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Clinical application of recommendations for neurobehavioral assessment in disorders of consciousness: an interdisciplinary approach

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Accurate diagnosis, prognosis, and subsequent rehabilitation care planning for persons with Disorders of Consciousness (DoC) has historically posed a challenge for neurological care professionals. Evidence suggests rates of misdiagnosis may be as high as 40% when informal bedside evaluations are used to determine level of consciousness. The presence of myriad medical, neurological, functional (motor, sensory, cognitive) and environmental confounds germane to these conditions complicates behavioral assessment. Achieving diagnostic certainty is elusive but critical to inform care planning, clinical decision making, and prognostication. Standardized neurobehavioral rating scales has been shown to improve accuracy in distinguishing between coma, unresponsive wakefulness syndrome/vegetative state and minimally consciousness state as compared to informal assessment methods. Thus, these scales are currently recommended for use as the informal “gold standard” for diagnostic assessment in DoC. The following paper will present an evidence-based approach to neurobehavioral assessment for use in clinical practice. Strategies for optimizing assessment and aiding in identification and management of confounds that can limit diagnostic accuracy will be provided. Finally, clinical application of an interdisciplinary approach to identifying and managing confounds will be discussed and how assessment results can be used to identify trends in performance and guide prognostic counseling with families.

KEYWORDS

brain injury, consciousness disorders (DoC), diagnosis, prognosis, assessment practices

Introduction

Impairments in arousal and awareness after severe brain injury are ubiquitous to disorders of consciousness (DoC) which include coma, unresponsive wakefulness syndrome (UWS)/vegetative state (VS), and the minimally conscious state (MCS). MCS is a clinically heterogeneous category; as it is further stratified into MCS plus (+) and MCS minus (–).

Neurobehavioral Disorders A Clinical Approach

George Kraus



Neurobehavioral Disorders A Clinical Approach:

Hallucinations In Clinical Psychiatry Ghazi Asaad, 2013-12-19 First published in 1991 The purpose of this book is to be used as a clinical guide to assist the clinician in making a comprehensive clinical evaluation of hallucinatory symptoms as they present in various conditions psychiatric and otherwise Except for a few chapters that deal with theoretical background on the subject the focus of most of this book is on clinical manifestations diagnostic issues and treatment approaches with regard to hallucinatory symptoms

Clinical Manual of Neuropsychiatry Stuart C. Yudofsky, Robert E. Hales, 2012 Clinical Manual of Neuropsychiatry offers clinicians the comprehensive expert guidance that they require to deliver cutting edge effective and compassionate patient care Practical comprehensive and exhaustively researched Clinical Manual of Neuropsychiatry is an indispensable resource for professionals

Rehabilitation of Neuropsychological Disorders Brick Johnstone, Henry H. Stonnington, 2011-02-25 This volume provides an overview of standard neuropsychological treatment strategies for specific cognitive impairments that are identified on testing The new edition enhances this goal additional chapters outlining important recommendations services and issues for rehabilitation professionals

Dual Disorders David F O'Connell, 2014-01-21 Dual Disorders Essentials for Assessment and Treatment is a practical handbook for the assessment and clinical management of patients with addiction and psychiatric disorders Addictions counselors prevention specialists and chemical dependency nurses will use this book to understand the nature of psychiatric disorders and uncover valuable guidelines on their treatment and management in the context of primary addictions treatment It includes an introduction to the rationale and clinical approaches of cognitive therapy a special section on psychiatric medications and coverage of mood anxiety psychotic cognitive eating and personality disorders Dual Disorders Essentials for Assessment and Treatment contains information that is vital and fundamental to effective treatment It fills a void in the training and education of addictions counselors helping you become a better diagnostician develop better treatment plans and communicate more meaningfully with psychiatrists and other mental health professionals It will also increase your understanding of psychopathology and psychotherapy and decrease the frustration that can arise from a lack of understanding and planning Specifics that you need to know to do this are thoroughly covered including elements of a comprehensive assessment of dual disorders clinical considerations in the treatment of the depressed addict pitfalls of treating patients with personality disorders the borderline patient what to do and what not to do the psychopathic patient anticipating and effectively addressing manipulation practical approaches in treating patients with eating disorders effective treatment of sexual trauma cognitive therapy approaches to treating dual disorders what to expect when your patient is referred to a psychiatrist for psychotropic medication Unlike other books on this topic Dual Disorders Essentials for Assessment and Treatment is not a summary of research on dual diagnosis nor an overview of general programmatic considerations in treatment delivery Rather it is directed specifically to addictions counselors involved in the day to day treatment of dually diagnosed patients providing

