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An Indian Perspective of the Adoption of a Holistic Skincare Routine: Cleansing, Treatment, Moisturization, and Photoprotection in Acne Care

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Kiran Godse [1], Dyotona Sen [2], Sameer Jadhwar [2]

1. Department of Dermatology, Dr D Y Patil Medical College and Hospital, Mumbai, IND 2. Department of Medical Affairs, Galderma India, Mumbai, IND

Corresponding author: Sameer Jadhwar , sameer.jadhwar@galderma.com

Abstract

Acne vulgaris is highly prevalent in India and is often accompanied by sensitive skin, higher sebaceous activity, and a greater risk of post-inflammatory hyperpigmentation (PIH) and scarring in skin of color. These characteristics highlight the need for therapeutic approaches that prioritize efficacy, tolerability, and long-term adherence. The Cleansing, Treatment, Moisturization, and Photoprotection (CTMP) routine provides a structured and practical framework that complements pharmacologic therapy and supports patient comfort throughout the course of acne management. Gentle, pH-balanced syndet cleansers help maintain barrier integrity and reduce irritation, while cleansers containing salicylic acid, zinc, or benzoyl peroxide may benefit selected patients with oily or inflammatory acne. Within the treatment pillar, topical retinoids remain central to acne management. Evidence from pivotal trials and long-term studies demonstrates that trifarotene, a retinoic acid receptor-γ selective topical retinoid, is effective for both facial and truncal acne and is well tolerated when combined with supportive CTMP practices. Moisturizers containing humectants and barrier-restoring ingredients lessen dryness and stinging, promote comfort, and encourage continued use of topical therapy. Daily broad-spectrum photoprotection is particularly important for patients with skin of color, including many Indian patients, to reduce the risk of PIH and maintain treatment gains. Patient education on CTMP routines has been associated with improved adherence, fewer early dropouts, and greater treatment satisfaction. Indian expert recommendations further emphasize the importance of incorporating skincare guidance at the outset of therapy. This narrative review summarizes evidence supporting the CTMP model, outlines practical guidance for integrating skincare with topical therapy, and provides recommendations relevant to Indian patients who commonly experience sensitive skin and pigmentary concerns. The combined use of CTMP routines and prescribed treatment can enhance tolerability, reduce dropout, and support sustained clinical improvement.

Categories: Family/General Practice, Public Health, Dermatology
Keywords: acne management, ctmp concept, holistic skincare, skin of color, trifarotene

Introduction And Background

Acne vulgaris is a chronic inflammatory disorder of the pilosebaceous unit (the hair follicle and its associated oil-producing sebaceous gland) that most commonly affects adolescents. Based on the Global Burden of Disease (GBD) study, acne affects an estimated 9.4% of the global population, and growing evidence indicates an increasing burden among post-adolescent and adult patients [1,2]. In a US internet-based survey of 1,013 adults, acne was reported by 50.9%, 35.2%, 26.3%, and 15.3% of women aged 20-29, 30-39, 40-49, and ⩾50 years, respectively, highlighting its persistence across age groups [3].

Acne develops through four interrelated processes: increased sebum production under androgenic influence; abnormal keratinization of the follicular lining (follicular hyperkeratinization), leading to the formation of microcomedones; proliferation of *Cutibacterium acnes* with an imbalance (dysbiosis) of the skin microbiome; and inflammation. Clinically, this appears as non-inflammatory lesions (open and closed comedones, commonly known as blackheads and whiteheads) and inflammatory lesions (papules, pustules, and nodules) [4,5]. Impaired epidermal barrier function also contributes to acne. Irritating topical therapies and inappropriate skincare can make this barrier impairment worse [4,6]. This provides the rationale for combining pharmacologic treatment with supportive skincare.

