



Final Plenary Session

Frank de Vries PharmD PhD

Maastricht UMC+, Utrecht University, the Netherlands

EAHP Prague 13 Sept 2014

Disclosures

- From 2006-2010, Frank de Vries has worked as a senior epidemiologist for the UK Medicines and Healthcare Products Regulatory Agency. He has been involved in commissioned research for various pharmaceutical companies.
- Some of the research presented in this workshop on 12-13 September 2014 has been conducted as part of the IMI-PROTECT study, which is a public private partnership between various stakeholders including academia, the European Medicines Agency and various pharmaceutical companies.

Objectives

- to understand study methods and tools in research
- to apply in these methods

- to r
ar

Calcif Tissue Int (2012) 91:24–31
DOI 10.1007/s00223-012-9603-8

ORIGINAL RESEARCH

Potential Impact of Benzodiazepine Use on the Rate of Hip Fractures in Five Large European Countries and the United States

T. P. Khong · F. de Vries · J. S. B. Goldenberg ·
O. H. Klungel · N. J. Robinson · Luisa Ibáñez ·
J. Petri

analysis,
ata to
ks (PARs)

Objectives

- to understand study hierarchy, databases, methods and tools of pharmacoepidemiology research
- to apply individually break out sessions on these methods and tools
- to perform literature research, meta-analysis, and combine it with drug utilization data to estimate population attributable risks (PARs)

Method - Estimation of pooled RR

PAR = Population Attributable Risk

$$PAR\% = \frac{Pe(RR - 1)}{1 + Pe(RR - 1)} \cdot 100$$

RR

Relative Risk

Pe

Prevalence rate of drug use

Slides from groups

Objectives

1. Estimate PARs of a certain outcome performing
 - a) a meta-analysis and
 - b) collect national drug utilization data

Learning goals

1. Application of pharmacoepi
2. Overview of EU pharmacoepi datasources
3. Case-control vs cohort design
4. Pro's & con's pharmacoepi study designs
5. Calculate risk ratios, odds ratios risk difference
6. Recognize desing, exposure & outcome in papers

Learning goals

7. Critical appraise papers with exposure & outcome
8. Assess misclassification of risk estimation
9. Classify bias (confounding, information, selection)
10. List solutions for each type of bias
11. Apply revman
12. Steps & bias of systematic review
13. Identify online EU DU resources

Learning goals

14. Estimate DDD/1000 inhabitants
15. To combine pooled risk estimates with DU data
16. Transform DU data into prevalence of use
17. Estimate population impact of a drug
18. To test for limitations.

**Feedback to home
+ Khong paper with 7 easy steps.....**

Thank you so much!



frank.de.vries@mumc.nl

