contribute to identify genotypes associated with best and worst responders as well as susceptibility to adverse drug reactions.

32 Antipsychotic Prescribing Practices at BKH Augsburg

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Antipsychotic prescriptions were extracted from basic documentation ("BADO") at a regional psychiatric hospital (BKH Augsburg). Schizophrenic patients (ICD-10: F20.x) with admission dates in 2002 and 2005 were targeted. Descriptive statistics were used to show prescription patterns. Suggested ongoing medication after discharge was assumed to reflect practitioners' intent to treat. Evaluation included, among numerous other parameters, absolute medication counts as well as counts of individual combinations. Dosage information was not available. Combination strategies with other psychotropic medication (including antidepressants, anxiolytics, hypnotics, and mood stabilizers) were common. Simultaneous use of more than one antipsychotic agent was observed in 28% to 43% of cases. With regard to antipsychotic substances only, monotherapy with second-generation antipsychotics was the most frequently observed regimen but decreased in frequency from 59% in 2002 to 41% in 2005. Pickup of aripiprazole was quick with 13.5% of all schizophrenic patients receiving the new substance in 2005. Combinations with either second or first-generation antipsychotics occurred in up to 20% of cases. The most frequent combination prescriptions included clozapine with amisulpride, risperidone, aripiprazole, or haloperidol; olanzapine with risperidone; risperidone with quetiapine and combinations of oral and depot antipsychotics. Antipsychotic treatment strategies were associated with a number of significant differences in patient history, therapy, and outcome. However, most of these had rather low effect sizes below 0.3. This study suggests that in contrast to best current practice guidelines, and as observed by a number of previous studies, combination of antipsychotics is a common treatment strategy which needs to be further evaluated.

33 TDM – Differences between Daily Practice and Consensus Guidelines

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Therapeutic drug monitoring (TDM) is a valid tool to optimise pharmacotherapy. Despite of many advantages, like treating patients with a dosage adjusted to the individual characteristics and reducing adverse events, the use of TDM in clinical daily practice seems to be not optimal. The everyday practice in a psychiatric hospital was investigated. Out of all TDM-controls of 2007 a sample of 69 controls (10%) was drawn. It was investigated for correctness of indication, date of blood control, consequences and usefulness. Only 22,1% of the samples were performed correctly. In 55% the form was inaccurate. In 16% of the cases TDM was not performed in the steady state level of the drug. Therapeutic consequences were not consistent to the laboratories recommendation. In 16% TDM was totally unnecessary. The results suggest that it is necessary to establish continuous trainings to ensure that the Consensus Group Guidelines are applied correctly and to reduce the cost of TDM.

34 Antipsychotic Drug Levels in Psychiatric Primary Care Patients

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Therapeutic Drug Monitoring (TDM) helps to maintain therapeutic drug levels for optimal therapeutic efficiency. It is routinely used in many psychiatric hospitals. By contrast TDM is rarely established in primary care patients. For outpatients TDM helps to avoid relapses or recurrence. In this study analysed the concentrations of antipsychotic drugs in schizophrenic outpatients of four different outpatient care units. Given that TDM gives rise to stable drug levels and thus to continuous stabilization of the patient's improvement it was expected that routine control of drug levels will reduce the risk of relapse. Antipsychotics serum levels and clinical variables (severity of illness according to Clinical Global Impressions, CGI, and side effects) were analysed in schizophrenic outpatients supervised in four different outpatient units; two were institutions with regular TDM and in the two others, TDM was newly introduced and formerly applied only in case of special indications, e.g. occurrence of side effects. The study included 170 patients (55% females, mean age 48 years) classified with an F2 diagnosis according to ICD-10, most of them F20.0 or F25.x. We analysed 206 serum samples. Of the concentrations measured in the whole patient sample 93 (45.1%) were more than 20% outside the recommended therapeutic range, mostly below (61 of 93). In the institutions with established TDM the number of patients with drug concentrations too low was about two times lower (19.6%) than in institutions with formerly irregular TDM (38.5%). Side effects were mostly moderate (18.9%) or slight (31.1%). They increased with increasing number of drugs. Patients with antipsychotic drug concentrations above the therapeutic range had the highest number of side effects (65.6% versus 47.5% for patients within the therapeutic range). Conclusion: These results indicate that drug concentrations are more frequently adjusted to the recommended optimal range when supervising the patients with regular TDM. Since many patients had plasma concentrations that were lower than recommended it can be expected that these patients had an increased risk for symptom worsening. TDM should therefore be used more frequently in schizophrenic outpatients, since it can be expected that TDM is helpful to prevent relapses, hospitalization or disability which are major goals of long-term psychopharmacotherapy.

35 Methods of Pharmacy Claims Data-based Persistence Analyses and Community Pharmacy-based Estimation of Adherence – The Case of Antihypertensives

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Patients with chronic diseases like hypertension require long-term and continuous pharmacotherapy to achieve positive outcomes shown in randomized controlled trials. However, non-adherence to drug therapy (up to 50%), e.g. to antihypertensives, is a major problem. Three projects exploring persistence and adherence with antihypertensives are, therefore, the focus of the presentation: To evaluate persistence of patients when switched from the brand name ramipril to a generic product – after patent expiry in 2004 – the medication possession ratio (MPR) was measured. Claims data for ambulatory prescriptions within the statutory health care system (GKV, www.dapi.de) were evaluated based on more than 80% of German community pharmacies (CP). Although data were not corrected for covariates like age or gender, which are currently not available in the database, or further co-medication, the results suggest that persistence is not negatively affected by physician-induced switching from brand name to generic ramipril – whether patients were treated with monotherapy, fixed combinations with diuretics or both. The focus of our 2nd project is persistence in long-term treatment with antihypertensive drugs. Again, DAPI data warehouse claims data will be analyzed. Persistence rates in patients treated with monotherapy of an angiotensin receptor blocker (ARB), an ACE inhibitor (ACEI), a beta blocker (BB), a diuretic or a fixed combination of an ARB, an ACEI or a BB with a diuretic are measured using different methods: MPR and gaps in filling prescriptions. Results of the persistence analyses will be compared to adherence with medication in CP. To detect problems of patients with their medication potentially leading to non-adherence in a real life setting, we started a pilot study in German community pharmacies in April 2008. Patients with a prescription for a beta blocker, an ACE inhibitor, a diuretic or a fixed combination of the mentioned substances are asked to fill-in a questionnaire. This self-report questionnaire contains adherence- and medication-based questions. Afterwards, blood pressure is measured by the pharmacist. Data-based persistence and CP-based adherence analyses will be combined to explore opportunities to detect non-compliance and to improve adherence in daily practice.