detailed descriptions of the major psychiatric disorders as well as useful guidelines and treatment approaches DSM-5@ Diagnosis in the Schools Renée M. Tobin, Alvin E. House, 2020-02-13 Efficient and accurate use of the American Psychiatric Association's 2013 Diagnostic and Statistical Manual of Mental Disorders fifth edition DSM 5 has become a necessary part of the professional duties of psychologists in a variety of clinical rehabilitative and child service agencies This book is intended to increase child psychologists familiarity with DSM 5 and to bolster their confidence in using it within school settings The present text attempts to provide a broad understanding of the DSM 5 system what it attempts to do how it is organized and how to use it most effectively to capture and communicate the unique features of children's and adolescent's problems

Neurobehavioral Disorders Richard L. Strub, F. William Black, 1981 **Standard Electroencephalography in Clinical Psychiatry** Nash N. Boutros, Silvana Galderisi, Oliver Pogarell, Silvana Riggio, 2011-03-16 This book provides a concise overview of the possible clinical applications of standard EEG in clinical psychiatry After a short history the book describes the physiologic basis of the EEG signal then reviews the principles of EEG in terms of technical backgrounds and requirements EEG recording and signal analysis with plentiful illustrations of the most frequent biological or technical artefacts Normal EEG patterns and waveforms for easy reference are clearly presented before the detailed description of abnormal patterns With the basic information in hand the reader progresses to an account of the role of EEG in the diagnostic work up in psychiatry covering nonconvulsive status epilepticus frontal lobe seizures and non epileptic seizures The clinical application of EEG in both childhood and adult disorders follows including many case vignettes The effects of psychotropic drugs on EEG are highlighted The book closes with a discussion of currently available certification venues for Clinical Neurophysiology along with limitations of each venue It calls for the development of training guidelines and certification processes specific to Psychiatric Electrophysiology The material is clearly presented throughout with plenty of figures tables with summaries of relevant findings flow diagrams for diagnostic work up boxes with learning points and short lists of key references We fully expect the book will become the standard teaching source for psychiatry residents and fellows as well as a useful resource for practising psychiatrists and clinical psychologists Praise for the book This distinguished group of editors has put together chapters that represent an excellent practical handbook on electroencephalography in clinical psychiatry now a very important topic I highly recommend it not only to psychiatrists but also to anyone interested in neuroscience John R Hughes DM Oxon MD PhD Professor of Neurology University of Illinois Medical Center at Chicago Illinois USA Neural Networks and Psychopathology Dan J. Stein, Jacques Ludik, 1998-12-03 Research on connectionist models is one of the most exciting areas in cognitive science and neural network models of psychopathology have immediate theoretical and empirical appeal The contributors to this study review theoretical historical and clinical issues including the contribution of neural network models to diagnosis pharmacotherapy and psychotherapy Models are presented for a range of disorders including schizophrenia obsessive compulsive disorder dissociative phenomena autism and Alzheimer's disease

This book will appeal to a broad audience On the one hand it will be read with interest by psychiatrists psychologists and other clinicians and researchers in psychopathology On the other it will appeal to those working in cognitive science and artificial intelligence and particularly those interested in neural network or connectionist models **Neurobehavioral**

Toxicology: Neurological and Neuropsychological Perspectives, Volume I Stanley Berent,James W. Albers,2012-10-12