In India, acne is one of the most common dermatologic presentations, affecting both adolescents and young adults. A multicentric study of 6409 dermatology outpatients reported acne in 47% of attendees. Grade II acne was the predominant grade (47%), and papular inflammatory acne was the most common morphology (51%) [7]. As these data were derived from hospital outpatients, they reflect clinic-based rather than community prevalence and may overestimate the burden in the general population. Some studies suggest that many Indian patients, particularly those living in hot and humid climates, have higher sebum output, which may contribute to oily, acne-prone skin [7,8]. Reported risk factors for adult-onset acne in Indian patients include a personal history of acne, elevated body mass index, hormonal imbalance, menstrual irregularities, environmental exposures (e.g., mineral oil or halogenated hydrocarbons), and diets high in

carbohydrates, salt, and fat [8]. Low daily water intake (<2 L/day) has also been associated with greater acne severity. However, these associations come from observational data and do not establish causality [8]. Sensitive skin is a condition in which stimuli that should not normally cause discomfort provoke unpleasant sensations such as stinging, burning, or tingling. It is commonly reported across populations. Estimates vary considerably with the population studied and the definition used. An Indian review reported that approximately 40% to 50% of individuals describe sensitive or reactive skin [9], and a recent meta-analysis found self-declared sensitive skin in a substantial proportion of the general population worldwide [10]. This is clinically relevant because sensitive skin frequently coexists with acne [11]. Affected individuals often tolerate conventional topical therapies less well, experience more irritation with exfoliants, and discontinue treatment more often, which may compromise long-term disease control [4].

Pigmentary and structural sequelae are additional challenges in Indian and other skin of color (SOC; Fitzpatrick skin phototypes IV-VI [12], a classification of skin by its response to sun exposure in which higher phototypes indicate darker, more melanin-rich skin) populations. Post-inflammatory hyperpigmentation (PIH) and acne scarring occur in about 35% and 29% of Indian acne patients, respectively [7]. In a survey of 313 patients with acne at a US skin-of-color center, acne-related hyperpigmented macules were found on examination in 65.3% of Black, 52.7% of Hispanic, and 47.4% of Asian and Other patients, a group that included Indian and Pakistani patients [13]. These pigmentary sequelae often take months to fade and significantly affect self-esteem and psychosocial well-being. Thus, early and sustained management strategies are vital to prevent pigmentary and structural damage while maintaining patient adherence and confidence.

Effective acne management requires both pharmacologic treatment and supportive skincare. Topical retinoids (vitamin A derivatives that normalize follicular keratinization), benzoyl peroxide (BPO, an antimicrobial agent), and antibiotics form the therapeutic backbone [5,14]. Appropriate cleansing, moisturization, and sunscreen use can improve tolerability and adherence [15]. The Cleansing, Treatment, Moisturization, and Photoprotection (CTMP) framework, proposed by an international expert panel, combines these elements into a simple daily sequence. The skin is first cleansed with a gentle cleanser (C). The prescribed acne medication is then applied (T), followed by a suitable moisturizer to counteract dryness and irritation (M). During the day, a broad-spectrum sunscreen is applied (P). The 2023 consensus outlined the objectives and optimal product attributes for each component in acne-prone skin, and the 2024 update addressed real-world implementation, including patient education, staff training, and standardized counseling [16,17]. These recommendations are based primarily on expert consensus rather than randomized controlled trials.

In India, adoption of CTMP remains inconsistent. Contributing factors include knowledge gaps among patients and healthcare providers, limited familiarity with evidence-based dermocosmetics, and economic and cultural factors that influence product choices. This narrative review therefore aims to (i) summarize global and Indian evidence on each component of the CTMP framework in acne management, (ii) discuss the role of topical retinoids, including the newer agent trifarotene, within this framework, and (iii) provide practical recommendations for dermatologists, with attention to skin-of-color considerations and common misconceptions among Indian patients. This review excludes systemic therapies (oral antibiotics, isotretinoin, and hormonal therapy).

Review

Methodology

This article is a narrative review prepared with reference to the Scale for the Assessment of Narrative Review Articles (SANRA) [18]. A literature search was conducted in PubMed/MEDLINE and Google Scholar for English-language articles published between January 2000 and August 2026. Seminal references defining established clinical tools and classifications (e.g., the Fitzpatrick skin phototype system and the Dermatology Life Quality Index) were included outside this window as foundational citations. Combinations of the following search terms were used: "acne vulgaris," "skincare," "cleanser," "moisturizer," "sunscreen," "photoprotection," "CTMP," "topical retinoid," "trifarotene," "benzoyl peroxide," "sensitive skin," "post-inflammatory hyperpigmentation," "skin of color," and "India." The reference lists of relevant articles were also screened manually. Clinical practice guidelines, expert consensus statements, randomized controlled trials, observational studies, and reviews relevant to acne skincare and topical therapy were considered. Priority was given to guidelines, randomized trials, and data from Indian or skin-of-color populations. Studies on systemic acne therapies, non-acne indications, and non-English publications were excluded. As this is a narrative review, no formal risk-of-bias assessment or quantitative synthesis (meta-analysis) was performed. The study design underlying key statements is indicated in the text.

