ESMO Handbook on Cancer in the Senior Patient

2ND EDITION
EUROPEAN SOCIETY FOR MEDICAL ONCOLOGY
Chapter 07 - Hormonal Anti-Cancer Treatment in the Senior Cancer Patient
B. Seruga - Department of Medical Oncology, Institute of Oncology Ljubljana, Ljubljana, Slovenia
E. Amir - Division of Hematology and Medical Oncology, Princess Margaret Cancer Centre and University of Toronto, Toronto, Ontario, Canada
I.F. Tannock - Princess Margaret Cancer Centre and University of Toronto, Toronto, Ontario, Canada

Chapter 08 – Cytotoxic and Targeted Anti-Cancer Treatment in the Senior Cancer Patient
H. Wildiers – Department of General Medical Oncology and Multidisciplinary Breast Centre, University Hospitals Leuven, Belgium

Chapter 09 - Diffuse Large B-Cell Lymphoma in the elderly: R-CHOP or adapted strategy?
C. Sarkozy - Department of Haematology, Hospices Civils de Lyon, Lyon, France.
B. Coiffier - Department of Haematology, Hospices Civils de Lyon, Lyon, France.

Chapter 10 - Management of Chronic Myeloproliferative Neoplasia (MPN) in Elderly Patients
D. Wolf - Internal Medicine III, Oncology, Hematology and Rheumatology, University Clinic Bonn (UKB), Bonn, Germany and Internal Medicine V, Hematology and Oncology, Innsbruck Medical University, Innsbruck, Austria
R. Stauder - Internal Medicine V, Hematology and Oncology, Innsbruck Medical University, Innsbruck, Austria

Chapter 11 - Myelodysplastic Syndromes in the Senior Patient
R. Stauder - Department of Internal Medicine V, Hematology and Oncology, Innsbruck Medical University, Innsbruck, Austria

Chapter 12 - Breast Cancer in the Senior Patient
A.R. Mislang and L. Biganzoli - Medical Oncology Department, Nuovo Ospedale Santo Stefano, Istituto Tumori Toscano, Prato, Italy

Chapter 13 - Lung Cancer in the Senior Patient
D. Schrijvers - Department of Medical Oncology, Ziekenhuisnetwerk Antwerpen-Middelheim, Antwerp, Belgium

ESMO Handbook on Cancer in the Senior Patient
Chapter 14 – Treatment of Colorectal Cancer in the Senior Patient
D. Papamichael – Department of Medical Oncology, B.O. Cyprus Oncology Centre, Nicosia, Cyprus

Z. Kordatou – Department of Medical Oncology, B.O. Cyprus Oncology Centre, Nicosia, Cyprus

Chapter 15 - Prostate Cancer
Helen J Boyle - Department of Medical Oncology, Centre Léon-Bérard and University Claude-Bernard, Lyon 1 University, Lyon, France.

J.P. Droz - Research Unit, Cancer and Environment, Centre Léon-Bérard and University Claude-Bernard, Lyon 1 University, Lyon, France.

Chapter 16 - Bladder Cancer in the elderly
N. Mottet – Urology Department, Jean Monnet University, St Etienne, France.

Chapter 17 - Gynaecological Cancer in the Senior Patient
O. Zivanovic - Department of Surgery, Weill Cornell Medical College, Memorial Sloan Kettering Cancer Center, New York, USA

S.M. Lichtman - Department of Medicine, Weill Cornell Medical College, Memorial Sloan Kettering Cancer Center, New York, USA

Chapter 18 – Head and Neck Cancer in the Elderly
Ada S. Kougioumtzopoulou - Radiotherapist, Radiotherapy Unit, 2nd Department of Radiology, Athens School of Medicine, Athens, Greece

Anastasios Dimou - 3rd Department of Medicine, Athens Medical School & Division of Hematology/Oncology, Medical University of South Carolina, Charleston, SC, USA

Kostas N. Syrigos - Professor of Medicine & Oncology, Chair, 3rd Department of Medicine, University of Athens Medical School, Sotiria General Hospital, Athens, Greece

Chapter 19 - Renal Cell Cancer
A. P. Fay - PUCRS School of Medicine, Porto Alegre, Brazil

J. Bellmunt - Department of medicine, Dana-Farber Cancer Institute, Boston, United States; Department of Medical Oncology, University Hospital del Mar-IMIM, Barcelona, Spain.

