

Emergency Management in Neurology

*Series Editor:* Elio Agostoni

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# Ischemic Stroke

 Springer

# Emergency Management in Neurology

**Series Editor**

Elio Agostoni

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This book series provides the reader with detailed information and guidance on the practical multidisciplinary management of the neurological patient in the emergency setting. A wide range of neurological emergencies are covered, and attention is also focused on management in specific patient groups. Numerous clinical cases are referred to in order to explain more clearly different aspects of practical management, and flow charts of the diagnostic and therapeutic approach are presented for all of the neurological conditions considered. The multidisciplinary nature of patient care is highlighted, with inclusion of a specific algorithm for each professional figure involved in the management.

More information about this series at <http://www.springer.com/series/13912>

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# Presentation of the Series

*Emergency in Neurology: A Practical Approach* is a series of books which deal with the most significant chapters in the scenario of neurological emergencies, in terms of diagnosis, differential diagnosis and therapy. One particularity of the philosophy of all the books is the close integration between the strictly clinical-scientific aspects and the organizational elements, which are so important for the efficiency and effectiveness of the treatment.

The main themes of the individual volumes are as follows:

- Ischemic stroke
- Hemorrhagic stroke
- Acute loss of consciousness
- Emergencies in neuromuscular diseases
- Neurological emergency during pregnancy
- Neurological emergency in paediatrics
- Delirium, stupor and coma
- Neurological infections
- Spinal emergencies
- Cerebral hyper/hypotension syndrome
- Diagnostic tools in neurological emergencies
- Emergency medical network in neurological disease

All the volumes are structured in the same way, each containing the following chapters:

- A. The first chapter is an overview of the most recent progress in diagnosis and therapy, including the clinical, instrumental and therapeutic aspects of the acute pathology under discussion, focusing specifically on the best clinical practices.

- B. A chapter dedicated to clinical pathways and the associated organizational elements, following principles which inspired the international guidelines.
- C. A review of clinical cases that are typical of the diverse clinical situations presented daily to the doctors involved in managing neurological emergencies. After the presentation of each clinical case, the reader finds a series of questions and topics regarding the case's management, and some observations by the co-ordinator of the series.
- D. A section dedicated to the differentiated algorithms used for decision-making, based on the organizational, structural and technological features of the hospital receiving the clinical case. This final section of each book is extremely important for the day-to-day handling of neurological emergencies. This chapter aims to supply the reader with all the elements necessary to apply the guidelines and send the patient on the best clinical pathway, taking into consideration the diagnostic and therapeutic opportunities available.

The aim of this series is to provide the specialist with a useful tool for improving the outcome for patients with acute and/or time-dependent neurological pathologies, by choosing a dedicated clinical pathway according to the best practices and scenarios of the professional and organizational opportunities offered by the clinical centres.

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# Preface

The acute phase of ischaemic stroke is a time-dependent neurological emergency. Management of the stroke requires a complex series of programmes and timely actions which can assure that the process is efficient and the treatment effective. Since December 2014, scientific literature regarding acute stroke has been enriched with new evidence which broadens the range of treatment offered, from simple thrombolysis to a combination of the procedures of venous thrombolysis and mechanical thrombectomy. This scenario makes it ever more necessary to have a dedicated organization whose objective is to guarantee the best treatment for patients with acute stroke, always and everywhere.

This volume aims to provide the specialist with a tool of reference which will help him to send the acute stroke patient along the pathway in the most efficient and coherent manner, taking directions from scientific literature and International Guidelines. The scope of stroke management is extremely complex, and its developments are a fundamental point of reference for directing diagnostic, clinical and instrumental choices, for selecting the patients who qualify for the best therapy and for defining the aspects of their prognosis. This book applies a dynamic methodology to deal with current diagnostic aspects and the latest directions in the guidelines. Real clinical cases are introduced which record the various stages of the problems, the diagnostic-therapeutic decisions and the patients' clinical pathways: the decision to include these cases derived from observing the daily reality, which is then presented to the reader in a critical way through the reflections and comments of clinical experts.



The importance of this book lies in its determination to put the best clinical practices into real-life contexts, without losing sight of the organizational characteristics of the hospitals receiving the acute stroke victim.

In keeping with this concept, the diagnostic-therapeutic pathways for acute stroke are differentiated according to the hospitals' technical, professional and structural characteristics. The philosophy of this volume places the reader in a real situation and offers the clinical expert the chance to choose the best pathway, also considering the functional features of the hospital where the case is to be handled. This paradigm facilitates the development of pathological networks and broadens the concept of the 'Hub and Spoke' organization for accurately managing acute ischaemic stroke as a time-dependent pathology. Making up for any avoidable delay is the basic element, and it starts with a good organization which will help the patient's clinical outcome. In this scenario, the structural and organizational characteristics of the clinical centres are used to differentiate the clinical pathways for patients with acute stroke, thus facilitating the clinical expert in his choices and highlighting the importance of operative cooperation between the centres in the network.

Milan, Italy

The Series Editor and the Authors

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