CTMP: A Holistic Skincare Framework

Cleansing: Cleansing (C) forms an essential first step in the skincare regimen. Owing to the hot, tropical climate, cleansing becomes particularly important for many Indian patients, who commonly report oily skin [7,8]. To mitigate this, harsh soaps or scrubs are commonly used, which strip the skin of its natural barrier, resulting in further exacerbation of skin conditions such as retinoid dermatitis. Kircik et al. suggested lipid-

free cleansers as an optimal solution for acne-prone skin, as they have a lower risk of skin irritation and a near-physiological stratum corneum pH [6]. Cleansers should ideally be soap-free and formulated with mild surfactants (e.g., amphoterics such as cocamidopropyl betaine) [16]. Table *1* highlights the optimal properties of cleansers suitable for acne-prone skin. Gel or foaming textures may be better accepted by Indian patients with oily skin. Given the high prevalence of sensitive skin among patients with acne [4,11], there is a clear need for formulations specifically designed to support barrier function and minimize irritation.

Attribute	Recommended features	Rationale
Surfactant type	Soap-free, mild syndet	Maintains barrier integrity and reduces irritation
pH	~5.5	Preserves microbiome and minimizes dryness
Texture	Gel/foam for oily skin	Improves acceptability and adherence
Beneficial additives	Hyaluronic acid	Humectant; attracts and retains water in the stratum corneum
	Niacinamide (Vitamin B_3)	Anti-inflammatory and sebum-regulating; supports barrier lipid synthesis
	Ceramides	Replenish intercellular lipids; support barrier repair
Safety	Fragrance-free, non-comedogenic, hypoallergenic, non-irritating	Reduces sensitivity and prevents acne exacerbation
Role of actives	Salicylic acid 0.5%–2%	Keratolytic; helps unclog pores
	BPO 2.5%–5% wash	Antibacterial; reduces inflammatory lesions
	Gentle, non-irritating cleanser base	Enhances tolerability and adherence

TABLE 1: Characteristics of cleansers recommended in acne care

Sources: [6,16,19]

BPO: benzoyl peroxide

Benzoyl peroxide (BPO): Several studies have demonstrated the beneficial effects of cleansing in acne management. Understanding the cleansing action of different ingredients can therefore help dermatologists recommend suitable products for use alongside standard acne therapy. BPO 5% gel wash has been shown to reduce inflammatory lesions significantly, and even short contact times of 30 seconds to 1 minute are effective while improving tolerability as compared to leave-on formulations [20]. BPO wash formulations are available in concentrations of 2.5% to 10%; lower concentrations are generally better tolerated [19].

A 12-week study by Kim MR et al. (NCT02589405) evaluated a three-part regimen comprising a once-daily leave-on BPO 5% gel, twice-daily mild non-soapy liquid cleanser, and once-daily moisturizer with a sun protection factor (SPF) of 30 in subjects with mild-to-moderate acne. Most of the subjects reported high levels of satisfaction, with 85% indicating that the cleanser helped prepare their skin for treatment. The regimen also relieved itch (81%) and reduced irritation (87%). Importantly, most participants recognized the liquid cleanser (80%) and the moisturizer (84%) as necessary components of acne therapy [21].

Additional ingredients may further support acne care, most notably salicylic acid, which provides keratolytic activity, facilitates desquamation, reduces microcomedones, and helps control excess sebum. Zinc for seboregulation and niacinamide for anti-inflammatory action may also be beneficial in selected patients [22].

Together, these findings underscore the integral role of cleansers not only in maintaining barrier function but also in enhancing patient satisfaction and adherence. In the Indian context, where patients frequently overuse harsh foaming cleansers or scrubs, these results reinforce the need for education on incorporating gentle, pH-balanced cleansers into routine acne care.

