Chairperson's Introduction

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Adolescents with cancer have been described as a 'lost tribe' [1,2] when it comes to the treatment of cancer. It is well documented that their entry into clinical trials is lower than for children or older age groups [3]. Perhaps as a consequence of this, they have not seen so much of the benefit of improvement in survival that has been seen over the last two decades in children and adult cancers [3]. Not only do they occupy a hinterland when it comes to accessing clinical services, but there is increasing evidence that the biology of cancer in adolescents and young adults is different to the equivalent cancers seen in children and older adults. However, the impact of biology on survival needs to be assessed after controlling for treatment related factors, which may be difficult to dissect. Most 15- to 19-year-olds diagnosed with cancer are treated at adult facilities, although the majority of their cancers are typical of those that occur in the paediatric age range. The best choice may be to treat them according to their type of tumour, not according to their age. However, this requires familiarity with and experience of the 'best standard protocol' by the treating institution.

For some tumour types, there is evidence that applying a more intensive paediatric type protocol does lead to an improvement in survival. This is particularly the case for leukaemias and lymphomas, as well described in the accompanying articles by Drs. Rosolen and Baruchel. For those tumours that have an adolescent peak in incidence, particularly the bone tumours osteosarcoma and Ewing's sarcoma, the biology of the underlying tumour may well be similar to that in younger children and older adults. Both of these bone tumours remain challenges to treat. The accompanying articles by Drs. Paulussen and Picci give excellent overviews of progress that is being made in treating these two tumour types over the last few decades. Mostly treatment protocols have been applied uniformly across the age groups. Dr. Paulussen presents intriguing data showing that treatment within a paediatric institution, presumably on more intensive protocols, has given a survival advantage in the past to those aged 16–19 years. Encouragingly, this difference is no longer apparent in the most recent era of the same intensive trial therapy (EICESS 92) being applied in either paediatric or adult institutions.

Coping with such complex chemotherapy regimens and the need for potentially mutilating surgery with impact on mobility, makes these treatments hard to bear for adolescents. Therefore, it is important to consider the factors that may hinder full compliance with protocol treatment in adolescents and how to support delivery of the best accepted therapy.

This session promises to give an excellent overview of the state of the art in treating these four tumour types that predominate in adolescents and will highlight challenges for the future.

Conflict of interest statement

None declared.

References

1 Michelagnoli MP, Pritchard J, Phillips MB. Adolescent oncology – a homeland for the "lost tribe". *Eur J Cancer* 2003, **39**, 2571-2572.

2 Stevens MCG. The "lost tribe" and the need for a promised land: The challenges of cancer in teenagers and young adults. *Eur J Cancer* 2006, **42**, 280-281.

3 Ferrari A, Bleyer A. Participation of adolescents with cancer in clinical trials. *Cancer Treat Rev* 2007; [Epub ahead of print].