various output tasks. By contrast, a neurobiologically-inspired approach might note the importance of mirror neuron mechanisms that link sensory-perceptual and output motor systems. As a result, sensory-perceptual stimulation tasks will result in priming of output representations and subsequent improvements in naming
The value of adding a neurobiological perspective to impairment therapies for aphasia will be explored in a number of areas. Key issues examined are the importance of intensive, massed practice therapy and how use of information technology allows therapy to be delivered in intensive but cost-effective ways; how errorless learning strategies may enhance therapeutic outcomes; a focus on procedural rather than declarative learning strategies, and how a neurobiological perspective has implications for other intervention strategies, such as early use of total communication strategies in activity-based therapies.

S18.2
Current thinking in dysarthria: Incorporating new technologies

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For many years clinicians have relied almost exclusively on auditory perceptual judgements of speech intelligibility, articulatory accuracy and subjective ratings of various speech dimensions on which to base their diagnoses of dysarthric speech and plan appropriate intervention. Although perceptual analysis will always remain an essential component of the assessment protocol, it is now evident that perceptual assessments possess a number of inherent inadequacies that limit their ability to guide therapeutic intervention for dysarthria. In particular, perceptual assessments when used alone are unable to provide reliable and valid information as to the pathophysiological basis of the speech disorder. For this reason, recent years have witnessed the development and introduction of a range of physiological techniques to supplement perceptual analysis to more clearly define treatment goals based on a better understanding of the physiological basis of dysarthric speech. A number of these physiological instruments have also been utilized directly in the treatment of dysarthria by way of physiological biofeedback rehabilitation. Recently, a neurophysiological technique called transcranial magnetic stimulation (TMS), which can be used to non-invasively modulate brain activity, has been used in the treatment of dysarthria and to examine the integrity of the corticobulbar tracts in dysarthric speakers. The proposed lecture will describe the major advantages and limitations of perceptual assessments and describe examples of major physiological instruments introduced to improve accuracy of the diagnosis of dysarthria and to better inform treatment planning. Examples of the use of these instruments to provide physiological biofeedback for the treatment of dysarthria will be described. Relevant literature relating to the use of TMS in the treatment of dysarthria and as a tool for elucidating the pathophysiology of dysarthria will be reviewed. The need for clinicians to incorporate physiological and neurophysiological procedures into the assessment and treatment of dysarthria will be emphasized.

S19 Medical Law and Ethics

S19.1
Do different religion beliefs effect medical ethics?

S. J. Baloyannis;
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Medical ethics is the offspring of the amalgamation and harmonization of the modern biomedical technology, with the ethical, philosophical, social and religious principles and beliefs of the society. From the medical point of view medical ethics are imposed by the development of various medical strategies and sophisticated procedures, aimed at sustaining and supporting the human life, mainly in its physical, biological, and functional aspects. From the philosophical point of view, medical ethics have been directly or indirectly influenced by the empiricism, the utilitarianism, the liberalism, the skepticism and individualism. From the point of view of the religion medical ethics are mainly theological rather than philosophical or utilitarian. They serve the integrity and the respect of the human being, as well as the divine economia rather than the interest of the productivity of the human society. The anthropological consideration in the main religions starts from the data of revelation, whereas medicine and science is limited to the present condition of the human nature and tries to ameliorate the quality of the terrestrial life. Theology, generally speaking, incorporates within its scope the quality of the interior life of the soul and the life in eternity of the human being. Most religious doctrines concerning human personhood are based on the mystery of the interpenetration of spirit and matter and the spiritual transfiguration of human being by the uncreated energies of God. Therefore, the theological background of medical ethics, is mainly based on the ultimate meaning of human existence, which is found in the spiritual expectation for eternal life, reflecting therefore the intrinsic value of human life in God. It is well concluded by the main religions, that the moral and spiritual values, which should be respected in all considerations in the area of medical ethics must include (a) the sacral character of human life, which is to be acknowledged and preserved from conception, to the grave and beyond, (b) the deep respect of the human being (c) the belief that each human being is the recipient of the infinitive love of God and (c) the concept that the beneficial love of God is the origin and the basis of every human relationship, which reasonably provides ultimate meaning to human existence. These values determine the attitude of the main religion beliefs toward procedures and protocols within the spectrum of medical ethics.

