SACT Systemic Anti-Cancer Therapy
Chemotherapy Dataset

ciu
Chemotherapy Intelligence Unit

CTYA Workshop - SACT Update

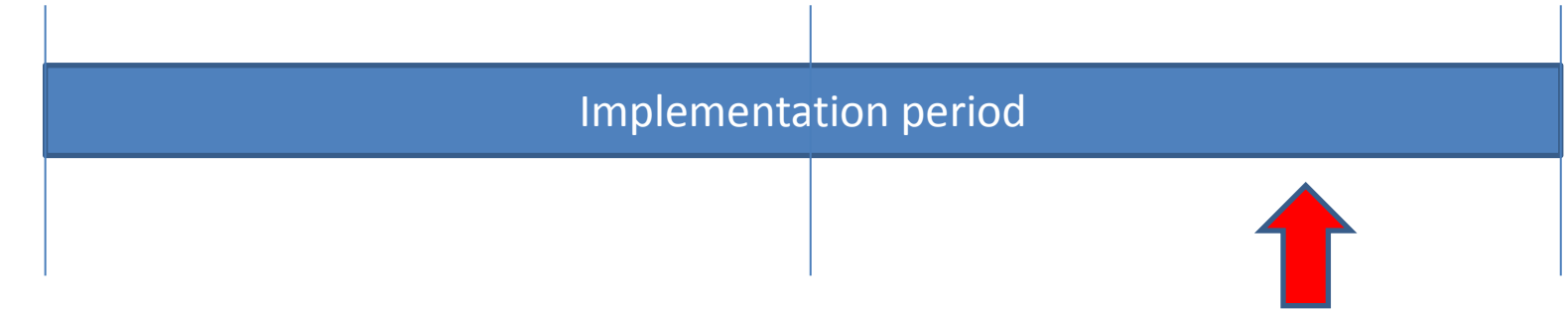
11th December 2013

NCIN
national cancer intelligence network
Using information to improve quality & choice

