Birmingham Children's Hospital
Primary treatment centre (PTC) list of protocols and guidelines which contain approved cytotoxic chemotherapy regimens

Updated 9th June 2016 (Jason Patel)

Contents

1. Background & Scope

This document was first developed in order to comply with *Manual for Cancer Services 2008: Children's Cancer Measures* (09-7B-132) and demonstrate agreement on how children and young people with a cancer diagnosis should be treated. This guidance applies to all patients treated under the direction of a Consultant Haematologist or Oncologist at Birmingham Children's Hospital NHS Foundation Trust (BCHNFT) and applies to children and young people with a diagnosis of cancer from birth to their 16th birthday (unless permission is obtained to treat individual patients who are 16 years or older).

This guidance is intended:

- To define the list of acceptable regimens for the PTC (BCHNFT) of the West Midlands Children's Cancer Network (CCN) (14-7B-129)
- To provide the basis for the West Midlands Children's Cancer Network Co-ordinating Group's (CCNCG) list of acceptable chemotherapy regimens for the CCN (including the PTC, POSCUs and community services (14-7A-113).
- To support CCNG discussion of clinical trials (14-7A-121)
- To identify those low risk regimens (or parts of regimens), including routes of administration and settings in which treatment may be given, that may be delivered by nurses who have only received training at the low risk level specified in the introduction (14-7A-113)

2. Clinical Management

Modality and location of treatments are summarised in this section, with detail regarding regimens employed following in Section 3 (List of CCN Approved Regimens).

2.1. Leukaemia (14-7A-111)

Treatment consists of chemotherapy according to the current national/international study, or interim guideline. Induction will take place at BCHNFT, the University Hospital of North Staffordshire (Royal Stoke University Hospital) or The Princess Royal Hospital, Telford. Subsequent treatment will be given at the PTC or the patients POSCU according to the level of shared care accreditation and/or local arrangements.

Patients requiring stem cell transplant (SCT) for high risk or relapsed disease will normally be referred to the SCT team at BCHNFT.

2.2. Lymphoma (14-7A-111)

Chemotherapy will be administered at the PTC or POSCU according to level of shared care accreditation. Radiotherapy, where appropriate, will normally be delivered at the University Hospital Birmingham (UHB).

2.3. CNS Tumours (14-7A-111)

Patients are managed jointly by neuro-oncologists and neurosurgeons as appropriate. Chemotherapy will be administered at the PTC or POSCU according to level of shared care accreditation. Neurosurgical interventions are normally undertaken at BCHNFT and radiotherapy delivered at UHB.

2.4. Sympathetic Nervous System Tumours (14-7A-111)

Surgery and in-patient chemotherapy will normally be performed / administered at the PTC. Out-patient, and certain in-patient, chemotherapy may be delivered at a POSCU according to level of shared care accreditation.

Radiotherapy, where appropriate, will normally be delivered at the University Hospital Birmingham (UHB).

Other specialised interventions e.g. administration of anti-GD2 antibody will be administered at BCHNFT.

2.5. Retinoblastoma (14-7A-111)

As a supra-Regional centre patients are referred the BCHNFT widely from outside the West Midlands area. Chemotherapy may be delivered at the PTC or locally, if facilities and support permit.

Treatment with surgery, laser and/or cryo-therapy or intra-arterial chemotherapy will be given at BCHNFT.

2.6. Renal tumours (14-7A-111)

Surgery will be performed at BCHNFT and radiotherapy, where appropriate, will normally be delivered at UHB.

In- and out-patient chemotherapy may be delivered at BCHNFT or a POSCU according to level of shared care accreditation**.**

2.7. Hepatic tumours (14-7A-111)

Surgery will normally be performed at BCHNFT. Chemotherapy may be delivered either at BCH or a POSCU according to the level of shared care accreditation**.**

Patients requiring major liver surgery or transplantation are referred to the Liver Team at BCHNFT.

2.8. Malignant Bone and Soft Tissue Sarcomas (14-7A-111)

Bone sarcomas that require tumour biopsies and / or orthopaedic reconstructive and prosthetic surgery, and large soft tissue sarcomas in limbs, are referred to the orthopaedic oncology service at the Royal Orthopaedic Hospital, Birmingham.

Patients with other soft tissue sarcomas will normally receive surgery at BCHNFT and radiotherapy, where appropriate, will normally be delivered UHB.

In- and out-patient chemotherapy may be delivered at BCHNFT or a POSCU according to the level of shared care accreditation.

