Homeopathic Products

- Principle of analogy or Law of Similars
- Small or infinitesimal doses (3X-30C)
 - Avogadro's number= $6x10^{23} = ~23X$
- Succussion and potentization (see http://www.boiron.com/en/htm/02_medi_homeo/prepa_medi.htm)
- Ultra-high dilution effects
- Final product
- World Market
- USA

Evidence??

- In vitro studies
- Animal studies
- Human studies
- Meta-analyses of human studies
- Implausibility, entrenched skeptics and overenthusiastic zealots

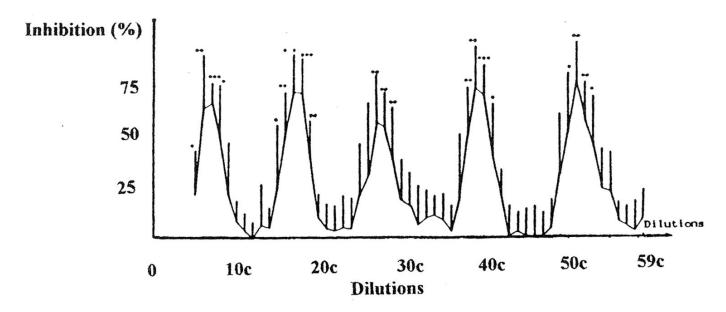
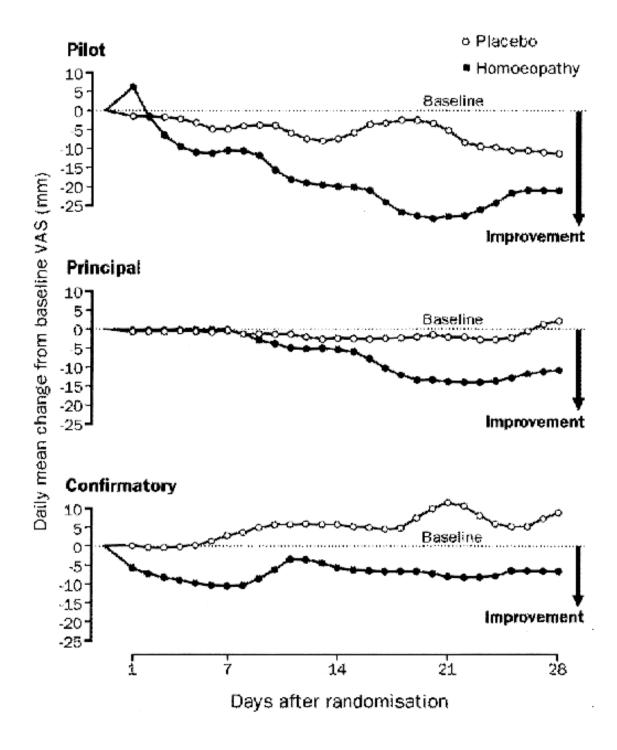


FIG. 8. Inhibition of basophil degranulation by successive dilutions of histamine. An oscillation of inhibitiory activity across the series of histamine dilutions is notable. The results are expressed in mean percentages of inhibition \pm S.E.M. on 10 experiments. *p < 0.05; **p < 0.01; ***p < 0.001. In: Sainte-Laudy et al., 1991. Permission to reproduce this figure has been kindly granted by Taylor & Francis.

In: Vallance AK. J Alt Compl Med 1998;4:49-76.

