NCRI
National
Cancer
Research
Institute

NCRI Teenage & Young Adults Clinical Studies Group

Annual Report 2014/2015

Partners in cancer research

NCRI Teenage & Young Adult CSG Annual Report 2014/15

1. Executive Summary (including top 3 achievements in the year)

The Teenage & Young Adult Clinical Studies Group has had another successful year. Professor Jeremy Whelan stepped down as Chair, after an industrious and flourishing nine-year spell, succeeded by Dr Angela Edgar, Paediatric Oncologist, NHS Lothian. The Group continues to be supported by full time researcher, Dr Lorna Fern, funded by Teenage Cancer Trust.

To coincide with the first meeting of the new Chair in April 2015, at the end of this reporting year, the Group held their second strategy meeting in April 2015, facilitated by Dr Amos Burke, Paediatric Oncologist, Addenbrookes, Cambridge, and National Specialty Lead for Children's Cancer & Leukaemia and TYAs. The three-year strategic plan, detailed later, incorporates the 10 research priorities identified on the day, and proposes to deliver these across three subgroups. We will continue to focus on improving recruitment and access to clinical trials for young people, early diagnosis and biological studies. Additionally, we will address survivorship and quality of life issues. Crucial to delivering our strategy will be strengthening links with other CSGs, developing links with National Institute for Health Research (NIHR) Clinical Research Network (CRN) Subspecialty leads, funders and other stakeholders. Efforts to expand our consumer input, beyond our two valued consumer members, by utilising novel methods of engagement, will be undertaken.

Our top three achievements of this year:

- Successful strategy day in April 2015 identifying key areas of development and proposed restructure of the subgroups.
- Our £2m NIHR funded study BRIGHTLIGHT closed to recruitment with a total of 1087 patients making this the largest TYA cancer study in the world. There have also been two publications arising from BRIGHTLIGHT as well as wide spread dissemination of progress and emerging results at national and international conferences.
- Expansion of the Group to include a broader range of professionals, including the appointment of two trainees.

The main challenges faced by the Group over the last twelve months have been lower than anticipated recruitment to BRIGHTLIGHT and, consequently, to the first companion study 'When cure is not likely'. NIHR granted a no-cost extension to the study and a recalculation of the sample size from 2012, to 977. The BRIGHTLIGHT study recruited over 1000 patients when it closed on April 30th 2015.

The James Lind Alliance Project has been time intensive for Dr Fern and Professor Gibson due to unanticipated expectation to contribute to administrative duties to launch the project. It has taken twelve months to establish the steering group, which includes a number of young people, and an initial meeting date has been set for early July.

Working towards earliest possible diagnosis for young people with cancer is firmly entrenched in the principles of the Group and remains a key strategic aim. Identifying measurable and meaningful interventions remains a challenge when applying for funding. It is the ambition of the Group that this work is incorporated into a larger programme grant looking at pathways to diagnosis, led by Dr Fern, over the next 36 months.

2. Structure of the Group

Professor Jeremy Whelan, Chair of the Group since 2005, was succeeded by Dr Angela Edgar, in November 2014. We would like to thank Professor Whelan for his excellent leadership and drive over the past nine years. Our appreciation extends also to Dr Tony Moran, who recently retired and stepped down from the Group.

TYA cancer care is a niche area with a small but growing pool of experts to recruit from; five new members with a broad range of expertise were recruited to the main CSG in March, highlighted in appendix 1; additionally, we welcome two trainees and one new consumer.

Following our recent strategy meeting, we propose a restructure of our subgroups to reflect our three year strategy: our existing subgroups, Health Services Research Subgroup (Chair, Professor Faith Gibson) and Biological Studies Subgroup (Chair, Dr Martin McCabe), and a proposed new third subgroup addressing survivorship, chaired by Professor Hamish Wallace. Additionally, Dr Fern will establish a working party to develop a research programme focusing on improving representation of TYA in cancer trials.

3. CSG & Subgroup strategies

Main CSG

Our vision is to improve outcomes for teenagers and young adults with cancer through high quality medical research. Our remit, which is different to the tumour specific CSGs is detailed below:

- To ensure that teenagers and young adults are considered for and have opportunities to enter disease-specific NCRI CSG research protocols
- To research into the optimal provision of health care for patients in that age group and to provide the evidence base for the present and future guidance for children and young people with cancer
- To ensure that the research agenda is set with young people

We have developed a three-year strategy for the Group detailing our overarching strategic objectives, outputs and outcome measures for each of the following categories: portfolio development, structure and function of the Group, strengthening UK and European partnership collaborations, consumer involvement and raising awareness (Appendix 2). At our recent strategy meeting we identified 10 research priorities, which we propose to develop and deliver in three subgroups. The subgroup strategic objectives are outlined below, with further detail in Appendix 2.

