



**Postgraduate education for physicians
in Clinical Environmental Medicine
running program and perspectives**

Brussels, 19th May 2015

P. Ohnsorge



5th Paris Appel Congress, 19th of May, 2015
Royal Academy of Medicine, Belgium

CLINICAL ENVIRONMENTAL MEDICINE
NEW SCIENCE AND PRACTICE IN COMPLEX
MULTISYSTEM ILLNESSES (CMI)

**Demographic development of the
population will lead to**

- Excessive increase of the age pyramid
- Growing old happens on a price of increasing chronic illnesses
- Impossibility of a long term coping of this “end of the pipe strategy” by only treating symptoms instead of causalities
- Exponentially increasing costs in health systems
- Foreseeable break down of European health systems

**Current Risk Assessment
is unsatisfactory !
Due to**

- insisting on the “dose – effect relationship“,
- missing assessment of accumulating long time – low dose effects,
- not being aware of multiple load with additive and multiplying effects,
- not being aware of individual susceptibility, epigenetically and genetically effects
- disregarding
 - Neuro-Endocrine-Immune-System (NEIS)
 - Vulnerability

**Behind all the individual fate
we regard a severe influence
on a social dimension generally**

1. Crash of European health systems
2. European Commercial defeat by losing last resources
3. Chronic burden to Mental Health in the population

**Behind the individual fate
we regard a severe influence
on a social dimension**

1. **Crash of European health systems**

HEALTH COSTS air-quality

If the EU complied with WHO's annual air-quality guideline on PM 2.5 fine particles:

- in 25 large European cities up to 22 months of additional life expectancy for persons 30 years of age and older could be gained,
 - 31.5 billion € could be saved in monetary health benefits every year.
- http://www.env-health.org/IMG/pdf/HEAL_AR_2010_FINAL.pdf

Behind the individual fate we regard a severe influence on a social dimension

1. Crash of European health systems
2. European Commercial defeat by losing last resources

Global competition of the economic systems

Europe has no natural resources any more beside:



- Well respected scientific research output
- Engineering experiences and knowledge on a very high level

We are going to diminish our last resources

The main economic impact of SBS is the reduced productivity *

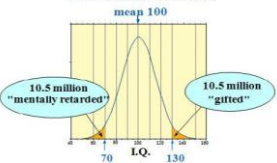
- EPA estimated productivity losses from office workers due to SBS: 3 %, or
 - ❖ \$ 60 billion \$ in 1989 ,
 - ❖ \$104 billion \$ in 2008.
- this estimate is conservative
- not included losses in non-office environments.

* Public Health Consequences and Cost of Climate Change Impacts on Indoor Environments, EPA January 2010, <http://www.epa.gov/iaq/pdfs/mudarrri.pdf>

Behind the individual fate we regard a severe influence on a social dimension

1. Crash of European health systems
2. European Commercial defeat by losing last resources
3. Chronic burden to Mental Health in the population

The Significance of Small Effects:
EFFECTS OF A SMALL SHIFT IN IQ DISTRIBUTION IN A
POPULATION OF 456 MILLION



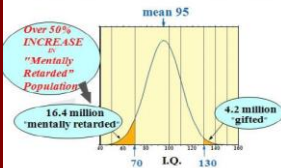
Population of 456 Mio people
= of 25 EU member states 2004
→ Average IQ 100

→ 2,3% = IQ <70
→ 10,5 Mio are retarded
→ 10,5 are gifted

Decreasing the average from
IQ 100 to IQ 95

→ 3,6% = IQ <70
→ 16,4 Mio are retarded → 50%
→ 4,2 Mio are gifted

5 Point Decrease in Mean IQ



Gwynne Lyons, CHEM Trust
PO Box 56842, London N21 1YH, United Kingdom.
Lisette van Vliet, Health and Environment Alliance
28 Boulevard Charlemagne, 1000 Brussels, Belgium

Acknowledging that

- chronic illnesses are causally influenced by environmental burden
- physical, chemical, biological and psycho-social stressors are able to cause continuing and escalating inflammation
- the Neuro-Endocrine-Immune-System is always involved
- this usually ends into Multisystem Illnesses
- **Clinical Environmental Medicine has the tools for diagnose, therapy and prevention**

Question occurs:

Are we able to avoid, to turn around or at least to stop this in future?

Yes we can!

