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

Thomas Breitkreuz MD, PhD
President, IVAA
Spokesman, Board of Hufelandgesellschaft
Medical Director, Paracelsus Hospital, D - Bad Liebenzelle
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
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

Haidvogl M, BMC Complementary and Alternative Medicine 2007
Hamre H, Wien Klin Wochenschr 2005
Odds ratio > 1 indicates more favorable outcome in Anthroposophy Group

Thomas Breitkreuz, CAM Interest Group, European Parliament, Bruxelles 1 April 2014
IIPCOS Study
International Integrative Primary Care Outcomes Study

- Antibacterials
- Analgesics
- Nasal preparations
- Cough and cold prep.
- Anti-inflammatory agents
- Antihistamines

Bar chart showing comparison between AM Treatment and Conventional Treatment in terms of various categories.

Thomas Breitkreuz, CAM Interest Group, European Parliament, Bruxelles 1 April 2014
Research Article

Inpatient Treatment of Community-Acquired Pneumonias with Integrative Medicine

Ulrich Geyer, Klas Diederich, Maria Kusserow, Andreas Laubersheimer, and Klaus Kramer

1 Department of Homeopathy, Heidenheim Hospital, Teaching Hospital of The University of Ulm, Schloßhaussstraße 100, 89052 Heidenheim, Germany
2 Department of Homeopathy, University of Wuppertal, 42119 Wuppertal, Germany
3 Department of CI, University of Ulm, 89081 Ulm, Germany

Pneumonia Severity Index: Class

<table>
<thead>
<tr>
<th>Risk Group</th>
<th>Mortality (CON)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0,5%</td>
</tr>
<tr>
<td>II</td>
<td>0,9%</td>
</tr>
<tr>
<td>III</td>
<td>1,2%</td>
</tr>
<tr>
<td>IV</td>
<td>9,0%</td>
</tr>
<tr>
<td>V</td>
<td>27,1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pneumonia Severity Index: Class</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
<th>V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment with AM only</td>
<td>3</td>
<td>7</td>
<td>5</td>
<td></td>
<td>1</td>
<td>16</td>
</tr>
<tr>
<td>Treatment with AM+ Antibiotics</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

- 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

<table>
<thead>
<tr>
<th>Risk factors for pneumonia</th>
<th>AM treatment concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Previous antibiotic exposure</td>
<td>→ AM therapies instead of antibiotics</td>
</tr>
<tr>
<td>• Immobilization</td>
<td>→ Active movement therapy, Nursing</td>
</tr>
<tr>
<td>• Sedative medicines / hypnotics</td>
<td>→ AM medicines with less ADR</td>
</tr>
<tr>
<td>• Chronic lung diseases (steroids, antibiotics)</td>
<td>→ AM therapy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diseases</th>
<th>AM (hospital) without antibiotics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asthma, COPD with acute infection</td>
<td>70 %</td>
</tr>
<tr>
<td>Urinary tract infections (UTI)</td>
<td>70 %</td>
</tr>
<tr>
<td>Respiratory tract infections (RTI)</td>
<td>95 %</td>
</tr>
<tr>
<td>Pneumonia</td>
<td>45 %</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Multi-Resistant Bacteria</th>
<th>PKH</th>
<th>German Hospitals, Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRSA</td>
<td>19 %</td>
<td>21,3 %</td>
</tr>
<tr>
<td>MRSA hospital acquired/1000 pt days</td>
<td>0</td>
<td>0,16</td>
</tr>
<tr>
<td>VRE</td>
<td>0,4 %</td>
<td>12,6 %</td>
</tr>
<tr>
<td>Pseudomonas, Imipenem-res.</td>
<td>7,7 %</td>
<td>16,8 %</td>
</tr>
<tr>
<td>3 and 4 - MRGN E. coli (ESBL)</td>
<td>1,2 %</td>
<td>10,4 %</td>
</tr>
</tbody>
</table>
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 lifes
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..
Representing > 20,000 active members in Germany; CAM-Doctors total number = approx. 40,000

→ ... use CAM doctor’s expertise...!