Treatment: Topical therapy remains the backbone of mild-to-moderate acne management. Current international and Indian guidelines recommend topical retinoids, BPO, topical antibiotics, azelaic acid, and fixed-dose combinations as first-line options. Topical antibiotics should always be combined with BPO to limit antimicrobial resistance. Systemic therapies (oral antibiotics, hormonal therapy, and isotretinoin) are reserved for moderate-to-severe or refractory disease [5,14,23,24]. A network meta-analysis of 221

randomized trials found that combination regimens, particularly a topical retinoid with BPO and/or an antibiotic, were among the most effective topical options [25]. Topical retinoids target key pathogenic processes (abnormal keratinization, comedone formation, and inflammation). They are central to lesion clearance, prevention of new comedones, and reduction of long-term sequelae, such as atrophic scarring and PIH, so early initiation is recommended [14,26]. Topical retinoids available for acne include tretinoin, adapalene, tazarotene, and trifarotene. They differ in receptor selectivity, formulation, and irritation potential. Adapalene is generally among the better-tolerated agents, whereas tazarotene tends to be the most irritating. Selection should therefore be individualized according to acne severity, the sites involved, skin sensitivity, cost, and availability [14,26]. Topical retinoids are generally not recommended during pregnancy, and tazarotene is contraindicated [14]. Among the topical retinoids, trifarotene is the most recently approved agent that selectively agonizes the retinoic acid receptor (RAR)-γ, the predominant RAR isoform in the epidermis, offering a mechanistically targeted approach to modulating keratinocyte differentiation and inflammation. Preclinical and clinical pharmacological studies indicate potent local activity in the epidermis, combined with rapid hepatic metabolism that limits systemic exposure, attributes that support both facial and truncal application [27,28]. Trifarotene 50 μg/g cream is approved for acne vulgaris of the face and/or trunk in patients aged ⩾9 years in the United States and ⩾12 years in Europe and several other regions, including India; clinicians should follow the local prescribing information [28-31].

Two identically designed, randomized, double-blind, vehicle-controlled phase 3 trials (PERFECT 1, n=1,208; PERFECT 2, n=1,212) evaluated once-daily trifarotene 50 μg/g cream in patients aged ⩾9 years with moderate facial and truncal acne. At week 12, facial Investigator's Global Assessment (IGA) [32] success rates were higher with trifarotene than with vehicle in PERFECT 1 (29.4% vs. 19.5%; treatment difference 9.8%, 95% CI 4.8-14.8) and PERFECT 2 (42.3% vs. 25.7%; difference 16.6%, 95% CI 11.3-22.0; both $p<0.001$). Trifarotene also produced greater mean reductions in facial inflammatory lesion counts (−19.0 vs. −15.4 and −24.2 vs. −18.7) and non-inflammatory lesion counts (−25.0 vs. −17.9 and −30.1 vs. −21.6; all $p<0.001$). On the trunk, Physician's Global Assessment (PGA) [32] success rates were 35.7% vs. 25.0% (difference 10.7%, 95% CI 5.4-16.1) and 42.6% vs. 29.9% (difference 12.7%, 95% CI 7.2-18.2; both $p<0.001$) [29]. Most participants in these trials had Fitzpatrick skin phototypes I-III. Phototypes IV-VI made up approximately 25% of participants in PERFECT 1 and 11% in PERFECT 2, which limits how far these results can be generalized to Indian patients [29]. Given the known irritancy potential of topical retinoids, a structured CTMP routine may help optimize tolerability and adherence. In a 52-week, open-label, non-comparative study of 453 patients with moderate facial and truncal acne, IGA success increased from 26.6% at week 12 to 65.1% at week 52, and PGA success increased from 38.6% to 66.9%. Success on both the face and trunk in the same patient was achieved by 57.9% at week 52 [33]. Local signs and symptoms were mostly mild or moderate. Severe signs and symptoms were reported in 2.2% to 7.1% of patients on the face and 2.5% to 5.4% on the trunk. Irritation peaked during the first week on the face and at weeks 2-4 on the trunk, decreasing thereafter. Trifarotene-related adverse events occurred in 12.6% of patients; none were serious, and 2.9% discontinued because of them. Treatment compliance was 95.3% [33]. Quality of life improved substantially: the proportion of adults with a Dermatology Life Quality Index of 0-1 [34] (indicating acne had little to no impact on daily life) more than doubled, from 22.6% at baseline to 53.8% at week 52. Patients were encouraged to use a non-comedogenic moisturizer, and investigators could reduce the application frequency if tolerability issues arose. However, as skincare was not a randomized intervention, its specific contribution cannot be separated from that of treatment. These results are descriptive, and the open-label design is a limitation [33]. In a case series of 10 patients aged 19-25 years with atrophic acne scars following previous moderate-to-severe acne, Belmontesi described at-home short-contact application of trifarotene for three months, with a recommended skincare routine for sensitive skin. This was followed by 3 to 10 sessions of an injectable non-animal stabilized hyaluronic acid (NASHA) skin booster. Adherence was reported as complete, and improvement in scars was assessed by digital photography [35]. Given the small sample, the absence of a control group, and the lack of a validated scar assessment scale, these observations are preliminary and require confirmation in controlled studies. Separately, an advisory board of nine Indian dermatologists recommended that trifarotene be used with a gentle cleanser, moisturizer, and sunscreen, preferring a gel-based moisturizer in summer and a cream-based one in winter. The experts considered these ancillary products essential for preventing retinoid dermatitis and improving tolerability [30].