Health Services Research Subgroup

1. To improve our understanding of the pathways to accessing research for one diagnostic group, with transferrable benefits to other groups
2. To increase the profile of TYA cancer across the NCRI
3. To improve recruitment to research studies
4. To reevaluate questions around early diagnosis and identify a new approach

Biological studies

5. To improve access to tumour banked samples for biological research
6. To facilitate opportunities for personalised medicine
7. To explore the impact of dose intensity/toxicity on patient outcomes

Survivorship

8. To develop innovative strategies to empowering patients
9. To support enhanced population based studies
10. To address fertility issues

Key to delivering these aims with be strengthening links with other CSGs, developing links with NIHR CRN Subspecialty Leads and other relevant stakeholders including funders.

Biological Studies Subgroup (Chair, Dr Martin McCabe)

During the year our achievements include:

- recruiting two new clinical academics to the group (Drs Bob Phillips and Matt Murray with expertise in meta-analysis and germ cell tumour biology),
- an expansion of our previous UK TYA tumour banking survey to include samples from 25 additional biobanks,
- excellent recruitment to our main clinical trial UKCRN 16295, which is investigating age-related pharmacokinetic variation in Ewing sarcoma patients.

The Subgroup has started meeting more frequently than previously, via teleconference, to maintain momentum in developing tangible outcomes such as grant applications and publications.

There has been some ambivalence about the group's function outside of agreeing a tissue banking strategy, particularly whether to work on broad, cross-cutting research of relevance to all young people with cancer or to focus on disease-specific studies. Two major challenges in this respect are that a relatively small number of research-active UK professionals have an active focus in TYA cancer, and much of the biological studies in 'core' TYA cancers is performed at a European level by the relevant disease groups. During our April CSG meeting we agreed a strategy for the coming 3-5 years, detailed in Appendix 2, with ambitious goals, focusing on:

1. Publishing what existing TYA cancer samples are available for research and agreeing a strategy to increase the availability and visibility of TYA samples

2. Establishing, by working with international trial groups, to what extent some of the poor outcomes experienced by TYAs compared to children with the same diseases are due to differences in delivered treatment or treatment intensity versus differing biology.

3. Working with established genomics facilities to investigate the potential for biologically targeted therapies in this age group and with Pharma to increase the availability of targeted agents for teenagers.

Health Services Research (HSR) Subgroup (Chair, Professor Faith Gibson)

During the year our achievements included:

- Recruiting two new members to the Group Dr Rachel Taylor, Senior Research Manager, University College London Hospitals/BRIGHTLIGHT and Dr Anne-Sophie Darlington, Senior Research Fellow, University of Southampton.
- Establishment of James Lind Alliance Steering Group with patient representatives
- Closure of BRIGHTLIGHT with 1084 patients and two publications.
- Submission of two publications arising from the work of the Group, POPP and JTV

We have had two face-to-face meetings and regular teleconferences over the past 12 months and remain committed to generating grant applications and publications. A significant proportion of our energy and time has been invested in identification and recruitment of steering group members to take forward the JLA exercise. We now have a full complement of healthcare professionals and young people to progress this. We hope this will now free resources to expand on the social media project. An unsuccessful application on transition was made to the Burdett Trust and alternative sources are being considered.

We will meet in September 2015 to finalise our strategy and assign tasks to the priority areas identified during our April meeting (Appendix 2). Broadly, our aims will be:

1. To improve our understanding of the pathways to accessing research for one diagnostic group, with transferrable benefits to other groups
2. To re-evaluate questions around early diagnosis and identify a new approach
3. Continue with ongoing studies
4. Submit an application looking at cancer in young people and social media

4. Task groups/Working parties

We currently have no working parties. Our application for an early diagnosis working party for children and young people bringing together members from the Children's Cancer & Leukaemia, Primary Care, Sarcoma and Psychosocial Oncology & Survivorship (POS) CSGs was turned down. It is our ambition to support our full-time researcher, Dr Fern, to develop and lead her own research programme. This will build on the successful work she has achieved around understanding and improving clinical trial recruitment in the TYA population and will incorporate the work of the early diagnosis project. The first step towards this will require an application for a working party.

5. Patient recruitment summary for last 5 years

Our remit, which is distinct from other CSGs, means that recruitment data is not a true reflection of our activity.

In the TYA CSG portfolio, 1 trial closed to recruitment and 3 opened.

Table 1 Summary of patient recruitment by RCT/Non-RCT

Year	All subjects		Cancer patients only		% of cancer patients relative to incidence	
	Non-RCT	RCT	Non-RCT	RCT	Non-RCT	RCT
2010/2011	-	-	-	-	-	-
2011/2012	39	-	21	0	-	-

Table 2 Summary of patient recruitment by Interventional/Non-interventional

Year	All participants		Cancer patients only		% of cancer patients relative to incidence	
	Non-interventional	Interventional	Non-interventional	Interventional	Non-interventional	Interventional
2012/2013	269	-		257	-	-
2013/2014	661	0	619	0	-	-
2014/2015	497	0	476	0	-	-

6. Links to other CSGs, international groups and network subspecialty leads

We continue to strengthen our UK and European collaborations. Many members are also members of a number of other CSGs, including Primary Care, POS, and Sarcoma, which will facilitate awareness raising, collaborative working and joint funding proposals. We have good representation and links with the National Cancer Intelligence Network CTYA Site Specific Clinical Reference Group (chaired by CSG member Dr McCabe), NIHR CRN and TYAC.

