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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* | Time  kl  inquiry  exposure  ill    no exposure  exposure  healthy controls  Sample selection  no 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. |
| **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  exposure  no exposure  ill  healthy controls  no exposure  exposure |
| **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