S19.2
Pharahonic Concept for Neurorehabilitation- Historical remarks and results

M. R. Awad;
Egypt.

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S19.3
From Kos to Vienna: Is the Hippocratic Oath still valid?

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In the third millennium everyone in the Western industrial society demands that all possibilities of modern medicine have to be available, everyone expects to be relieved of his physical or mental illness and wants that all advances in research are being applied immediately to grant him a longer life. The modern human claims his right to be treated everywhere and any time, even in advanced age and demands his presumed right to have access to all resources of a social welfare system.
Bound by the Hippocratic Oath every physician is obliged to heal. He has to treat the diseases of his patient, but has to interrupt the treatment of patient who suffers from incurable

illnesses. To prolong the life over hours and days in untreatable conditions using special therapeutic measures is not justifiable. The physician has the obligation to heal but as well as to reduce suffering. The maxim never to hurt and always to help has until nowadays a great normative weight. The patient has to be informed about all details of his disease and the foreseen diagnostic and treatment programme, he has to decide if his relatives shall be informed. In state of "unable to consent" the solicitor hat to get the information. Every patient has the right to refuse the planned diagnostic and treatment programme as well as to interrupt such programmes, detailed informed by the physician about all related consequences for his health.
In the Declaration of the World Medical Association, Helsinki 1964, and in the UNESCO Bioethics Declaration on Human Rights, Paris 2005, all details of Hippocratic principles are included, changing the Hippocratic principles to demands with all legal consequences, also obligatory to clinical trials.
Hippocrates suggestion "to respect the teacher like his own parent" nowadays is mostly an open recommendation.

S20 Future perspective for Neurorehabilitation

S20.1
Special neuro-rehabilitation for elderly people?

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It is well known that average life expectancy has increased worldwide during the last century: in developed countries, average life expectancy has increased from 46 years in 1955 to 66 years in 2005 with an increase up to 75 years projected for the year 2050, while developing countries, since 1950 have enjoyed a 23 years gain in life expectancy (from 41 to 64 years).
The mean age of incidence and prevalence of neurological disorders, in particularly stroke, reflects the average life expectancy increase and more often in rehabilitation divisions we have to treat a large number of old and very old patients. On the other hand we have encreasing problems about cronical neuro-degenerative situation with many, and severe, disabilities for these elderly persons .
Old and very old patients admitted in neuro-rehabilitation departments are often affected by a variety of different chronic-degenerative diseases such like diabetes, osteoarthritis, vascular or Alzheimer dementia.
The comorbidity grade of these patients frequently represents a major obstacle for the rehabilitation project and it is very important in order to determine the finally goals of the rehabilitations treatment. In addition, geriatric subjects have less physical strength than young adults and they are not able to sustain (and to receive advantages) long/intensive rehabilitation sessions. In elderly people the aims for rehabilitation too are different, for the person, the family and also for the service and the community.
Therefore a new approach (scientific, management,clinical, treatment modalities etc.) is needed for the elderly in Neuro-Rehabilitation, which must respect the individual specific needs, possibilities,resources and goals to realize a suitable and effective rehabilitation care for these persons.

S20.2
Minimizing undernutrition in older inpatients

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[1]*North Staffordshire Rehabilitation Centre, Haywood Hospital, Stoke on Trent, United Kingdom,* [2]*University Hospital of North Staffordshire, Stoke on Trent, United Kingdom.*

Poor nutrition following health conditions affecting the nervous system has broad ramifications in all aspects of functioning. Not only does it lead to the obvious physical consequences of weight loss, poor tissue viability and increased risk of inter-current illness, such as infections, it has a profound effect on cognition, mood and behaviour. So, why is it allowed to happen in hospitals across the world? There is good evidence of the calorie requirements following brain and spinal cord injury and of the need for increased nutritional intake, but, as people get older, their ability to utilise food changes after serious illness. Moreover, it is possible that their ability to cope with neurologically-induced dysphagia also changes.
The effect of this may, in part, be due to mood changes and to the direct effect of protein and lipid catabolism, but outcomes are poor unless properly addressed through a multidisciplinary team. Nurses, dietitians and doctors have an important role and developing clinical pathways for the management of swallowing and nutrition is probably the best way to ensure that the correct systems are in place to ensure that elderly people can mount an adequate response to their rehabilitation programme.