Many members are also involved with the European project exploring improving outcomes in young people with cancer, European Network of Cancer Research in Children and Adolescents (ENCCA), led by Dr Stark. We have strong links with charities, and the James Lind Alliance Priority Setting Partnership is our first joint research project with Teenage Cancer Trust, CLIC Sargent and Children with Cancer UK.

We are grateful to ongoing partnerships with the NCRI Consumer Forum and for their support in publicising BRIGHTLIGHT, and recruitment to the companion study 'When Cure is Not Likely'. Our BRIGHTLIGHT twitter account (BRIGHTLIGHT TWITTER), used for recruitment, will now be used to disseminate study results, and our webpage will be revamped later this year following feedback from the recent user workshop (http://www.brightlightstudy.com/).

7. Funding applications in last year

We have only had one funding application in the last year to the Burdett Trust. As noted in our strategy we intend to generate three study concept proposals one from each subgroup with a view of these being expanded to full applications.

Despite not having submitted our own applications we have been considerably active in commenting on relevant CTAAC applications. In the last 12 months we have commented on 14 applications with input from more members than we have traditionally seen. In addition, we have now extended our pool of reviewers to our subgroups (with permission from CTAAC), which was helpful for the recent translational applications. We consider this activity to part of core business in ensuring that relevant studies are considering the needs of young people and will be available in centres where young people are most likely to be treated.

8. Collaborative partnership studies with industry

We have no formal arrangements with industry at the moment and this will now come under the remit of the Biological Studies Subgroup. Our links with Experimental Cancer Medicine Centres TYA Network Group will further serve to foster links. We have initiated conversations with the Association of British Pharmaceutical Industry Cancer Working Party and we will resume these now that the 'Statement to Funders' (see section 9) has been issued from the NCRI Executive Board.

We published an international strategy to improve access to clinical trials for young people in the Lancet Oncology in June 2014, which was picked up by various media including Pharma specific press (Pharma times article).

9. Impact of CSG activities

We do not have a portfolio of trials, however, our work around trial entry and young people continues to inform the research community about improving access to cancer clinical trials. Our continued scrutiny of CTAAC applications allows us to ensure that appropriate age eligibility criteria has been applied and that relevant studies will be available in treatment centres for young people. Our ongoing analysis and dissemination of recruitment to NIHR cancer trials by age has begun to change practice. For example, the requirement of investigators to justify age restrictions applied to new funding applications to CRUK in 2014 has resulted in most CTAAC applications we have since reviewed having either removed age eligibility criteria or lowered their age eligibility criteria to 16 years. Notably some studies had removed upper age eligibility criteria therefore also impacting in improving access to research for the elderly. Following our Lancet Oncology publication last summer, the NCRI issued a press release (NCRI Press Release). Following on from this the NCRI Executive recently issued a statement to NCRI partners to consider following suit of CRUK and asking for justification of age related exclusion and inclusion criteria.

Through our links with the ENCCA project we will adapt the statement to funders and send out via our European stakeholders. Dr Fern has recently co-authored a book chapter on access to clinical trials, which also includes the statement from CRUK as a model of international funders to follow.

In January 2015, Dr Edgar and Dr Fern presented the six year accrual data and the issues around age eligibility criteria at a round table discussion at the Scottish Parliament, hosted by Teenage Cancer Trust and Mr Bob Doris MSP, Deputy Convenor of the Health and Sport Committee. At this meeting the Chief Scientist Office also agreed to adopt a similar model to CRUK, requesting justification of any age related eligibility criteria on new funding applications.

10. Consumer involvement

We now have two consumer members, Mr Mathew Cooke and Mr James Adams, who attend our CSG meetings, subgroup meetings and also the main Consumer Forum meetings. To date, we have not formally appointed mentors to our consumers and this role informally sat with Dr Fern. After our strategy meeting we have since appointed Dr David Cutter to mentor Mr Adams and Dr McCabe will mentor Mr Cooke. We have requested some guidance around mentor roles and expectations be developed. Both Mr Cooke and Mr Adams are members of the HSR Subgroup with consumer representation for the Biological Studies Subgroup still to be formalised.