2.9. Other malignancies (14-7A-111)

As for the other malignancies discussed previously, standard practice will be for surgery to be performed at BCHNFT; radiotherapy to be delivered at UHB and chemotherapy, both in- and out-patient either at BCHNFT or a POSCU according to the level of accreditation of the POSCU and the patient’s, and their families, wishes.

In the case of tumours in children/teenagers > 12 years with an unusual or adult-type diagnosis, patients may be discussed with the site-appropriate adult MDT at UHB or colleagues throughout the UK and Europe.

Treatment will normally be delivered as set out above unless the patient expresses a wish, and the referral is appropriate, to be treated in the teenage and young adult (TYA) unit at UHB**.**

2.10. Investigation, Diagnosis and Staging (All malignancies) (14-7A-115)

Responsibility for the investigation, diagnosis and staging of patients lies with the PTC, which offers the full range of chemotherapy treatment regimes available in the UK for children on Phase III clinical trials, standard treatment regimes, and those whose disease does not have a recognised standard treatment.

The decision to treat with a course of chemotherapy, and the choice of a particular regimen, will only be taken by a consultant paediatric oncologist or haematologist at the PTC, and the appropriate MDT.

The PTC is also responsible for initiating and prescribing chemotherapy, curative/palliative radiotherapy and therapeutic surgery.

2.11. Clinical Management (All malignancies) (14-7A-111)

There is a consensus with the Network that all paediatric cancer patients will be clinically managed as follows:

- Whenever possible, patients will be offered entry onto an appropriate national/international research study or clinical trial. This will normally be done by the consultant who is managing the patient and the decision ratified, or otherwise, by the appropriate MDT.
- Where there is no available trial or study for a given diagnosis, treatment will be given according to appropriate treatment guidelines, which may be produced and updated by the CCLG or other interest groups. For rare tumours which are not covered by such guidelines, and many cases of relapse, guidance will be sought from a nationally recognised expert in the relevant field.
- Where there is a trial available, but consent is refused or the patient is ineligible for other reasons, then in the absence of a separate treatment guideline, treatment will usually be recommended based on the standard arm of the open study.

3. List of PTC approved regimens (14-7A-113, 14-7B-314)

The CCN is required to discuss and agree a list of acceptable regimens on an annual basis.

As noted in paragraph 1. this document has been developed to guide the CCNCG as to the current situation regarding the clinical trials (and their status) and treatment guidelines that may be used by the clinicians at BCHNFT. This is done whilst recognising that it is for the CCNCG to confirm their agreement with the list of trials and guidelines set out below.

It is recognised that trials may open and close throughout the year and open trials or treatment guidelines may be amended. It is for this reason that the list is presented as a list of trials and guidelines rather than as a list of individual treatment regimens, or cycles.

Unless an individual cycle within the trial or guideline is specifically excluded it should be assumed that all cycles of treatment within the trial or guideline are agreed as appropriate for use. However, no treatment may be administered in either the PTC or a POSCU unless all concerned in the delivery of the treatment are confident that they have all the necessary information and expertise to enable the treatment to be given safely and effectively.

Therefore the list below is presented on the understanding that it may not remain absolute for any 12 month period, and is agreed with the proviso that new trials and/or guidelines introduced during any 12 month period will be presented to, and discussed at, the next available meeting of the CCNCG.

The decision regarding the status of the trial or guideline will be clearly minuted and the next published version of the approved list will appropriately reflect the decision reached.

Tumour type	*Trial or Document Name*	*Document type*	*Ref*	*Current version*	*Date of issue*	*National list, P-Drive Chemocare Y / N*
Leukaemia						
Acute Lymphoblastic Leukaemia First Line Treatment						
ALL	ALL 2003	Trial protocol	UKALL 2003	Version 7	Aug-09	Nat no
ALL	Guidelines for the treatment of children and young persons with acute lymphoblastic leukaemia and lymphoblastic lymphoma	Treatment guideline		Version 3	Jul-11	Nat yes P-Drive yes CC Yes
ALL / lymphoblastic lymphoma	United kingdom national randomised trial for children and young adults with acute lymphoblastic leukaemia and lymphoma UKALL 2011	Trial protocol	RG_09-072 EudraCT: 2010-020924-22	Version 4.0	21/12/15	Nat yes P-Drive yes CC Yes
Infant ALL	Interfant 06	Trial protocol	RG_09-204 (formerly LK 2006 10)	version 7.0	15/7/15	Nat yes P-Drive yes CC Yes
Ph positive ALL	A phase 2 multi-center, historically controlled study of dasatinib added to standard chemotherapy in paediatric patients with newly diagnosed Philadelphia chromosome positive acute lymphoblastic leukaemia	Trial protocol	CA180372	Revised protocol number 5	28/10/13	Nat yes P-Drive Yes CC Yes
Acute Lymphoblastic Leukaemia Second Line Treatment						
Relapsed ALL	ALL R3 + R3 closure notification	Trial protocol used as guideline PLUS closure notification* with amendments		version 5	7/2/12 , 2/10/13*	Nat yes P Drive Yes. CC Yes

