Programme

28 November 2012
Auberge ‘t Koffer, Mesch
18:00-22:00h

• Welcome & drinks

• Italian buffet:
  Vitello tonnato // Poached salmon with a cream of basil // Insalata caprèse (mozzarella, tomato and basil) // Pasta salad with ham, salami, pine nuts and crispy vegetables // Salad with smoked chicken and aceto balsamico // Frutto di Mare (salad made of seafood) // Spaghetti with pommodori and prawns (warm) // Ravioli filled with spinach in cheese sauce (warm) // Chicken roll filled with Italian herbs and salami (warm) // Candied veal peel “à la Osso Buco” (warm) // Champignons marinata // Ciabatta bread // Tiramisu // Coffee and chocolates

• Served wines:
  Jansz premium Non Vintage Brut (aperitif)
  Gavi di Gavi - Marchesi di Barolo (white)
  Barbera d’Alba Paiagal - Marchesi di Barolo (red)

• Oral presentation by Prof. Albert Scherpbier:
  “Maastricht University — quo vadis?”

• Discussion

Acknowledgments

We are very grateful for the sponsoring of this event by Prof. Martin Prins (Research programme Clinical Epidemiology) and Prof. Job Metsemakers (Department of General Practice). We thank Bas Verhage for designing the JCM logo.
Researchers striving for high quality need to ...  
◊ keep up-to-date with their own specific field of research  
◊ know about general key concepts of research outside their own field  
◊ exchange knowledge with other researchers to fully understand and solve complex problems  

The aims of the Journal Club Mesch (JCM) are therefore to ...  
◊ create a critical discussion forum  
◊ stimulate acquisition of knowledge on a wide range of topics  
◊ foster continuous and lifelong learning  

JCM´s approach to achieve these goals is to ...  
◊ bring together motivated and talented researchers from various disciplines but with a homogeneous academic level  
◊ create a relaxed and inspiring atmosphere by combining discussions with dinners  
◊ plan meetings regularly, every fortnight outside office hours and in a private environment  

The 1st meeting was organised on 1 November 2006  

The JCM has 20 current and 8 former members. The median number of members participating per meeting is 6.  

A total 28 guests joined the meetings throughout the years.
Guests
Discussed topics

Propensity scores +++ Tool to distinguish between efficacy effectiveness trials +++ Controversy over Null Hypothesis Significance Testing +++ Interpretation of risks from diagnostic tests +++ Cellular phone use and cancer risk +++ TOP grant “NicVax” +++ The influence of sponsors on the results from reviews +++ The methodology of economic evaluations and their usefulness for decision makers +++ Cluster randomisation in primary care research: considerations for design and analysis +++ Baseline risk as predictor of treatment benefit +++ The limited value of the RCT – a gold standard turned brass +++ The Status Syndromes. How social standing affects health and life expectancy +++ Building theory in health science: opportunities and limitations of responsive methodology +++ Diagnostic self-tests versus health care provider tests. Implications for clinical research +++ Statistical analysis of repeated measures of lung function from the Amsterdam Growth and Health prospective cohort study +++ Statistical problems to document and to avoid in manuscripts +++ Spins in the powerful placebo +++ Mortality in randomized trials of antioxidant supplements +++ Limitations and adoptions of logistic regression in diagnostic research +++ Genetic susceptibility and risk of disease +++ Current concepts of clinical reasoning and their relevance for diagnostic decision making +++ The pervasive fallacy of retrospective power analysis +++ N-of-1 randomized controlled trials +++ Sense and nonsense of modified intention to treat analysis in randomized controlled trials +++ Unmeasured confounding +++ Freud lives! Unconscious cognitions and behaviour +++ Extending the CONSORT statement to randomized trials of non-pharmacological treatment +++ Promoting participatory research by family physicians +++ Developing and shaping health research policy making +++ Sensitivity analysis for synthesis of observational studies accommodating credibility ceilings +++ Preventing publication bias: registries and prospective meta-analysis +++ Does evidence-based medicine have a sound scientific base? Point/countercase discussion +++ Inflation of effect sizes +++ “Ul de contramine” - exagural speech from 16 September 2005 +++ Selection of confounders and the problem of overfitting +++ Why European universities fail, and how they could fly by the tail +++ Types of missing data and how to deal with them. +++ Design of repeated measurements: a choice between more patients or more repeated measurements? +++ The Utrecht probiotics trial: another 15 deaths for the statistics? +++ The role of epidemiology in translational medicine +++ Should we ditch Immune Factors? And what may be alternatives? +++ Mediation analysis. The Baron-Kenny method and its alternatives +++ Treatment allocation in trials: stratified randomization or minimization? +++ Bayesian statistics (I): introduction to the Bayesian analysis of clinical trials +++ Bayesian statistics (II): analysing trial data using WinBUGS +++ Theses revisited. On the quality, defensibility and (non)sense of statements attached to PhD theses +++ Methodological problems in the use of indirect comparisons +++ Citation bias analysed with a complete citation network +++ Randomized designs to evaluate medical tests +++ Components of plastic: experimental studies in animals and relevance for human health +++ Agreement versus reliability measures +++ Puzzlingly High Correlations in fMRI Studies +++ Diagnosis and its alternatives? +++ Media: experimental studies in animals and relevance for human health +++ Adjusting for multiple testing: Why or why not? +++ Systems epidemiology in cancer +++ QRIISK2 - A prediction model of cardiovascular risk using routinely collected primary care data +++ Use and misuse of the receiver operating characteristic curve in risk prediction +++

