

## **Selected Publications from the German Acupuncture Research Programs**

### **Overview publications in English language**

Streng A. Summary of the randomised controlled trials from the German model projects on acupuncture for chronic pain. *J Chin Med* 2007;83:5-10. (*broad overview on all programs*)

Linde K, Streng A, Hoppe A, Jürgens S, Weidenhammer W, Melchart D. The programme for the evaluation of patient care with acupuncture (PEP-Ac) – a project sponsored by ten German social health insurance funds. *Acup Med* 2006;24 (suppl):S25-32. (*overview of the program coordinated in Munich*)

Witt CM, Brinkhaus B, Reinhold T, Willich SN. Efficacy, effectiveness, safety and costs of acupuncture for chronic pain – results of a large research initiative. *Acup Med* 2006;24 (suppl):S33-39. (*overview of the program coordinated in Berlin*)

### **Publications on ART (= Acupuncture Randomised Trials) coordinated in Berlin und Munich**

#### **Main trial results**

Brinkhaus B, Witt CM, Jena S, Linde K, Streng A, Wagenpfeil S, Irnich D, Walther HU, Melchart D, Willich SN. Acupuncture in patients with chronic low back pain: a randomized controlled trial. *Arch Intern Med* 2006;166:450-457.

Melchart D, Streng A, Hoppe A, Brinkhaus B, Witt C, Wagenpfeil S, Pfaffenrath V, Hammes M, Hummelsberger J, Irnich D, Weidenhammer W, Willich SN, Linde K. Acupuncture in patients with tension-type headache - a randomised trial. *BMJ* 2005;331: 376-379.

Witt C, Brinkhaus B, Jena S, Linde K, Streng S, Wagenpfeil S, Hummelsberger J, Walther HU, Melchart D, Willich SN. Acupuncture in patients with osteoarthritis of the knee – a randomised trial. *Lancet* 2005;366:136-143.

Linde K, Streng A, Jürgens S, Hoppe A, Brinkhaus B, Witt C, Wagenpfeil S, Pfaffenrath V, Hammes MG, Weidenhammer W, Willich SN, Melchart D. Acupuncture for patients with migraine. A randomized controlled trial. *JAMA* 2005;293:2118-2125.

#### **Study protocols**

Melchart D, Linde K, Streng A, Reitmayr S, Hoppe A, Brinkhaus B, Becker-Witt C, Wagenpfeil S, Pfaffenrath V, Hammes M, Willich SN, Weidenhammer W. Acupuncture Randomized Trials (ART) in patients with migraine or tension-type headache – design and protocols. *Forsch Komplementärmed Klass Naturheilkd* 2003;10:179-184.

Brinkhaus B, Becker-Witt C, Jena S, Linde K, Streng A, Wagenpfeil S, Irnich D, Hummelsberger J, Melchart D, Willich SN. Acupuncture Randomized Trials (ART) in patients with chronic low back pain and osteoarthritis of the knee – design and protocols. *Forsch Komplementärmed Klass Naturheilkd* 2003;10:185-191.

#### **Publications on treatment details**

Brinkhaus B, Witt CM, Jena S, Linde K, Streng A, Hummelsberger J, Irnich D, Hammes M, Pach D, Melchart D, Willich SN. Physician and treatment characteristics in a randomised multicentre trial of acupuncture in patients with osteoarthritis of the knee. *Complement Ther Med* 2007;15:180-189.

Brinkhaus B, Witt CM, Jena S, Linde K, Streng A, Irnich D, Hummelsberger J, Hammes M, Pach D, Melchart D, Willich SN. Interventions and physician characteristics in a randomized multicenter trial of acupuncture in patients with low-back pain. *J Altern Complement Med* 2006;12:649-57.

Melchart D, Streng A, Hoppe A, Brinkhaus B, Becker-Witt C, Hammes M, Irnich D, Hummelsberger J, Willich SN, Linde K. The acupuncture randomised trial (ART) for tension-type headache – details of the treatment. *Acup Med* 2005;23:157-165.

Linde K, Streng A, Hoppe A, Brinkhaus B, Witt CM, Hammes M, Irnich D, Hummelsberger J, Willich SN, Melchart D. Treatment in a randomized multicenter trial of acupuncture for migraine (ART Migraine). *Forsch Komplementärmed* 2006;13:101-108.