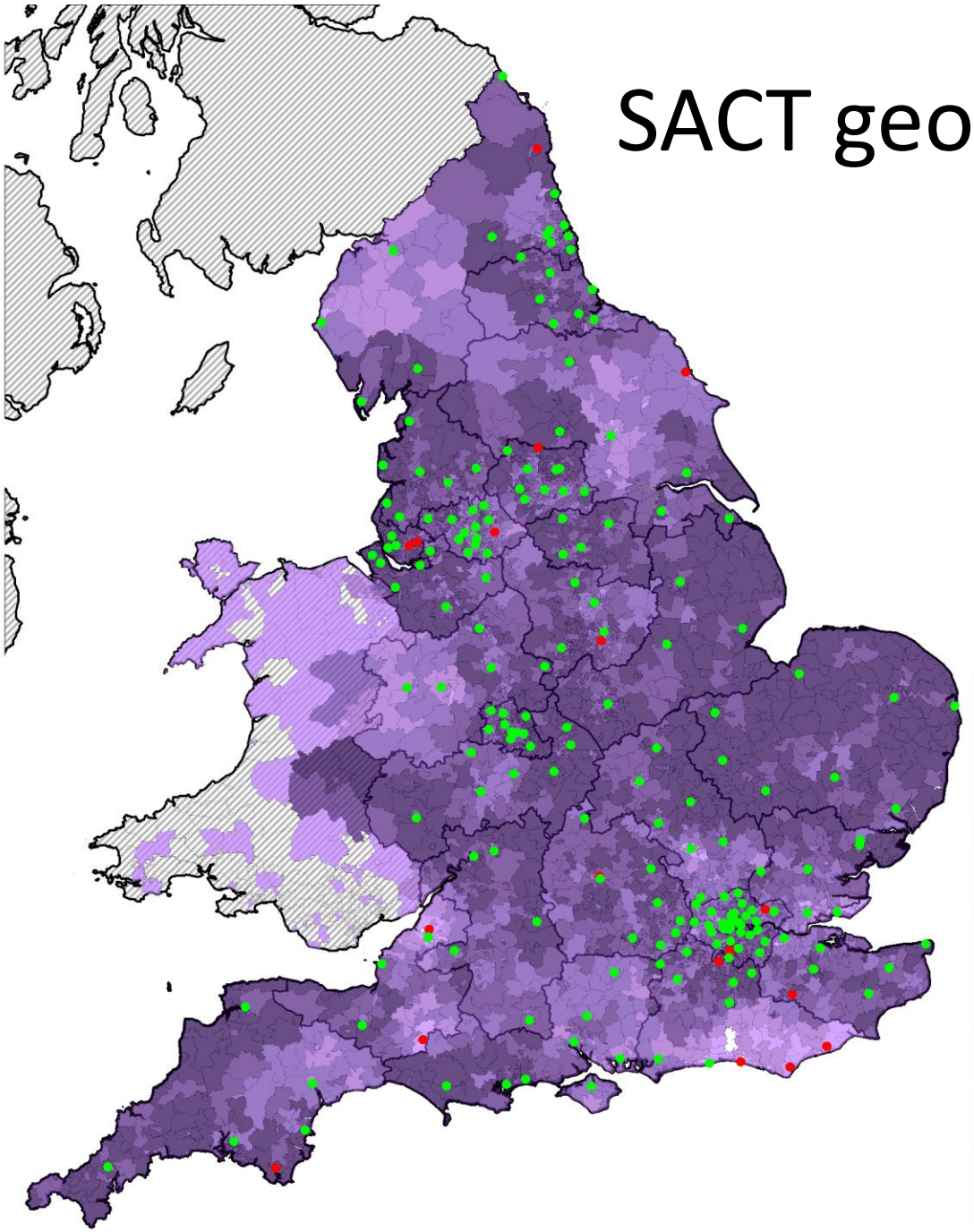
SACT

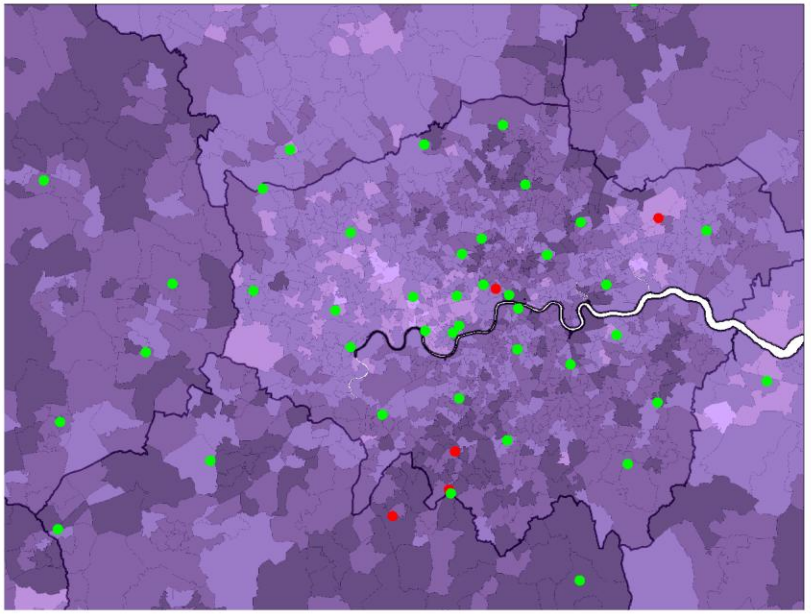
- **S**ystemic **A**nti-**C**ancer **T**herapy Information Standard
- NHS Information Standard Board approval
- Implementation from April 2012- April 2014
- Covers all drug treatment for cancer in all settings