Reilly et al. Lancet 1994;344:1601-06

asthma



	n	Odds ratio (95% CI)		
All studies	89	2.45 (2.05, 2.93)	-0-	
Sensitivity analyses				
High-quality studies	26	1.66 (1.33, 2.08)	-0-	
Adequate concealment	34	1.93 (1.51, 2.47)	-	
Double-blinding stated	81	2.17 (1.83, 2.57)	-0-	
Adequate follow-up	28	3.18 (2.14, 4.73)	-0-	
MEDLINE-listed studies	23	1.70 (1.31, 2.20)	-	
Predefined main outcome	21	1.70 (1.31, 2.20)	<u>-</u>	
Corrected for publication bias	89	1.78 (1.03, 3.10)	<u> </u>	
Worst-case scenario	5	1.97 (1.04, 3.75)		
Subgroup analyses				
High-potencies only	31	2.66 (1.83, 3.87)		
High/medium potencies	51	2.77 (2.09, 3.67)	-0-	
Classical homoeopathy	13	2.91 (1.57, 5.37)		
Clinical homoeopathy	49	2.00 (1.60, 2.51)	- ∽	
Isopathy	7	5.04 (2.24, 11.32)	· — — —	
Complex homoeopathy	20	1.94 (2.12, 2.08)	-0-	
		<u> </u>	 	\neg
	C)-1	1	10
		Odds	s ratio	

Linde et al. Lancet. 1997 Sep 20;350(9081):834-43

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TABLE 2. Results in three studies of homeopathy for childhood diarrhea and combined results, with all children completing 5-day follow-up

Variable	Treatment	Control	P
Nicaragua, 1990	(n = 16)	(n = 17)	
Duration of diarrhea	$2.4 \pm 1.7*$	3.0 ± 1.6	0.28
No. of stools/day	2.8 ± 1.8	3.5 ± 1.4	0.57
Nicaragua, 1991	(n = 40)	(n = 41)	
Duration of diarrhea	3.0 ± 1.9	3.8 ± 1.7	0.048
No. of stools/day	2.2 ± 1.7	2.9 ± 2.0	0.07
Nepal	(n = 64)	(n = 52)	
Duration of diarrhea	3.5 ± 2.0	4.2 ± 1.9	0.06
No. of stools/day	3.0 ± 2.2	3.7 ± 2.0	0.03
Combined	(n = 120)	(n = 110)	
Duration of diarrhea	3.1 ± 2.0	3.8 ± 1.9	0.008
No. of stools/day	2.7 ± 2.0	3.4 ± 2.0	0.004

^{*} Mean ± SD.

Jacobs et al. Pediatr Infect Dis J. 2003;22:229-34.

TABLE 1. COMMON HOMEOPATHIC REMEDIES FOR ACUTE DIARRHEA AND THEIR INDICATIONS

Arsenicum album (arsenic trioxide)

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Stools:

Mind: Great anxiety and restlessness. Tossing about in bed. Fearful, doesn't want to be alone.

General: Prostration. Worse after midnight. Burning heat with thirst for small amounts. Chilly, better

being covered, cold sweats. Vomiting immediately after eating or drinking.

Acrid, burning, excoriating. Diarrhea worse at night, after midnight. Putrid, bloody, odor of

rotton eggs.

Chamomilla (German chamomile)

Mind: Capricious; irritable; quarrelsome, nothing pleases. Asks for something, then rejects it, striking

out, sensitive to pain; moaning; frenzied. Better being carried.

General: One cheek red, other pale; hot; worse from heat, better from cold drinks. Worse evening, until

midnight.

Stools: Green, slimy, offensive, like chopped grass. Diarrhea during teething. Smelling like rotten eggs;

colic with diarrhea, better after stool.

Calcarea carbonica (calcium carbonate)

Mind: Slow, lethargic, fears the dark and being alone.

General: Profuse perspiration on the head during sleep. Sour smell to perspiration. Strong desire for

milk, eggs, and indigestibles (pica). Plump children who get sick frequently and have swollen

glands.

Stools: Sour odor to the stools. Diarrhea during teething. Watery with bits of undigested food.

Podophyllum (May-apple)

Mind: Diarrhea after mental excitement. Figety and restless.

General Gagging or empty retching. Violent cramps of the feet, calves, and thighs. Head sweats during

sleep. Thirst for large quantities of cold water.

