

# HYDROTHERAPY IN DERMATOLOGY: Past, Present and Future

Peter Lio, MD | Robert Sidbury, MD, MPH | Karan Lal, DO, MS, FAAD | Alexandra K Golant, MD | Mara Weinstein Velez, MD, FAAD | Geeta Patel, DO | Jing (Jenny) Liu MD, FAAD | Hee Jin Koh, MD | Cheryl Berry, MS

## INTRODUCTION

The Hydrotherapy Center and Avène Thermal Spring Water (TSW) are known for their soothing properties to treat skin concerns. In 1874, the French government declared them to be an official "public benefit." In 1966, the Hydrotherapy Center was approved for reimbursement by the French Healthcare System and is available as a treatment for a variety of skin conditions. Therapeutic treatments at the center heavily utilize the TSW in conjunction with skincare products that contain the TSW as well as Aquaphilus dolomiae-derived beneficial postbiotics. The value of treatments for patients with inflammatory skin conditions as well as post-cancer skin healing is well documented. While globally, over 2,000 patients undergo the 3-week intensive hydrotherapy treatment in France every year, the limitations of scaling the treatment to benefit the millions of patients living with inflammatory skin conditions is easily recognized.

## OBJECTIVE

A panel of US dermatologists convened at the Hydrotherapy Center in Avène, France to understand the patient benefit of the 3-week treatment utilizing the water from its natural source, used in-conjunction with specific postbiotic topical products for patients with inflammatory skin conditions. A primary objective was to come to a consensus on how therapy inspired by the Avène hydrotherapy treatment could be implemented utilizing this thermal spring water and postbiotic skincare products as a standalone treatment and in conjunction with other conventional treatments.

## METHOD

Three separate questions were posed to the 3 dermatologists for discussion.

1. Is there a clinical/therapeutic benefit for incorporating modified hydrotherapy treatments as an adjunctive treatment for inflammatory skin conditions?
2. How would hydrotherapy treatments be incorporated into dermatology practices?
3. To best emulate the hydrotherapy center treatment, what type of protocols would you consider?

## RESULTS

The consensus was unanimous that modified hydrotherapy treatments would offer patients both alternative and adjunctive options for enhancing outcomes for patients with inflammatory skin conditions.

A tiered approach was suggested to provide options for hydrotherapy treatments accommodating different practices and patient needs. (See Figure 1)

Sending patients to the Avène Hydrotherapy Center in France was not ruled out as the premiere solution. While logistically impossible and financially unfeasible for most patients, it was agreed that there is a patient population who would consider this treatment if informed of the option. Regional hydrotherapy centers utilizing retail products for in-office face and body hydrotherapy treatments was considered a viable option with potential to incorporate adjunctive services such as massage, modified wet-wraps, mindful/stress reduction strategies and psychotherapy.

These centers would offer regular, high touchpoint treatments, patient education, home protocols, and workshops to reinforce integration of treatment into activities of daily living. Single in-office hydrotherapy treatment and education services as well as simply hydrotherapy treatment protocol recommendations were suggested as next level care opportunities. Lastly, a hydrotherapy virtual clinic with access to retail products, pre-recorded training and interactive patient educational content was recommended by the panel and was considered a highly valuable option for scalability and greater patient access.

Additionally, the panel positively agreed the hydrotherapy treatments could be modified for in-office procedures (See Table 1) as well as at home therapy. (See Table 2) These treatments would closely mimic the therapies performed utilizing the thermal spring water packaged in the retail cans and the postbiotic skincare products used in treatments at the center.

## CONCLUSION

**The general consensus conclusion from dermatologists experiencing the Hydrotherapy Center and science of the Aquaphilus dolomiae thermal spring water was that there is value in emulating the therapies and developing protocols for implementation in the US.**

