used to identify the drug with the longest survival rates. These comparisons are important in clinical decision making. Furthermore, subanalyses split for different reasons of discontinuation can be used to deepen insight in reasons for short drug survival. Knowledge on the reason for discontinuation is extremely important for the clinician. Another important purpose is to identify useful predictors for long drug survival, using Cox-regression analysis. In clinical practice, these predictors can be used to select those patients that will benefit most from a certain drug. Also, studying and comparing drug survival of different (disease) groups may provide insight whether or not we can exchange knowledge between those groups. Finally, drug survival rates can be combined with quality-of life-measures. As we put effort in prolonging drug survival-rates, we think it is also of importance to know whether being 'on drug' is compatible with acceptable quality-of-life outcomes.

As methodological designs and patient-selection criteria differ among published drug survival studies, these studies cannot always simply be compared. Moreover, it must be kept in mind that drug survival is influenced by behavioral factors and secular trends, such as the physicians' preferences and the changing availability of therapeutic alternatives.

This paper provides an overview of the methodology, purposes and limitations of drug survival. In order to make future drug survival studies more comparable and of high quality, we formulated 7 suggestions to harmonize outcomes. For indexing and to prevent false interpretations of the concept, we argue that the number of synonyms used should be reduced and propose the worldwide adoption of the term 'drug survival'.

Abstract #: P 371

Cortisol validation study: one awakening salivary cortisol sample is reliable in pregnant women

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Background: Maternal depression, anxiety, and stress during pregnancy have been associated with adverse effects on maternal as well as fetal health and may increase the risk of severe adverse pregnancy outcomes. Elevated cortisol levels are associated with these mood, anxiety, and stress disorders and can be measured in saliva. Several studies have already been conducted to measure cortisol levels in pregnant women using multiple measurements on consecutive days, which may lead to participation burden and high costs. Objective: The aim of this validation study was to examine whether one awakening salivary cortisol measurement will suffice to classify pregnant women as having normal or elevated cortisol levels compared to collecting awakening salivary cortisol measurements on three consecutive working days.

Methods: Salivary cortisol samples used for this validation study were collected in a sub-cohort of the PRegnancy and Infant DEvelopment (PRIDE) Study. Women were asked to collect three saliva samples on consecutive working days within 10 min after waking up. The Intraclass correlation coefficient (ICC) and Cohen's kappa coefficient were calculated for the cortisol samples measured on day one and the average of the cortisol samples measured on three consecutive days. Sub-analyses within stratified factors as time of sampling, employment and other maternal characteristics were done for both the continuous and categorical data to further examine the reliability of the cortisol measurements.

Results: The total study population consisted of 199 women. The overall ICC between day one and the average of awakening cortisol levels on the three consecutive days was 0.79 (95 % CI 0.73–0.84). The kappa coefficient for agreement between the two measurements was 0.74 (95 % CI 0.63–0.85).

Conclusion: One awakening salivary cortisol sample provides a reliable measurement for classifying pregnant women as having normal or elevated cortisol levels in epidemiologic studies.

Abstract #: P 372

Application of the self-controlled case series design in pharmacoepidemiological studies: a cautionary note

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Background: The self-controlled case-series (SCCS) design has been applied to control for time-fixed (un)measured confounding in pharmacoepidemiological studies. Although previous studies acknowledged that violations of the key SCCS assumptions lead to biased exposure effects, little is known about the impact of the violations in empirical studies. We aimed to evaluate the impact of various levels of violation of assumptions of the SCCS design and different definitions of observation/risk periods in a study of antidepressants use and risk of hip/femur fracture (HF).

Methods: Information on adults with a hip/femur fracture (HF) who used antidepressants at any time during the observation period 2001–2009 was extracted from the UK THIN (6632 cases) and the Dutch Mondriaan (136 cases) databases. The incidence rate ratio (IRR) using this design was defined as the rate of events during exposed periods and during all other observed periods. The IRR of HF was estimated using conditional Poisson regression.

Results: The IRRs appeared extremely biased when all subjects were censored at their first/last HF or when the analysis was restricted to subjects experiencing hip fracture after initiating antidepressant use. For example in THIN, IRRs for >365 days of exposure were 1.26 [1.13–1.42] when complete follow-up was considered and 40.1 [32.2–49.9] when censoring was at the first event. However, results were consistent when including subjects who were exposed at the start of follow-up and for different risk period definitions.

Conclusion: The SCCS design is sensitive to violations of the assumptions and yields apparently biased estimates when a significant number of subjects is censored at the event or when the analysis is restricted subjects who experienced hip fracture after initiating antidepressants. The performance of this design may differ across studies and across databases. Therefore, in each SCCS study, correct specification of the SCCS design should be carefully assessed and reported.