Stools: Profuse, frequent, gushing, painless, watery. Bloody with green mucus, very offensive. Rectal

prolapse. Exhaustion after stool. Diarrhea during teething, after fruit.

Sulphur (flowers of sulphur)

Mind: Irritable, indifferent, weeping.

General Cold sweat on face and feet. Blue circles under eyes, weakness. Thirsty for cold drinks, little

appetite.

Stools: Diarrhea worse at night, after milk; involuntary, sudden expulsion. Worse 5:00 a.m. Red ring

around anus. Offensive, acrid stools. Painless; sour; thin; watery. Odor of rotten eggs.

Bold type indicates the most important symptoms for each medicine.

Sources: Bell, 1888; Boericke, 1971.

TABLE 1. Indications for common homeopathic medicines for acute otitis media⁹

Pulsatilla (windflower)

Mind: Weepy, clingy, whiney. Wants to be held and carried.

Changeable moods. Needs attention and reassurance.

Generals: Worse in a warm room, better from fresh air. Thirstless.

Ears: Earache comes on in middle of the night.

External ear and meatus is red. Decreased hearing.

Earache following a cold

Chamomilla (German chamomile)

Mind: Capricious; irritable; quarrelsome, nothing pleases. Asks for something, then rejects it,

striking out, sensitive to pain; moaning; frenzied.

Better being carried.

Generals: One cheek red, other pale; hot; thirsty for cold drinks.

Worse evening, until midnight. Night sweats.

Ear: Worse evening, until midnight. Night sweats.

Unbearable pain, screaming from pain. Ears feel stopped.

Sulfur (elemental sulfur)

Mind: Emotionally irritable and sluggish.

Generals: Worse from heat. Fever with sweating and shivering.

Restless sleep. Doesn't want to wash or bathe.

Thirsty for cold drinks, little appetite. Worse 5 a.m.

Ear: Sharp pains, worse on the left.

Redness of external ear. Enlarged cervical lymph nodes.

Earache with painful ringing in the ears.

Calcarea carbonica (calcium carbonate)

Ear:

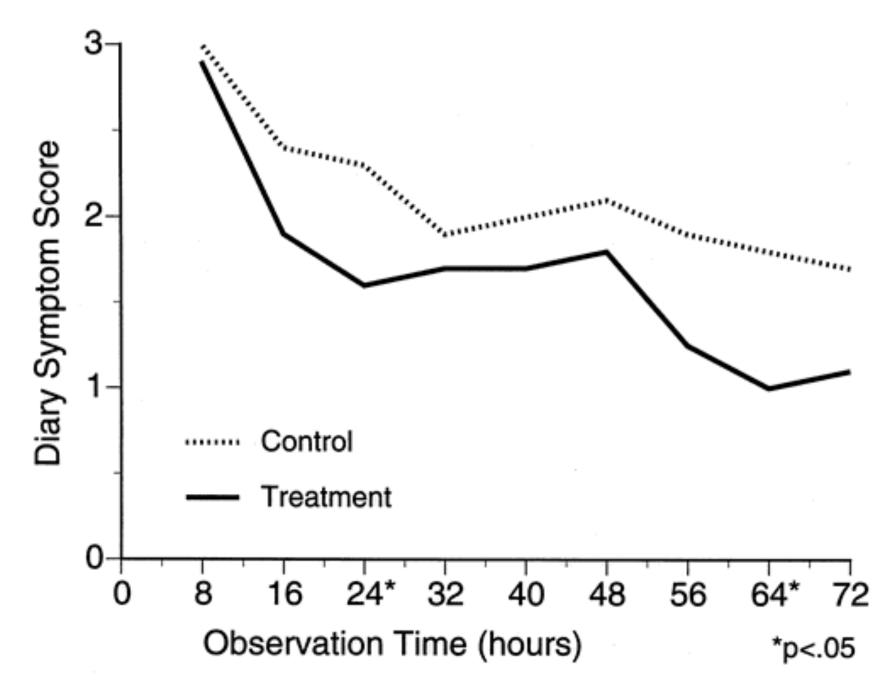
Mind: Irritable, **stubborn**, complaining. Fearful at night.

