terned" (not guilty for reasons of insanity). Treatment possibilities inside the prison are very limited.

The residential Belgian psychiatric care is well organized, but the lack of medium security forensic units in psychiatric hospitals is a limitative factor.

The University Forensic Center of the University Hospital of Antwerp provides an exhaustive out-patient treatment program for sexual abusers. Data on the first 150 consecutive paraphiliac patients will be presented. We will focus on:

- inclusion/exclusion criteria for the treatment program
- the six steps of the cognitive-behavioural relapse prevention treatment program
- the role of coercion in the treatment
- the problem of the liability of therapists with this group of high-risk patients.

SEXUAL OFFENDERS: TREATMENT, PUNISHMENT OR BOTH?

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Sexual psychopath laws have a long history in the United States. Although details have varied over time and place, their intention is to detain those sex offenders who are assessed as being particularly dangerous for indefinite periods. In order to avoid this being prescribed as a cruel and unusual punishment, a treatment component is invariably attached to the indefinite detention. Poor assessment techniques, uncertainty in predicting sexual dangerousness, idiosyncratic and inconsistent treatment, and lack of resources have meant that clinical issues and empirical scrutiny have tended to be submerged beneath political and legal debate about the way society deals with men who sexually offend.

Although sexual psychopath laws per se do not exist in Europe, mental health legislation is sometimes used as a way to achieve a similar end. In addition, in the UK there is currently a debate about whether sexual offenders should be treated differently from men who offend in other ways. This paper will look at research that has taken place regarding the American legislation, and will discuss their meaning for European countries.

THE SLIDING SCALE: TREATMENT OF SEX OFFENDERS IN THE NETHERLANDS

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In Holland sex offenders are more likely to be assessed for a psychiatric diagnosis than other offenders because of their higher possibility of a psychiatric illness or a personality disorder, and therefor a diminished responsibility for their crime. The other reason is their high rate of recidivism, even after years of treatment, so all is tried to prevent relapses.

Being well diagnosed after having committed a crime sex offenders have a lot of legal possibilities to shorten their detention by doing ambulatory, dayclinical or clinical treatment. Partly their detention is left behind as a rod behind the door: to appear again when the conditional treatment is not followed. Partly the detention has been changed in TBS (terbeschikkingstelling): obligatory and controlled treatment in special clinics and hospitals, and in severe cases detention and treatment in one of the seven TBS maximum security hospitals.

So far a network has been established from ambulatory psychotherapy for incest perpetrators to long stay provisions for chronicle re-offending paedophiles or rapists. In fact these legal categories do not say anything about the treatment as psychiatric diagnoses and index crimes are not specific among one another. Important parameters for a certain kind of treatment are the presence of obsessional and compulsive symptoms, concordance of sexual and aggressive acts, perversive phantasies over a longer period, lack of empathy, motivation for treatment, symptoms of a extrovert or introvert personality disorder, and lessened ego-strength. These criteria will be worked out as indications for certain kinds of forensic treatment as the Dutch penal law provides the control.

S58. Membrane phospholipids in schizophrenia and other psychiatric disorders

Chairmen: I Glen, M Keshavan

MEMBRANES AND PSYCHIATRIC DISORDERS

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Phospholipids are essential for the structure of neuronal membranes and for normal development and functioning of the nervous system. There is growing evidence that one of the essential fatty acids in membrane phospholipids, arachidonic acid (AA), and its metabolites modulate neurotransmitter receptors and second-messenger systems. Evidence is accumulating that phospholipid metabolism in both brain and red blood cells may be disturbed in schizophrenia. In particular, in patients with negative symptoms, levels in the phospholipids of the essential fatty acids, AA and docosahexaenoic acid (DHA), in red blood cell membranes are severely abnormal. Cytosolic phospholipase A2, the enzyme that releases AA from membranes, shows increased activity in acute schizophrenia, and is downregulated by classical antipsychotic drugs. P-31 nuclear magnetic resonance spectroscopy of the brains of untreated patients shows increased levels of phosphodiesterase which are associated with increased lipid membrane breakdown. The membrane hypothesis of schizophrenia may represent a new and fruitful paradigm for research.

A GENETIC ABNORMALITY IN SCHIZOPHRENIA RELATED TO PHOSPHOLIPASE A2

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Direct and indirect measurements of PLA_2 activity demonstrate an increase in medication-free patients with schizophrenia compared to healthy controls. In addition, P^{31} NMR measurements of CNS phospholipid metabolism *in vivo* provide evidence consistent with increased CNS $cPLA_2$ activity in individuals with schizophrenia, including those who are neuroleptic naive.

Two studies were undertaken to determine a possible genetic basis for alterations in phospholipid synthesis and activity in schizophrenia. Initial results demonstrated an association in 65 schizophrenics compared with a matched normal control population. A follow up haplotype relative risk study of 44 triads (mother, father, affected offspring), confirmed the results seen in the association study. Results suggest that a genetic variant near the promotor region of the gene for cytosolic phospholipase A_2 ($cPLA_2$), the rate limiting enzyme

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