future will see rather the development of a modular approach, in which only a substantial but limited number of diagnostic modules are presented, offering some flexibility to researchers. The paper discusses some key methodological findings, reviews the pros and cons and attempts an outlook to the future.

### S61. Computers in psychiatry

Chairmen: C Pull, I Marks

#### THE INFORMATION SUPERHIGHWAY AND PSYCHIATRY

Martin Briscoe. Wonford House Hospital, Dryden Road, EXETER, EX2 5AF, UK

The Internet, a military creation, is a global network of computer systems. It stores, and is able to transfer, vast quantities of information. Over 30 million people currently access its information banks. The Internet has the potential to revolutionise many aspects of our lives such as; shopping, banking, education, entertainment and health.

The network presents health professionals with some important questions and challenges, such as. How can we ensure quality of stored information? How can we use the network for professional educational programs? Can patients be treated over the Internet? How will doctors adapt to patients who, through reading information on the network, know more about their condition than their doctor? What are the medico-legal implications?

This presentation will describe the mental health resources currently available on the Internet and discuss developments likely to occur in the near future.

### INTERNET PERSPECTIVES FOR PSYCHIATRY

C.P. Malchow, R.D. Kanitz. Clinic for Psychiatry, Medical University of Lübeck, Director Prof. H. Dilling, Ratzeburger Allee 160, 23538 Lübeck, Germany

Based on the growing general interest and discussion on how the Internet is changing our information behaviour, an idea might arise that an international-multimedia-network-future is starting right now for everyone — including psychiatry and psychiatrists. Though ICD-10 yields a "common language" for communication in psychiatry, there are still unsolved problems concerning searching and delivering psychiatric information on the net.

Among these are the structuring the information, rules about the kind of information to be made available, and for whom, the question of maintaining quality, the authorization of information and data, ethical issues and — last not least — costs and profits.

We will present some ideas and suggestions how these problems can be dealt with and how Internet can be utilized in the field of psychiatry for:

- Disseminating information from health-care organizations
- Research collaboration, exchange and collecting data and infornation
- Handling frequently asked questions (FAQs) in psychiatric problems
  - Electronic journals and discussion forums
- Learning medicine in public education and computer assisted training
- Research in means of delivering health care and telemedicine potentials

We will present some plans in Internet for German psychiatry and the first experiences we gained when offering ICD-10 chapter V (F) as a HTML textbook on our internet server.

# COMPUTERIZED AUDIT OF CLINICAL OUTCOME AND ITS COST: A EUROPEAN CLEARINGHOUSE IS NOW POSSIBLE

I.M. Marks. Institute of Psychiatry, London SE58AF, UK

Clinicians want to know how much their patients improve with treatment and the cost of obtaining that improvement, but rarely measure this in daily practice because of the time it takes. The measuring of improvement and the cost of treatment can be speeded up greatly by computerising it. Over the last 7 years computerized clinical audit systems have been developed. Experience with these is reported with 800 patients and 80 clinicians, first with a pilot system and then with its more efficient successor called CORM (Clinical Outcome and Resource Measure). CORM prints out 'psychiatric temperature charts' of clinical progress and the cost of getting that. Such charts allow clinicians to track outcome of individual patients at a glance and help them decide about further care. Data from individual patients can easily be aggregated in order to track outcome from particular diagnoses, treatments, clinics, age groups, gender, geographical areas etc. Such computerized data can be transmitted among clinics, regions and countries. This makes it feasible now to create a European Clearinghouse of Clinical Outcome and its Cost.

- [1] Marks IM et al & McKenzie N et al (1995) J Mental Health, 1, 63-69 & 71-78
- [2] Marks IM (1995) Australian & NZ J Psychiatry, 29, 1, 32-37.

## S62. Perceptual processes in psychosis

Chairmen: A David, M Spitzer

# FRONTOLIMBIC MECHANISMS FOR PERCEPTUAL AND RESPONSE CLASSIFICATION IN SCHIZOPHRENIA

R.M. Bilder, E. Turkel, J.A. Bates, J.A. Lieberman. Hillside Hospital – Research, 75-59 263rd Street, Glen Oaks, NY 11004, IISA

Prevailing theories of frontal lobe and hippocampal function in humans are based largely on a small number of unique cases sustaining massive injuries not limited to discrete anatomic loci. Lesion studies in non-human primates have shown many similarities between the cognitive consequences of frontal and hippocampal lesions, leading to suggestions that an integrated frontolimbic system is critically involved in a range of executive, "working" memory, and "explicit" memory functions; these functions in turn have been described as elaborations of more primitive classification operations in both sensory and effector domains. We report results from studies aimed at dissecting the respective contributions of frontal and limbic components to integrated frontolimbic functions, using modifications of methods validated in animals. Tests were developed to assess Delayed Matching to Sample with Trial Unique and Repeated Stimuli (DMSU/R), Conditional Discrimination Learning with Delays (CDLD), and Variable Interval Delayed Alternation (VIDA). Adaptive titration procedures assured that all subjects performed at equivalent levels of accuracy before introduction of delays. Samples included neuroleptic naive first-episode and stably treated