This book the first of three volumes provides a thorough background to the emerging field of neurobehavioral toxicology by looking at current clinical approaches and tests as well as assessing current clinical research The analysis of the impact of toxins on the human nervous system is particularly pertinent given the ongoing expansion of pharmaceuticals industrial hazards biological warfare and global pollution A comprehensive introduction to neurobehavioral toxicology this work will be of interest to practicing neurologists and neuropsychologists as well as to occupational medicine physicians and medical toxicologists

Handbook of Neuropsychological Assessment Antonio E. Puente,Robert J. McCaffrey,2013-11-11 The growth of clinical neuropsychology has been unprecedented This growth has been oriented more toward the provision of than toward the foundation for services Thus while a greater number of psychologists are performing a greater number of neuropsychological procedures there seems to us an uneven parallel growth between these services and the empirical foundations for them It should come to no one s surprise that increasingly aggressive attacks on the field have been leveled Despite these attacks clinical neuropsychology continues to enjoy exceptional growth within psychology and acceptance by other health practitioners insurance companies legislators judges juries and above all consumers of our services Growth without self reflection is a dangerous enterprise as is growth without directions We find it disconcerting that existing and limited self analysis has assumed that neuropsychological dysfunction is immune to the same variables that affect psychological dysfunction Some attention has been paid to the most obvious ones such as age but all others have been ignored and or misunderstood This neglect has spawned a body of knowledge replete with questionable data and unfounded conclusions Hence it is surprising that clinical neuropsychologists consider themselves to be more scientifically sound than their regular clinical counterparts Diagnostic Clinical Neuropsychology Erin D. Bigler,Pamelia Fowler

Clement,1997-01-01 Diagnostic Clinical Neuropsychology is a handbook for neuropsychological assessment which includes the evaluation of both cognitive and emotional aspects of functioning in the patient with known or suspected brain injury For this third edition the book has been updated with over 600 new references a new chapter on toxic conditions a glossary and study guides for students The book is designed as an introduction to the field of neuropsychological assessment for the graduate student and as a shelf reference for the practicing clinician It begins with overviews of neuroanatomy and the evaluation process and then looks at neurocognitive syndromes in complete detail This coverage including the description of how to conduct a neuropsychological evaluation in patients with these disorders is the most comprehensive currently available in the field The book treats many of the hot topic issues in neuropsychology such as the cortical subcortical

dementia distinction depression versus dementia malingering and neuropsychological evaluation in patients with mild head injury *The American Journal of Psychiatry* ,1996-10 **Handbook of Neuropsychology and Aging** Paul David Nussbaum,2013-11-11 Leaders in neuropsychology behavioral neurology speech and language science neuropsychiatry and many other disciplines contribute to this volume the first comprehensive review of knowledge in the field They discuss a wide range of disorders including areas of recent research such as frontal lobe dementias and the neuropsychological aspects of late life depression and clinical problems typically given insufficient consideration in other works such as seizure disorder head injury and mental retardation Normal aging is also covered in detail and assessment procedures and clinical interventions are given thorough treatment Other highlights include discussions of guardianship and caregiving personality and behavior psychotic disorders Alzheimer s and head trauma *Occupational and Environmental Neurology* Neil L. Rosenberg,2015-01-28 Edited by Rosenberg Occupational and Environmental Neurology fills a gap in the clinical literature available to the neurologist and occupational medicine physician This volume meets a critical need for clinical guidelines for determination of whether neurological dysfunction in a worker is caused by a naturally occurring condition or is secondary to local exogenous working conditions **Neuropsychiatric Guide to Modern Everyday Psychiat** Michael Alan Taylor,2010-07-06 The Neuropsychiatric Guide to Modern Everyday Psychiatry presents a new view of psychiatry melding traditional biologic neuro and descriptive psychiatry into a broad neuropsychiatric approach to diagnosis and treatment The book relies on insights from basic neuroscience neuropsychology behavioral neurology and neuropsychopharmacology along with experience in the study and treatment of thousands of patients Incorporating step by step assessment and management strategies Taylor provides a practical guide for state of the art clinical care Divided into three parts the book presents the principles of diagnosis and techniques for performing the traditional descriptive psychiatric evaluation and mental status examination as well as the cognitive and behavioral neurologic exam and a rational guide for the use of laboratory studies The Neuropsychiatric Guide also provides practical and operational definitions of all major psychopathology and detailed descriptions and treatment strategies for all psychotic disorders common dementias and delirium behavioral neurologic syndromes including psychosensory and psychomotor states and regional cortical syndromes and sexual dysfunctions In addition the author includes a guide for the use of psychotropics and ECT acute inpatient unit organization and management principles and practical techniques of psychiatric consultation neuropsychiatric emergency management and the diagnosis and care of the elderly patient *At Wit's End* George Kraus,2016-10-15 *At Wit s End* Plain Talk on Alzheimer s for Families and Clinicians now in its Second Edition is a straightforward summary of leading advice for understanding and caring for someone with Alzheimer s disease written without technical jargon and impractical nuance About one third of our population will eventually provide care for someone with Alzheimer s The strain of caring for a loved one with this disease can be enormous yet the reward of enhancing a loved one s quality of life is beyond measure So where to begin Many books delve