Our BRIGHTLIGHT study has a user group called the YAP, of approximately 17 young people, who meet through face-to-face workshops, a closed Facebook page, social media and email. Dr Fern is PPI lead for BRIGHTLIGHT and is supported by the BRIGHTLIGHT PPI Manager, Ms Anita Solanki. Our BRIGHTLIGHT user group have been considerably active in proposing suggestions for improving recruitment and optimising retention. Their suggestion of more accessible information on BRIGHTLIGHT resulted in the following videos being made and placed on the BRIGHTLIGHT website and JTV supporting a social media site specifically for young people with cancer; Professor Whelan explaining the project (BRIGHTLIGHT from the CI); BRIGHTLIGHT participant and YAPPER explain the patient information leaflet (BRIGHTLIGHT patient information sheet), what is the cost diary? (Natasha and Anita explain the cost diary) and the importance of BRIGHTLIGHT from the YAPPERS (the YAPPERS).

We have also started disseminating the results of BRIGHTLIGHT to young people with cancer. Two of our YAPPERs presented at the Find Your Sense of Tumour (FYSOT) this year; the annual patient conference (YAPPERS at FYSOT)

In addition to the films, we have two publications arising from the workshops, INVOLVE newsletter (INVOLVE BRIGHTLIGHT) and abstracts presented at NCRI Conference and NCIN Conference (prize for patient choice).

In the coming year, the JLA exercise will mean our outreach to young people will increase considerably and will allow us the opportunity to think more creatively about PPI involvement.

11. Open meetings/annual trials days/strategy days

Our strategy day held in April 2015, was attended by CSG members and an additional 10 invitees, representing stakeholder organisations from throughout the UK. The day was facilitated by Dr Amos Burke. Participates were allocated to one of three themed workshops: 1. Early diagnosis and access to research – Why are young people different?; 2. How can we develop biological studies for young people with cancer?; 3. What are the important issues for TYA cancer survivors? Each workshop identified research priorities to be incorporated into the three-year strategy (Appendix 2).

We have had no annual trials days. One of the areas we would like to explore over the next 12 months is whether or not there would be an appetite for a TYA Annual Trials Day. While there are very few TYA-specific clinical trials, raising awareness of TYA appropriate trials for young people is an important part of our strategy. This would involve collaboration an input from our colleagues in site specific CSGs.

12. Progress towards achieving the CSG's 3 year strategy

Progress towards our old strategy has been made this year. We have successfully appointed a new Chair to the group and expanded our membership to include a broader range of professionals. Completed recruitment to BRIGHTLIGHT with considerable user involvement and dissemination of emerging results back to young people has begun. The work of the Group has been extensively disseminated through high quality journals (Lancet Oncology, Biomed Central Methodology, European Journal of Oncology Nursing) and presentation at national and international conferences (NCRI, NCIN, TYAC and Teenage Cancer Trust international Conference).

We have made less progress with securing funding for our early diagnosis workstream but there is a clear direction for this work following the strategy meeting.

Our new strategy is detailed in Appendix 2, progress against this will be measured next year. The new strategy will involve considerable reorganisation of the CSG and Subgroups

13. Priorities and challenges for the forthcoming year

Priorities and challenges for the TYA CSG are detailed below:

Priorities

1. Reorganisation of the subgroups. The new strategy will to be delivered through three subgroups rather than the existing two and we will complete an application form for new subgroups imminently. Volunteering/assigning lead CSG members to each of the strategic objective and establishing a team and action plan to drive this forward, incorporating submission of at least three new study proposals is key.
2. Strengthening UK partnerships. Developing collaborations with NCIN CTYA SSCRG is imperative if we are to improve our understanding of and outcomes for non-trial patients or for patients with refractory or recurrent disease. Close working relationship with NIHR LCRNs and developed nations CRNS will be essential to ensure equity of access to the clinical research portfolio.
3. Draft planning for programme grant around clinical trials by Dr Fern. Dr Fern will establish a working group to take this forward. Dr Fern will also complete analysis of the 2011-2014 clinical trial data and disseminate through CSGs, conferences and publications.

Challenges

1. Raising awareness of the TYA agenda in the traditional adult site-specific oncology community. This will require active engagement in other CSGs, NCRI conference and

consideration of TYA trials day. Developing a greater profile must be seen as a priority and will require the efforts of all CSG members.

2. Securing funding for current and new research proposals. Progress on the 'Refer Me' project is underway with plans for re-submission. Each subgroup will aim to develop at least one new study and to begin to explore funding streams.

3. Improving recruitment to research studies, including early phase studies. Improving our understanding of patient recruitment to clinical trials from both a patient and health professional perspective may require a identification of new model of thinking if we are to understand health behaviours. Exploring partnerships with medical anthropology to help us understand behaviour may provide insight into a necessary cultural shift.

14. Concluding remarks

We would like to thank all the Group members for their valued contribution to the work of the Group over the past twelve months and for their instrumental role in ensuring the success of the strategy day. We have a very strong, multidisciplinary group, brimming with enthusiasm and expertise, ready to take ownership of the Group Strategy and deliver on the vision of the TYA CSG. A final thanks to Professor Whelan, for his excellent and assiduous Chairmanship over the past nine years.

