

# Pharmaco-Economics

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AEMH Conference 2007  
Association Européenne des  
Médecins des Hôpitaux

## Hospitals → Centers of Excellence?

- Pharmaceuticals are a cost-intensive sector
- Prescribed by physicians
- Pharmaceuticals are in the center of medical and economic needs
- Incentives are divergent

Mag. Dr. Wilhelm Frank April 19, 2007, Vienna / Austria 60th AEMH Planetary Meeting

## Pharmaco-economics

Subdiscipline of health economics  
with special features

- Different level of prices (costs)
- Benefit of an health intervention
- Integrating science (clinical studies)
- Relations: Payer – physician - patient

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## Pharmaco-economics

Challenging tasks realized by:  
Study types – evaluation

several study types of pharmacoeconomics:

- cost-minimization analysis,
- cost-benefit analysis,
- cost-effectiveness analysis and
- cost-utility analysis

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## Keywords for pharmaco-economics

- Effectiveness – real conditions
- Efficacy – study conditions
- Efficiency – monetary evaluation (input – output relation)

## Perspectives in pharmaco-economics

- Results are dependent on perspectives – (hospital, physician, industry, patient, social insurance, national economy,..)
- Seems to be unscientific
- Integrating different blocks of costs and different levels of benefit
- Outcomes (surrogates or end points)

## Benefit – systems of parameters

- Pharmacological parameters (bioavailability, AUC)
- Medical data, outcomes, surrogate parameters
- Quality of Life, utilities, improved profile of side effects
- Benefit as monetary parameter (no need for further interventions)
- Parameters of health care (number of patients, Compliance, fraction of responders)
- Further options for therapy (benefit of me-too-products)
- Scientific benefit (higher grade of level of evidence)

## Challenges

- Compliance
- Transfer from study conditions to real world
- Biases – lack of external validity of investigations – ability to generalise
- Systematic research
- Seek for reliable information
- Pharmacoepidemiology - economics

## Example: Lack of compliance

Creates a loose/loose/loose/loose/loose/loose/situation

1. Social Insurance companies /hospitals/ pay for medication
2. Physicians assumes the compliance
3. Patient does not have the desired effect
4. Industry suffers from a bad feedback / product reputation / phase 4-study
5. further actions have to be paid (higher dosing, other product,...)
6. Patient tends to be sick longer

## Comparing pharmaceuticals

- Economic comparison assumes scientific comparability
- Information concerning effectiveness or at least efficacy is important
- Get information only from systematic research (due to information biases)
- Adjust for dosing per time (mode of administering), effect

## Purchasing pharmaceuticals

- Economic principle: as cheap as possible
- Patient expects „best care“
- Decision process should be patient orientated
- Strict selection should be avoided (like only one product of a certain therapeutic class)
- No products are completely comparable
- Maintain the therapeutic options

## Centers of Excellence – field of „pharmaco-economics“

- Experience in pharmaco-economics
- Permanent need for scientific information
- Ideology of Evidence based medicine or intervention analysis
- Systematic research
- Guidelines in the field of limited resources

## What should be done

- economic consideration is not enough
- Health economic point of view is important
- Evolving economic thinking also to economists, health is not a typical good and there is an untypical market and we have patients and not customers
- Quality and best practice must be harmonised with economic thinking

## Change of course of collision

- Rationing should be more transparent
- Pharmaceutical industry should be able to understand limited financial resources
- Quality standards of care to avoid deterioration in health care
- Economics is more than cost cutting
- Consider „health market“ with distance

## Economics against medicine?

- Basically no, but incentives are colliding
- Unexperienced economists without social responsibility want to make cost-cutting (market !)
- Unexperienced health planning on the basics of industry based controlling systems
- Market is profit orientated → risk selection
- Regulations are necessary
- Pharmaceutical industry (also no market!) maximises prices for their products
- Patient loses against profit maximisation

## Basically .....

- Never forget what the patient needs
- Physicians and industry is information biased
- Selective consideration of expensive pharmaceuticals
- If physicians can tell the reason why this or that is necessary experienced economists with social responsibility will understand that!

# Thank you

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