#### **Methodological aspects**

Linde K, Witt CW, Brinkhaus B, Streng A, Willich SN, Weidenhammer W, Melchart D. Factors associated with allocation guesses in the Acupuncture Randomized Trials (ART) (Abstract). *Forsch Komplementärmed* 2007;17 (suppl 1):14.

Linde K, Streng A, Hoppe A, Weidenhammer W, Wagenpfeil S, Melchart D. Randomized trial vs. observational study of acupuncture for migraine found that patients characteristics differed but outcomes were similar. *J Clin Epidemiol* 2007;60:280-287.

Linde K, Witt CM, Streng A, Weidenhammer W, Wagenpfeil S, Brinkhaus B, Willich SN, Melchart D. The impact of patients expectations on outcomes in four randomized controlled trials of acupuncture in patients with chronic pain. *Pain* 2007;128:264-271.

#### **Publications on GERAC (GERman ACupuncture trials) coordinated in Bochum**

##### Main trial results

Haake M, Muller HH, Schade-Brittinger C, Basler HD, Schafer H, Maier C, Endres HG, Trampisch HJ, Molsberger A. German Acupuncture Trials (GERAC) for chronic low back pain: randomized, multicenter, blinded, parallel-group trial with 3 groups. *Arch Intern Med* 2007;167:1892-1898.

Diener HC, Kronfeld K, Boewing G, Lungenhausen M, Maier C, Molsberger A, Tegenthoff M, Trampisch HJ, Zenz M, Meinert R; GERAC Migraine Study Group. Efficacy of acupuncture for the prophylaxis of migraine: a multicentre randomised controlled clinical trial. *Lancet Neurol* 2006;5:310-316.

Endress HG, Böwing G, Diener HC, Lange S, Maier C, Molsberger A, Zenz M, Vickers AJ, Tegenthoff M. Acupuncture for tension-type headache: a multicentre, sham-controlled, patient- and observer-blinded study, randomised trial. *J Headache Pain* 2007;8 (epub ahead of print)

Scharf HP, Mansmann U, Streitberger K, Witte S, Kramer J, Maier C, Trampisch HJ, Victor N. Acupuncture and knee osteoarthritis: a three-armed randomized trial. *Ann Intern Med* 2006;145:12-20.

##### Study protocols/treatment protocols

Molsberger AF, Boewing G, Diener HC, Endres HG, Kraehmer N, Kronfeld K, Zenz M. Designing an acupuncture study: the nationwide, randomized, controlled, German acupuncture trials on migraine and tension-type headache. *J Altern Complement Med* 2006;12:237-245.

Molsberger AF, Streitberger K, Kraemer J, Brittinger CS, Witte S, Boewing G, Haake M. Designing an acupuncture study: II. The nationwide, randomized, controlled German acupuncture trials on low-back pain and gonarthrosis. *J Altern Complement Med* 2006;12:733-742.

Haake M, Muller HH, Schade-Brittinger C, Prinz H, Basler HD, Streitberger K, Schafer H, Molsberger A. The German multicenter, randomized, partially blinded, prospective trial of acupuncture for chronic low-back pain: a preliminary report on the rationale and design of the trial. *J Altern Complement Med* 2003;9:763-770.

Streitberger K, Witte S, Mansmann U, Knauer C, Kramer J, Scharf HP, Victor N. Efficacy and safety of acupuncture for chronic pain caused by gonarthrosis: a study protocol of an ongoing multi-centre randomised controlled clinical trial [ISRCTN27450856]. *BMC Complement Altern Med* 2004;4:6.

#### **Publications on ARC (Acupuncture in Routine Care studies) coordinated in Berlin**

Witt CM, Reinhold T, Jena S, Brinkhaus B, Willich SN. Cost-effectiveness of Acupuncture Treatment in Patients with Headache. *Cephalalgia* (in print).

Witt CM, Reinhold T, Brinkhaus B, Jena S, Roll S, Wruck K, Willich SN. Acupuncture in Patients with Dysmenorrhoea - A Randomised Study on Clinical Effectiveness and Cost-Effectiveness in Usual Care, *Am J of Obstet and Gynecol* (in print)

Reinhold T, Witt CM, Jena S, Brinkhaus B, Willich SN. Quality of life and cost-effectiveness of acupuncture treatment in patients with osteoarthritis pain. *Eur J Health Econ* 2007;19 [Epub ahead of print]

Witt CM, Jena S, Brinkhaus B, Liecker B, Wegscheider K, Willich SN. Acupuncture in patients with osteoarthritis of the knee or hip: a randomized, controlled trial with an additional nonrandomized arm. *Arthritis Rheum* 2006;54:3485-3493.