15. Appendices

Appendix 1 - Membership of main CSG and subgroups

Appendix 2 – CSG and Subgroup strategies
- A – Main CSG Strategy
- B – Health Services Research (HSR) Subgroup Strategy
- C – Biological Studies Subgroup Strategy

Appendix 3 - Publications in previous year

Appendix 4 - Major international presentations in previous year

Dr Angela Edgar (TYA CSG Chair)

Appendix 1

Membership of the TYA CSG

Name	Specialism	Location
Dr David Cutter	Clinical Oncologist	Oxford
Mr James Adams	Consumer	Stoke on Trent
Mr Mathew Cooke	Consumer	Cambridge
Professor Mike Hawkins	Epidemiologist	Birmingham
Dr Clare Rowntree	Haematologist	Cardiff
Dr Jane Beety	NIHR CRN: Cancer, CCL Lead	London
Dr Dan Stark	Medical Oncologist	Leeds
Professor Jeremy Whelan	Medical Oncologist	London
Ms Sue Morgan	Nurse	Leeds
Ms Samantha Smith	Nurse	Manchester
Dr Angela Edgar (Chair)	Paediatric Oncologist	Edinburgh
Dr Martin McCabe	Paediatric Oncologist	Manchester
Professor Hamish Wallace	Paediatric Oncologist	Edinburgh
Dr Shaun Wilson	Paediatric Oncologist	Oxford
Dr Karen Manias*	Paediatric Oncologist	Birmingham
Professor Faith Gibson	Professor of CYP Cancer Care	London
Ms Gemma Pugh*	PhD Student	London
Dr Lorna Fern	Research Development Coordinator	London
Dr Lisa McCann	Senior Lecturer in Cancer Care	Glasgow
Dr Kenneth Rankin	Surgeon	Newcastle

* denotes trainee

Membership of the Subgroups

Health Services Research (HSR) Subgroup		
Name	**Specialism**	**Location**
Dr Dan Stark	Medical Oncologist	Leeds
Ms Sue Morgan	Nurse	Leeds
Ms Sam Smith	Nurse	Manchester
Professor David Walker	Paediatric Oncologist	Nottingham
Professor Faith Gibson (Chair)	Professor of CYP Cancer Care	London
Dr Lorna Fern	Research Development Coordinator	London
Dr Anne-Sophie Darlington	Senior Research Fellow	Southampton

Biological Studies Subgroup		
Name	**Specialism**	**Location**
Dr Clare Rowntree	Haematologist	Cardiff
Dr Dan Stark	Medical Oncologist	Leeds
Dr Martin McCabe (Chair)	Paediatric Oncologist	Manchester
Dr Matt Murray	Paediatric Oncologist	Cambridge
Dr Bob Phillips	Paediatric oncologist	Leeds
Dr Frederik van Delft	Paediatric Oncologist	London
Dr Rachael Windsor	Paediatric Oncologist	London
Dr Gareth Veal	Pharmacologist	Newcastle
Professor Sue Burchill	Professor of paediatric & adolescent cancer research	Leeds
Dr Lorna Fern	Research Development Coordinator	London