Trifarotene should be initiated alongside a gentle cleanser, non-comedogenic moisturizer, and daily photoprotection [30,36]. In the PERFECT trials, moisturizer use was encouraged from the start of treatment, and investigators could reduce application to alternate days for up to 2 weeks to manage irritation. The authors concluded that routine skincare with a gentle cleanser and non-comedogenic moisturizers, together with dosing adjustments, was sufficient to maintain treatment and compliance in most patients [29]. For inflammatory acne, combination therapy with a topical retinoid and BPO (as either a leave-on or wash formulation) is recommended by guidelines [5,14]. Studies show that retinoid-BPO regimens provide synergistic efficacy, while the inclusion of BPO helps suppress microbial resistance [5,37]. For moderate-to-severe acne, the Indian experts supported combining trifarotene with oral doxycycline, together with patient education on regular use of a gentle cleanser, moisturizer, and sunscreen to enhance tolerability [30].

Based on available evidence, practical considerations for initiating topical retinoids include short-term regimen modifications during the early treatment phase, such as alternate-night application, short-contact use with wash-off after a limited exposure period, or the addition of an adjunctive moisturizer. These initiation strategies have been shown to improve local tolerability during the initial phase of treatment

without compromising overall efficacy, thereby supporting continued treatment adherence [37]. These data come from a study of adapalene/BPO.

Expert consensus and insights from Indian dermatology expert meetings further emphasize the importance of structured patient education at treatment initiation, including counseling on expected transient irritation, the role of concurrent moisturization, and the need for photoprotection to prevent PIH [16,17,30,38]. Empowering both dermatologists and primary care physicians through brief educational tools, ready reckoner, and CTMP-based counseling algorithms can help normalize early retinoid use and promote sustained engagement, ultimately translating into better clinical and psychosocial outcomes for Indian patients.

Moisturization: Moisturization (M) is a critical but often underestimated component of acne management within the CTMP framework. Acne therapies, such as topical retinoids, BPO, and certain antibiotics, frequently induce dryness, erythema, scaling, and barrier dysfunction [4,29,33]. These adverse effects can undermine treatment adherence, as side effects are a common reason for non-adherence and many patients discontinue therapy during the early irritation phase [17,30]. Appropriate moisturizers help restore stratum corneum hydration and barrier function and can reduce the severity of treatment-related irritation [6,39,40], which may in turn support adherence to therapy [16]. Table *2* highlights the characteristics of moisturizers recommended in acne care.

Attribute	Recommended features	Rationale
Base formulation	Oil-free/water-based (gel/lotion), lightweight	Prevents pore occlusion, enhances comfort in hot/humid climates
Barrier support	Ceramides, niacinamide, panthenol	Restores lipid balance, reduces barrier dysfunction
Hydrating agent	Glycerin, hyaluronic acid	Improves stratum hydration
Safety profile	Non-comedogenic, fragrance-free, hypoallergenic	Minimizes irritation and sensitivity

TABLE 2: Characteristics of moisturizers recommended in acne care

Source: [6]

Several clinical studies have highlighted the importance of moisturizers in acne management. In a randomized trial in healthy Asian volunteers, Matsunaga K et al. demonstrated that adding a non-comedogenic moisturizer to adapalene 0.1% gel significantly improved local tolerability [39]. Similarly, a Canadian expert consensus review by Lynde et al. concluded that ceramide-containing moisturizers can reduce transepidermal water loss, support barrier recovery, and may serve as concomitant therapy with acne medications [40].

