appendix 1*) for

discussion and review. Recommendations are based on efficacy, practical applicability in daily practice, safety/tolerability, antimicrobial resistance, and pharmacoeconomic considerations.

I. Literature review

The pathophysiology of acne and rationale for using antibiotics

There are a number of pathophysiologic components to acne, including sebaceous gland hyperplasia with seborrhoea; altered follicular growth and differentiation; microbial colonization; and inflammation and other immune responses [5]. The precursor lesion in all acne is the microcomedone, which features altered follicular growth and differentiation, and sebaceous gland hyperplasia with seborrhoea. Microcomedones can then enlarge to form non-inflammatory closed or open comedones, and micro-