Kent and Medway Cancer Collaborative

Haemato-oncological Cancer

A High Level Operational Policy

Publication date	February 2022
Expected review date	February 2024
Version number	4.0
Version status	FINAL

1.0 Table of Contents

1.0 Introduction and background

The purpose of this document is to provide the Kent & Medway Cancer Alliance Delivery Board, Trusts, Clinical Commissioning Group (CCG) and all Clinicians engaged in the management of Haemato-oncological Cancers with an overview of the minimum requirements to be addressed in order to achieve Improving Outcomes Guidance (IOG) compliance. The KMCC Haematology Tumour Site Specific Group (TSSG) will be the KMCA Delivery Boards source of guidance on both the implementation of the Haematological Cancer IOG as well as Clinical Protocols and Polices.

An important aim of this document is to provide an overview of the recommendations of the KMCC Haematology TSSG on processes to ensure the delivery of clinically safe, evidenced based, clinically effective and IOG compliant Haematological Cancer Services.

This document does NOT aim to provide guidance on the clinical aspects of patient management. The clinical guidance recommendations of the KMCC Haematology TSSG will be found in the locally agreed guidelines which are available on the KMCC website: http://kmcc.nhs.uk/tumour-sites/terms-of-reference/

1.1 Kent & Medway

1. The Specialist Integrated Haematopathology service for Kent and Medway will be at King's Haematological Malignancy Diagnostic Centre (HMDC) incorporating Kent and Medway/King's Haemato-oncology Panel (KMKHRP).

2. Where appropriate specimens or slides will either be sent to King's in accordance with the specifications set out in this document or reported locally. Locally reported material must be reviewed by KMKHRP.

3. It is the responsibility of local haematology and cellular pathology laboratories to ensure that there are robust operational polices in place which guarantees specimens are sent to the centre as quickly as possible AND that these are accompanied by fully completed referral documentation.

   A list of key contact details of local and King's Multi-Disciplinary Team (MDT) members is found in the Pathways of Care, copies of which are available on the KMCC website: http://kmcc.nhs.uk/tumour-sites/terms-of-reference/

4. An integrated report will be generated by King's HMDC and/or by KMKHRP in accordance with the specifications set out within this document.

5. The integrated report will be timely and under normal circumstances will be available for local teams to discuss at MDMs no later than 5 working days following receipt of specimens at the centre. A printed and electronic copy of the report will be authorised on the day of the KMKHRP meeting.

6. King's will offer KMCC clinicians the opportunity to take up sessions at King's as part of an initiative to ensure that local expertise not only enriches the King's service but also affords local clinicians the opportunity to engage in cutting edge services not normally available at district hospital level.

2.0 Kent & Medway Cancer Collaborative

The Kent & Medway Cancer Collaborative (KMCC) has a resident population of approximately 2 million. Some residents from Sussex flow into Kent for oncological treatments expanding the population to approximately 2.1 million.

Total locality population	**781,376**			**717,470**		**541,444**	
Trusts	**EKHUFT** East Kent Hospitals University NHS Foundation Trust			**MTW** Maidstone & Tunbridge Wells NHS Trust		**DVH** **Darent Valley Hospital** (Dartford, Gravesham & Swanley)	**MFT** Medway NHS Foundation Trust (Medway & Swale)
Hospitals	**K&C** Kent & Canterbury	**QEQM** Queen Elizabeth the Queen Mother	**WHH** William Harvey	**TW** Tunbridge Wells	**MS** Maidstone	**DVH** Darent Valley Hospital	**MMH** Medway Maritime Hospital
Note	Whilst geographically outside K&M, for the purposes of cancer the Queen Victoria Foundation Trust (QVH) at East Grinstead fall under the umbrella of K&M						

3.0 Sending specimens to the Centre

- Where appropriate samples should be sent to the centre in accordance with the details outlined in this document.
- All samples submitted should be accompanied by completed copy of the Kings HMDC referral proforma – see Appendix 1 - download at: http://www.viapath.co.uk/departments-and-laboratories/haematological-malignancy-diagnostic-centre
- Referrals may be by paper hard copy or electronic.

4.0 Developing the Integrated Report

The NICE guidance outlines the need for integration at three levels:

1. **Integrated Diagnostics:** Integrated specialist diagnostic services for histopathology, morphology, immunophenotyping, cytogenetics and molecular diagnostics with protocols for systematic investigation, co-located laboratories, inter-laboratory communication and supporting IT infrastructure.
2. **Integrated Reporting:** The results of specialist investigations to be integrated in a single report with appropriate interpretation and comments.
3. **Integrated MDM:** Discussion and integration at the MDM of clinical details, local and specialist laboratory investigations, imaging results and agreed patient management plan.