into other specific areas of Alzheimer's care emphasizing the financial and legal challenges as well as myriad medical treatment needs of those experiencing the disease. Unique among these offerings, *At Wit's End* explains the psychiatric and psychological aspects of Alzheimer's and does so in a holistic and practical manner. Dr. Kraus focuses on the whole person across his or her full social, psychological, physical, and spiritual life to provide as complete a picture as possible of the changes that are in play. With this broad, thoughtful, and grounded approach, family members, clinicians, and caregivers are better able to discover and make wise choices from a wealth of effective interventions in all areas of care. It also allows them to care for themselves and their families in the dynamic and supportive care process.

Closed Head Injury: A Clinical Source Book 3rd Edition, Mild to moderate to severe closed head injuries result from accidents that force the soft tissue of the brain into contact with the hard bony skull. Long-term effects and poor prognosis turn these injuries into major, often life-long problems. Until recently, physicians did not or could not diagnose many of them, and lawyers found them too difficult to prove. *Closed Head Injury: A Clinical Source Book* helps the practitioner understand how emerging diagnoses of previously ignored brain trauma can be a new source of compensation to injured parties. The author, a noted expert on the subject, clearly explains the nature of the injury, how to identify it, and the information you need to prove it. *Closed Head Injury: A Clinical Source Book* leads the trial attorney into new territories for litigation with up-to-date analysis and instruction on successful trial strategies. Written by leading neurologist Peter Bernad and his team, this volume provides a detailed and practical guide for litigating closed head injury cases. *Closed Head Injury: A Clinical Source Book* covers the medical and neuropsychological analysis of closed head injury, including its causes and effects, evaluation of damages, treatments, and trial techniques. The Fourth Edition contains important new and updated materials on topics related to closed head injuries, such as Medical Diagnosis and Treatment, Psychological Treatment, Treatment of Pain, Forensic Evidence, Insurance Analysis, ANS Monitoring, and Goals of Therapy.

Psychiatry Allan Tasman, Jerald Kay, Jeffrey A. Lieberman, Michael B. First, Mario Maj, 2011-10-11. Extensively revised and updated, this edition reflects the progress and developments in the field. With 127 chapters and over 400 contributors, this book is a truly comprehensive exposition of the specialty of psychiatry. Written by well-known and highly regarded experts from around the world, it takes a patient-centered approach, making it an indispensable resource for all those involved in the care of patients with psychiatric disorders. For this new edition, the section on the Neuroscientific Foundations of Psychiatry has been completely revised with a new author team recruited by Section Editors Jonathan Polan and Eric Kandel. The final section, Special Populations and Clinical Settings, features important new chapters on today's most urgent topics, including the homeless, restraint, and geriatric psychiatry. Key features include coverage of the entire field of psychiatry, from psychoanalysis to pharmacology and brain imaging, including family relations, cultural influence, and change, epidemiology, genetics, and behavioral medicine. Clinical vignettes describing current clinical practice in an attractive design. Numerous figures and tables that facilitate learning and comprehension appear throughout.

the text Clear comparisons of the DSM IV TR and ICD 10 criteria for easy understanding in a global context Diagnostic and treatment decision trees to help both the novice and experienced reader The chapter on Cognitive Behavioral Therapies by Edward Friedman Michael Thase and Jesse Wright is freely available Please click on Read Excerpt 2 above to read this superb exposition of these important therapies **Principles and Practice of Environmental Medicine** A.B.

