

**“Balneology and PRM: how are they related?”**

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**Keywords:** Balneotherapy; Physical and rehabilitation medicine; ICF  
In many of the of the European Union countries, Balneology integrates the field of PRM or is highly related with its daily practice. The use of water as a natural physical agent or as a mean of body immersion to help physiotherapy techniques (buoyancy, hydrostatic pressure, hydrodynamic resistance) is widely known. The personal and environmental factors interact with the considered domains of the ICF Model and determine the true “state of health”. The Balneology principles may immediately be linked them with the ICF model. In fact, probably there is no better example of interaction of our body structures and functions with the environment that what happens in a thermal spa ambience. In such an “environment” that interaction may lead to an increment of “activities” and facilitate “participations”. Circumstantial factors, such as specific climate characteristics, geographic influence, thermal water treatments, adequate health behaviour and social interaction, may modify the final results of a therapeutic strategy allowing better outcomes. For these reasons we conclude that there are a lot of common aspects between PRM and Balneology. Facing this reality we think that PRM should take Balneology in consideration and implement its scientific research, good practice and education.

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**Balneotherapy for rheumatic conditions – evidence based recommendations**C. Herisson<sup>a,\*</sup>, I. Tavares<sup>a</sup>, E. Thomas<sup>a</sup>, A. Françon<sup>b</sup>, R. Forestier<sup>b</sup>, C.F. Roques<sup>c</sup><sup>a</sup> Université de Montpellier, Montpellier, France<sup>b</sup> Société française de médecine thermale, Paris, France<sup>c</sup> Association française pour la recherche thermale, Paris, France

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**Keywords:** Balneotherapy; Chronic rheumatic diseases; Recommendations  
Rheumatic conditions are widely treated by hydrothermal balneotherapy mainly in Europe, South America, North Africa, Japan. In France, about 330,000 persons are yearly treated in the 74 balneotherapy care facilities dedicated to rheumatic conditions. These last twenty years 85 papers (63 RCT, 22 meta-analysis or reviews) have been published in English journals with impact factor. They concern mainly knee osteoarthritis, chronic rheumatic inflammatory conditions, chronic low back pain, fibromyalgia.

Conditions	RCT	Meta analysis or reviews
Knee osteo-arthritis	17	5
Chronic low back pain	11	1
Chronic inflammatory rheumatic diseases	12	1
Fibromyalgia	10	5
Other	13	10
Total	63	22

The authors will present the recommendations for the use of balneotherapy in rheumatic conditions, based on the conclusions of the international literature analysis addressed by an international team of experts, and drawn by a task force organised according the usual procedure of medical recommendations of the French High Health Authority. The task force will have to establish:

- the actual medical benefit (indications, non-indications, contra-indications) in the different types of chronic rheumatic conditions;
- the optimal therapeutic interventions (nature, duration of the cares, . . .); the existence and nature of adverse events;
- when data are available, the medico-economic benefit.

<http://dx.doi.org/10.1016/j.rehab.2014.03.578>**Spa therapy in the treatment of knee osteoarthritis: THERMARTHROSE a large randomised multicenter trial**

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**Keywords:** Balneotherapy; Knee osteoarthritis; WOMAC; Minimum clinical important improvement

**Objective.**– Does spa therapy, plus home exercises and usual treatment provide any benefit over exercises and usual treatment, in the management of knee osteoarthritis (KOA)?

**Methods.**– Large multicentre randomised clinical trial of patients with KOA attending French spa resorts using Zelen randomisation. All patients continued usual treatments and performed daily standardised home exercises. The spa therapy group also received 18 days of spa therapy (baths, muds, massages and pool sessions). Main Endpoint: the number of patients achieving minimal clinically important improvement (MCII) at 6 months, defined as  $\geq 19.9$  mm on the visual analogue pain scale and/or  $\geq 9.1$  points in a normalised WOMAC function score and no knee surgery.

**Results.**– The intention to treat analysis included 187 controls and 195 spa therapy patients. At 6 months, 99/195 (50.8%) spa group patients had MCII and 68/187 (36.4%) controls ( $\chi^2 = 8.05$ ;  $df = 1$ ;  $P = 0.005$ ). No improvement in quality of life (SF 36) or patient acceptable symptom state was observed at 6 months.

**Conclusion.**– For patients with KOA a 3-week course of spa therapy together with home exercises and usual pharmacological treatments offers benefit after 6 months compared with exercises and usual treatment alone, and is well tolerated.

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**Spa therapy in the treatment of chronic shoulder pain due to rotator cuff tendinitis: ROTATHERM, a large randomized multicenter clinical trial**

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**Keywords:** Balneotherapy; Shoulder pain; Chronic cuff tendinitis

**Objective.**– Does spa therapy provide any benefit on pain and disability in shoulder chronic degenerative rotator cuff lesions.

**Methods.**– A randomized clinical trial included 186 patients with shoulder pain due to chronic degenerative rotator cuff tendinitis. Ninety-nine were randomized in immediate 18 days of standardized spa treatment and 94 in control group (6-months delayed spa therapy). All patients continued usual treatments during the 6-month follow-up period. Main endpoint was the mean change of the DASH score at 6 months, the effect size was calculated and proportion of patients reaching MCII was compared between groups. Secondary endpoints were the change in SF-36, treatments use.

**Results.**– In intention to treat analysis, at 6 months, mean change in DASH score was statistically more important in spa therapy patients compared to controls ( $-32.6\%$  and  $-8.15\%$ ) ( $P < 0.001$ ) with an effect size for spa therapy of 1.32. A statistically higher proportion of patients reached MCII at 6 months in the spa therapy group (59.3%) compared to controls (17.9%). Spa therapy was well tolerated, with a significant impact on SF-36 but not on drugs consumption.

**Conclusion.**– Spa therapy provides a significant benefit on pain and function in patients with chronic shoulder pain after 6 months compared with usual treatment alone.

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