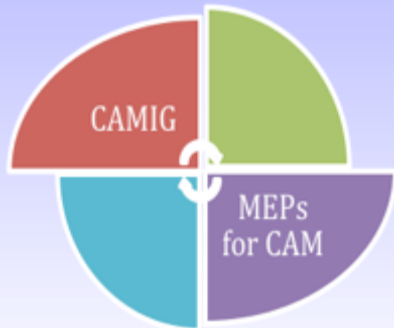


Antimicrobial Resistance (AMR) Integrative approach in Anthroposophic Medicine and Anthroposophic Hospitals

Thomas Breitzkreuz MD, PhD
 President, IVAA

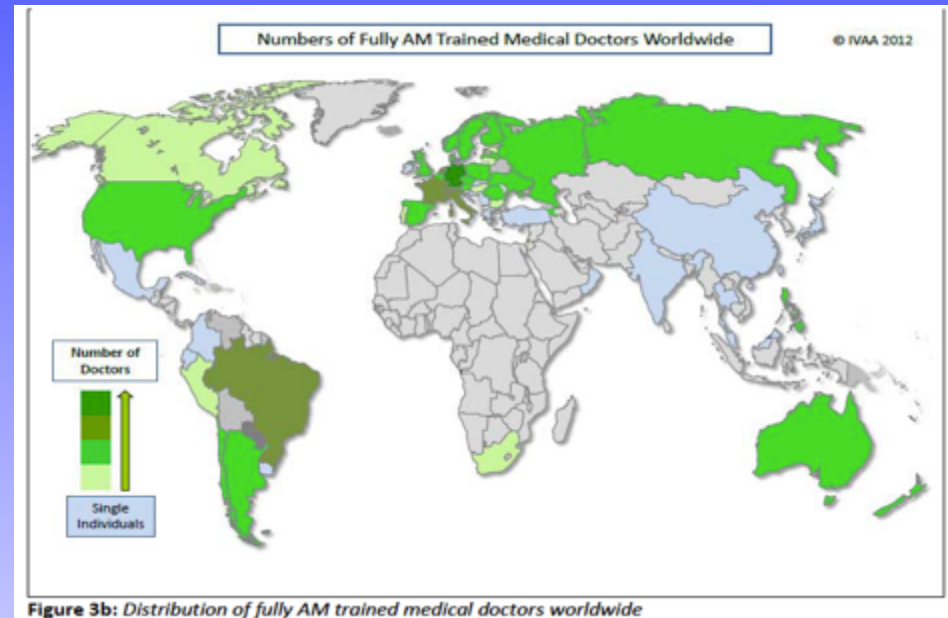
Spokesman, Board of Hufelandgesellschaft
 Medical Director, Paracelsus Hospital, D - Bad Liebenzell
 Chairman of Commission C, BfArM, Germany

www.ivaa.info



Anthroposophic Medicine (AM)

- ◆ Widely used CAM system in Europe
- ◆ More than 1500 natural medicines on the market
- ◆ Practised in > 60 countries worldwide
- ◆ **28 hospitals in 8 countries**
- ◆ Chairs of anthroposophic medicine at Universities
- ◆ Lectures on AM part of University teaching
- ◆ Several research institutes for AM



Overview

- I. Introduction: Antimicrobial resistance in Hospitals – Anthroposophic Hospitals
- II. AM therapy for respiratory tract infections (RTI) and pneumonia:
Evidence from studies
Clinical experience
- III. Infection control in AM hospitals
- IV. Conclusion and Call for Action

AMR in Hospitals

- AMR derived in outpatients / animals (due to extensive use of antibiotics) become dangerous in hospitals (patients with multimorbidity and immunosuppression, life-threatening infections)
- Aggressive antibiotic regimens in hospitals → Increase of AMR
- Low threshold for antibiotic use in hospitals → Increase of AMR
- MRB colonisation in hospitals → increasing number of hospital acquired infections with AMR
- **Sepsis: 3rd frequent cause of death in hospitals**

Anthroposophic Hospitals: Pioneers of Integrative Medicine

15 AM Hospitals or AM departments in public hospitals in D + CH

- ✧ Size: 70 – 500 inpatients
- ✧ Specialised medical departments
- ✧ Acute >> chronic diseases
- ✧ Conventional and AM therapies (medicines and non-medical)
- ✧ Attached to universities / medical schools, Postgraduate medical training
- ✧ Fully integrated into Healthcare System