Chapter 20 - Psychological Problems in Older Cancer Patients
I.K. Avildsen - Department of Psychiatry and Behavioral Sciences, Memorial Sloan-Kettering Cancer Center, New York, New York, U.S.A.
Declarations of Interest

Chapter 1: Dr Rostoff has reported no conflicts of interest. Dr Wyller has reported no conflicts of interest.

Chapter 2: Dr Schrijvers has not reported any conflicts of interest.

Chapter 3: Prof Extermann has reported no conflicts of interest.

Chapter 4: Dr Gosney has reported no conflicts of interest.

Chapter 5: R.A. Audisio and P.S. Somasundar have reported no conflict of interest.

Chapter 6: Dr Christoph has reported: speakers’ bureau for Boehringer Ingelheim, Bristol-Myers Squibb, Novartis, Pfizer, Roche.

Dr Eberhardt has reported: advisory boards for Bristol-Myers Squibb, Boehringer Ingelheim, Pfizer, Lilly, Merck, Roche, Novartis, Daiichi Sankyo, Astra Zeneca, Hexal, Astellas and honoraria from educational lectures from Bristol-Myers Squibb, Boehringer Ingelheim, Pfizer, Lilly, Merck, Roche, Novartis, Astra Zeneca, Hexal.

Chapter 7: Dr Tannock has advised a number of companies including Sanofi, Janssen and Ipsen Pharma about clinical trials for prostate cancer, for which he receives donations to his research fund.
Dr Seruga has reported no conflicts of interest.

Dr Amir has reported no conflicts of interest.

**Chapter 8:** Dr. Wildiers has reported no conflicts of interest.

**Chapter 9:** Dr. Sarkozy has reported no conflicts of interest.

Prof. Coiffier has reported no conflicts of interest.

**Chapter 10:** Dr Stauder has reported that he is on the advisory board for Celgene and has received honoraria from Celgene, Teva and Novartis. He has also received research support from Celgene and Teva.

Dr Wolf has reported that he received speaker’s honorary from BMS, Novartis, Ariad, Pfizer, Amgen, Lilly, MSD, and AOP Pharma. He also conducts research supported by Novartis, Ariad, Pfizer, and AOP Pharma.

**Chapter 11:** Dr Stauder has reported no potential conflicts of interest in relation to this chapter.

**Chapter 12:** Dr Biganzoli has reported no conflicts of interest.
Dr Mislang has reported no conflicts of interest.

**Chapter 13:** Dr Schrijvers has not reported any conflicts of interest.

**Chapter 14:** D. Papamichael has not reported any conflicts of interest.
Z. Kordatou has not reported any conflicts of interest.

**Chapter 15:** Dr Boyle has received travel grants from Sanofi Jansen and Astellas, and honoraria for meetings from Sanofi.

Dr Droz has reported that he has received travel grants from Sanofi and is a member of the speaker’s bureau for Sanofi.

**Chapter 16:** Prof Mottet has reported that he conducts research supported by Astellas, Pierre Fabre and Sanofi Pasteur. He has also declared being a consultant for Astellas, Bristol-Myers Squibb, Pierre Fabre and Sanofi Pasteur.

**Chapter 17:** Dr Zivanovic and Dr Lichtman have reported no conflicts of interest.

**Chapter 18:** Ada S. Kougionioumtzopoulou, Anastasios Dimou, and Kostas N. Syrigos have reported no conflicts of interest.

**Chapter 19:** Dr Fay has reported no conflict of interest.
Dr Bellmunt has reported that he is a member of Advisory Boards for Bayer HealthCare, Pfizer, Novartis and Roche. He is also a consultant for Bayer HealthCare and Pfizer.

Chapter 20: Dr Roth, Dr Weinberger, Dr Balk, and Dr Nelson have reported no conflicts of interest.

Chapter 21: Dr Pugliesi Rinaldi and Dr Zulian and have not reported any conflicts of interest.