Acute Myeloid Leukaemia First Line Treatment						
AML	Treatment guideline for acute myeloid leukaemia or high-risk myelodysplastic syndrome in children (excluding APL and DS AML)	Treatment guideline			22/12/11	Nat yes P-Drive Yes CC Yes
AML	MyeChild 01	Trial protocol	RG 14-088 Eudract: 2014-005066-30	1.0	4/8/15	Nat no P-Drive Yes CC need sign off?
AML	GUIDELINE FOR ACUTE MYELOID LEUKAEMIA IN CHILDREN AND YOUNG ADULTS	Treatment guideline	December 2015	Dec 2015	Dec 2015	Nat no P-Drive no CC need sign off?
Down's syndrome AML	Myeloid leukaemia of Downs syndrome	(Draft) trial protocol used as treatment guideline	ML DS 2007		March 2014	Nat yes P-Drive Yes CC Yes
APML (=APL)	Acute promyelocytic leukaemia in children and adolescents Management guidelines	NCRI Leukaemia subgroup guideline		Version 1.0	Jan 2013	Nat no P-Drive Yes CC ?
APML (=APL)	Treatment outline of standard-risk children with APL (SR-ICC APL Study 02)	Trial protocol				Nat no P-Drive No CC ?
Acute Myeloid Leukaemia Second Line Treatment						
No open Program	Available treatment cycles include: FLA FLA-ida Clofarabine, cyclophosphamide, etoposide					Nat ? P-Drive ? CC ?
Chronic Myeloid Leukaemia						
CML	Recommendations for the management of chronic myeloid leukaemia in children and young people up to the age of 18 years	iBFM CML guideline bjhaem (CCLG website)			Dec 2014	Nat ? P-Drive ? CC ?

Miscellaneous haematological conditions						
Chronic Myeloproliferative Disorders	Treatment recommendations for chronic myeloproliferative disorders in childhood	CCLG guidelines	CCLG / UKCCSG /CLWP guidelines	Version 1.0	Aug-07	
Myelodysplasia	Management of myelodysplasia in childhood	CCLG Guidelines		Version 3.0	Sep-01 re-issued Sep-05	
HLH	HLH-2004	Closed study protocol	LCH 2006 02 EudraCT: 2005-002187-28	Version 1.0	Jun-05	P-Drive Yes CC Yes
LCH	Langerhans cell histiocytosis treatment guidelines	CCLG interim guidelines			Oct-08	CC Yes
Lymphoma						
Non-Hodgkin's Lymphoma First Line						
B-cell NHL	Intergroup trial for children and adolescents with B-cell NHL or B-AL: Evaluation of rituximab efficacy and safety in high risk patients	Trial protocol	Inter-B-NHL ritux 2010 Eudract: 2010-019224-31	2.0	15/3/13	Nat yes P-Drive Yes CC Yes
ALCL	International protocol for the treatment of childhood anaplastic large cell lymphoma (ALCL)	Study protocol as guidelines in conjunction with CCLG Interim guideline letter	NHL 2000 06		Apr-00 / guideline letter Jun-09	Nat no P-Drive No CC Yes
Non-Hodgkin's Lymphoma Second Line						
B-Cell NHL	Rituximab, Ifosfamide, Carboplatin, Etoposide (RICE)	Local Guideline				Nat no P-Drive no CC yes