IIPCOS Study

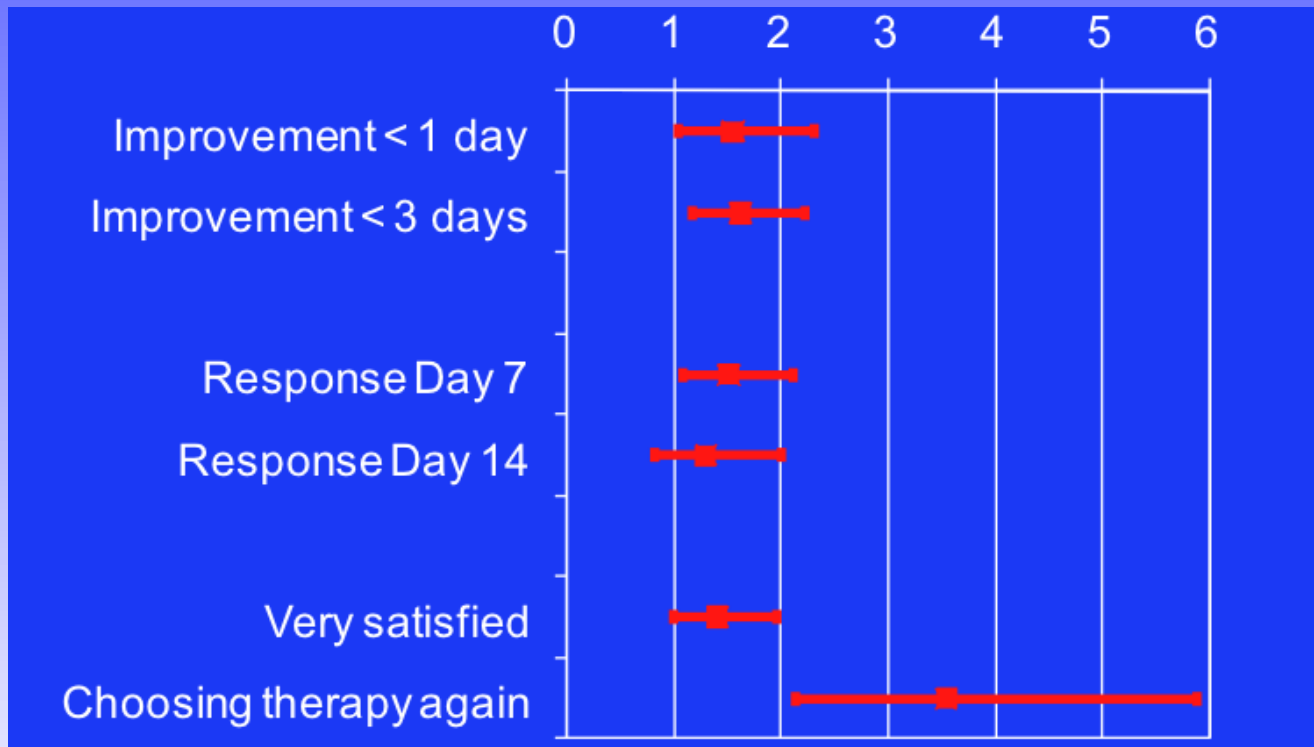
International Integrative Primary Care Outcomes Study

- ✧ Acute respiratory and ear infections
- ✧ 1016 primary care patients from AT, DE, NL, UK, US treated under routine practice conditions
- ✧ Design: Prospective comparative 4 week observational cohort study
- ✧ Comparison: Anthroposophic or conventional physicians

