



Union International Contre le Cancer  
International Union Against Cancer

# Cancer in Children

Clinical Management

Edited by

H.J.G. Bloom United Kingdom

J.Lemerle France

M.K. Neidhardt West Germany

P.A.Voûte Netherlands



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*With 121 Figures*

Springer-Verlag  
Berlin Heidelberg GmbH 1975

ISBN 978-0-387-07261-6

ISBN 978-1-4899-2776-7 (eBook)

DOI 10.1007/978-1-4899-2776-7

Library of Congress Cataloging in Publication Data. Main entry under title: Cancer in children. Bibliography: p. Includes index. 1. Tumours in children. I. Bloom, Harris Julian Gaster, 1923– [DNLM: 1. Neoplasms – – In infancy and childhood. QZ200 C21513] RC281.C4C37 618.9'29'94 75-8910.

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Originally published by Springer-Verlag Berlin Heidelberg New York in 1975

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## Preface

With the fall in mortality from infectious diseases, the impact of childhood cancer in the Western World has increased to become the second commonest cause of death in the age group 1–14 years, being surpassed only by accidents. However, even in those countries in which paediatric cancer is attracting increasing interest, the disease is relatively uncommon, and the number of cases seen by any one physician, even in a large general hospital, is often limited to one or two a year. The widely held view by parents and even by many doctors that cancer in childhood is usually untreatable and inevitably fatal is no longer tenable. With improvement in the therapeutic response or in the actual survival rates of children with such lesions as Wilms' tumour, brain tumours, rhabdomyosarcomas, Ewing's sarcoma, retinoblastoma, lymphoma and even leukaemia, there is a real hope of achieving a substantial reduction in the mortality of childhood cancer. Paediatric oncology is, in fact, providing a vigorous stimulus to the much wider field of cancer treatment and research, and is demonstrating the advantages of a multi-disciplinary cooperation in the management of this disease. The child with cancer must benefit from accumulated experience and expertise when it comes to investigating the case, staging the disease, and selecting and carrying out the all important first treatment. Although optimum treatment factors are by no means established, certain therapeutic principles, based on available knowledge, have emerged for various tumours: it is these principles which are not always applied even in large centres. Unless the initial assessment is accurate and treatment adequate, the chance of cure may be irretrievably lost.

Treatment techniques, dosage and overall times used in radiotherapy vary in different centres. The high doses quoted here for certain tumours, such as osteosarcoma and rhabdomyosarcoma, need careful consideration in relation to the anatomical region and volume irradiated and to the child's age. Excessive reactions in normal tissues must be avoided when large doses of irradiation are combined with the administration of certain cytotoxic agents or radio-sensitizers, especially with regard to such organs as the kidney, lungs and liver (e.g. irradiation combined with actinomycin D for Wilms' tumour).

Although the principle of combined modality and multiple drug treatment for childhood cancer is now being increasingly applied, the order and the timing of different therapeutic measures, and the choice of drugs and dosage to achieve the greatest effect against a particular type of tumour, have yet to be determined.

What was once considered to be a rather narrow and generally hope-

less 'by-way' of medicine, to which few doctors gave much time or effort, is rapidly becoming a highly developed full-time sub-speciality in the cancer field. Surgeon, radiotherapist, chemotherapist and laboratory worker are coming together to try to formulate the best possible treatment for present-day patients, whilst striving, through trials, to achieve advances for the benefit of future cases. Such aims have culminated in the formation of the International Society of Paediatric Oncology (SIOP) which has grown from a small club of interested French physicians in Paris, to a world-wide organization, attracting representatives from many nations and disciplines.

One of our aims is to stimulate physicians and health authorities to set up regional paediatric oncology units. It is essential to gather cases of suspected or proven childhood malignancy in such centres staffed by teams representing multi-disciplinary interests and skills. It is only by bringing together a sufficient number of these uncommon cases and treating them according to standardized protocols that real progress can be made.

The stimulus for this book has come from the Patient Care Committee of the International Union Against Cancer (UICC) which charged the four editors from different countries with the task of bringing the concept to fruition. The many contributors are drawn mainly from Europe but we have not hesitated to call on experts from as far afield as the United States, Canada, Japan and Cameroun. In all, 45 contributors from 8 countries have given generously of their time and experience. Most chapters are the result of collaboration between two or more authors representing different disciplines or schools, sometimes from different parts of the world.

Each chapter has been considered in detail by all four editors working individually, and also collectively at meetings held in Geneva, London and Paris. Differences of opinion, based on experience and outlook, have inevitably occurred on a number of occasions between the editors and the contributors, and also, at times, between the editors themselves! We are grateful to those authors who have given additional time and effort to consider controversial matters which we have raised with them. In most instances an agreed practical policy has been reached. When the issues were too broad and differences could not be resolved, the authors were free to express their own views.

With so many contributors from different countries, it was only natural that literary style would not be uniform. Furthermore, several chapters have required translation from the authors' mother tongue. The editors decided not to strive for uniformity for fear of losing the feeling and emphasis expressed by individual writers. At times, some overlap of material has purposely not been edited to enable individual chapters to stand on their own.

Established and recently acquired knowledge of paediatric oncology must be propagated. We hope this book will prove a useful practical guide for doctors working in the more general areas of cancer or paediatrics who seek to become more familiar with recent thought and practice in this highly specialized field which has changed so much

in recent years. We also hope that the text will prove of value to postgraduate students preparing for higher examinations, and for those embarking on a career in clinical oncology.

We wish to express our deep gratitude to all our distinguished contributors without whose special knowledge and experience this book could not have been produced. We are grateful to Dr. J. Delafresnaye, Director of the Geneva Office of the International Union Against Cancer who arranged and financed our editorial meetings and who has been a constant source of help and encouragement with our often difficult task.

Our thanks are also due to Dr. H. Götze, Partner of Springer-Verlag Berlin-Heidelberg-New York and President of Springer-Verlag New York Inc., for agreeing to publish the book, to Professor W.F. Angermeyer, Miss M. Brendel and Mrs. N. von Kanne of Heidelberg and to Mr. P.B. Mayer of London, for their advice and guidance, and finally to Dr. H.J. Hirsch for assistance in preparing the manuscripts for publication.

All royalties from this work will be donated to provide medical books for developing countries.

Knowledge in the field of paediatric oncology is advancing rapidly in many centres and we should welcome criticisms and any suggestions for future improvement.

*H. J. G. Bloom*  
*J. Lemerle*  
*M. K. Neidhardt*  
*P. A. Voûte*

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