SACT Timetable



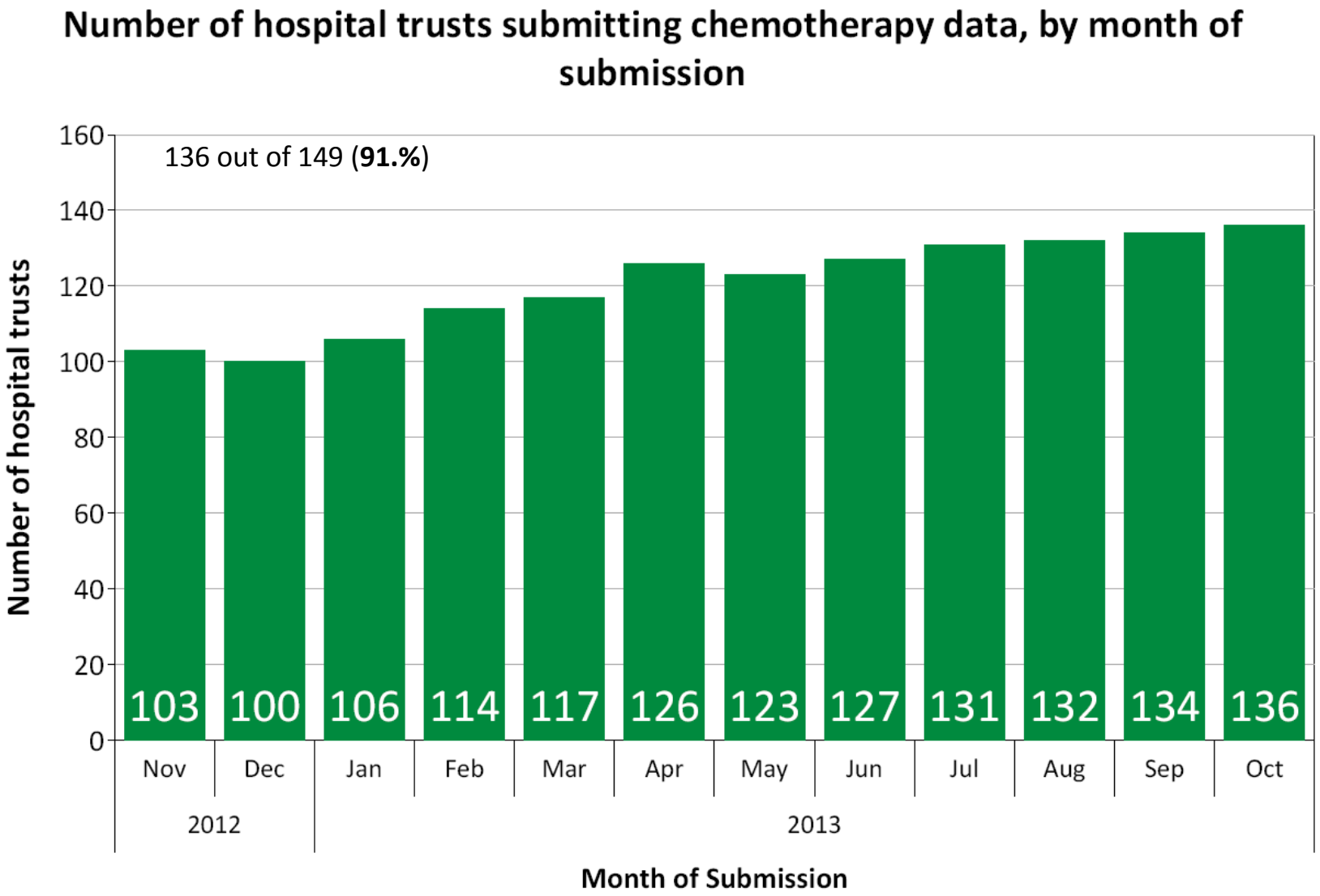
SACT geographical coverage





London detail

Increase in contributing trusts



SACT field structure

- Demographics and provider
- Clinical status
- Programme and regimen
- Cycle
- Drug details
- Outcome

SACT Data Completeness report (November 2012 to October 2013)

England

Number of patients	% NHS Number	% Date of Birth	% Current gender	% Ethnicity	% Patient postcode
125,243	100%	100%	97%	93%	99%

Number of tumour records	% GP Practice Code	% GMC Code	% Consultant Specialty	% Primary diagnosis	% Morphology	% Stage of disease at start of programme
131,885	80%	86%	87%	99%	43%	22%

Number of regimens	% Programme number	% Regimen number	% Treatment intent	% Regimen name	% Height at start of regimen	% Weight at start of regimen	% Performance Status at start of regimen
204,157	53%	55%	71%	99%	46%	48%	29%

	% Comorbidity adjustment	% Date of decision to treat	% Start date of regimen	% Clinical trial	% Chemo radiation	% Number of cycles planned
	22%	81%	99%	65%	47%	46%

Number of cycles	% Cycle number	% Start date of cycle	% Weight at start of cycle	% Performance Status at start of cycle	% OPCS procurement code	% Cycles with Drug records
538,405	99%	92%	42%	26%	47%	74%

Number of drug records	% Drug name	% Actual dose per administration	% Administration route	% Administration date	% OPCS Delivery code	% Organisation code of drug provider
1,296,767	99%	92%	86%	99%	53%	94%

Number of outcome records	% Date of Final Treatment	% Regimen modification (dose reduction)	% Regimen modification (time delay)	% Regimen modification (stopped early)	% Regimen outcome summary	% Date of death
107,703	27%	34%	11%	22%	5%	4%

53% of regimens

SACT Data Completeness report (November 2012 to October 2013)

Patients aged 16 and under

England

Number of patients	% NHS Number	% Date of Birth	% Current gender	% Ethnicity	% Patient postcode
939	100%	100%	96%	91%	100%

Number of tumour records	% GP Practice Code	% GMC Code	% Consultant Specialty	% Primary diagnosis	% Morphology	% Stage of disease at start of programme
971	95%	94%	95%	100%	77%	10%

Number of regimens	% Programme number	% Regimen number	% Treatment intent	% Regimen name	% Height at start of regimen	% Weight at start of regimen	% Performance Status at start of regimen
2,119	33%	32%	42%	100%	4%	29%	0%

% Comorbidity adjustment	% Date of decision to treat	% Start date of regimen	% Clinical trial	% Chemo radiation	% Number of cycles planned
1%	72%	100%	79%	39%	33%

Number of cycles	% Cycle number	% Start date of cycle	% Weight at start of cycle	% Performance Status at start of cycle	% OPCS procurement code	% Cycles with Drug records
4,487	100%	74%	40%	0%	73%	94%

Number of drug records	% Drug name	% Actual dose per administration	% Administration route	% Administration date	% OPCS Delivery code	% Organisation code of drug provider
15,489	100%	85%	60%	100%	64%	100%

Number of outcome records	% Date of Final Treatment	% Regimen modification (dose reduction)	% Regimen modification (time delay)	% Regimen modification (stopped early)	% Regimen outcome summary	% Date of death
961	42%	14%	1%	13%	1%	2%

45% of regimens

Data collection and analysis

- The Chemotherapy Intelligence Unit (CIU), is based at Oxford within the Cancer Registry
- Data are sent from trusts on a monthly basis and series of validation processes are applied
- For adults, a suite of routine analyses and reports are issued 3 and 6-monthly and trusts receive reports of their individual activity to compare against the aggregate picture

Paediatric analysis

Issues with paediatrics

- Centres have been slow to come onboard, mainly because of e-prescribing issues
- Separate OPCS commissioning codes – radically updated in April 2013
- Requires an approach to analysis based on disease rather than anatomical site
- Much activity already well documented in trials
- Overlaps with adult activity