Haidvogel M, BMC Complementary and Alternative Medicine 2007

Hamre H, Wien Klin Wochenschr 2005

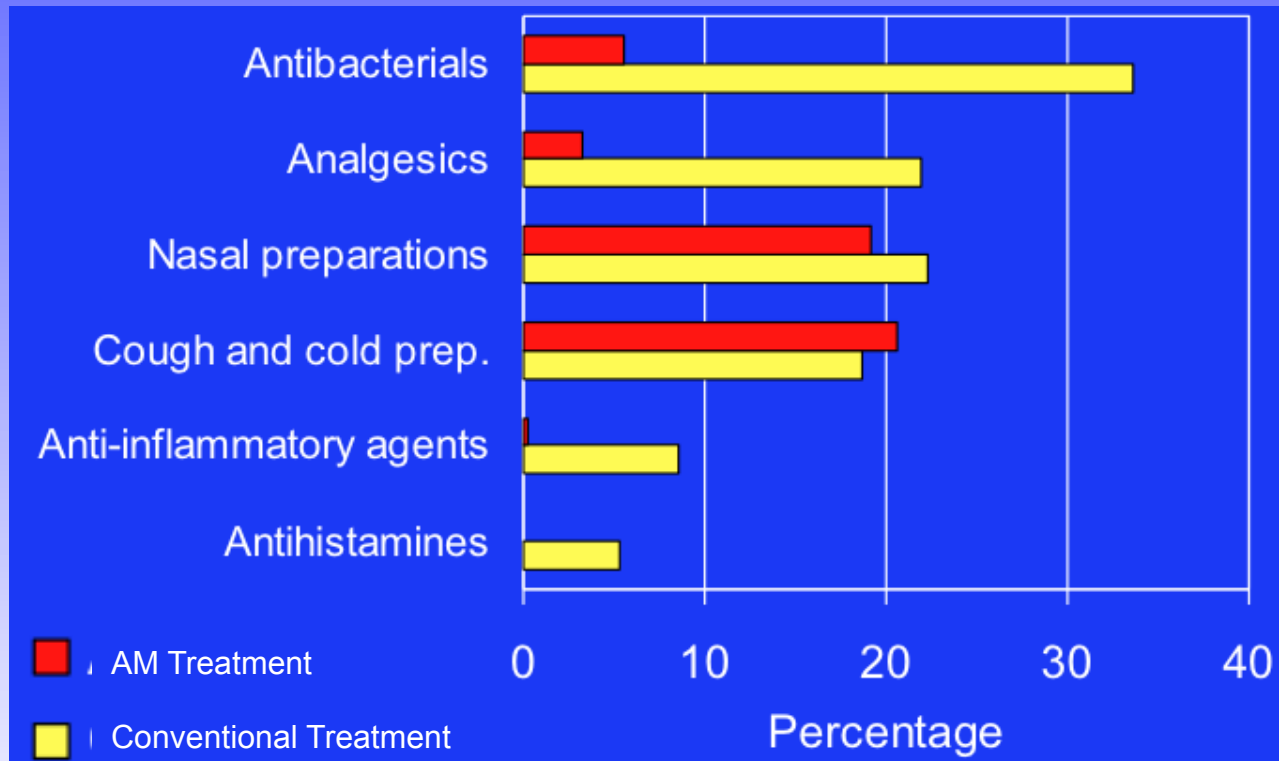
IIPCOS: Clinical outcomes Adjusted for country, age, gender, baseline severity



Odds ratio > 1 indicates more favorable outcome in Anthroposophy Group

IIPCOS Study

International Integrative Primary Care Outcomes Study



Research Article

Inpatient Treatment of Community-Acquired Pneumonias with Integrative Medicine

Evidence-Based Complementary and Alternative Medicine
 Volume 2013, Article ID 578274, 16 pages
<http://dx.doi.org/10.1155/2013/578274>

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Risk Group	Mortality (CON)
I	0,5%
II	0,9%
III	1,2%
IV	9,0%
V	27,1%

Pneumonia Severity Index: Class	I	II	III	IV	V	Total
Treatment with AM only	3	7	5		1	16
Treatment with AM+ Antibiotics				2		2

- 16/18 consecutive CAP patients treated with AM only
- Only 2 patients risk group IV needed additional antibiotics
- All patients recovered well

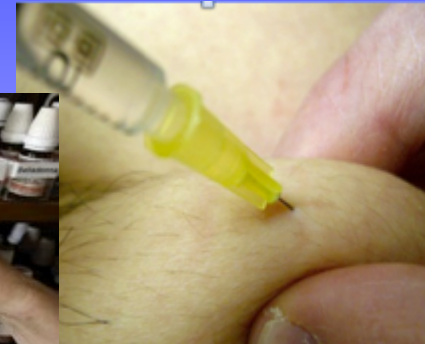
Larger statistics for community acquired pneumonia (official quality management data):

Use of antibiotics: **53,8%** AM-hospital **88,3%** CON-Hospitals
 In-hospital Mortality: **9,4%** AM-hospital **14,3%** CON-Hospitals

AM Treatment of Pneumonia

Medicines:

- Pneumodoron I / II p.o.
- Argentum met. praep. D30 s.c.
- Ferrum met. praep. D10 s.c.
- Formica D8 s.c.
- Aconit D20 s.c.
- Echinacea D1 / Petasites D3



Compresses:

- Ginger lung compresses
- Millfoil lung compresses
- Wild mustard lung compresses
- Lemon leg compresses



Pneumonia: Algorithm for choice of treatment

Integrative Approach: Balanced decision making

AM Therapy only

- Pneumonia PSI Class I-III
- Patient < 65
- No immunosuppression
- No comorbidity
- No signs of sepsis
- Re-evaluate 5 x / day



AM Therapy + antibiotics

- Pneumonia PSI Class > III
- Patient > 65
- Immunosuppression
- Comorbidities
- Signs of sepsis
→ Start sepsis protocol!
→ Antibiotic within 30 min

- ✧ Doctor's experience
- ✧ Patient's choice

Risk factor management

Reduction of antibiotic treatment in AM hospitals

Risk factors for pneumonia

- Previous antibiotic exposure
- Immobilization
- Sedative medicines / hypnotics
- Chronic lung diseases
(steroids, antibiotics)

AM treatment concept

- AM therapies instead of antibiotics
- Active movement therapy, Nursing
- AM medicines with less ADR

- AM therapy

Diseases

AM (hospital) without antibiotics

Asthma, COPD with acute infection	70 %
Urinary tract infections (UTI)	70 %
Respiratory tract infections (RTI)	95 %
Pneumonia	45 %

Infection Control in AM Hospitals

Example: Paracelsus-Krankenhaus, Bad Liebenzell

2000 inpatients p.a.

60% from CAM Doctors (GPs) / 40% Oncology / 10% Palliative Care Patients

External Surveillance by Department of Environmental Health Sciences, University of Freiburg, 2013



Multi-Resistant Bacteria

PKH

German Hospitals, Average

MRSA

19 %

21,3 %

MRSA hospital acquired/1000 pt days

0

0,16

VRE

0,4 %

12,6 %

Pseudomonas, Imipenem-res.

7,7 %

16,8 %

3 and 4 - MRGN E. coli (ESBL)

1,2 %

10,4 %

Conclusion

- ✓ **Proof of evidence: (C)AM reduces AMR in an Integrative Approach**
- ✓ **(C)AM integrative treatment of banal infectious diseases in Primary Care is safe and effective**
- ✓ **(C)AM integrative treatment of severe infectious diseases in Hospitals is safe and effective**
- ✓ **(C)AM reduces AMR in Primary Care**
- ✓ **(C)AM reduces AMR in Hospital acquired infections**
- ✓ **(C)AM helps that antibiotics will continue to save lives**

Call for Action

Proposal: Integrative approach towards AMR

I. Research (Horizon 2020):

- Identification and proof of best CAM therapies to address AMR
- Focus on relevant diseases:
 - ◆ AOM (acute otitis media)
 - ◆ RTI (acute respiratory tract infections)
 - ◆ UTI (urinary tract infections)
- Translational research: modules for implementation in general healthcare

II. Training for healthcare professionals:

- Internet-based training modules
- Specific bundles for medical doctors, practitioners, nurses, pharmacists

III. Patient information and education:

- Internet-based platform for patient information

IV. First of all: Appropriate EU legislation / regulation for CAM medicines

- Anthroposophic Medicine, Homeopathy, Herbals..



IVAA

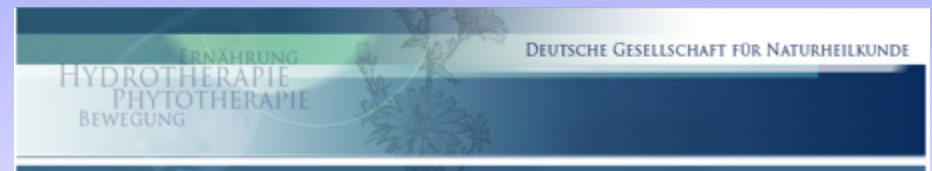
Internationale Vereinigung Anthroposophischer Ärztgesellschaften
International Federation of Anthroposophic Medical Associations
Fédération Internationale des Associations Médicales Anthroposophiques



Hufelandgesellschaft e.V.

Dachverband der Ärztgesellschaften für Naturheilkunde und Komplementärmedizin

Representing > 20.000 active members in Germany; CAM-Doctors total number = approx. 40.000



→ ... use CAM doctor's expertise...!