Tarcher,2013-11-11 Throughout the world scientists and the general with environmental illness Part II presents an overview of public concerns about the adverse effects of view of chemical and physical agents commonly toxic agents found in contaminated air water food found in contaminated air water food and soil and soil In the past attention has focused on hazards The problem of hazardous wastes is also discussed hazards originating in the workplace As a consequence Part III characterizes the body's defense against occupational medicine has become a well recognized such exposure Defenses at the portals of entry are and established clinical discipline Much less attention discussed with emphasis placed on the role of attention has been paid to nonoccupational hazards There nutrition Detoxication and immunologic defense is a growing awareness however of the dangers of mechanisms are described Part IV indicates the exposure to toxic chemical and physical agents in importance of and provides instruction on the home community and general environment method of including occupational and environment especially for the fetus the infant the very young tal factors in the routine medical history The role of the elderly and the chronically ill those most susceptible enhanced susceptibility as a factor in an individual's susceptible Environmental medicine focusing on the response to toxic exposure is discussed **Erwachsene mit Fetalen Alkoholspektrumstörungen** Gela Becker,Klaus Henricke,Michael Klein,Mirjam Landgraf,2019-11-18 Fetales Alkoholspektrumstörungen FASD werden durch Alkoholexposition während der intrauterinen Entwicklung verursacht und können zu dauerhaften hirnorganischen Funktionsstörungen führen Inzwischen werden FASD durch eine erhöhte Sensibilisierung der Fachöffentlichkeit deutlich häufiger wahrgenommen Im Erwachsenenbereich gibt es jedoch nach wie vor Defizite mit der Folge dass Betroffene fehldiagnostiziert nicht fachgerecht behandelt und in den Versorgungsangeboten der Eingliederungshilfe oder der Suchthilfe unzureichend betreut werden Viele geraten in den Teufelskreis dissozialer und krimineller Entwicklung oder leben in der Obdachlosigkeit Es fehlen spezialisierte Diagnostik Therapie und Betreuungsmöglichkeiten für Menschen mit dieser komplexen und tiefgreifenden Behinderung Mit der Neuauflage Suchtgefährdete Erwachsene mit Fetalen Alkoholspektrumstörungen und der Erweiterung des Herausgeberkreises wird ein Handbuch vorgelegt dass einen umfassenden Überblick zum Thema bietet Einführung in die Versorgungsproblematik im Bereich Betreuung Suchthilfe Justiz und Forensik Überblick zum aktuellen Forschungsstand zu FASD und zur Bedeutung der exekutiven Funktionen Beeinträchtigungen der Teilhabe infolge der Einschränkungen der exekutiven Funktionen equivalent mit Intelligenzminderung trotz durchschnittlichem IQ Praxisrelevanter Einstieg in die Diagnostik von Erwachsenen mit FASD Vorstellung eines für Deutschland evaluierten Screening Ansatzes Informationen zum aktuellen Stand der Weiterentwicklungen in den Klassifikationssystemen DSM 5 und ICD 11 Hinweise zu

Interventionsansätzen auch in der Suchthilfe Individualisierbare Materialien und praxisorientierte maßgeschneiderte pr
therapeutische Bausteine für ein Gruppenangebot Das Handbuch soll dazu beitragen den speziellen Bedürfnissen von
Menschen mit FASD in den Versorgungsangeboten besser gerecht zu werden und damit die Teilhabechancen zu erhöhen

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Neurobehavioral Disorders A Clinical Approach Introduction

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