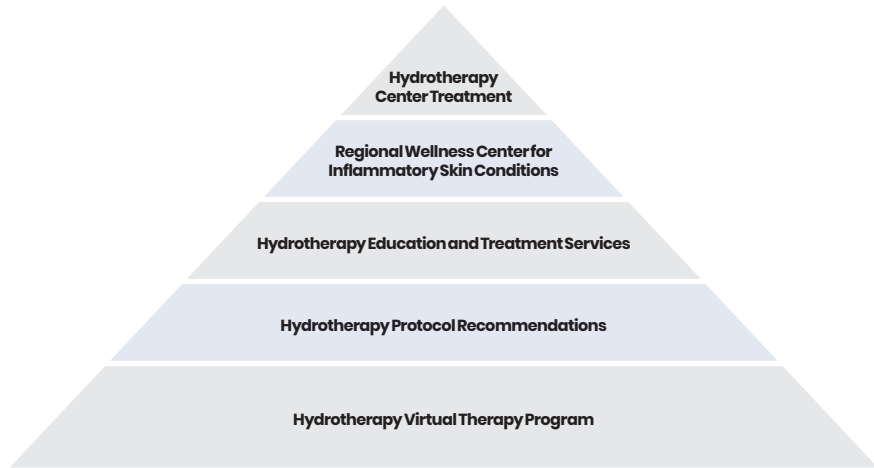


Figure 1

In Office Procedure	Treatment for AD or Itch Prone Skin	Treatment for Skin Repair	Treatment for Cutaneous Hyersensitivity/Redness Prone Skin
Postbiotic Selection	ADE-G1 Aquaphilus dolomiae Ferment	ADE-G2 Aquaphilus dolomiae Ferment Extract	ADE-G3 Aquaphilus dolomiae Ferment Filtrate
First Cleanse	ADE-G2 Cleanser	ADE-G2 Cleanser	ADE-G2 Cleanser
Second Cleanse	ADE-G1 Cleanser	ADE-G1 Cleanser	ADE-G1 Cleanser
Thermal Water Mist	Thermal water with Aquaphilus dolomiae	Thermal water with Aquaphilus dolomiae	Thermal water with Aquaphilus dolomiae
Body Massage (10 min) Face Massage (5 min)	ADE-G1 Balm	ADE-G2 Cream	ADE-G3 Cream
Body Moisture Wrap (15 min) Facial Compress (10 min) Both continuous water contact	ADE-G1 Balm with Aquaphilus dolomiae with distilled water and thermal water with Aquaphilus dolomiae	ADE-G1 Balm with Aquaphilus dolomiae with distilled water and thermal water with Aquaphilus dolomiae	ADE-G1 Balm with Aquaphilus dolomiae with distilled water and thermal water with Aquaphilus dolomiae
Moisture Application	ADE-G1 Balm	ADE-G2 Cream	ADE-G3 Cream

Table 2

Home Procedure with Shower	Treatment for AD or Itch Prone Skin	Treatment for Skin Repair	Treatment for Cutaneous Hyersensitivity/Redness Prone Skin
Shower	Tepid Water	Tepid Water	Tepid Water
Cleanser	ADE-G1 Cleanser	ADE-G1 Cleanser	ADE-G1 Cleanser
Pat skin dry and spray thermal spring water mist over effected area ensuring water does not evaporate	Thermal water with Aquaphilus dolomiae	Thermal water with Aquaphilus dolomiae	Thermal water with Aquaphilus dolomiae
Gauze wrap sock in effected areas (5-15 min.) continually misting thermal spring water to avoid evaporation	Distilled water and thermal spring water with Aquaphilus dolomiae	Distilled water and thermal spring water with Aquaphilus dolomiae	Distilled water and thermal spring water with Aquaphilus dolomiae
Generous moisturization/potential combined use of moisturizers	ADE-G1 Balm possibly adding ADE-G2 Cream	ADE-G2 Cream	ADE-G3 Cream possibly adding ADE-G2 Cream
Moisturizers and/or thermal water mist throughout day as needed	ADE-G1 Balm and thermal spring water with Aquaphilus dolomiae	ADADE-G2 Cream and thermal spring water with Aquaphilus dolomiae	ADE-G3 Balm and thermal spring water with Aquaphilus dolomiae

Table 3

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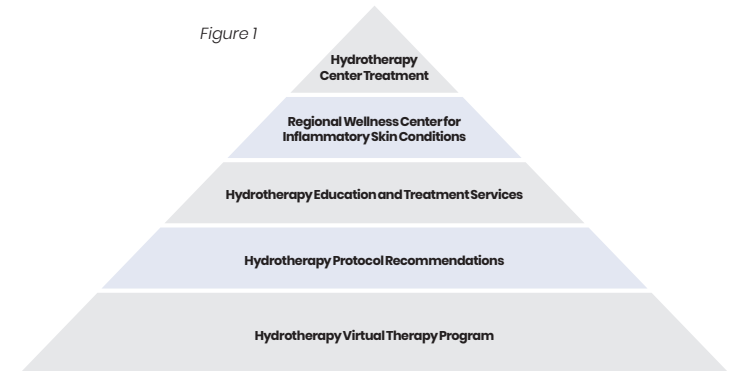
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Table 2