Hodgkin's Lymphoma 1st and second line						
Hodgkin's disease	Recommendations for the Diagnostics and Treatment of children and adolescents with a classical Hodgkin`s Lymphoma during the Interim phase between the end of the EuroNet -PHL-C1 Study and the start of the EuroNet -PHL-C2 Study	Treatment guideline (EuroNet-PHL)		2.1	10/7/13	Nat yes(?) P-Drive yes CC yes
Lymphocyte-predominant Hodgkin's disease	Interim guidelines for the management of patients with early-stage Lymphocyte-predominant Hodgkin's lymphoma	CCLG Interim guidelines		Version 2.0	Aug-06	Nat yes P-Drive No CC Yes
Lymphocyte-predominant Hodgkin's disease	First international Inter -Group Study for nodular lymphocyte-predominant Hodgkin's Lymphoma in Children and Adolescents	Trial protocol	EuroNet-PHL-LP1 Eudract: 2007-004092-19		16/2/12	Nat Yes P-Drive Yes CC Yes
CNS tumours						
Ependymomas						
Ependymoma in children < 3 year	CCLG Infant ependymoma observational study	Closed study protocol used as treatment guideline	CNS 2007 09	Version 1.1	Mar-08	Nat yes P-Drive No CC Yes
Ependymoma	SIOP Ependymoma 99	Former trial protocol used as a guideline	RG_10-031	Version 4	Jul-10	Nat yes P-Drive No CC Yes
In Preparation Ependymoma all ages	SIOP Infant Ependymoma II study This will replace the above two guidelines	Clinical trial due to open in 2016		Version 2.1	May-15	Nat yes P-Drive Will be CC Will be
Choroid Plexus Tumours						
Choroid Plexus Carcinoma and atypical papilloma	CPT SIOP 2009 Chemotherapy Arm A is adopted as a regimen for consideration at BCH CCLG revised recommendations on Choroid plexus tumours based on results from CPT SIOP 2009,	6 repeated cycles of carboplatin, etoposide and vincristine.				Nat ? P-Drive No CC ?

Low Grade Astrocytomas						
Low grade glioma	Co-operative multicentre study for the treatment of children and adolescents with low-grade glioma (LGG2)	Former trial protocol used as a guideline Vincristine and Carboplatin	RG_09-201 (formerly CNS 2004 03)	Version 3.0a UK supplement version 4.0a	Sep-10 Sep-10	Nat yes P-Drive Yes CC Yes
Low grade glioma	Birmingham Children's Hospital Guideline for the use of Bevacizumab and Irinotecan for third or later line treatment of Low-Grade Glioma	BCH guideline Third or subsequent line therapy		1.0	Mar 2014	Nat no P-Drive Yes CC Yes
Low Grade Glioma	Single Agent Vinblastine	BCH Guidelines Second line therapy where chemotherapy is chosen as treatment arm				Nat Yes P-Drive No CC Yes
Low Grade Glioma	TPCV	Third or subsequent line therapy				
Low Grade Glioma	Vincristine and Dactinomycin	BCH Guidelines Third or subsequent line therapy				
High-Grade Astrocytomas						
High-grade glioma	High-grade glioma guidelines	CCLG guidelines		Version 2.0	Nov-07	Nat yes P-Drive No CC No
Newly diagnosed supratentorial HGG	An open-label, randomised, multi-centre comparative Study of Bevacizumab-based therapy in paediatric patients with newly diagnosed supratentorial high-grade glioma	Trial Protocol - Pharma	BO25041 Eudract: 2010-022189-28	E		Nat No P-Drive Yes (HERBY) CC No
High-grade glioma	PCV chemotherapy	Second line therapy				
Gliomatosis cerebri	Temozolamide					
Medulloblastoma / PNET						
Standard-risk medulloblastoma	CCLG guidelines for standard risk medulloblastoma (for children 3 years of age and older)	CCLG interim guideline		Version 2.0	Jan-11	Nat yes P-Drive No CC Yes
High-risk medulloblastoma	Interim Guidance for High Risk Medulloblastoma St Judes 03	CCLG interim guideline		Version 3	Jan 2015	Nat no P-Drive Yes CC Yes