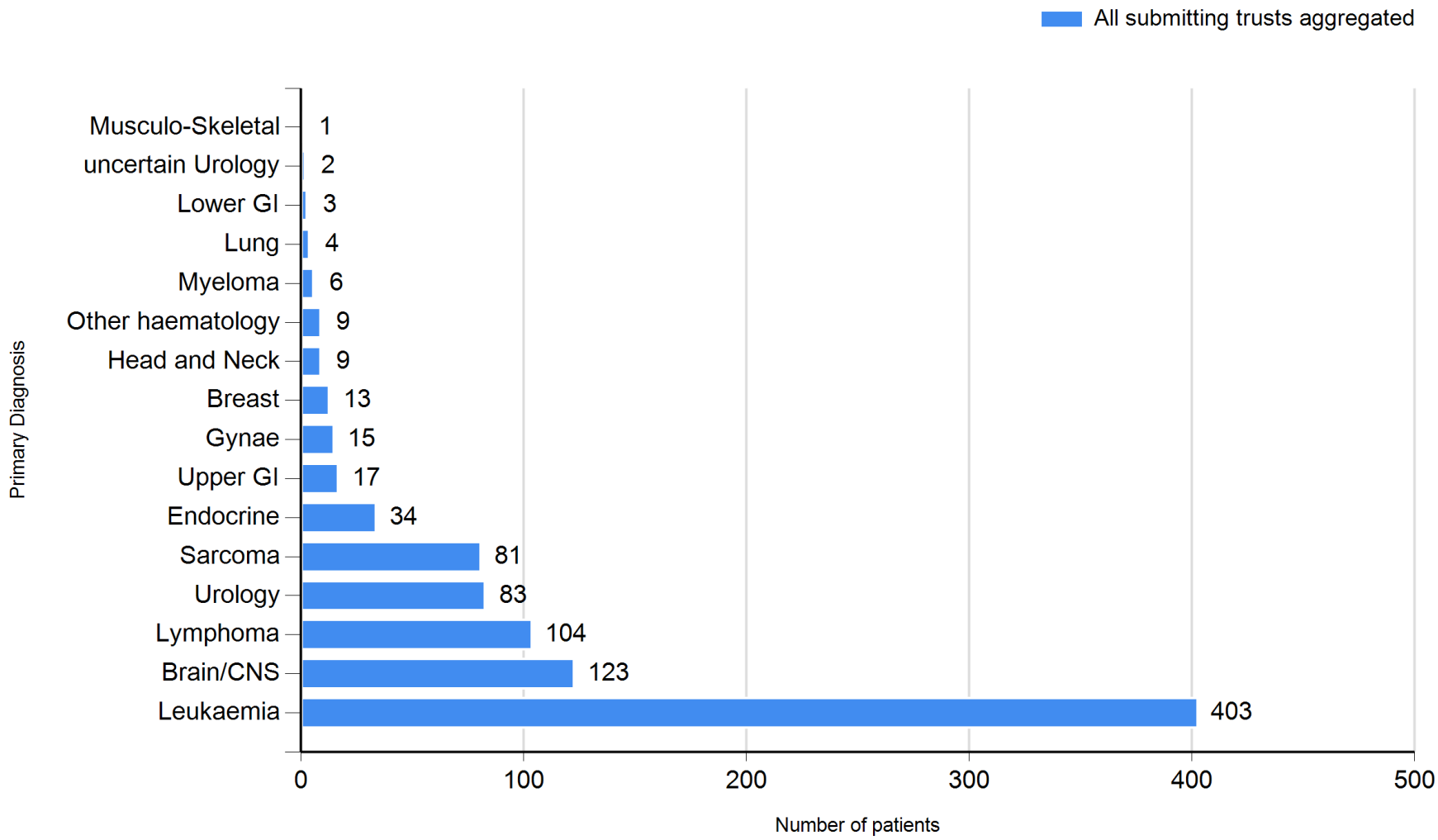
Paediatrics

- Martin English has been educating and advising the CIU team
- Initial analysis to focus on ALL as most common malignancy
- Initial look at patterns of drug usage
- Paediatric treatment fits with programmes and regimens but needs work on matching and grouping
- Small numbers limits meaningful analysis

