



Pitfalls in Clinical Research

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Clinical research

means not only

„clinical trials”

but also

„clinical behaviour”

The most commonly reported reasons and justifications of conducting the research in clinical environment are:

- **patients' benefit**
- **improving the clinical practice**
- **gaining of experience and knowledge**
- **progress in medicine**

On the background of these ideal world are:

- **high impact publications**
- **popularity and glory**
- **money**
- **good relations**

Principles of clinical research

- The basic demand from any research is being **ethical**. These involves all steps and phases of the study
- All ethical considerations should be „**patient oriented**” (patient benefit, translational rather than principle based ethics, valid consent).

Basic rules and basic pitfalls:

1. respecting patient's rights
2. avoiding research misconduct
 - study design and end-points
 - inclusion and exclusion criteria
 - randomisation
 - data analysis
 - publication of the results
 - sponsorship

1. PATIENTS' RIGHTS

- *protection of personal autonomy*
- *to be informed*
- *access to health care*
- *appropriate quality of health care*
- *free choice of caregiver*

Principle-based ethics

- *beneficence,*
- *non-maleficence,*
- *respect for patient's autonomy, and*
- *justice*

("Georgetown mantra")

Translational ethics

- autonomy of the patient and
- informed consent

Autonomy

- **self determination** and
- **independence**
(autonomous choices [informed consent, informed refusal, informed choice] – patient is expert about his own life and psychosocial-spiritual circumstances; he contributes decision making by expressing his personal preferences, beliefs and values i.e. “personal freedom” and “freedom of choice”)
- **right to privacy and confidentiality**
(regarding all health problems)

Legal validity of *informed consent*

1. **patients' ability** to give consent
2. **sufficient information**
3. appropriate **form of consent**

Has the patient also obligations?

- “reasonable patient” standard
- “competent partner – patient”
- (social context of the patients’ rights)

2. Avoiding research misconduct

- study design and end-points

(open trials- observer bias; single-, double blind; placebo controlled; „efficacy and safety”; equivalence and non-inferiority trials; mortality, eg. infant mortality as a function of birth weight disregarding gestational age and fetal „growth”; costs, eg. cost of the procedure without cost of complications)

- inclusion and exclusion criteria

(pre-study dropouts, eg: exclusion of patients with no opportunity for follow-up visits; inclusion criteria including patients with better prognosis)

2. Avoiding research misconduct

- randomisation

(local vs central; cluster randomisation; Zelen's prerandomisation design [eligibility, information, consent, randomisation] - facilitating patients' entry but „making” him defensible in the choice of treatment options)

- data analysis

(PP [per protocol], ITT [intention-to-treat], NNT [number needed to treat])

- publication of the results (researchers or sponsor)

- sponsorship („who wins the reward” - patients, researcher, „practice”, system, sponsor)