Appendix 2

CSG & Subgroup Strategies

A – Main CSG Strategy

CSG Principles	Strategic Objectives	Strategic Outputs	Outcome measures	CSG Leads	Dates
1.1 Portfolio development (general)	1.To submit new study concept proposals 2. To development of TYA CPMS database 3 To raise awareness & promote recruitment to TYA research studies in cancer networks 4 To improve dissemination of study 5. To ensure trials developed for TYA 6. Development of TYA CSG Programme Grant	1.1 Each subgroup to submit new SCP 2.1 To link with NIHR CRN/EDGE – age data 2.2 To explore PM of common TYA tumours 3.1 To link with CTYA subspecialty leads 4.1 To incorporate into CSG agenda 5.1 Identify trial gaps and collaborate with CSGs 6.1 To develop Programme Grant	1.1 Subgroup submission of new SCP 2.1 Contact with lead in NIHR CRN/EDGE re age data 2.2 List of common TYA tumours and available trials 3.1 Contact/meet with CTYA subspecialty leads 4.1 Present study results at CSG meetings 5.1 Identify trial gaps and collaborate with CSGs 6.1 Proposal outline for programme grant	MM, FG, HW AE, SA AE, SA AE AE, LC AE, LC LF	7/17 7/16 11/16 11/16 Ongoing 11/16 onwards 10/16 onwards
1.2 Portfolio development (Subgroup specific)	**Health Services Research** 1. To improve our understanding of the pathways to accessing research for the one diagnostic group, with transferrable benefits to other groups 2. To improve recruitment to research studies 3. To ensure TYA included in early phase studies 4. To continue with ongoing studies	1.1 To develop study proposal: lymphoma pathway 1.2 Explore studies with NHS Choices 2.1 Determine regional availability of trials 2.2 Explore timelines for trial process 2.3 To study cultural barriers to trial recruitment 3.1 To develop links with ECMC 4.1 To report on studies 6 monthly 4.2. To submit funding application for Refer Me	1.1 Identify member to take this forward 1.1 Develop study proposal and submit SCP 1.2 Update on usage of NHS Choices website 2.1 To establish links with CTU/NIHR 2.2 To contact trials units: explore remote trial opening 2.3 Explore collaborations with medical anthropology 3.1 To attend ECMC TYA meeting 4.1 To report on studies 6 monthly 4.2.Update at next CSG on proposals for funding	LF TBC SM AE, SA, LF AE, SA, LF AE, FG JW, AE All JW, FG, LF	04/16 04/16 onwards 11/16 11/15 onwards 07/16 11/15 onwards Ongoing Ongoing 10/15
	Biological studies 1. To improve access to tumour banked samples for biological research 2. To facilitate opportunities for personalised medicine 3. To explore the impact of dose intensity/toxicity on patient outcomes	1.1 Identify and establish links with existing groups 1.2 Explore clinical trial tumour banks/access 1.3 Identify tumours where there is no bank 1.4 Submit paper for publication 2.1 Establish links with existing networks: SPECTA 2.2 CTRad/CCLG & TYA CSG – develop radiation toxicity study 2.3 Explore TYA views on providing samples 3.1 To identify site-specific groups to work on this 3.2 To identify clinical trial data to pool for analyses 3.3 To apply for funding to do meta-analysis	1.1 Invite Wellcome Trust lead to BSG meeting 1.2 Report on tissue collection plans from CTAAC funded studies 2014/15 1.3 Complete analysis for results section 1.4 Submit paper for publication 2.1 Explore collaboration with UK SPECTA +/-others 2.1 Initiate discussions with Pharma to access targeted agents for teenagers 2.1 If successful; proposal for tumour sequencing 2.2 Initiate discussions with CTRad group 2.2 Coordinate stakeholders' meeting to explore CTRad/TYA & CCL CSG joint RT toxicity study 2.3 Work with subgroups to explore this 3.1 A collaboration agreement 3.2 A trials list 3.3 A grant application	MM, CR, LF Tony M, MM CR, MM MM MM MM MM MM All DS LF Bob Phillips	12/15 12/15 07/15 10/15 08/15 12/15 08/16 07/15 10/15 10/15 04/16 04/16 07/16
	Survivorship 1. To develop innovative strategies to empower patients 2. To support enhanced population based studies 3. To develop fertility studies	1.1 Explore existing patient facing platforms 1.2 Explore patient views on introduction of above 1.3 Explore the best psychological assessment tool 2.1 Identify nested control studies from TYACSS 3.1 Explore TYA views on fertility issues 3.2 Explore how to incorporate fertility issues into new clinical trials 3.3 Develop cohort studies for non-trial patients	1.1 To prepare report for CSG meeting 1.2 SCP – exploration of TYA views on electronic passport 1.2 Identify the core functionality of what TYA want 1.3 Report on psychological assessment tool 2.1 SCP on nested control studies from TYACSS 3.1 SCP - Explore TYA views on fertility issues 3.2 Proposal to recommend consideration of fertility issues incorporated into new clinical trials 3.3 To develop proposal on how to address this	LM LM, HW HW DS HW/MH HW HW HW	04/16 10/16 04/17 11/16 10/17 07/16 02/17 2/18
1.3 Portfolio development (cross cutting)	1.Develop links with other CSGs, Advisory Groups - CCL, S&PC, SPED 2. Identify CSG members on other CSGs	1.1 To attend CCL CSG 1.2 To attend S&PC workshop 2.1 To promote TYA in other CSGs		AE KM	ongoing 3/6/15