Number of Patients by Diagnostic Group

All submitting trusts aggregated

Data received for October 2012 - September 2013. Patients aged under 16

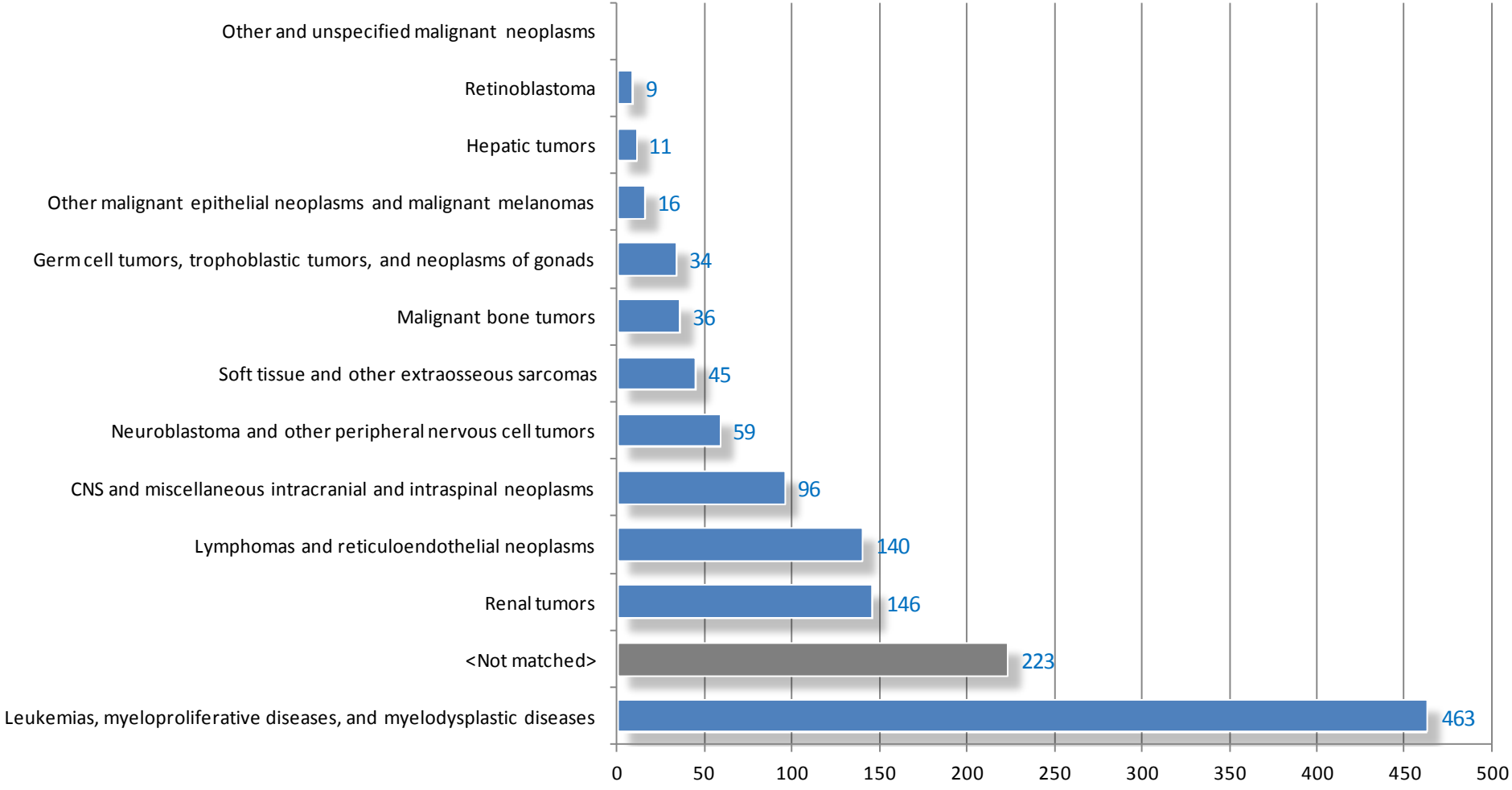


Paediatric chemotherapy

Diagnostic groupings using primary diagnosis and morphology

Total patients: around 1,200 aged 16 and under