A key principle outlined in the NICE guidance is the need for systematic, integrated diagnostic processes that lead to an integrated specialist diagnostics report.

The processes resulting in a final integrated report are as follows:

1. referral of sample/s with clinical details on the King's HMDC referral form
2. sample received and booked into the Integrated Haemato-pathology IT system
3. patient demographics, clinical details and specimens received logged in IT system
4. patient allocated a unique lifelong HMDC number
5. samples allocated an event/referral specific number and accession numbers
6. worksheets produced and distributed with samples to appropriate error of laboratory
7. samples analysed according to predetermined, systematic investigation protocols

8. investigation protocols amended in the light of any unexpected results
9. results from laboratory sections authorised by senior/clinical scientist and/or consultant
10. section results collated into provisional work list reports for review
11. new diagnoses are coded by WHO ICD-O/3 codes
12. interim, final and addendum reports can be authorised
13. additional free text comments can be added
14. additional coded comments (general descriptions, prognostic indicators, minimal residual disease) added as appropriate
15. integrated reports are authorised by nominated consultants
16. the integrated report is sent out as a paper hardcopy AND electronically to 'Results Online' so that there is rapid availability of the result by access to the security coded 'Results Online' website.

The MDM performs the role of locally integrating clinical details, the integrated haemato-pathology report, other local pathology/laboratory results, imaging results and clinical management plan.

5.0 Sample details

5.1 Lymph nodes, bone marrow trephines & other tissues/biopsies

1. Lymph nodes and/or other tissue sample should be sent to the local cellular pathology laboratory in 10% formal buffered saline or formal saline. These will be processed locally and a preliminary diagnosis made by a designated local haemato-pathologist. The process of designation relies on participation in multidisciplinary meetings and engagement with the Haematology TSSG. When specialist External Quality Assurance (EQA) is available, this will also be required but until then, enrolment in a general EQA scheme is required. All designated haemato-pathologists are members of KMKHRP.
2. Cases can be brought to KMKHRP by a designated haemato-pathologist or may be sent to KMKHRP Co-ordinator based at King's College Hospital cellular pathology department (telephone 020 3299 4620).
3. The panel will issue a report, a copy of which will be sent to the referring clinician.
4. If a fast turn around time is required, courier services might need to be considered; if this option is considered safe handling procedures must be adopted.
5. When courier services are employed the laboratory should be informed by telephone **prior** to dispatch: Laboratory Telephone Number: 020 3299 5554.

5.2 Bone marrow Aspirate

1. Freshly prepared, air-dried, unstained smears should be sent to the laboratory with ALL immunophenotyping requests.

5.2.1 Immunophenotyping requests

1. Fresh specimens in EDTA and these should be **received** by the laboratory within 24 hours of taking the sample.

5.2.2 Cytogenetic studies

1. Bone marrow in heparinised tissue culture medium is preferred
2. Bottles are available from the cytogenetic laboratory: Laboratory Telephone Number: 020 3299 7637

5.3 FISH analysis

1. Usually undertaken on the same sample as sent for cytogenetics (heparinised tissue culture medium)
2. There are some diseases that survive poorly in culture (Burkitt and Mantle Cell lymphomas, Chronic Myeloid Leukaemia and Chronic Lymphocytic Leukaemia). Unstained, air-dried smears of peripheral blood and/or bone marrow may be more successful in these circumstances

5.4 Blood

5.4.1 Immunophenotyping

1. Peripheral blood in EDTA is the preferred sample for immunophenotyping studies.

5.4.2 Cytogenetics

1. Peripheral blood in Lithium Heparin is the preferred sample for cytogenetics.

5.5 Effusions and CSF

1. These do not usually require anticoagulants and should be sent in a sterile container

5.6 Chimerism Studies

1. Chimerism studies should be undertaken before (on donor and recipient) and following allogeneic transplantation to monitor donor engraftment (EDTA sample)
2. Timing: Pre – Transplant, D28, D56, D100, D180 and then 3 – 6 monthly. Shorten intervals to 6 – 8 weekly if donor chimerism levels are falling. Chimerism studies on peripheral blood and allow total unfractionated, CD 3 (T-cell), CD 15 (myeloid) and CD 20 (B-cell) fractions to be measured.

5.7 BCR – ABL Monitoring

BCR – ABL transcripts are measured by quantative PCR to monitor disease (EDTA sample). Testing should be at diagnosis and then 3 monthly (Baccarani protocol).