CSG Principles	Strategic Objectives	Strategic Outputs	Outcome measures	CSG Leads	Dates
2 Improving TYA representation in clinical trials	**NCRI TYA CSG Researcher – Programme Grant** 1.To ensure availability: 'recruit the centres' 2.To ensure appropriate: 'removing age restrictions' 3.To improve accessibility: patient pathways 4.To raise awareness: partnerships 5.To promote acceptability: cultural shift	1. To establish working group 2. To prepare proposal for programme grant 3. To submit application for funding	1.Identify working group 2. Explore feasibility of incorporating existing project 3. Outline project proposal and SCP 4. Link with NIHR for project development 5. Submit funding application	LF	11/15 04/16 11/16 11/16 04/18
3 CSG structure and function	**Subgroups** 1. To establish three SG and define responsibilities 2. To recruit trainee to each subgroup	1.1 SG Chairs to prepare Terms of Reference 1.2 To set meeting dates 2.1 To invite trainees to join SG and assign to project	1.1 SG Terms of Reference 1.2 Meeting dates for the next 12 months 2.1 Trainees join SG and assigned to project	MM, HW, FG	11/15 ongoing ongoing
	Trainee scheme 1. To develop guidance for mentor/mentees 2. To identify funding for trainees	1.1 To assign mentors to trainees 1.2 Trainee reports 2.1 To apply for funding	1.1 Plan for support of trainees 1.2 Trainee report/feedback at 18 months 2.1 Outcome of funding application to TYAC	AE LG, KM AE	6/15 11/16 6/15
4.1 Strengthen UK and European partnership collaborations	**NCIN CTYA SSCRG** 1.To establish regular contact with NCIN 2.To improve our understanding of non-trial patients 3.To improve our knowledge of relapsed patients 4.To explore development of collaborative studies 5.To support development of TYA research staff in PTCs	1.1 Chair to represent NCRI at NCIN CTYA SSCRG 1.2 To explore collaboration with NCIN		AE, MMc	Ongoing
	NIHR LCRN and devolved nation CRNs 1.To establish regular contact with CRN subspecialty leads 2.To work with subspecialty leads in England to ensure equity of access to the clinical research portfolio 3. To strengthen links with devolved nation CRNs 4. To use PMs to determine overview of trial availability 5. To support delivery of studies to time and target	1.1 To work with CRNs and PTCs in England to ensure equity of access to clinical trials 2.1 To work with subspecialty leads to develop portfolio and support CRN objectives 3.1 To engage with CRN in devolved nations 4.1 To develop an understanding of local portfolios 5.1 To collect data for study opening in CRNs	1.1 To contact/arrange meetings with CRNs 2.1 To engage with CRNS and PTC research nurses/data managers 3.1. As above for devolved nations 4.1 To work with CRNs to build picture of local portfolio and research support 5.1 To link with CTUs	AE, LF, SA	Ongoing
	Industry 1. To ensure appropriate age eligibility criteria	1.To establish links with ABPI		AE, LF	Ongoing
	ENCCA 1.To strengthen collaboration with ENCCA	1.To identify links with ENCCA 2.To explore possibility of collaborative studies	1.To identify CSG member to lead this		Ongoing
	JLA 1.To identify research priorities for TYA	1.To establish steering group 2.To commence priority setting exercise	1.Update at CSG meetings	FG, LF	07/15 11/15
5 Consumer involvement	**Consumer** 1. To develop guidance for mentor/mentees 2.To assist in identifying research priorities for TYA	1.To ensure support from mentor 2.To provide input to CTAAC applications 3.To be involved in subgroup 4. To be involved in research priority setting	1.To assign mentor to each trainee 2.To provide input to CTAAC applications 3.To be involved in subgroup 4. To be involved in research priority setting	AE JA, MC JA, MC JA, MC	06/15 Ongoing
6 Raising awareness	1. To improve dissemination of results of studies 2. To consider annual 'trials' meeting 3. To encourage submission of abstracts to meetings 4. To have annual presence at NCRI conference	1.1 To report study results in Annual Report 1.2 To disseminate results to other CSGs/website 2. To explore possibility of annual TYA research day 3. Abstract submission 4. To explore options for greater profile at NCRI	1.Annual Report updates 2.To prepare summary of study results 3.To consider extending meeting to facilitate this 4. To contact NCRI	AE, LF LC, AE, LF AE, LC All AE	Ongoing

B – Health Services Research (HSR) Subgroup Strategy

The Health Services Research Subgroup will meet in September 2015 to finalise their strategy.

C – Biological Studies Subgroup Strategy

Since its inception, developing a strategy to improve access to tissue for research has been the Subgroup's main priority. Beyond that the Subgroup has struggled to agree whether it should develop and encourage cross-cutting, age-directed studies or to focus on biological studies of the cancers that peak during teenage and young adult years. Most of the latter research is performed at an international level by European and US disease consortia. This issue, and the Subgroup's future direction, was discussed at length during the main CSG's strategy day in April. Three main strategic focuses arose from those discussions and were agreed for the next 3-5 years:

1. To improve access to banked tumour samples for biological research

The group has spent two years collating data on over 4000 existing tumour samples from young people aged between 13 and 40 banked in recognised UK tissue banks. During the next six months we will complete the descriptive analysis of those data and prepare them for publication. As part of that analysis we will identify the tumour types that are poorly represented in existing collections. Of note, our survey has considered only whether tissue was available, without any assessment of quality.

Over the next two to three years we will use the data from the survey analysis to develop a strategy relating to the availability of samples representative of the spectrum of TYA cancer. The group has considered three broad solutions: to set up a specific tissue bank, to develop a virtual repository of available tissue, or to develop a strategy to increase the deposition of tissue samples to existing, quality-assured tissue banks. We agreed in advance that a survey of existing tissue was a necessary step in that decision-making process.

In parallel, recognising that samples aligned to clinical trials have particular value deriving from their associated metadata, we plan to assess the impact of the CRUK CTAAC committee's policy to specify access policies for the sample collections they fund. We plan to work with CRUK to survey the plans of CTAAC applicants, and to assess how straightforwardly external investigators should be able to access samples in those collections.