High-risk medulloblastoma	Interim Guidance for High Risk Medulloblatoma POG 9031	CCLG interim guideline				
PNET, medulloblastoma and other CNS tumours	Dose intensive chemotherapy for children less than ten years of age newly diagnosed with malignant brain tumours: A pilot study of two alternative intensive induction chemotherapy regimens followed by consolidation with myeloablative chemotherapy (thiotepa , etopside and carboplatin) and autologous stem cell rescue.	Trial protocol used as treatment guideline	Headstart II		9/8/00	Nat yes P-Drive No
PNET or medulloblastoma in children < 3 years	Non-metastatic medulloblastoma in children under 36/12 of age	Draft study protocol as treatment guideline Not routine use BCH. Individual decision only			Nov-05	Nat yes P-Drive No CC ?
Individualised decision for some infants with medulloblastoma	SFOP Infant brain tumour protocol	Guideline	BEBEBR			Nat no P-Drive Yes CC Yes
Other CNS Diagnoses						
Atypical teratoid rhabdoid tumours	Guidelines for management of atypical teratoid rhabdoid tumours	CCLG treatment guideline recommending the EuRhab trial protocol		CCLG Version 2.2 Eu-Rhab: Version 2	May-11 Nov-10	Nat no P-Drive No CC Yes
Meningioma	Guidelines for the management of intracranial meningioma in children and young people	CCLG guideline		Version 1.0	Jun-07	Nat no P-Drive No CC NA
CNS germ-cell tumours	SIOP CNS Germ Cell II	Trial Protocol	SIOP CNS GCII	Version 2	15.06.2011	Nat yes P-Drive Yes CC Yes
Pineoblastoma	CCLG CNS Tumour Special Interest Group Guidelines for the treatment of non - metastatic Pineoblastoma in Children more than 3 years old (September 2013)	CCLG guideline		1	Sep 2013	Nat no P-Drive Yes CC ?
Sympathetic nervous system tumours First Line						
High-risk neuroblastoma	High risk neuroblastoma Study 1 of SIOP Europe (SIOPEN)	Trial protocol	RG_09-206 (formerly NB 2002 06)	UK version 13.0	7/7/15	Nat yes P-Drive Yes CC Yes

Unresectable localised neuroblastoma	Treatment of children over the age of 1 year with unresectable localised neuroblastoma without MYC-N amplification	Study protocol as guideline in conjunction with CCLG interim guideline	NB 2009		Apr/Oct-00 (study) Feb-07 guideline letter)	Nat no P-Drive No CC ?
Low and intermediate risk neuroblastoma	Guidelines for treatment of patients prior to the opening of the SIOPEN Low and Intermediate Risk Neuroblastoma (LINES) Study	CCLG guideline			August 2011	Nat no P-Drive Yes CC ?
Infant neuroblastoma	European infant neuroblastoma Study	Study protocol as guideline in conjunction with CCLG interim guideline	NB 9903	Amendment	Jun-04 (guideline letter)	Nat no P-Drive Yes CC Yes
Relapsed / refractory neuroblastoma	A randomised phase IIb trial of BEvACizumab added to Temozolomide ± IrinOtecan for children with refractory/relapsed Neuroblastoma	Trial protocol	BEACON-Neuroblastoma RG 11-087 Eudract: 2012-000072-42	4.0	6/10/14	Nat yes P-Drive Yes CC Yes
High-risk neuroblastoma	Guidelines for the therapy of high-risk neuroblastoma following high-dose myeloablative therapy	CCLG guideline			Feb-10	Nat yes P-Drive No CC ?
Sympathetic nervous system tumours Second Line						
Recurrent / Refractory Neuroblastoma	CCLG guidelines for recurrent / refractory High Risk Neuroblastoma. Temozolomide – Irinotecan	CCLG guideline			19th May 2013	Yes P-Drive Yes CC ?
Retinoblastoma						
Reinoblastoma	Guidelines for the management of children with advanced unilateral retinoblastoma following primary enucleation	UKCCSG guideline	RB 2005 11	Version 1.0	May 2005	P-Drive No CC Yes
Retinoblastoma	GUIDELINES FOR THE MANAGEMENT OF CHILDREN WITH INTRAOCULAR RETINOBLASTOMA I CHEMOTHERAPY	CCLG guideline		2	Oct 2008	Nat yes P-Drive No CC yes
Retinoblastoma	Guidelines for the treatment of relapsed/ refractory retinoblastoma with intra-arterial melphalan	GOSH chemotherapy group guideline		Version 4	Dec 2011	P-Drive No CC Yes
Retinoblastoma	BCH protocol for the treatment of intra-ocular retinoblastoma with intravitreal chemotherapy (IVC)	BCH protocol		Version 1	27/12/11	P-Drive No CC No
Retinoblastoma	Guidelines for the management of children with intraocular retinoblastoma – chemotherapy	CCLG treatment guidelines		Version 2	Oct-08	P-Drive No CC ?
Retinoblastoma	Guidelines for the management of children with intraocular retinoblastoma – second-line chemotherapy	CCLG treatment guidelines		Version 2	Jan-08	P-Drive No CC ?

