with one of the drugs under study. Maximum prior antipsychotic treatment is limited to two weeks. The primary outcome measure is retention in treatment, defined as time to discontinuation of study drug. Secondary measures include changes in different dimensions of psychopathology, side effects, compliance, social needs, quality of life, substance abuse and cognitive functions

**Conclusions:** At present, recruitment has been concluded and more than 490 patients have been recruited and randomized. The data have been analyzed and outcome data of this sample will be presented.

## Symposium: The consequences of insomnia

### S05.01

A comparison of insomnia and depression in disability pension award

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**Background and Aim:** Depression and insomnia are common and frequently co-morbid. Both are associated with impaired occupational functioning. The objective of this historical cohort study was to compare their relative impact upon medically certified disability pension award.

**Method:** Data from a population-based health survey in Nord-Trøndelag County in Norway (HUNT-2) was linked with a comprehensive national social security database. Participants within working age (20-66) not already claiming disability pension were included in the study (N=37 308).

**Results:** We compared insomnia and depression as predictors of disability pension award between 18-48 months after the health survey. Both insomnia and depression approximately doubled the risk of disability pension award after adjustment for multiple health and sociodemographic factors. Co-occurrence was less prevalent (2.1%) than expected and produced an additive risk for pension award. 25% of the 3800 participants with insomnia had no other health condition. Due to higher prevalence, insomnia predicted more work-related disability than depression in terms of population attributable fractions.

Conclusions: Depression is consistently recognized as a major contributor to work disability and is frequently the eliciting diagnosis in disability pension award. Our results suggest that insomnia has an equally important and independent role, particularly amongst the younger group, but rarely found in official registries of disability pension causes. This suggests that this potentially treatable factor has considerable economic impact, and should receive more attention in clinical and public health management.

### S05.02

Sleep disturbances and duration of sleep as risk-factors for mortality

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**Objective:** Study prospectively the effect of sleep-related complaints and sleep duration on all cause mortality in a general population sample.

**Method:** The data were gathered from the adult population from the County of Nord-Trøndelag as part of a general health survey whichhad a participation rate of 71.2%. Data included self-reported somatic disorders, somatic symptoms,health related behaviour, impairment, public benefits, medication use, anxiety and depression as well as anthropometric measures, blood pressure and cholesterol level.

**Main outcome measure:** Mortality during a 4-year period following the general health survey as recorded in the Norwegian Death register.

**Results:** An ordinal five point scale of sleep disturbance predicted mortality in the observation period, even in the probable overadjusted model including all available confounders. The variables that most strongly accounted for the effects of the sleep disturbance were (in order of magnitude) somatic diagnoses, health related behaviour, anxiety and depression, subjectively reported physical impairment, educational and social differences, blood-pressure, cholesterol level, and BMI. Time in bed was strongly associated with mortality, and the association was U-shaped. Compared to the median value of 7 hours, spending either less or more time in bed predicted death.

**Conclusions:** Sleep disturbances as well as spending either short or long time in bed are predictors of mortality. Both predictors are robust for adjustment for multiple confounding factors.

### S05.03

The effect of short sleep duration on ongoing psychiatric morbidity

N. Glozier, R. Ivers, A. Martiniuk, M. Stevenson. *The George Institute, Sydney, Australia* 

**Introduction:** Psychiatric morbidity in young adults can lead to a host of poor sequelae including later psychiatric disorder, welfare dependence and psychosocial disability, all worse if the disorder becomes chronic. Early intervention strategies could be enhanced by targeting those likely to have a more chronic or repetitive course.

**Material and Methods:** Twenty thousand young Australians, aged 17-24, were recruited into a prospective cohort study at the time of obtaining their driving license. A random sample of 5000 were recontacted a year later and 2994 completed re-survey questionnaires. Psychiatric morbidity was assessed using the Kessler 10 (cut point 21/22) and DSH was assessed by slef report. Two trained research assistants and a psychiatrist then coded the open responses.

**Results:** Psychiatric morbidity was present in 954 of the sample at baseline. 45& of these were still cases one year later. Older age, female gender, previous deliberate self harm and symptom scores, but not substance or alcohol misuse were the baseline independent association with chronicity vs. remission. Short sleep duration was the only other independent factor, with a 10% decrease in the likelihood of having morbidity at follow up for every extra hour slept on average per night.

**Discussion and Conclusions:** This study suggests yet another poor outcome of short sleep duration in young adults which may aid targeting of early intervention for psychiatric morbidity.

### S05.04

The effect of insomnia and sleep duration on work disability

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**Background and Aims:** Both insomnia and sleep duration have previously been linked with a range of adverse outcomes, but no studies have explored their relative effect on subsequent work disability. The aim of the present study was to investigate the contribution of insomnia and sleep duration to later short and long-term work disability.