Supportive evidence also comes from real-world experience with specific dermocosmetic regimens. In an uncontrolled study of 28 patients aged 14-31 years with mild, moderate, or severe acne, Belmontesi combined guideline-based pharmacological therapy (topical retinoids including adapalene and trifarotene, fixed combinations, topical antibiotics, and, in severe cases, oral isotretinoin or hormonal therapy) with a 6-month dermocosmetic routine. The routine comprised a gentle soap-free cleanser twice daily, a moisturizing cream containing glycerin, niacinamide, and panthenol, and an SPF 50 sunscreen. In an anonymous end-of-treatment questionnaire, 23 of 28 patients rated the skincare routine as relevant or very relevant to their treatment (mean score 4 on a 0-5 scale), and mean satisfaction with treatment outcomes was 4.2 out of 5 [41]. However, these findings come from a small, uncontrolled, questionnaire-based study without objective tolerability assessments, and should be interpreted with caution.

In a multicenter, single-blind study by Tan J et al., 120 patients with mild-to-moderate acne were randomized to one of four regimens of fixed-dose adapalene 0.1%/BPO 2.5% gel. During the first four weeks, alternate-night use and concurrent moisturization significantly reduced erythema, dryness, and stinging or burning compared with daily overnight use ($p<0.05$), without compromising efficacy [37].

Although this study evaluated adapalene/BPO rather than trifarotene, the findings suggest that early integration of moisturization or alternate-day dosing effectively mitigates retinoid-related irritation while maintaining therapeutic efficacy, reinforcing their inclusion within CTMP-guided acne care [37].

Photoprotection: Photoprotection (P) forms the final yet indispensable pillar of the CTMP framework. Acne-prone skin, especially in individuals undergoing retinoid therapy, is highly susceptible to ultraviolet (UV)- and visible light-induced barrier disruption, inflammation, and pigmentation. Among Indian and other SOC patients, PIH is a frequent sequela that can often outlast acne lesions. Daily, broad-spectrum sunscreen use

not only protects against UV-induced exacerbation of PIH but also enhances retinoid tolerability by reducing erythema and dryness associated with early photoreactivity [16]. Table *3* highlights the characteristics of photoprotection recommended in acne care.

Attribute	Recommended features	Clinical rationale
Spectrum	Broad spectrum (UVA/UVB, visible light)	Reduces erythema and PIH in retinoid-treated skin
SPF value	≥30 (preferably 50 for outdoor exposure)	Prevents UV-induced inflammation and pigment changes
Formulation	Oil-free, gel/cream–gel, matte finish	Improves cosmetic acceptability and adherence in humid climates
Safety	Non-comedogenic, fragrance-free	Minimizes irritation and breakouts
Add-on actives	Niacinamide, antioxidants	Help fade existing PIH and strengthen the barrier

TABLE 3: Characteristics of photoprotection recommended in acne care

Sources: [6,16]

PIH: post-inflammatory hyperpigmentation; SPF: sun protection factor; UV: ultraviolet; UVA: ultraviolet A; UVB: ultraviolet B

In the LEAP study, a 24-week phase IV study in patients with acne-induced PIH, trifarotene used with a standardized skincare routine including daily sunscreen reduced PIH severity compared with vehicle [42]. As all participants used the same skincare routine, the independent effect of sunscreen could not be assessed [42]. Issa et al., in an expert review, recommended that combining retinoids with sunscreen prevents PIH, supports long-term maintenance, and enhances retinoid efficacy [38].

Together, the four pillars of the CTMP framework--cleansing, treatment, moisturization, and photoprotection--provide a comprehensive pathway to effective acne management. However, despite the availability of clear guidance, several behavioral and clinical pitfalls continue to limit optimal outcomes in Indian patients. Table *4* summarizes the common pitfalls, along with practical, evidence-based recommendations for clinical practice.