Retinoblastoma	BCH protocol for the treatment of intra-ocular retinoblastoma with intra-ophthalmic arterial chemotherapy	Treatment guideline		Version 1	Jun-10	P-Drive No CC ?
Renal tumours						
Wilm's tumour	CLINICAL MANAGEMENT GUIDELINES WILMS TUMOUR	CCLG guideline			Jan 2015	Nat yes ?SIOP P-Drive No CC Yes
Wilms and other renal tumours	Nephroblastoma (Wilms' tumour) clinical trial and study	Former trial protocol used as a guideline	RG_09-208 (formerly WT 2002 01) EudraCT: 2007-004591-39	Version 5	Aug-10	Nat yes P-Drive No CC Yes
Relapsed Wilms tumour	Treatment of relapsed and refractory Wilms tumour and Clear-cell sarcoma of the kidney (CCSK) UKW-R	Closed study protocol as guideline	WT 2001 02	Version 8.0	2/8/10	Nat yes P-Drive Yes CC Yes
Hepatic tumours						
Standard risk hepatoblastoma	SIOPEL 6: A multi-centre randomised Phase III trial of the use of Sodium thiosulphate in reducing ototoxicity for patients receiving cisplatin chemotherapy for standard risk hepatoblastoma	Trial protocol	RG_09-205 (formerly LT 2007 03)	Version 4.0a	18/7/12	Nat yes P-Drive Yes CC Yes
High risk hepatoblastoma	SIOPEL 3 study "superPLADO" arm					Nat ? P-Drive no CC Yes
High risk hepatoblastoma	Intensified pre-operative chemotherapy and radical surgery for high-risk hepatoblastoma SIOPEL 4	Former trial protocol used as a guideline	RG_10-037 LT 2004 09EudraCT: 2006-001271-38	Version 2	Aug-10	Nat yes P-Drive No CC ?
Hepatoblastoma and hepatocellular carcinoma	SIOPEL-3 liver tumour studies – Standard risk hepatoblastoma and hepatocellular carcinoma	Former trial protocol used as a guideline			Oct-04 (amended)	Nat yes P-Drive No CC Yes

Malignant Bone and Soft Tissue Sarcomas						
Ewing's sarcoma	Euro Ewing 2012: International Randomised Controlled Trial for the Treatment of Newly Diagnosed Ewing's Sarcoma Family of Tumours	Trial protocol	Euro EWING 2012 RG 11-152 Eudract: 2012-002107-17	3.0	23/1/15	Nat yes P-Drive Yes CC Yes
Ewing's sarcoma	International Randomised Controlled Trial of chemotherapy for the Treatment of Recurrent and Primary Refractory Ewing Sarcoma	Trial protocol	rEECur RG 13-277 EudraCT- 2014-000259-99	3.0	9/9/14	Nat ? P-Drive Yes CC ?
Ewings sarcoma	EURO-Ewing 99	Former trial protocol used as a guideline	RG_09-202 (formerly ET 2000 03)	Version 3a	Sep-10	Nat yes P-Drive Yes CC Yes
Osteosarcoma	Euramos-1	Former Trial protocol used as a guideline		3.0	21/7/11	Nat yes P-Drive Yes CC Yes
Osteosarcoma	Mifamurtide	Individual Regimen				Nat No P-Drive No CC Yes
Non-rhabdomyosarcoma soft tissue sarcoma	A protocol for non-rhabdomyosarcoma soft tissue sarcoma	Trial protocol	EpSSG NRSTS 2005 (STS 2006 03)	3.0a	10/1/13	Nat yes P-Drive No CC Yes
Localised rhabdomyosarcoma	A protocol for non-metastatic rhabdomyosarcoma	Trial protocol	EpSSG RMS 2005 RG_09-207 (formerly STS 2006 04)	Version 3.0a	10/1/13	Nat yes P-Drive Yes CC Yes
Newly diagnosed Metastatic Rhabdo and non rhabdo soft tissue sarcomas and Ewing's / PNET	Open 0- label, multi-centre, randomised, two stage adaptive design study of the combination of Bevacizumab with standard chemotherapy in minor patients with metastatic rhabdomyosarcoma, non rhabdomyosarcoma soft tissue sarcoma or Ewing's sarcoma/soft tissue PNET	Trial Protocol				Nat ? P-Drive ? CC ?