2. To facilitate opportunities for personalised medicine in TYA patients

The increasing availability of high throughput -omics technologies and the scope to increase the availability of targeted therapies for this age group is an attractive area for development. Members of the group are already involved in biological studies and clinical trial groups at a national and European level. We have agreed three areas to take forward over the next 3-5 years:

- To establish patient views about the acceptability of clinical trials at first line or relapse that rely on tissue sampling over and above what is needed to make a diagnosis, particularly relating to molecular phenotyping.
  In the era of targeted therapy, trials increasingly require additional samples to be taken at screening to identify the molecular phenotypes most likely to respond to treatment. In the relapse setting, particularly for poor prognosis diseases, such biopsies may limit the acceptability of clinical trials to patients. We will work with our patient representatives and existing TYA patient groups to survey patients' opinions about tissue biopsies in this setting,

- To develop links with existing, clinically accredited sequencing platforms or research groups.
  We do not yet have a clear idea of the proportion of TYA patients at a population level who have targetable mutations. We plan to develop a clinical trial, working with established, clinically accredited sequencing laboratories, to access tissue from patients' initial diagnosis

and relapse for high throughput, targeted sequencing to identify that proportion. In the longer term, we plan to use that knowledge to develop therapeutic clinical trials of targeted therapies in the relapse setting, and to encourage Pharma companies to improve access of teenagers to agents that are available to adults. The anticipated work flow for this long-term project would be:

establish relationship with clinically accredited sequencing lab
=> sequencing study of patient samples
=> establish relationships with 1 or more Pharma companies to support a Phase I/II study, possibly under the auspices of the combinations alliance
=> design a multi-arm Phase I/II study of specific targeted agents, across a selection of poor prognosis diseases

- To work with other relevant CSGs to work on proposals of joint interest.
  There is some interest in the group in working with the CCL CSG and CTRad to look into the feasibility of a cross-cutting radiogenomic study assessing the impact of germline characteristics on radiation toxicity including children, teenagers and young adults. We plan to set up an initial discussion with members of the CTRad group to assess how feasible such a study would be, and if there is an appetite to take it forward, to work with members of the CCL CSG to develop a study protocol for submission for funding.

3. To explore the impact of age-related variation in dose intensity and toxicity on patient outcomes

For most of the poor prognosis diseases in TYA patients, children have better outcomes than adults. For decades there has been debate about the relative contributions to this phenomenon of tumour and host biology, the evolution of different treatment strategies in adults and children, and issues relating to the intensity of delivered treatment. For a small subset of diseases, it is clear that differing treatment clearly results in differential survival. For others the situation is less clear.

The LIVESTRONG collaboration between several large, cooperative bone sarcoma groups, has shown through meta-analysis of several that for osteosarcoma, adults have lower treatment intensity, fewer side effects and worse outcomes than children. Thus, worse survival in adults is not dictated solely by differing biology, and the evidence does not support the idea that adults, at least in the young adult age range, do not physiologically tolerate chemotherapy as well as children.

We intend to work with international clinical trial groups to perform a series of meta-analyses across certain poor prognosis diseases to specifically study the issue of dose intensity across the age spectrum, in terms of the intensity of different treatment regimens, and in the differential delivery of dose-intensive treatment by age. Several subgroup members are members of relevant international trial consortia. Specifically, we plan to approach individual cooperative trial groups and set up collaboration agreements over the next year, with a view to developing funding proposals to support the meta-analyses in the following years.

Appendix 3

Publications in the reporting year

BRIGHTLIGHT

Taylor R.M., Mohain J., Gibson F., Solanki A., Whelan J, Fern L.A. Novel participatory methods of involving patients in research: naming and branding a longitudinal cohort study, BRIGHTLIGHT. *BioMed Central Methodology*: 15, 20; Open Access: http://www.biomedcentral.com/1471-2288/15/20

Taylor R.M., Solanki A., Aslam N., Whelan J, Fern L.A. A Participatory study of teenagers and young adults views on access and participation in cancer research. *European Journal of Oncology Nursing*

Access to clinical trials

Fern L.A., Lewandowski J., Coxon K.M., Whelan J., Available, Accessible, Aware, Appropriate and Acceptable- a strategy for improving participation of teenagers and young adults in cancer clinical trials. *Lancet Oncology*; volume 15, No.8, e341-e350

Appendix 4

Major international presentations in the reporting year

BRIGHTLIGHT

Whelan J, BRIGHTLIGHT: Emerging findings, presented at *Teenage Cancer Trust International Conference*, 2014, Royal Society of Medicine, Wimpole Street, London

ORDAiN

Fern L.A, What was said, what was written and what was heard, the importance of language in the diagnostic pathway. Presented at *Teenage Cancer Trust International Conference*, 2014, Royal Society of Medicine, Wimpole Street, London