6.0 Sample specifications

Disease Category	Analytical technique	Peripheral Blood Sample	Bone Marrow Sample	Other
Acute leukaemias, MDT + MPD's (incl CML), LPD and Plama Cell Disorders with PB/BM disease	Morphology/Cytochemistry	PB slides x2	BM aspirate slides x3	
	Immunophenotype	5mls in EDTA	2mls in EDTA	FNA samples: Smear, in saline suspension or Cell Block.
	Cytospin Morphology and Immunophenotype			CSF and Effusions. Fluid in Sterile container. No preservative required.
	Cytogenetics/FISH*	5mls in Li Heparin	2mls in Heparinised Medium	* Unstained air-dried slides or LN imprints for FISH in Burkitt's, MCL + CML.
	Molecular PCR Analysis** (mutations, translocations, MRD monitoring, chimerism)	20mls in EDTA	2mls in EDTA	CSF and Effusions. Fluid in Sterile container. No preservative required.
		** bcr-abl/abl ratios should be done at Diagnosis, 3, 6, 12 and 18 months ** Chimerism studies: Pre-transplant Donor and Recipient Then: T2 8, 56, 100, 180, 365		
	BM T Histology and Immunocytochemistry		BM Trephine in 10% Formal saline	
AA and PNH	Immunophenotype	5mls in EDTA		Red Cell CD 59 and Neutrophil CD13, CD66b + FLAER
		BM	LN/Solid Tissue	Other
Lymphomas: Hodgkin's, Precursor or Peripheral B/T: Solid Tissue samples.	Histopathology and Immunocytochemistry	BMT can be submitted as slides and/or blocks. Solid tissue samples including lymph nodes and extra nodal tissues harboring lymphoma should also be submitted as slides and blocks if ancillary testing is likely.		CSF and Effusions. Fluids in Sterile container. No preservative required. FNA samples: Smear, suspension in saline or Cell Block.
	FISH	BM Block	Paraffin Block	
	Molecular PCR Clonality Studies	Fresh or Paraffin Block	Fresh or Paraffin Block	

7.0 The Haematology TSSG

The KMCC established a Haematology Cancer TSSG in 2000.

- The TSSG is IOG compliant
- The TSSG has multidisciplinary / multi-professional membership which is drawn from:
  - Each of the acute Trusts providing Local / Specialist level service
  - Primary Care
  - Patient / Users
- The TSSG has a multidisciplinary/multi-professional membership which is drawn from:
  - Each of the acute Trusts providing haemato-oncological cancer MDT services
  - Primary Care
  - Patient/users
  - CCG Representatives

Named Leads for the Haematology TSSG are:

Chair	:	Dr Lalita Banerjee
Vice Chair	:	Vacant
KMCC Lead	:	Annette Wiltshire, KMCC
Non- Surgical Oncology Group Lead (NOG)	:	Dr Lalita Banerjee
Research and Trials (RAT) Lead	:	Moya Young Consultant Haematologist
Users Issues Lead	:	
Named Admin Support	:	Karen Glass & Colin Chamberlain KMCC

A full list of current membership is available from the Haematology TSSG attendance record – a copy of which is located on the KMCC website: http://kmcc.nhs.uk/tumour-sites/tumour-site-specific-information/haematology-tssg/

7.1 Catchments & populations

It is agreed that configuration of Haematology services should reflect the description set out in the table below. As a general principle, patients referred under the 2 week wait (2WW) rule should be seen as close to home as possible. However, if the demand at the nearest hospital is such that patients may potentially exceed the limits of the rule they should be offered an urgent appointment at one of the other hospitals operated by the same team the patient was originally referred to.

Catchment Populations, Trusts, MDT base, Diagnostic Leads

<table>
<tr><th></th><th>Trust</th><th>Key Hospitals providing diagnostic services</th><th>Diagnostic Leads & MDT Base</th></tr>
<tr><td rowspan="3">East Kent CCGs
Population 781,376
(Patients flows from Swale CCG are mainly into Medway)</td><td rowspan="3">East Kent Hospitals University NHS Foundation Trust (EKHUFT)</td><td>K&C (Canterbury)</td><td rowspan="2"></td></tr>
<tr><td>QEQM (Margate)</td></tr>
<tr><td>WHH (Ashford)</td><td></td></tr>
<tr><td rowspan="2">North Kent CCGs

Medway
Dartford, Gravesham & Swanley (DGS)

Population 647,444</td><td>Medway Foundation Trust Hospital (MFT)</td><td>MFT (Medway & Swale)</td><td></td></tr>
<tr><td>Darent Valley</td><td>DVH</td><td></td></tr>
<tr><td rowspan="2">West Kent CCG

Population 463,000</td><td rowspan="2">Maidstone & Tunbridge Wells NHS Trust (MTW)</td><td>Maidstone</td><td rowspan="2"></td></tr>
<tr><td>Tunbridge Wells (Pembury)</td></tr>
</table>

