Results: We identified 142 patients who committed suicide while in the hospital wherefrom 125 charts could be reviewed. 52% were male. 52% were diagnosed with an affective and 26% with a psychotic disorder, respectively. 59% were admitted due to suicidal ideations. 58% had a history of suicide attempt(s). 74% reported serious life events previous to the index hospitalisation. 74% committed suicide outside the hospital. Most suicides occurred in month 3-6 after admission. In the last assessment before the suicide, 88% had affective symptoms, 66% anxiety, 63% hopelessness, 42% psychotic symptoms and 36% agitation/restlessness. Of those with affective symptoms, 79% received antidepressive medication. 77% with psychotic medication had antipsychotics and 42% of those with anxiety received anxiolytics. 64% denied in their last interview before committing suicide suicidal ideations, 42% had a ''non-suicide agreement'' with their clinicians. According to a clinical assessment, 80% of those who committed suicide were at low or at no suicide risk.

Conclusions: Most inpatients suicide occurred unexpectedly. A more rigorous treatment of anxiety, but also affective and antipsychotic symptoms could lead to decrease suicide in inpatient settings. ''Non-suicide agreements'' could not prevent suicides.

S33.04

General mortality from anxiety and depression (the HUNT study)

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Background and Aims: Depression is reported to be associated with increased mortality, but underlying mechanisms are uncertain. Associations between anxiety and mortality are also uncertain. In a large population study, we investigated associations between anxiety, depression and mortality over a 3-6 year period. We utilized a unique link between a large regional community survey and a comprehensive national mortality database.

Methods: Baseline information on mental and physical health was collected in a population-based health study (n=61,349) (the HUNT-2 study) of adults aged 20 years and over. Anxiety and depressive symptoms were ascertained using the Hospital Anxiety and Depression Scale (HADS). Records were linked with the Norwegian national mortality database.

Results: Case-level depression was a risk-factor for mortality, but case-level anxiety was not (having adjusted for confounding factors). The association between anxiety symptoms and mortality was U-shaped, and anxiety comorbid with depression was associated with lower mortality compared to depression alone. Associations between depression and mortality were partly but not entirely explained by somatic symptoms and conditions, and also physical impairment, but not by smoking, obesity, cholesterol level or blood pressure.

Conclusions: Depression predicted general mortality after adjustment for multiple potential confounding factors. Associations between anxiety symptoms and mortality were U-shaped. Lower mortality was found in comorbid anxiety and depression than in depression alone.

S33.05

Anxiety, depression and cause - specific mortality. The HUNT historical cohort study

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Objective: Depression is reported to increase general mortality. For cause-specific mortality, there is evidence for the effect of depression on cardiac mortality and suicide. Less is known as to other mortality diagnoses. The literature on anxiety in relation to mortality is scarce and conflicting. This study investigates empirically the association between anxiety/depression and cause-specific mortality with particular attention to underlying mechanisms and causes of death.

Methods: Employing a historical cohort design we utilized a unique link between a large epidemiological cohort study and a comprehensive national mortality database. Baseline information on physical and mental health (HADS) was gathered from the population based health study (N=61349). Causes of death were registered with ICD-10 diagnoses during 4.4 year follow-up.

Results: Case-level depression increased mortality for all major disease-related causes of death, whereas case-level anxiety and comorbid anxiety/depression did not. The effect of depression was equal in cardiac mortality compared to all other causes combined, and confounding factors were also markedly similar. Accidents and suicide was predicted by comorbid anxiety depression.

Conclusions: Depression is a risk factor for all major disease-related causes of death, and is not limited to cardiac mortality or suicide. Case-level anxiety imposes no increased disease-related mortality, but comorbid anxiety depression predicts external causes of death. As the association between depression and cardiac mortality was comparable to the other causes of death combined, and confounding and mediating factors are markedly similar, future investigation as to mechanisms underlying the effect of depression on mortality should not be limited to CVD mortality.