**Methods:** Data on insomnia, sleep duration and potential confounders were gathered from 7849 working persons (40-44 years). The outcome was award of disability pension 18-48 months later, as registered in the National Insurance Administration.

**Results:** Insomnia was a strong predictor of both short- and long-term work disability, and this effect remained significant in the fully adjustment model. Reduced or excessive sleep duration was significantly associated with subsequent work disability in the fully adjusted model; only in the crude model did sleeping less than 5.5 hours predict work disability.

**Conclusions:** The present study provides further evidence that insomnia is a strong and independent risk factor work subsequent work disability, while at the same time ruling out that this association is caused by a reduced or excessive sleep duration.

# Symposium: Addiction and psychiatric comorbidity: Rule or exception?

### S03.01

Cannabis and psychosis

I.B. Crome. Keele University Medical School, Stoke on Trent, UK

This contribution will explore UK-based research developments in substance misuse and mental illness over the last 20 years. The main body of work revolves around research largely, but not only, funded by the Department of Health from the late 1990s. Early research revolved around alcohol, especially alcoholic hallucinosis: the relationship with schizophrenia-like illness was examined and the conclusion at that time on the basis of twin, family and clinical studies, was that very few cases did develop into schizophrenia. More recently, large general population epidemiological, and medium or small scale clinical studies, have been undertaken on the relationship between substance misuse (sometime specifically on cannabis) and the later development of mental illness especially psychosis. The presentation will aim to draw parallels with the current debate around the link between cannabis and psychosis and urges caution in too rapid an assertion that cannabis is necessarily 'causal' and the clinical and policy implications of the misinterpretation of evidence. A proposal will be put forward that the genesis of psychotic illness in alcohol misuse is revisited using more sophisticated research methodologies. Given the changing landscape of substance use in the UK, particularly the fashion of polysubstance use and the recognition that this may be associated with psychotic illness, other drugs that are associated with psychotic illness should be similarly investigated to determine whether there is a common mechanism that might throw light on understanding the relationship between substance use and psychotic illness or schizophrenia.

### S03.02

Cocaine addiction and psychotic disorders

E.J. Franzek, I.C. Elsenaar. Bouman Kliniek, Rotterdam, The Netherlands

In order to create hypotheses about the relationship between the effects of cocaine and the development of psychotic symptoms we conducted a pilot study with 55 patients. All patients were personally investigated on their current psychopathology. The 55 patients (more than 80% were males) were distributed in 5 diagnostic subgroups:

- 1) Addiction without a further AS I diagnosis (n=10)
- 2) Addiction and psychotic disorder related to cocaine (n=8)
- Addiction, psychotic disorder related to cocaine and another AS I disorder (n=10)
- 4) Addiction and a schizophrenic spectrum disorder (not schizophrenia) (n=10)
- 5) Addiction and schizophrenia (n=17)

We investigated if psychotic symptoms occurred during cocaine use, if these symptoms depended on the dosage of cocaine and if similar symptoms also occurred without cocaine but during stress.

Hypotheses: Schizophrenic patients receiving neuroleptics respond completely differently to cocaine use than all other groups including the schizophrenia spectrum group (without schizophrenia). When using cocaine the schizophrenic patients did not experience new psychotic symptoms, moreover, many of them reported being less bothered by delusions and hallucinations compared to times without cocaine. In all other groups positive psychotic symptoms occurred dependent on the dosage of cocaine, in some of them similar symptoms were triggered only by stress. The symptoms that are triggered by cocaine have a dosage dependent hierarchical structure: (1) mistrust, (2) plus delusions of reference with fear, (3) plus delusions of persecution with anxiety or panic and illusions, (4) plus hallucinations like threatening voices and noises, (5) plus disorganized behavior.

### S03.03

Addiction and add

B.J.M. van de Wetering. Bouman GGZ, Rotterdam, The Netherlands

Attention Deficit Disorder is a well recognized developmental disorder in children. The disorder has been found to persist in adulthood in about 50% of the cases with an estimated adult prevalence of about 3.5%. ADD in adulthood is characterized by high rates of one or more concurrent psychiatric disorders like mood disorders, anxiety disorders and personality disorders.

In the last decade interest has increased in the co-occurrence of ADD and substance use disorders (SUD). Approximately 15-25 % of ADD patients have a lifetime diagnosis of SUD involving a wide range of legal and illegal substances. Given the different spectrum of ADD symptomatology as compared to the childhood clinical picture, the high rates of psychiatric co-morbidity and the interference of substances with ADD symptoms and course, diagnosis and treatment of these patients constitute a real challenge.

Recent clinical research is directed at unravelling specific risk factors for developing SUD during the course of ADD in later life. Early diagnosis and adequate treatment seem to diminish this risk. Childhood conduct disorder and increased impulsivity are considered to imply an increased risk for developing not only SUD but also criminality in (early) adulthood. Clinical implications of these findings will be discussed during this presentation.

#### S03.04

The link between PTSD and substance misuse

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