Refractory or relapsed rhabdomyosarcoma	International Randomized Phase II trial of the combination of vincristine and irinotecan with or without temozolomide (VI or VIT) in children and adults with refractory or relapsed rhabdomyosarcoma	Trial protocol	VIT-0910	Version 2.1	4/5/12	Nat yes P-Drive Yes CC Yes
Other solid tumours						
Extracranial germ cell tumours	Protocol for the treatment of extracranial germ cell tumours in children and adolscents (GC III)	Closed study protocol as guideline (Pending opening of CCLG interim guideline)	RG_10-030 (GC 2005 04) EudraCT: 2004-002503-33	Version 2	Aug-10	Nat yes P-Drive No CC Yes
Extracranial germ cell tumours	Interim guidelines for the management of extracranial germ cell tumours	CCLG interim guideline			Expected-10	Nat yes P-Drive No CC ?
High-stage sex cord stromal tumours	BEP chemotherapy as described for GCTs in GC III and interim guidelines	EoE CCN treatment recommendations				Nat yes (adult) P-Drive No CC?
Endocrine tumours	Paediatric endocrine tumour guidelines (NB ACT guidelines)	CCLG guidelines			Oct-05	Nat No P-Drive Yes CC ?
Adrenocortical tumours, including carcinoma	Guidelines on the management of adrenocortical tumours (ACT) and adrenocortical carcinoma (ACC)	CCLG guidelines		Version 2.0	Jun-07	P-Drive No CC No
Rhabdoid tumours	European rhabdoid registry recommendations for consensus treatment	EoE CCN treatment recommendations			Jun-08	Nat no P-Drive No CC ?
Malignant melanoma	Guidelines for the investigation and management of melanoma	CCLG guidelines		Version 2	Mar-04	Nat ? P-Drive No CC No
Melanotic neuroectodermal tumours of infancy	Guidelines for the management of melanotic neuroectodermal tumour of infancy	CCLG guidelines		Version 1	Aug-04	Nat ? P-Drive No
Nasopharyngeal carcinoma	Guidelines for the investigation and management of nasopharyngeal carcinoma	CCLG guidelines		Version 3	Jun-07	Nat no P-Drive No
Pancreatic tumours	Guidelines for the investigation and management of pancreatic tumours of childhood and adolescence	CCLG guidelines		Version 1	Jun-03	Nat no P-Drive No CC No
Solid tumours miscellaneous relapsed	Five day irinotecan plus temozolomide	Regimen from VIT0910 protocol used for other tumour types	VIT-0910	Version 2.1	4/5/12	Nat yes P-Drive Yes CC Yes
Solid tumours miscellaneous relapsed	Five day topotecan plus cyclophosphamide	Regimen from rEECur protocol used for other tumour types	rEECur RG 13-277 EudraCT- 2014-000259-99	3.0	9/9/14	Nat ? P-Drive Yes CC ?

Solid tumours miscellaneous palliative	Phase II study of continuous oral etoposide in paediatric tumours	Former trial protocol used as guideline		NAG 8 (9203)		Nat yes (adult) P-Drive No CC No
Tumours with ErbB pathway deregulation	Phase I open label, dose escalation trial to determine the MTD, safety, PK and efficacy of afatinib monotherapy in children aged 2 years to <18 years with recurrent/refractory neuroectodermal tumours, rhabdomyosarcoma and/or other solid tumours with known ErbB pathway deregulation regardless of tumour histology	Trial protocol	Eudract: 2014-002123-10	2	4/5/15	Nat no P-Drive Yes CC ?
Neurofibromatosis	National Specialised Commissioning protocol for administration of Bevacizumab in patients with Neurofibromatosis Type 2 - version 11 (Updated June 2014)	Guideline	UK NF2 BEV	11.0	June 2014	Nat no P-Drive Yes CC Yes
Pharmacokinetic studies						
	A multi-center, open-label, pharmacokinetic study of oral nilotinib in pediatric patients with Gleevec® (imatinib)- resistant/intolerant Ph+ CML chronic phase (CP) or accelerated phase (AP) or with refractory/relapsed Ph+ ALL		CAMN107A2120 EudraCT: 2010-018419-14	Version 01	Oct-10	
	PK and pharmacogenetics of anticancer drugs in infants		PK 2006 09			
	PK Actinomycin D in children with cancer		PK 2006 07			
			PK 2007 02			
			PK 2008 03			
Phase I/II studies						
	Phase I/II study of Src/Abl tyrosine kinase inhibitor dasatinib [BMS-354825] in children and adolescents with relapsed or refractory leukemia, Protocol ITCC 005. Protocol closed. 1 patient remains on study		CA 180018 EudraCT: 2005-002882-35	Version 3.0	Jul-06	Nat no P-Drive No CC No
	A Phase II Study of Dasatinib Therapy in Children and Adolescents with Ph+ Leukemia with Resistance or Intolerance to Imatinib		CA 180226 EudraCT: 2008-002260-33	Version 1.0	Jul-2008	Nat yes P-Drive Yes CC No