S34. Symposium: LONG TERM TREATMENT OF SCHIZOPHRENIA

S34.01

The role of adherence to medication in the effectiveness of long-term treatment of schizophrenia

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Background: Effectiveness of medication treatment is determined by three components: treatment efficacy (symptom reduction), tolerability/safety, and adherence. Compared with efficacy and safety, research into adherence has been lacking. Nevertheless, medication non-adherence is a risk factor for relapse and for aggressive behavior in association with substance abuse in schizophrenia patients. Non-adherence has been estimated to cause approximately 40% of relapses in patients with schizophrenia. High rates of treatment discontinuation in all arms of the CATIE study illustrate the widespread nature of non-adherence. Most of previous research has defined non-adherence as a complete discontinuation of medication. However, many schizophrenia patients show partial adherence: they do not completely discontinue their medication, but they do not take all that has been prescribed. Partial adherence is more difficult to define and study than complete non-adherence.

Methods: We had the opportunity to study partial adherence in the context of a randomized, double-blind, 8-week, fixed-dose study comparing olanzapine 10mg/d, 20 mg/d and 40 mg/d for patients with schizophrenia or schizoaffective disorder (N=599). Medication non-adherence was measured by pill counts. Baseline characteristics including demographics, illness history and symptom severity were investigated as potential risk factors for treatment non-adherence.

Results and conclusion: Approximately 1/3 of patients were non-adherent with their medication at least once during the 8-week study. These non-adherent patients had significantly less improvement compared to adherent patients. Adherent patients had greater weight gain than the non-adherent ones. Among the available baseline measures, greater baseline depression severity appeared to be a significant risk factor for non-adherence.

S34.02

Long-term outcomes of schizophrenia: Does psychosocial treatment make a difference?

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Successful schizophrenia management should concentrate on treatment non-adherence, lack of information about the disease, poor insight, depressive symptoms, cognitive decline and stressful family atmosphere. We introduce clinically-based 6-week structured comprehensive program for out-patients with schizophrenia-spectrum disorders in the stabilization phase of the treatment. The group program consists of individual and family psychoeducation, life style improvement intervention, social skills training, cognitive rehabilitation and information technology aided relapse prevention program (ITAREPS). To assess the feasibility and effectiveness we designed one-year prospective follow-up field study. Data on psychopathology (PANSS) and quality of life (Schwartz Outcomes Scale, WHO-QOL-BREF and Social Integration Survey) will be presented. Preliminary analyses (N=58) show statistically significant improvement in total PANSS scores and in quality of life (psychological domain, WHO-QOL-BREF). Patients and their relatives welcome the opportunity to participate in such a comprehensive program.

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S34.03

Large pragmatic long term clinical trials in schizophrenia

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Antipsychotics have for half a century been the mainstay for the pharmacological management of schizophrenia patients. While efficacy has been the primary outcome variable in short term clinical trials many additional variables need to be accounted for when judging the usefulness of these medications over longer periods of time. Classic continuation studies and relapse prevention trials have mostly focused on symptom control, while safety/tolerability and subjective acceptance of these medications have generally been seen as secondary outcome measures. The concept of effectiveness attempts to provide a comprehensive outcome variable which encompasses all the relevant issues that determine longer term treatment success. Lately a number of large scale effectiveness trials, sometimes called large pragmatic clinical trials, have been undertaken, especially in the context of the attempt to evaluate differential drug effects. CATIE and CUTLASS have already been published, CAFE data have been presented in rough outlines and EUFEST results are still pending. While the first two studies have included patients with chronic schizophrenia, first episode patients have been allocated to the latter two trials. Although the available results from these trials are discussed very controversially, they unquestionably present an important addition to the traditional randomized controlled clinical trial design. Information from all types of research will have to be amalgamated in order to allow a rational choice for the long term management of schizophrenia patients. Unfortunately, the results available so far do not allow generalizable statements with regard to differential efficacy/effectiveness of antipsychotic drugs in the long term management of schizophrenia.

S34.04

Real-world effectiveness of pharmacological treatments in schizophrenia

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Background: Guidelines for treating schizophrenia are mainly based on randomized controlled trials of highly selected patients and limited follow-up. It is unknown how well these data can be applied to representative community settings, nor how the choice of antipsychotic medication affects the long-term outcome.

Methods: We evaluated a nation-wide cohort of consecutive subjects (n=2230) hospitalized in Finland for the first time due to schizophrenia or schizoaffective disorder between January 1995 and December 2001. National central registers were used to study all-cause discontinuation rates, re-hospitalization rates, and mortality associated with monotherapy with the 10 most frequently used antipsychotic medications.

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