Source: SACT, accessed 10th December 2013



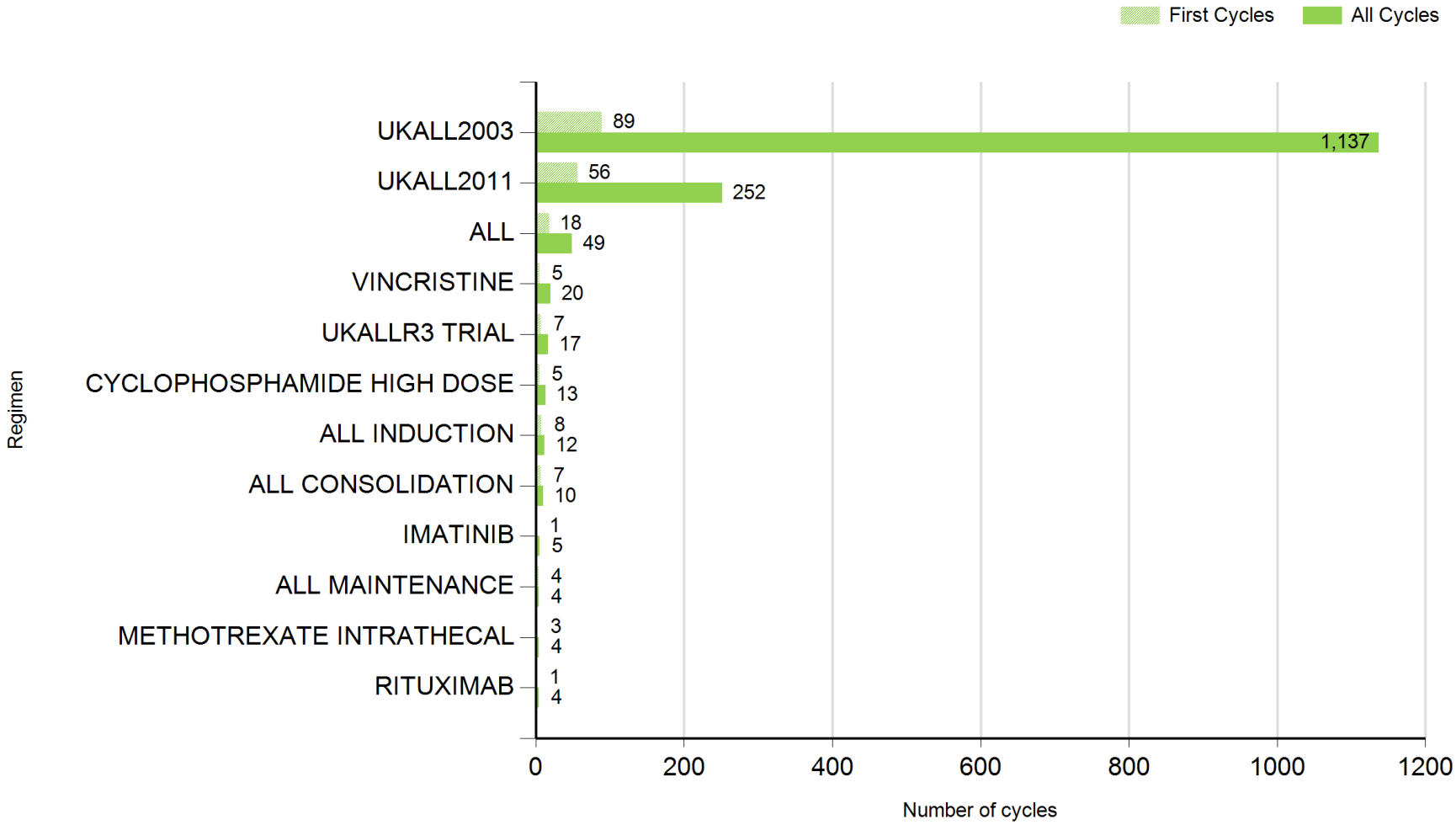
Top Regimens by Diagnostic Group

Leukaemia (ALL)

ICD10: C910, C915, C918

All submitting trusts aggregated

Data received for October 2012 - September 2013. Patients aged under 16



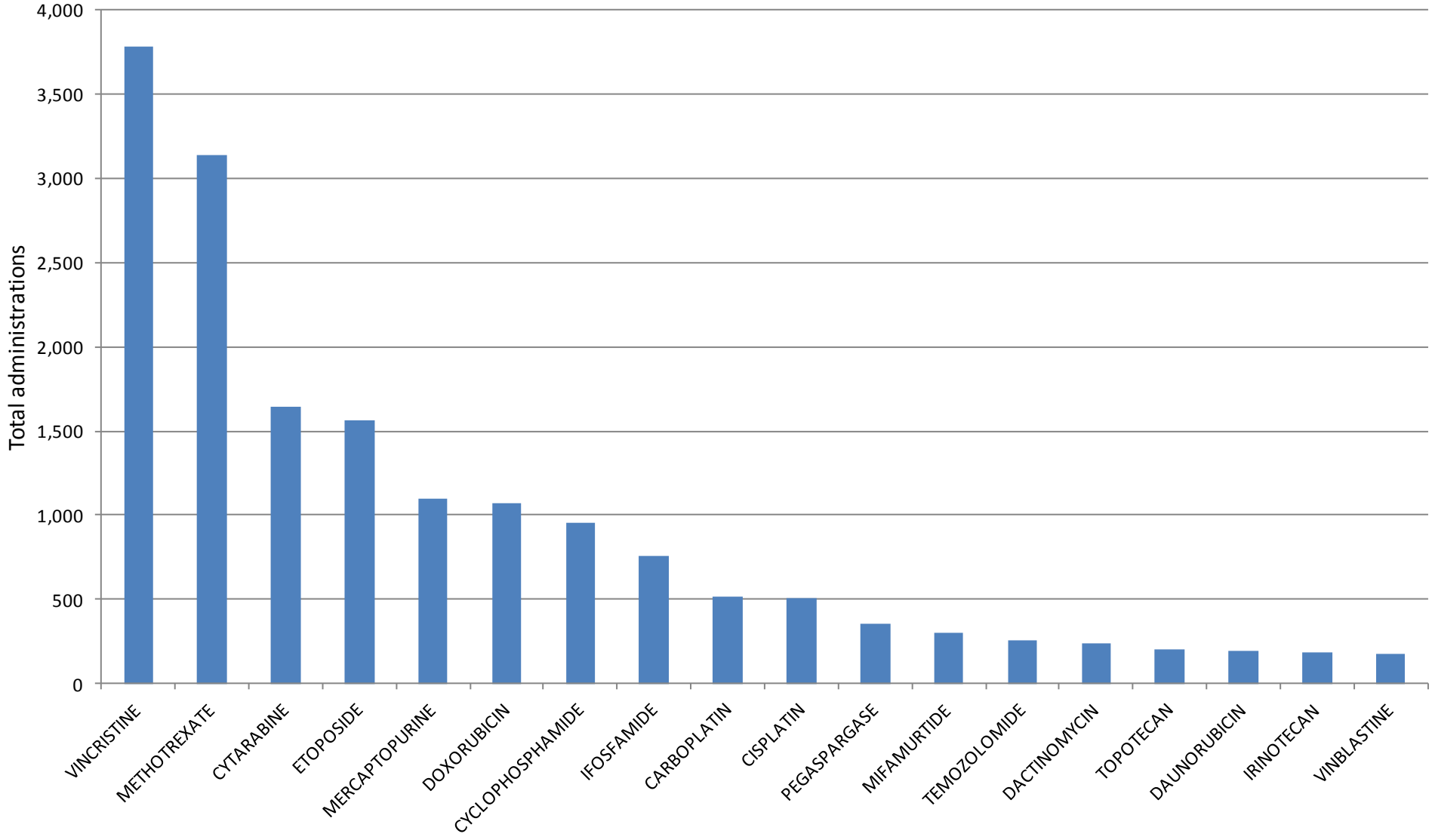
Report generated on 9 December 2013. Source: SACT

