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| **Case-control study (badanie kliniczno-kontrolne)** |
| **Explanation, additional information** | **Content of the lecture** |
| **Cechy charakterystyczne oraz źródło danych** *Characteristics and data source* | * Rare disease
* Clinical setting
 |
| **Badanie kliniczno-kontrolne** *Case-control study* |  Timeklinquiryexposureill no exposureexposurehealthy controlsSample selectionno exposure Population healthy control representative  matching Ill healthy control comparability |
| **Parowanie** *Matching*  | **Matching** * Statistical/sample selection technique which is used to evaluate the effect of a treatment by comparing the treated and the non-treated in non-experimental design (when the treatment is not randomly assigned).
* People use this technique with observational data (i.e. non experimental data).
* The idea is to find for any treated unit a similar non treated limit with similar observable characteristics.
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| **Iloraz szans**- w badaniu kliniczno-kontrolnym związek pomiędzy narażeniem, a chorobą mierzy się za pomocą ilorazu szans*Odds ratio- in a case-control study association between the exposure and the disease is measured with the odds ratio* | **Odds ratio (OR)****OR=a\*d/b\*c**

|  |  |  |
| --- | --- | --- |
|  | Disease | total |
| Present  | Absent  |
| Exposure  | Present  | a | b | a+b |
| Absent  | c | d | c+d |
| total | a+c | b+d | a+b+c+d |

* OR=1 no association (chances equal)
* OR>1 Exposure associated with higher odds of chances
* OR<1 Exposure associated with lower odds of chances

Attention: OR can be calculated in cross-sectional studies |
| **Badanie retrospektywne kliniczno-kontrolne** *Case-control restrospective study* | Case-control retrospective study Time Inquiry exposureno exposureillhealthy controlsno exposureexposure |
| **Wady i zalety badania kliniczno-kontrolnego***Advantages and disadvantages of case-control study* | **Advantages (positives):**ill* Suitable for studying (very) rare diseases
* Efficient (costs, effort, time) compared to cohort study

**Disadvantages (negatives):*** Problems with data quality
* Difficult to find a suitable control group
* Not suitable to study (very) rare exposures
 |

**Vocabulary:**

Comparability-porównywalność

Inquiry- zapytanie/dochodzenie

Matching-dopasowanie/parowanie

Odds-szansa

Odds ratio- iloraz szans

Rare-rzadki

Ratio-współczynnik