Tumors in Adolescents and Young Adults
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The field of adolescent and young adult (AYA) oncology is in a very exciting time. We began with the seminal moments: the first Teenage Cancer Trust conferences [1, 2] and the detailed description of remarkably poor outcomes, including trends towards survival becoming poorer as time passed [3, 4]. We moved on to the correlation of poor outcomes with low trial recruitment [5] and the identification of challenges in training the right professional workforce [6]. Now we are in the era of intervention, specific action and we are beginning to observe positive results from some patients, but far from all, from these efforts [7, 8].

In this book, authors provide their perceptions of the current state of the overarching issues that have been prominent in AYA oncology from the outset.

What can we learn from the patterns and trends in cancer epidemiology? What forms of health service design can meet these patterns of disease and AYA patients’ needs? In the chapter by E. Desandes and D.P. Stark the very latest European data is followed by a description of the competing models of service design and areas requiring further definition over time.

What are the current trends in providing the very specific supportive care that many think is required? In the chapter by P.R. Olsen and R. Lorenzo the power of the social network of the AYA with cancer, and how to use that to support optimal care is discussed alongside wider issues. Here, we also hear about the impact of a cancer diagnosis on a young person first hand.

Why is it so difficult to increase recruitment of AYA to clinical trials? We hear in the chapter by N. Gaspar and L. Fern from the preeminent health service researcher in this field and from a clinical trialist leading a group that has achieved this, their experiences and perspectives.

What are the consequences later in life of providing optimal therapy, which is often highly toxic and intensive? In the chapter by A. Tsirou and L. Hjorth, we have a description of the strengths and weaknesses of the growing (but still quite disappointing) datasets of late adverse effects of AYA onset cancer. This is a field for the immediate future.

The authors come to these questions from various perspectives. They are evenly distributed between those trained in adult and paediatric cancer care. They are doctors, nurses, health service researchers, psychologists and clinical trialists. They come from all over Europe. However each chapter author, in almost every part, comes back to a single key message.

This message is that, because adolescence and young adulthood is an interface phase of life, it is an interface field of healthcare. Our patients are neither a child nor a mature adult. We must continue to address this, as it is underpinning the challenges in improving care. It is time, now, to act upon the knowledge of this interface in oncology, [9]. When health services created spe-
cialist pediatric cancer care and specialist adult cancer care we ‘designed’ services that perpetuate this interface. Each author of the first cross-cutting chapters considers and weighs the scientific data carefully, and concludes the essential next step is to embed co-operation and collaboration between children’s services and adult services in services for AYA. The value this is achieving where it is in place and how it could go further is drawn out very elegantly in the chapter by O. Husson, E. Manten-Horst and W.T.A. van der Graaf on the place of networks and collaborations.

Next the authors address jointly, from their expertise as adult or paediatric cancer physicians, each of the key cancer groups observed in AYA.

They address each key area: adult tumours in AYA, childhood tumours in AYA (including the brain tumours), leukaemia, lymphomas, germ cell tumours and sarcomas. Here they consider the key questions:

- When is the cancer biology distinctive from that of younger children or older adults, and how should treatment respond to those differences?
- What are the special clinical features of these cancers in AYA, in contrast to older or younger patients?
- What can we learn from the latest clinical trial results as they relate to AYA?
- What is the state of the art management at this time, and what are the challenges in delivering that management to this group, often in terms of their unique pharmacology, physiology, cancer, social and psychological features?
- What are the next key questions we should be addressing?

Recurrent challenges to the AYA community are exposed as well as proposed solutions. The range of definitions of AYA are constructively questioned by many. This has been considered elsewhere and will be subject to an enjoyable but combative debate in future.

But we come back to the place of collaboration as the next key step between adult and children’s experts, and are provided with a range of examples of where this is recently coming into place. The initiative for a European network for teenager and young adults with cancer (ENTYAC) was started as part of the European Network for Cancer research in Children and Adolescents project (grant agreement No. HEALTH-F2-2011-261474). ENTYAC is an inclusive multi-professional network of professionals from adult and paediatric backgrounds. Then, the European Society of Paediatric Oncology (SIOPE) launched in November 2015 its strategic plan to improve both cure and quality of survivorship for children and adolescents with cancer [10]. Addressing the specific needs of adolescents and young adults, in cooperation with adult oncology is one of the 7 objectives set up in this European Cancer Plan. In addition, SIOPE and the European Society of Medical Oncology (ESMO) signed a Memorandum of Understand to develop further their cooperation, in particular in the field of adolescents and young adults.

- The joint professional education subcommittee between SIOPE and ESMO, co-chaired by Giannis Mountzios and Stefan Bielack, which is pushing forward with educational materials for professionals within the leading European congresses.
- The annual global AYA congresses in Sydney in 2015, Europe in 2016, and North America in 2017. Each congress has produced collaborative global groups, such as on psychosocial outcomes, survivorship issues in clinical practice and professional education.
- Healthcare systems in the UK and France, which are embedding collaboration over service designs and clinical care of individual patients into routine care. Others are starting on this track in Italy, Holland, Spain, Denmark and Germany.
Joint design of clinical trials in between adult and paediatric groups in Europe and more widely.

We hope as editors you will join us in continuing this trend of caring for AYA with cancer together, to improve outcomes in Europe and around the world [12, 13]. Joining forces is essential to provide adolescents and young adults suffering of cancer with equal access to the best care and expertise as well as access to innovation in a timely fashion.

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References