Chapter 22: L. Balducci has reported no conflicts of interest
# Table of Contents

Editors and Contributors................................................................................................... i
Editors........................................................................................................................ ... i
Contributors .................................................................................................................. i
Declarations of Interest ................................................................................................iv

Chapter 01 – Introduction................................................................................................ 1
Defining the Elderly...................................................................................................... 1
Biology of Ageing and Changes in Organ Function ..................................................... 1
Changes in Cognition................................................................................................... 2
Cancer and Ageing........................................................................................................ 2
Clinical Aspects............................................................................................................ 3
Further Reading ........................................................................................................... 6

Chapter 02 - Cancer Epidemiology ................................................................................. 7
Introduction ................................................................................................................ 7
Population Demographics............................................................................................ 7
Cancer Demographics................................................................................................... 7
Society-Related Problems. ............................................................................................ 9
Conclusions ................................................................................................................. 9
Further Reading ......................................................................................................... 9

Chapter 3 - Evaluation of the Senior Cancer Patient: Comprehensive Geriatric
Assessment and Screening Tools for the Elderly .......................................................... 11
Introduction ................................................................................................................ 11
Short Screening Tools ................................................................................................... 12
Comprehensive Geriatric Assessment ....................................................................... 13
Tools to Help Decision Making ................................................................................... 15
Conclusion ................................................................................................................. 17
Further Reading ......................................................................................................... 17

Chapter 04 – Frailty in the Elderly ................................................................................. 19
Introduction ................................................................................................................ 19
Assessment of Frailty.................................................................................................. 20
Frailty as a Predictor................................................................................................. 20
Conclusion ................................................................................................................. 22
Chapter 10 - Management of Chronic Myeloproliferative Neoplasia (MPN) in Elderly Patients ................................................................. 67
Diagnosis and Classification of Myeloproliferative Disorders .................................................. 67
Treatment Strategies of Chronic Myeloid Leukaemia (CML) in the Senior Patient ... 70
Treatment Strategies of Polythemia Vera (PV) in the Senior Patient ........................................ 72
Treatment Strategies of Essential Thrombocytosis (ET) in the Senior Patient ............... 73
Treatment Strategies of Primary Myelofibrosis (PMF) in the Senior Patient ................... 74
Conclusions ................................................................................................................... 74
Further Reading ........................................................................................................ 75

Chapter 11 - Myelodysplastic Syndromes in the Senior Patient ........................................ 77
The Relevance of Myelodysplastic Syndromes in the Elderly ........................................... 77
Classification and Risk Scoring in MDS ............................................................................ 77
Age-Adjusted Models and Assessment in Elderly MDS Patients ....................................... 78
Treatment Options in Elderly MDS Patients ........................................................................ 79
Future Perspectives ........................................................................................................ 81
Further Reading ........................................................................................................ 82

Chapter 12 - Breast Cancer in the Senior Patient .............................................................. 84
Introduction .................................................................................................................. 84
Early Breast Cancer ...................................................................................................... 84
Locally Advanced Breast Cancer .................................................................................... 86
Metastatic Breast Cancer ............................................................................................... 86
Conclusion ...................................................................................................................... 88
Further Reading ........................................................................................................ 88

Chapter 13 – Lung Cancer in the Elderly ........................................................................ 90
Introduction .................................................................................................................. 90
Early Non-Small-Cell Lung Cancer in the Elderly ............................................................... 90
Advanced Non-Small-Cell Lung Cancer in the Elderly ...................................................... 92
Small-Cell Lung Cancer in the Elderly ............................................................................ 95
Palliative Treatment in Elderly Lung Cancer Patients .................................................... 96
Conclusion ...................................................................................................................... 96
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>Head and Neck Cancer in the Elderly</td>
<td>133</td>
</tr>
<tr>
<td>19</td>
<td>Renal Cell Cancer</td>
<td>138</td>
</tr>
<tr>
<td>20</td>
<td>Psychological Problems in Older Cancer Patients</td>
<td>148</td>
</tr>
<tr>
<td>21</td>
<td>Social and Ethical Aspects</td>
<td>155</td>
</tr>
<tr>
<td>Chapter 22 - The Role of the Multidisciplinary Team</td>
<td>161</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td>161</td>
<td></td>
</tr>
<tr>
<td>The Assessment of Age</td>
<td>162</td>
<td></td>
</tr>
<tr>
<td>Polypharmacy</td>
<td>163</td>
<td></td>
</tr>
<tr>
<td>Management of the Caregiver</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td>Function of the Team</td>
<td>166</td>
<td></td>
</tr>
<tr>
<td>Conclusions and Perspectives</td>
<td>167</td>
<td></td>
</tr>
<tr>
<td>Further Reading</td>
<td>167</td>
<td></td>
</tr>
</tbody>
</table>