Principal treatment centres contributing

- Alder Hey, Liverpool
- Birmingham - Childrens & University Hospital
- Manchester
- Leeds
- Newcastle
- Royal Marsden
- UCLH
- Leicester

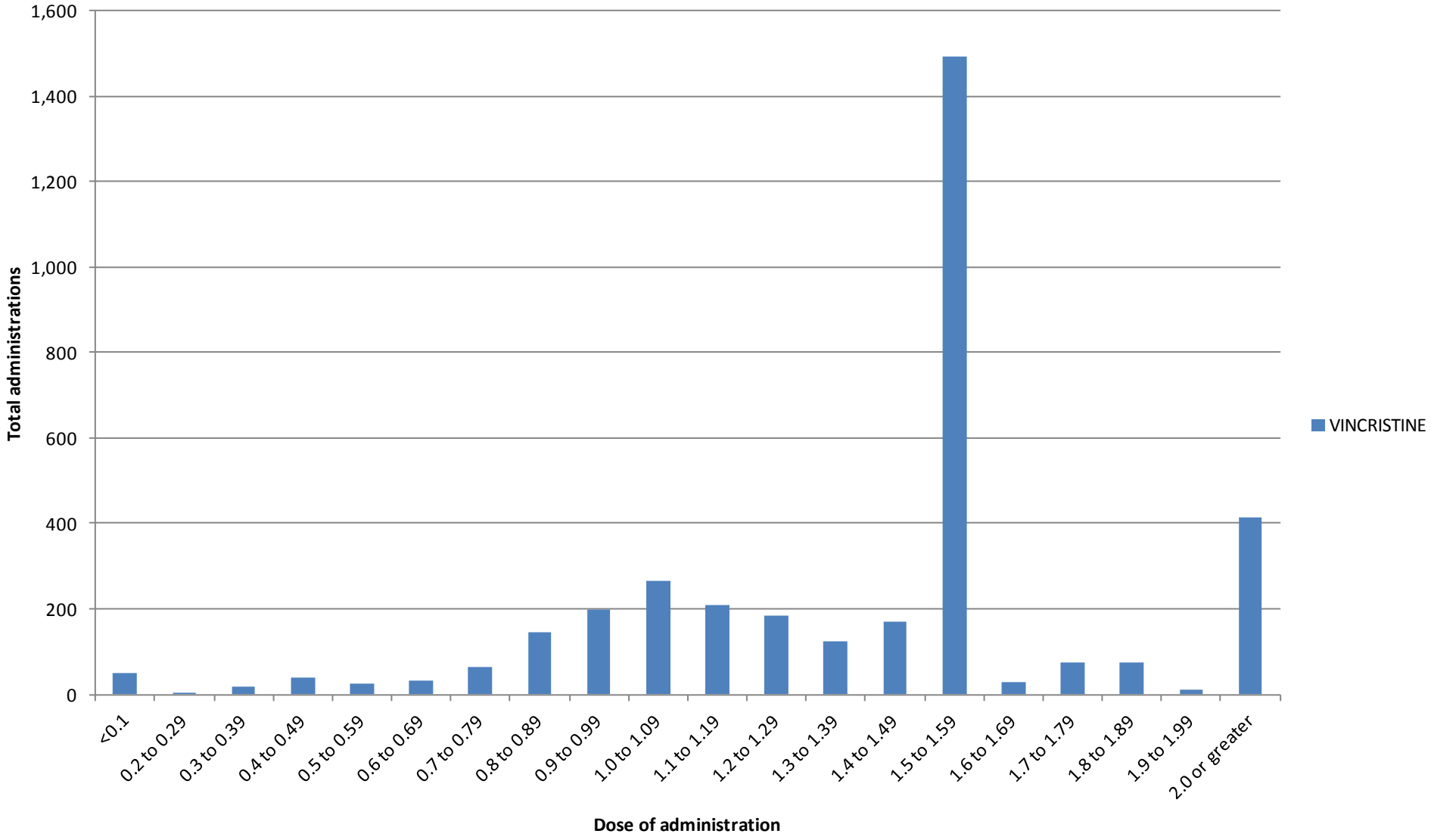
Top paediatric chemotherapy drugs by total administrations