By

- Primary prevention strategies individually
- protecting the Neuro-Endocrine-Immune System from permanent individually attacking
 - physical,
 - chemical,
 - biological and
 - psycho- sociological stressors

Best effective lever for prevention strategies is

→ Education

Train

- Doctors,
 - Students at universities
 - Physicians postgraduate

For primary prevention strategies urgently needed

- Awareness of environmentally linked complex illnesses by physicians and scientists
- Education and training of physicians in Clinical Environmental Medicine for functioning as “whistleblowers” and for a better
 - Awareness
 - Diagnose
 - Treatment
 - Patient information
 - » Avoidance strategies
 - » Prevention strategies

Best effective lever for prevention strategies is → Education

Train

- Doctors,
 - Students at universities
 - Physicians postgraduate
- Nurses,
- Architects
- Teachers
 - Kindergarten
 - Schools

➢ **Thereby influence adults in the family**

Curriculum for education in environmental medicine

- Started in German speaking countries in the late 80's with different Curricula
 - Schleswig-Holstein (Department of BRD)
 - Austria
- A common curriculum for Germany began 1993
- This was transferred to Luxembourg 2000
- Since 2012 training on that base in Italy and Spain

**German Curriculum of
environmental medicine 200 hours**

Theory

- Section I: Basics und methods of environmental medicine
- Section II: Ecological damage 100 hours
- Additional: Excursions to a nuclear power station, waste incinerating plants, waterworks

**German Curriculum of
environmental medicine ca. 200 hours**

Clinical Education

- Section III: Clinical aspects diagnostic and therapy
- Section IV: Clinical aspects consultation, prevention 100 hours

**Certification conditions in
Luxembourg
for the additional-titel
“Environmental Medicine“**

1. 4 years basictraining as a general practitioner or as a specialist
2. Hearing 200 hours lesson of the curriculum “environmental medicine“
3. Joining a “Circle of Quality“
4. Taking part at a tutor-system

Tutorial system

- Telephone-counselling once a week, if necessary
- 6 weekends seminars with the tutors in between 1 ½ year
- Visiting 2 congresses of environmental medicine

“Clinical Environmental Medicine” further development of Education in Germany

- No Certification by the Common Medical Society since 2006 any more
- Instead reduction to 80 hours Curriculum for “Environmental Medicine”
- → Less interest of physicians
- Upgrading to 120 hours structured curriculum “Clinical Environmental Medicine” by EUROPAEM

“Clinical Environmental Medicine” further development of Education in Germany

- Due to the Bologna/Process:
- All over Europe all advanced specialist’s training has to be novelized
- So up to 2020 novelizing of the complete medical advanced specialist’s training has to happen too

“Clinical Environmental Medicine” further development of Education in Germany

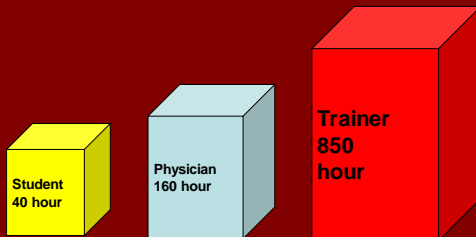
- **This is a big chance to be part of this future:**
- German official Medical Association asks already for an establishment of “Clinical Environmental Medicine”
 - as a new medical discipline to be taught
 - by a postgraduate structured curriculum.
- We offered a structured curriculum which we already use as base of a “Blended Learning” Course (120 h Online and 40 h Presence)
 - https://europaem.eu/attachments/article/10/dbu_Europaem_Curriculum_Entwurf_20_15_03_24.pdf
 - http://www.dbu-online.de/fileadmin/redakteur/Flyer/dbu_Europaem__Curriculum-24_03_15.pdf
- Due to Bologna Process this education will spread out all over Europe in a couple of years to be adopted by all European medical authorities.

**Suggestion of the
European Academy for
Clinical Environmental Medicine:**

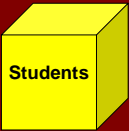


**Education of physicians
on three levels**

Three steps education of physicians in Clinical Environmental Medicine

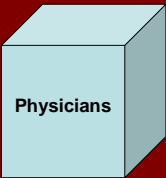


Teaching students 40 hour
during the last year of studying
to regard on:



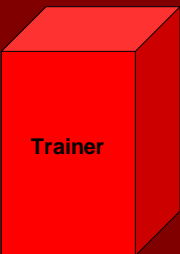
- complicated histories, probably induced by environmental circumstances

Teaching physicians
160 hour curriculum
to look for:



- multi-factorial, multi-functional or multi-dimensional reactions, probably induced by environmental circumstances;
- individual reactions because of specific susceptibility or genetically determination.

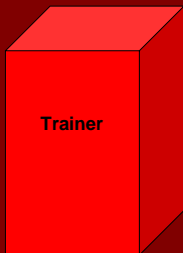
Train the trainer by
850 hours upgrading studies
to enable them :



- to teach at universities and medical schools
- to work in public health
- to manage a hospital as a clinical director
- to get the additional education and title: „European Master of Environmental Medicine“.