False-positive results in observational epidemiology +++ Designing evidence-based interventions for behavioural change +++ Biological, clinical, and ethical advances of placebo effects +++ Bringing research findings to clinical practice. Why and where do researchers get stuck? +++ Statistical process control charts +++ Subgroup analysis, covariate adjustment and baseline comparisons in clinical trial reporting: current practice and problems +++ Health care insurer Cz’s policy for rating the quality of breast cancer treatment +++ Genomewide association studies and their relevance to smoking cessation treatment +++ Minimally important change +++ Understanding and misunderstanding of Analysis of Covariance +++ Clinical response prediction +++ Use of CART (classification and regression trees) for risk prediction +++ Interim analysis and stopping rule +++ Attribion in randomised controlled trials +++ Open access journals - pro’s and con’s +++ Genetic epidemiology: key concepts and genetic linkage studies +++ Including patient representatives in scientific projects +++ Stepped wedge design +++ Specifying components of behaviour change interventions +++ About the need of systematic reviews: How close are we to Archie Cochrane’s goal? +++ GRADE: going from evidence to recommendations +++ Clinical response prediction (II) +++ Why most published research findings are false +++ Conflicting evidence regarding the association between perinatal mortality and home versus hospital births +++ Scientific misconduct: how is it defined? how frequent is it? and what to do about it? +++ Intraclass correlation coefficient +++ Overadjustment bias and unnecessary adjustment in epidemiologic studies +++ The impact of patient and physician preferences on randomized trials +++ Teaching epidemiology +++ Collider-stratification bias +++ Overdiagnosis of invasive breast cancer due to mammography screening +++ Credibility of claims of subgroup effects in randomised controlled trials +++ Missing heritability +++ Usefulness of scales for quality assessment of clinical trials +++ Pilot or feasibility studies: what? why? how? +++

The Multiphase Optimization Strategy (MOST)
Take home messages

- Although the distinction between a "pilot" and "feasibility" study is often vague, one could regard:
  1) a "pilot study" as the small version of the bigger study.
  2) a "feasibility study" as a study investigating the feasibility of one or more specific elements of the bigger study.

- Most pilot/feasibility studies have insufficient sample sizes for deriving reliable estimates (e.g., an effect size or prevalence) and therefore the point estimates of such parameters are no good indicators for the bigger study.

- Descriptive statistics can provide useful information whereas inferential statistics do not.

- It is not realistic to apply for funding of a pilot/feasibility study.

- It is useful to try and publish results from a pilot/feasibility study separately if these are relevant for a larger (international) audience.
Scientific output

- Kotz D, Spigt M, Arts IC, et al. Use of the stepped wedge design cannot be recommended: A critical appraisal and comparison with the classic cluster randomized controlled trial design. Journal of Clinical Epidemiology 2012 Sep 7 [Epub ahead of print]

- Kotz D, Spigt M, Arts IC, et al. Researchers should convince policy makers to perform a classic cluster randomized controlled trial instead of a stepped wedge design when an intervention is rolled out. Journal of Clinical Epidemiology 2012 Sep 7 [Epub ahead of print]


- Spigt M, Kotz D. Hoe zet je een goede journal club op? Ervaringen met de Journal Club Mesch. [How to start a good journal club? Experiences from the Journal Club Mesch] Epistel Januari 2010


- van Amelsvoort LG, Viechtbauer W, Spigt MG. Spuriously precise results from meta-analysis. Is better statistical correction or a more critical methodological assessment warranted? Journal of Clinical Epidemiology ; 62:123-125; discussion 126-127


- Spigt MG, Kotz D. Comment on: “a simple and valid tool distinguished efficacy from effectiveness studies”. Journal of Clinical Epidemiology 2007; 60:753-755
13 Bayesian analysis of clinical trials

WOLFGANG VON BUCKE

Background
Most researchers working in the health and social sciences are not exposed to Bayesian methods as part of their training. However, the Bayesian approach provides a natural interpretation to the results arising from trials and reflects closely how researchers think about the evidence regarding the effectiveness of treatments.

Discussion
The distinction between the classical and Bayesian approach can be illustrated in the context of a randomized controlled trial comparing medication versus placebo. The classical approach provides a test of the null hypothesis that the treatment is as effective as placebo. Properly interpreted, the p-value arising from this test indicates the probability of observing the present or an even larger treatment effect assuming that the null hypothesis is actually true and the study were to be repeated an infinitely large number of times under similar circumstances and procedures. Leaving aside that this definition requires reference to an infinite number of hypothetical studies, it is important to realize that the p-value is not the probability that the null hypothesis is true. Yet, this is actually what we would like to know!

Similarly, the 95% confidence interval is an interval constructed from the observed data such that it will contain the true size of the treatment effect in 95% of the cases if the study were to be repeated an infinitely large number of times. Unfortunately, nothing can be said about the probability that the observed interval in any particular study contains the true effect. In fact, this is technically a nonsensical question, since the observed interval either does or does not contain the true effect (i.e., the probability is either 1 or 0 in any particular case).

When adopting the Bayesian approach for the analysis of the trial, we must first explicitly consider the existing knowledge about the size of the treatment effect before analyzing the data. This knowledge is put in the form of a prior distribution, specifying the likelihood that the true treatment effect takes on various values. If there is no prior information or we want...
caphri QUIZ!

Who knows the most about science, culture, life-style & sports?

Date and time: 3 March 2009, 20.00-23.00h
Location: Edd's Café, Heggenstraat 3, Maastricht
Admission is free and includes two drinks

All scientific and administrative staff members and PhD students of CAPHRI are welcome to participate! You can apply as a team of maximum 5 people or as a single person (to build a team with others on the spot) by sending an e-mail to Danielle Moens: D.Moens@caphri.unimaas.nl
Wine tastings