Source: SACT, accessed 9th December 2013



Variations in adminstered dose of VINCRISTINE for paediatric chemotherapy

Source: SACT, accessed 9th December 2013



Starting to group paediatrics

Diagnosis	National List: Regimen Name (dataset version)	Program	Regimen	Drug	Usual Cycle Length
l Leukaemias,	ALL ALLR3 FLAD Phase IV	ALL, Relapsed - R3	ALL ALLR3 FLAD Phase IV	Cytarabine	7 days
l Leukaemias,	ALL ALLR3 FLAD Phase IV	ALL, Relapsed - R3	ALL ALLR3 FLAD Phase IV	Fludarabine	7 days
l Leukaemias,	ALL ALLR3 FLAD Phase IV	ALL, Relapsed - R3	ALL ALLR3 FLAD Phase IV	GCSF	7 days
l Leukaemias,	ALL ALLR3 FLAD Phase IV	ALL, Relapsed - R3	ALL ALLR3 FLAD Phase IV	Liposomal Daunorub	7 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk14-19 +XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 1 wk14 to 19 + XRT	6-Mercaptopurine	42 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk14-19 +XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 1 wk14 to 19 + XRT	Calcium Folinate	42 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk14-19 +XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 1 wk14 to 19 + XRT	Dexamethasone	42 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk14-19 +XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 1 wk14 to 19 + XRT	Methotrexate	42 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk14-19 +XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 1 wk14 to 19 + XRT	Vincristine	42 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk20-21 +XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 1 wk 20 to 21 + XRT	Cyclophosphamide	14 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk20-21 +XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 1 wk 20 to 21 + XRT	Cytarabine	14 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk20-21 +XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 1 wk 20 to 21 + XRT	Etoposide	14 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk20-21 +XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 1 wk 20 to 21 + XRT	Tioguanine	14 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk22-27+XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 2 wk22 to 27 + XRT	6-Mercaptopurine	42 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk22-27+XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 2 wk22 to 27 + XRT	Calcium Folinate	42 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk22-27+XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 2 wk22 to 27 + XRT	Dexamethasone	42 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk22-27+XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 2 wk22 to 27 + XRT	Methotrexate	42 days
l Leukaemias,	ALL ALLR3 S/IR Int Mnt Wk22-27+XRT	ALL, Relapsed - R3	ALL ALLR3 Phase V: Interim Maintenance - Cycle 2 wk22 to 27 + XRT	Vincristine	42 days
l Leukaemias,	ALL Ph+ve Dastinb Cons HR3 EcoliAsp	Dasatinib in Philadel	ALL Ph+ve Dasatinib - Consolidation HR3 E.coli Asparaginase	Cytarabine	21 days
l Leukaemias,	ALL Ph+ve Dastinb Cons HR3 EcoliAsp	Dasatinib in Philadel	ALL Ph+ve Dasatinib - Consolidation HR3 E.coli Asparaginase	Dasatinib - FOC	21 days
l Leukaemias,	ALL Ph+ve Dastinb Cons HR3 EcoliAsp	Dasatinib in Philadel	ALL Ph+ve Dasatinib - Consolidation HR3 E.coli Asparaginase	Dexamethasone	21 days
l Leukaemias,	ALL Ph+ve Dastinb Cons HR3 EcoliAsp	Dasatinib in Philadel	ALL Ph+ve Dasatinib - Consolidation HR3 E.coli Asparaginase	E. coli asparaginase	21 days
l Leukaemias,	ALL Ph+ve Dastinb Cons HR3 EcoliAsp	Dasatinib in Philadel	ALL Ph+ve Dasatinib - Consolidation HR3 E.coli Asparaginase	Etoposide	21 days
l Leukaemias,	ALL UKALL 2011 HD MtxA (Protocol M)	ALL, UKALL 2011	ALL UKALL 2011 High Dose Methotrexate Regimen A (Protocol M)	6-Mercaptopurine	63 days
l Leukaemias,	ALL UKALL 2011 HD MtxA (Protocol M)	ALL, UKALL 2011	ALL UKALL 2011 High Dose Methotrexate Regimen A (Protocol M)	Calcium Folinate	63 days
l Leukaemias,	ALL UKALL 2011 HD MtxA (Protocol M)	ALL, UKALL 2011	ALL UKALL 2011 High Dose Methotrexate Regimen A (Protocol M)	Methotrexate	63 days
l Leukaemias,	ALL UKALL 2011 HD MtxB (Protocol M)	ALL, UKALL 2011	ALL UKALL 2011 High Dose Methotrexate Regimen B (Protocol M)	6-Mercaptopurine	63 days
l Leukaemias,	ALL UKALL 2011 HD MtxB (Protocol M)	ALL, UKALL 2011	ALL UKALL 2011 High Dose Methotrexate Regimen B (Protocol M)	Calcium Folinate	63 days
l Leukaemias,	ALL UKALL 2011 HD MtxB (Protocol M)	ALL, UKALL 2011	ALL UKALL 2011 High Dose Methotrexate Regimen B (Protocol M)	Methotrexate	63 days
l Leukaemias,	ALL UKALL2003 A: Ph VII Maint wk39+	ALL, UKALL 2011	ALL UKALL2003 Regimen A: Phase VII - Maintenance (wk39 +)	6-Mercaptopurine	84 days
l Leukaemias,	ALL UKALL2003 A: Ph VII Maint wk39+	ALL, UKALL 2011	ALL UKALL2003 Regimen A: Phase VII - Maintenance (wk39 +)	Dexamethasone	84 days
l Leukaemias,	ALL UKALL2003 A: Ph VII Maint wk39+	ALL, UKALL 2011	ALL UKALL2003 Regimen A: Phase VII - Maintenance (wk39 +)	Methotrexate	84 days
l Leukaemias,	ALL UKALL2003 A: Ph VII Maint wk39+	ALL, UKALL 2011	ALL UKALL2003 Regimen A: Phase VII - Maintenance (wk39 +)	Vincristine	84 days

Update

- Business case for increased investment – will allow team to focus on completeness and quality of returns inc. paediatrics
- Linkage to death data being piloted – to regimen level
- New option for treatment intent – disease modification (D). This is defined as “an anticipated clinical improvement of at least a year’s duration”

Next steps

- Requires complete national coverage
- Needs support of paediatric community and a consensus approach
- When we have full geographical coverage and complete data submissions, what are your burning issues?

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