S20.3
Neurologists perspective

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S21 Traumatic Brain Injury

S21.2
One year follow up in TBI and the role of rehabilitation

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Objective: To review quality management and deficits of functional neurorehabilitation in patients after acute traumatic brain injury (TBI).
Methods: Prospective controlled, population based, multiple centre study on epidemiology and quality management after acute TBI in Germany. Analysis of functional neurorehabilitation and one- year outcome. Follow up by telephone interview of the individual and/or relatives . Catchments areas of inhabitants 2,114 million.
Results: 6.783 acute TBI (58% male). 28% patients were < 1 to 15 years, 18% > 65 years of age. Incidence was 321/100.000 TBI. GCS: 91% mild, 4% moderate, and 5% severe TBI. 5.221 TBI (= 77%) were hospitalised; 1,4% of them died. One year follow-up statistics of 63.5%. Although 778 TBI (11.5% of all) are admitted for intensive care only 100 patients (= 1.3% TBI respectively 39% of all neurorehabilitation patients) are treated for early neurorehabilitation (Phase "B). All together 258 patients (=3,8% of all TBI, respectively 4.9% of hospitalized TBI) receive an in- hospital neurorehabilitation (73% male), 68% within one month after injury; 5% are <16 years , 25% >65 years; diagnose

Time	Festsaal	Zeremoniensaal	Rittersaal	Geheime Ratstube
07:30 - 08:45		Meet the Professor Breakfast **Brain stimulation in neurorehabilitation** Leonardo Cohen *(Bethesda, USA)*	Meet the Professor Breakfast **Cognitive neuroscience in rehabilitation – a carrier for physicians or psychologists** Stephanie Clarke *(Lausanne, Switzerland)*	Meet the Professor Breakfast **Contemporary point of view on Uhthoff phenomenon in context of rehabilitation in Multiple Sclerosis** Joseph Opara *(Chorzow, Poland)*
09:00 - 10:30	PL03 MAIN SYMPOSIUM Robotics in Clinical Practice Pro-Con Statement Session **Controversies in Rehabilitation Robotics** pro: Hermano Igo Krebs *(Cambridge, USA)* con: William Rymer *(Chicago, USA)* Moderation: L. Saltuari *(Hochzirl, Austria)*			
10:30 - 11:00	Coffee Break / Free Poster Viewing / Exhibition			
11:00 - 12:30	S17 Health-Related Quality of Life following TBI *Chair:* Klaus v. Wild *(Muenster, Germany)* **S17.1 What do we mean by health related quality of life?** Monika Bullinger *(Hamburg, Germany)* **S17.2 Quality of Life after Brain Injury (QOLIBRI) – Scale metrics, validity and correlates of quality of life** Nicole v. Steinbüchel *(Goettingen, Germany)* **S17.4 Cross-culture similarities and differences** Julius July *(Tangerang, Indonesia)*	S18 Current Thinking: Aphasia and Dysarthria *Chair:* Pam Enderby *(Sheffield, UK)* **S18.1 Current thinking in aphasia** Rosemary Varley *(Sheffield, UK)* **S18.2 Current thinking in dysarthria - incorporating new technologies** Bruce Murdoch *(St. Lucia, UK)* **S18.3 The patient's tale** Donal O'Kelly *(Dublin, Ireland)*	S19 Medical Law and Ethics *Chair:* Franz Gerstenbrand *(Vienna, Austria)* Heinrich Binder *(Vienna, Austria)* **S19.1 Do different religion beliefs effect medical ethics?** Stavros Baloyannis *(Thessaloniki, Greece)* **S19.2 Pharahonic Concept for Neurorehabilitation - Historical remarks and results** Mohamed Reda Awad *(Cairo, Egypt)* **S19.3 From Kos to Vienna: Is the Hippocratic Oath still valid?** *Chair:* Franz Gerstenbrand *(Vienna, Austria)*	S20 Practising neurological rehabilitation from the physiatrist's view neurologist's view *Chair:* Volker Hömberg *(Meerbusch, Germany)* **S20.1 & S20.2 The Physiatrists' view** Allesandro Giustini *(Italy)* Anthony Ward *(Stoke On Trent, UK)* **S20.3 The Neurologists' view** Volker Hömberg *(Meerbusch, Germany)* Mike Barnes *(North Shields, USA)*
12:45 - 14:15	Lunch Break			
14:15 - 15:30	Poster Discussion / Exhibition			

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BOOK OF ABSTRACTS

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