AML – relapsed/ refractory	Phase 1-2 Safety and Efficacy Study of DACOGEN in Sequential Administration with Cytarabine in Children With Relapsed or Refractory Acute Myeloid Leukemia	Trial protocol	JNJ-30979754 (decitabine) EudraCT- 2013-000390-70		18/6/14	Nat ? P-Drive yes CC ?
Solid malignant tumours – relapsed/refractory	A multi-center, open-label, non-randomized, phase I dose escalation study of regorafenib (BAY 73-4506) in pediatric subjects with solid malignant tumors that are recurrent or refractory to standard therapy	Trial protocol	BAY No. 73-4506/15906 EudraCT – 2013-003579-36	3.0	25/3/15	Nat ? P-Drive yes CC ?
Solid malignant tumours – relapsed/refractory	An early-phase, multicenter, open-label study of the safety and pharmacokinetics of atezolizumab (mpdl3280a) in pediatric and young adultpatients with previously treated solid tumours	Trial protocol	GO29664 EudraCT – 2014-004697-41	4	15/10/15	Nat ? P-Drive yes CC ?
Solid malignant tumours – relapsed/refractory	Phase 1/2 Study of Lenvatinib in Children and Adolescents With Refractory or Relapsed Solid Malignancies	Trial protocol	E7080-G000-207 EudraCT - 2013-005534-38	3.0	14/4/15	Nat ? P-Drive yes CC ?
STS and Ewing's see above.	Open-label, multi-center, randomized, phase II study evaluating the addition of bevacizumab to chemotherapy in childhood and adolescent patients presenting with metastatic rhabdomyosarcoma and non-rhabdomyosarcoma soft tissue sarcoma.		BO20924 EudraCT: 2007-005017-19	22 January 2009		Nat yes P-Drive No CC ?
Stem cell transplantation conditioning regimes						
	Pilot of allogeneic immunotherapy in refractory disease	BEAM + Alemtuzumab	PAIReD EudraCT: 2008-004956-60			
Individual treatment courses						
FLA						Nat yes
FLAG						Nat yes
FLAG-Ida						Nat yes
Oral etoposide	Option for use in palliative or holding chemotherapy setting.					

Mifamurtide	as an option for the treatment of high-grade resectable non-metastatic osteosarcoma after macroscopically complete surgical resection in children, adolescents and young adults in combination with postoperative multi-agent chemotherapy, and within its licensed indication, and subject to availability at reduced cost to the NHS under the patient access scheme.					Nat yes CC yes
Post-transplant lymphoproliferative disorder	CHOP and R-CHOP					CC yes

4. Use of regimens not on the approved list (14-7A-113)

Whilst the PTC list of approved regimens is intended to cover the widest possible range of clinical diagnoses it is inevitable that there will be cases, due to the absolute rarity of the disease, or rarity within the paediatric population, when treatment options will need to be considered on an individual patient basis, usually in conjunction with a nationally or internationally recognised expert in the field.

Management of relapse, other than those involving the most common malignancies, will also often need to be considered on the same basis.

Whenever it is proposed to use a regimen that is not on the approved list, the treatment plan will be discussed and agreed at a diagnostic and treatment MDT at the PTC. The decision to treat using the proposed regime will be agreed within the MDT and that decision minuted.

Whenever possible the regimen will be set up on ChemoCare prior to first use in order to ensure that all the issues around prescribing and administration have been addressed, and nursing staff given the fullest and clearest possible information on delivery of the treatment. However, it is recognised that this will not always be possible due to conflicting timescales.

Until the proposed regimen is set up on ChemoCare, and the input validated, it remains the responsibility of the diagnostic and treatment MDT to ensure that all those who have a role in delivering the treatment have all the necessary information and expertise to enable the treatment to be given safely and effectively.

Delivery of the non-approved regimen in a POSCU should only be considered once the CCNCG has been informed of the proposed use of the regimen (see Section 3. above) and discussions have taken place with the POSCU to ensure that local delivery of the regimen is appropriate to the level of shared care accreditation and all those who will have a role in delivering the treatment have all the necessary information and expertise to enable the treatment to be given safely and effectively.

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