Generals: Sweaty head and back of the neck, especially at night.

Sour odor to sweat, stools, breath. Sensitive to cold. **Throbbing, pulsating ear pain**, decreased hearing.

Enlarged cervical lymph nodes.

Jacobs et al. Pediatr Infec Dis 2001;20:177-183. N=75



Jacobs et al. Pediatr Infec Dis 2001;20:177-183. N=75

Shang et al. Lancet 2005;366:726-732

	Homoeopathy trials (n=110)	Conventional-medicine trials (n=110)
Sample size		
Median (range)	65.5 (10-1573)	65 (12-1367)
Mean (SD)	117 (211)	133 (226)
Median year of publication (range)	1992 (1966-2003)	1994 (1974-2002)
Type of publication		
In English	58 (53%)	94 (85%)
Journal article	94 (85%)	110 (100%)
MEDLINE-indexed journal	45 (41%)	95 (86%)
Type of outcome		
Overall assessment of response	54 (49%)	49 (45%)
Occurrence or duration of disorder	26 (24%)	26 (24%)
Assessment of symptoms	21 (19%)	26 (24%)
Measurement of function or state	6 (5%)	6 (5%)
Assessment of clinical signs	3 (3%)	3 (3%)
Trial quality		
Described as double-blind	101 (92%)	96 (87%)
Adequate generation of allocation sequence	27 (25%)	30 (27%)
Adequate concealment of allocation	49 (45%)	21 (19%)
Analysis by intention to treat	33 (30%)	40 (36%)
Higher quality*	21 (19%)	9 (8%)

^{*}Trials described as double-blind, with adequate generation of allocation sequence and adequate concealment of allocation.

Table 2: Characteristics of placebo-controlled trials of homoeopathy and conventional medicine

Shang et al. Lancet 2005;366:726-732

Odds ratio for large, high quality trials (the lower the value the higher the benefit):

Homeopath. N=8 OR=0.88

Conventional. N=6 OR=0.58

Conclusions: "clinical effects of homeopathy are placebo effects"

Critique: how about giving the OR for all included studies and also the OR for the "higher quality" studies (n=21 for homeopathy and n=9 for conventional). The selection of "clinical topics" for study seem to favor conventional drugs, e.g. respiratory infections.

The end of homoeopathy



See Comment page 691 See World Report page 705 See Articles page 726

That homoeopathy fares poorly when compared with allopathy in Aijing Shang and colleagues' systematic evaluation is unsurprising. Of greater interest is the fact that this debate continues, despite 150 years of unfavourable findings. The more dilute the evidence for homoeopathy becomes, the greater seems its popularity.

For too long, a politically correct laissez-faire attitude has existed towards homoeopathy, but there are now signs of enlightenment from unlikely sources. The UK Parliamentary Select Committee on Science and Technology issued a report about complementary and alternative medicine in 2000. It recommended "any therapy that makes specific claims for being able to treat specific conditions should have evidence of being able to do this above and beyond the placebo effect". Going one step further, the Swiss Government, after a 5-year trial, has now withdrawn insurance coverage for homoeopathy and four other complementary treatments because they did not meet efficacy and cost-effectiveness criteria.

In a Comment, Jan Vandenbroucke gives a philosophical interpretation of Shang's study. One other philosopher he might have included is Kant, who reminds us that we see things not as they are, but as we are. This observation is also true of health-care consumers, who may see homoeopathy as a holistic alternative to a disease-focused, technology-driven medical model. It is the attitudes of patients and providers that engender alternative-therapy seeking behaviours which create a greater threat to conventional care—and patients' welfare—than do spurious arguments of putative benefits from absurd dilutions.