European Master of Clinical Environmental Medicine

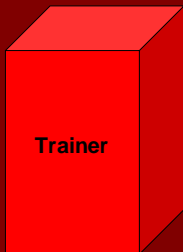
Main conditions:



- Having already passed the „physicians 160 hour curriculum“
- Upgrading 850 to hours university studying
- Final university examination
- **½ year assistance in an environmental clinic or doctors office**

European Master of Clinical Environmental Medicine

additional conditions:



- 4 certificated congresses
- 5 case histories documented, followed up with own patients
- 2 expert opinions for insurance companies or court accompanied by a supervisor
- **Instead assistance for ½ year: 80 days of “job shadowing” in a clinic or a doctors office focused on environmental medicine**

In Germany there is an urgent need of at least

- **200 – 300 specialized doctors offices or ambulances**

Additional

- **200 hospital beds
As facilities for treating acute exacerbation
Multisystem illnesses like MCS, CFS, FM**

Expert Discussion Environment & Health, 20.06.2008,
German Federal Parliament

Start now a common education of “Clinical Environmental Medicine”

- To arise better awareness on environmental linked diseases,
- To train doctors in better diagnosing and treating these illnesses,
- To start primarily prevention earlier,
- To make health systems affordable by this.

The Blended Learning Course is structured in 8 blocks online-training with 120 hours and 2 blocks presence seminars (weekend with 20 hours each).

Block 2: Introduction, Basics, Ecotoxicology, Multisystem Diseases
Block 3: Indoor - Outdoor Pollution, Immunology, Basics in Laboratory, Public-Health Studies, Epidemiology: Basics and Practice in Clinical Environmental Medicine
Block 5: Literature Research, Biostatistics, Systems, Ecotoxicology, Information, Biological Structure
Block 4: Gut, Nutrition, Chemical Stressors, Heavy Metals, Detoxify, Other Medication
Block 5: Physical Stressors, Radiation, Noise, Human-Biomonitoring, Other Medication
Block 6: Epidemiology, Clinical Genetics / Epidemiology, Public Health, Clinical Impact, Networking, Safety Culture, Future
Block 7: Specialist's Aspects, Therapy, Chronic Wilderness Diseases, Public
Block 8: Oncology, Detoxification Procedures, Accompanying Therapy, Evaluation of Therapy Results, Prevention

Face-to-Face Seminar I: (Single 1 presence seminar weekend, date variable due to the actual status of education, after block 4.)
Face-to-Face Seminar II: (Single 2 presence seminar weekend, date variable due to the actual status of education, 24 month after beginning of the education itself.)

Education charges 595€ each block tax included.
 For 10 blocks (160 hours, standard duration of study up to two years) overall education charges 5950€ tax included.
 Further information: www.scopro.de

In case of interest we gladly will inform you personally.
 Don't hesitate to contact us: mail@scopro.de

Further Education – Blended Learning
Clinical Environmental Medicine

Clinical Environmental Medicine

- ▶ 160 hours Blended Learning (eLearning, additional few hours compulsory-attendance lectures)
- ▶ Comprehensive structured curriculum, in a modern didactical format
- ▶ Short learning units 5-20 minutes
- ▶ Training focused on practice
- ▶ Structured diagnostics and therapies
- ▶ Continuously supervision by tutors for transferring lessons learned into daily practice immediately
- ▶ Expenditure of time 2 years

Advantages of eLearning:

- ▶ Only few fixed appointments
- ▶ Learning rhythm by self-determination
- ▶ Repetition rate of consecutive training blocks possible as much as wanted
- ▶ Handouts for downloading
- ▶ Minimized travelling costs due to only few hours compulsory-attendance lectures

Information for start of training procedure and costs available under: www.scopro.de or mail@scopro.de

prebook now!



Dr. med. Peter Ohnsorge
 CEO

Körber GmbH, Auf der Scheel 106, D 37076 Wietzenberg
 T +49 (0) 531 470 869 24, M +49 (0) 171 127 127 0
 E p.ohnsorge@koeber.de, www.scopro.de

mail@scopro.de
education@europam.eu
fortbildung@europam.eu

Recommended by:
 



Thank you for your
attention

**THE TRICK
IN LIFE IS
TO MAKE IT
LOOK EASY**

Peter Ohnsorge

Member of the Board

of der FAHRT 04

D-97076 Würzburg

Tel. +49 (0)931 - 353 48 30

Fax +49 (0)931 - 57 31 31

Email: ohnsorge@europaem.de