Witt CM, Jena S, Brinkhaus B, Liecker B, Wegscheider K, Willich SN. Acupuncture for patients with chronic neck pain. *Pain* 2006;125:98-106.

Willich SN, Reinhold T, Selim D, Jena S, Brinkhaus B, Witt CM. Cost-effectiveness of acupuncture treatment in patients with chronic neck pain. *Pain* 2006;125:107-113.

Witt CM, Jena S, Selim D, Brinkhaus B, Reinhold T, Wruck K, Liecker B, Linde K, Wegscheider K, Willich SN. Pragmatic randomized trial evaluating the clinical and economic effectiveness of acupuncture for chronic low back pain. *Am J Epidemiol* 2006;164:487-496.

#### **Other relevant publications from the program coordinated in Munich**

Streng A, Linde K, Hoppe A, Pfaffenrath V, Hammes M, Wagenpfeil S, Weidenhammer W, Melchart D. Effectiveness and tolerability of acupuncture compared with metoprolol in migraine prophylaxis. *Headache* 2006;46:1492-1502.

- Weidenhammer W, Linde K, Streng A, Hoppe A, Melchart D. Acupuncture for chronic low back pain in routine care: a multicenter observational study. *Clin J Pain* 2007 23:128-135.
- Melchart D, Weidenhammer W, Streng A, Hoppe A, Pfaffenrath V, Linde K. Acupuncture for chronic headaches – an epidemiological study. *Headache* 2006;46:632-641.
- Linde K, Weidenhammer W, Streng A, Hoppe A, Melchart D. Acupuncture for osteoarthritic pain: an observational study in routine care. *Rheumatology* 2006;45:222-227.
- Weidenhammer W, Streng A, Linde K, Hoppe A, Melchart D. Acupuncture for chronic pain within the research program of 10 German Health Insurance Funds – Basic results from an observational study. *Complement Ther in Med* 2006 (e-pub ahead of print, doi:10.1016/j.ctim.2006.09.005).
- Streng A, Linde K, Hoppe A, Jürgens S, Melchart D, Weidenhammer W. Befragung der am „Modellvorhaben der Ersatzkassen“ teilnehmenden Akupunkturärzte zur Struktur- und Prozessqualität. *Dt Ztschr Akupunktur* 2006;49 (3):18-25. (*characteristics of the physicians participating in the reimbursement program*)
- Weidenhammer W, Menz G, Streng A, Linde K, Melchart D. Akupunktur bei chronischen Schmerzpatienten. Behandlungsergebnisse – Rolle des Akupunkturisten. *Schmerz* 2006;20:418-432. (*analyses on the influence of provider characteristics on the outcome*)
- Weidenhammer W, Streng A, Jürgens S, Hoppe A, Linde K, Melchart D. Aufbau, Realisierung und Datenübersicht einer Beobachtungsstudie im Rahmen des Programms zur Evaluation der Patientenversorgung mit Akupunktur (PEP-AK) des Modellvorhabens der Ersatzkassen. *Gesundheitswesen* 2005;67:264-273. (*methods of the observational study*)
- Melchart D, Weidenhammer W, Streng A, Reitmayr S, Hoppe A, Ernst E, Linde K. Prospective investigation of adverse effects of acupuncture in 97 733 patients. *Arch Intern Med* 2004;164:104-105. (*preliminary results on safety*)

#### **Other important publications from the program coordinated in Bochum**

- Kukuk P, Lungenhausen M, Molsberger A, Endres HG. Long-term improvement in pain coping for cLBP and gonarthrosis patients following body needle acupuncture: a prospective cohort study. *Eur J Med Res* 2005;10:263-272.
- Endres HG, Molsberger A, Lungenhausen M, Trampisch HJ. An internal standard for verifying the accuracy of serious adverse event reporting: the example of an acupuncture study of 190,924 patients. *Eur J Med Re.* 2004;9:545-551.