Surely the time has passed for selective analyses, biased reports, or further investment in research to perpetuate the homoeopathy versus allopathy debate. Now doctors need to be bold and honest with their patients about homoeopathy's lack of benefit, and with themselves about the failings of modern medicine to address patients' needs for personalised care.

■ The Lancet

Critics slam draft WHO report on homoeopathy

A WHO group that caused controversy with a 2003 report on acupuncture has now turned its attention to homoeopathy. But if the allegations of bias levelled at a draft version of the report are anything to go by, the group has once again put itself in the firing line. Michael McCarthy reports.

Sceptics of alternative medicine are calling for WHO to extensively revise a draft report on homoeopathy that they claim is little more than prohomoeopathy propaganda.

The report, says Cees Renckens, a gynaecologist and chairman of the Dutch Union Against Quackery, plays up research that supports homoeopathy while ignoring studies that cast doubt on its effectiveness. "I think it is pathetic that WHO is publishing this kind of paper", he told The Lancet. Renckens and others obtained a copy of the confidential draft after it was sent out for comments.

WHO officials call the criticism unfair: "It's preliminary and only a draft", says Xiaorui Zhang, who is acting team coordinator for traditional medicine with the WHO's Department of Essential Drugs and Medicine Policy, which is preparing the report.

But critics are sceptical. The report's tone and approach are identical to a controversial 2003 report on acupuncture prepared by the same group, says Willem Betz, chair of the department for training in family practice at the University of Brussels and chair of SKEPP (Studie Kring voor Kritische Evaluatie van Pseudowetenschap en het Paranormale, the Study Circle for the Critical Evaluation of Pseudoscience and the Paranormal).

The acupuncture report stated that acupuncture had been shown to be effective in controlled clinical trials for more than a score of conditions. including bacillary dysentery and leucopenia. The evidence does not support such claims, said Betz. The acupuncture report and now the homoeopathy report are evidence that "WHO has been infiltrated by missionaries for alternative medicine", Betz said.

The 40-page draft on homoeopathy, entitled Homoeopathy: review and analysis of reports on controlled clinical trials, states that the "majority" of peer-reviewed scientific papers published over the past 40 years "have demonstrated that homoeopathy is superior to placebo in placebo-controlled trials and is equivalent to conventional medicines in the treatment of illnesses, in both humans and ani-

The report describes the findings of a selected group of systematic reviews, meta-analysis, controlled trials, cost-effectiveness and outcome studies, observational studies. Almost all of the studies cited support the practice of homoeopathy.

Edzard Ernst, professor of complementary medicine at the Peninsula Medical School (Exeter, UK), said the draft "seems overtly biased, ie, it is based on data that are positive while 'forgetting' the negative studies and systematic reviews."

The randomised clinical trials cited, he said, "all happen to be positive; they are not the most rigorous ones, not the most recent. This does not inspire the reader to think the WHO report was even intended to be objective."

"I find it terribly worrying", he added, "because WHO shouldn't be promoting homoeopathy as it did acupuncture."

Homoeopathy was developed in the late 1700s by Samuel Hahnemann (1755-1843), a German physician and chemist. Hahnemann argued that it was possible to restore health by stimulating the body to regain its balance. This could be done, he said, by administering substances that provoked the same signs and symptoms as the disease. He called this the "similia principle" or "like cures like". The term

homoeopathy is derived from the See Editorial page 690 Greek words homoios (similar) and See Comment page 691 pathos (suffering).

In addition to the signs and symptoms of disease, homoeopathic practitioners say they must also take into account such things as the patient's emotional response to their illness, their personality and temperament before deciding on which homoeopathic regimen to prescribe. Therefore, different patients will receive different treatments for the same disease, making it difficult to conduct randomized controlled trials, homoeopathic practitioners argue.

Hahnemann also believed that it was possible to make homoeopathic preparations, typically herbal or mineral solutions, more powerful by

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http://www.homeopathicpharmacy.org/index.htm