	Common pitfall	Evidence-based recommendations
Cleanse	Frequent washing (3–5 times/day) or use of harsh soaps and scrubs, leading to barrier disruption. Lack of awareness about pH-balanced or syndet cleansers. Overuse of antiseptics or home remedies (e.g., lemon, toothpaste).	Use gentle, non-comedogenic, pH-balanced syndet cleansers twice daily. Avoid physical exfoliant washes. Educate patients that gentle cleansing reduces irritation and improves retinoid tolerance. Incorporate cleansers with salicylic acid, BPO, or zinc in oily/acne-prone skin if tolerated.
Treat	Delayed initiation of retinoids due to fear of purging or dryness. Overuse of antibiotics or steroid-containing OTC creams. Poor adherence due to irritation or lack of counseling.	Initiate a topical retinoid (e.g., adapalene, tretinoin, or trifarotene) early during active acne, which can help control acne and prevent sequelae, such as PIH and scarring, as well. Use a gentle cleanser and moisturizer from Day 1 to prevent RD. Consider alternate-day application in sensitive skin. Educate patients on expected transient irritation and reinforce adherence at follow-up.
Moisturize	Misconception that moisturizers cause acne or increase oiliness. Skipping moisturizers during retinoid therapy, leading to dryness, irritation, and early dropout. Using occlusive, oil-based creams unsuitable for a humid climate.	Use oil-free, non-comedogenic, ceramide-rich moisturizers with humectants (glycerin, panthenol, niacinamide). Start moisturization concurrently with retinoid therapy. Moisturize twice a day to counter dryness from retinoids. For very sensitive patients, consider applying the moisturizer before the retinoid during the initiation phase (expert opinion). Reinforce moisturization as part of acne treatment, not cosmetic care.
Photoprotect	Perception that sunscreen is unnecessary for the Indian skin tone. Poor adherence due to greasy texture, white cast, or discomfort in humid weather. Lack of awareness of visible light-induced pigmentation.	Use daily, broad-spectrum sunscreen with SPF ≥ 30 (preferably gel or fluid formulations). Select non-comedogenic, matte-finish, tinted options to increase acceptability. Emphasize the role of sunscreen in preventing PIH and improving retinoid tolerability. Educate on year-round, indoor and outdoor use; reapply every 3–4 hours during sun exposure.

TABLE 4: Common pitfalls in Indian acne patients and evidence-based recommendations

Sources: [6,16,17,20]

SPF: sun protection factor; BPO: benzoyl peroxide; OTC: over the counter; RD: retinoid dermatitis

Limitations

Much of the evidence supporting the CTMP framework comes from expert consensus statements, open-label studies, and case series rather than randomized controlled trials designed to test individual skincare components. India-specific data are limited, including data on the prevalence of sensitive skin, skincare practices, patient-reported outcomes, and the cost and accessibility of dermocosmetic products. Furthermore, the pivotal and long-term trifarotene trials enrolled predominantly patients with lighter skin phototypes [29,33]; Indian-specific efficacy data remain limited. Future research should include randomized trials of individual CTMP components in Indian patients, cost-effectiveness analyses, and studies of long-term adherence and patient-reported outcomes.

Conclusions

A structured CTMP routine offers a pragmatic, patient-centered strategy for acne management in India, where climate, sensitive skin, and pigmentary sequelae pose particular challenges. Available evidence, largely from expert consensus and supportive clinical studies, suggests that gentle cleansing, early topical retinoid therapy, regular moisturization, and daily photoprotection together improve tolerability and adherence. Topical retinoids remain central to treatment, and trifarotene is an effective option for both facial and truncal acne when initiated alongside supportive skincare. Addressing patient misconceptions and providing CTMP-based counseling from the first visit may reduce irritation-related dropout and help prevent PIH and scarring. Controlled studies in Indian patients are needed to strengthen the evidence base.

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

Concept and design: Sameer Jadhwar , Kiran Godse, Dyotona Sen

Acquisition, analysis, or interpretation of data: Sameer Jadhwar , Kiran Godse, Dyotona Sen

Drafting of the manuscript: Sameer Jadhwar , Kiran Godse, Dyotona Sen

Critical review of the manuscript for important intellectual content: Sameer Jadhwar , Kiran Godse, Dyotona Sen

Supervision: Sameer Jadhwar

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