8.0 Clinical Guidance

8.1 Clinical Pathways

The KMCC will delegate the development of Clinical Guidelines to the Haematology TSSG. The KMCC will expect the TSSG to maintain these to be up to date and in line with evidenced and current best practice. When developing clinical guidelines the KMCC will expect the TSSG to liaise with other KMCC appropriate groups to ensure that there is a consistent approach to care and that pathways are seamless. The KMCC will expect that Clinical Guidelines (Pathways of Care) are developed for the following disease sites and that guidelines are compliant with the Quality Measures associated with them:

All guidelines can be found at: Pan-London Haemato-Oncology Clinical Guidelines – RM Partners or Pan-London Blood Cancer guidelines (kingshealthpartners.org)

- All Haemato-oncological combined Treatment Guidelines and Pathways of Care:
  - Acute myeloid leukaemia
  - Chronic lymphocytic leukaemia
  - Chronic myeloid leukaemia
  - Hairy cell leukaemia
  - Lymphoblastic leukaemia
  - Lymphoma
  - Myelodysplasia
  - Myeloma

  http://kmcc.nhs.uk/tumour-sites/tumour-site-specific-information/haematology- tssg/

- Pathology for Cancer in Kent & Medway
  http://kmcc.nhs.uk/tumour-sites/sub-groups-or-cross-cutting-groups/pathology-group/

9.0 Responsibilities of the Haematology TSSG

9.1 Functions of the Haematology TSSG

- A copy of the full Terms of Reference for all TSSGs is located on the KMCC website:

  http://kmcc.nhs.uk/tumour-sites/terms-of-reference/

- A copy of the TSSG Chair Job Description is located on the KMCC website:

  http://kmcc.nhs.uk/tumour-sites/terms-of-reference/

9.2 Research & Trials

It is the responsibility of the Kent & Medway Acute Oncology & CUP Chair to ensure that the Clinical Trials Report is discussed at the six monthly meetings. The meetings provide a platform for discussion of cancer clinical studies and act as a resource for information pertaining to those studies.

National Institute of Health Research (NIHR) Kent, Surrey and Sussex
The Kent and Medway Cancer Local Research Network (KMCRN) was established in 2003 and is one of 32 National Institute for Health Research Cancer Local Research Networks which cover the whole of the NHS in England. The KMCRN coordinates cancer clinical research and facilitates study set up and delivery. This has evolved into the NIHR Kent, Surrey & Sussex and each Tumour Site now has a Cluster Lead to assist with the delivery of research across the region.

9.3 Non-Surgical Oncology Group (NOG) / Haematology oncological Group (HOG)

The Haematology Oncology Group (HOG) was formally established in 2008.

A copy of the NOG full Terms of Reference is available on the KMCC website:
http://kmcc.nhs.uk/tumour-sites/terms-of-reference/

Copies of the combined Oncological Treatments of Haemato-oncology cancers and Pathways of Care are located on the KMCC website:
http://kmcc.nhs.uk/tumour-sites/tumour-site-specific-information/haematology-tssg/

10.0 Data Collection

Collection of data at each stage of the pathway is the responsibility of the team looking after the patient at that time. The minimum dataset agreed by the TSSG will be a combination of those data items that meet national requirements, and additional items as agreed by the TSSG.

National data requirements will include:

- Cancer Waiting Times monitoring, including Going Further on Cancer Waits. The data items required will be as defined in ISB0147 at the time of referral and/or treatment.

  Cancer Waiting Times data will be submitted according to the timetable set out in the National Contract for Acute Services.

- The Cancer Outcomes and Services Dataset (COSD). The data items will be as defined in ISB1521, and any subsequent versions, at the time of diagnosis and/or treatment. The requirement will include those fields listed in the "Core" section of the dataset, and any additional tumour site specific sections, as applicable.

  Details of the COSD are available from:
  http://www.ncin.org.uk/collecting_and_using_data/data_collection/cosd.aspx

  Cancer Registration and Cancer Outcomes and Services (COSD) data will be submitted according to the timetable set out by the National Cancer Registration Service (NCRS).

- Where applicable, teams will also collect additional data items as defined in any corresponding National Clinical Audit Support Programme (NCASP) audit dataset.

  Data for NCASP audits will be submitted, where applicable, according to timetables as agreed by the TSSG, and within the overall submission deadlines for each audit.

Submission of data to meet these national requirements will be the responsibility of each individual Trust. Note that these standards are subject to variation from time to time, and where these requirements change, the data items required to be collected by the team will also change in line with national requirements.

Local data requirements will include any additional data items as agreed by the TSSG. These must be selected to avoid overlap with any existing data items, and where possible must use standard coding as defined in the NHS Data Dictionary.

Where possible and applicable, InfoFlex will be used for the collection and storage of data.

Additional areas of the COSD, relating to pathology, radiotherapy, Systemic Anti-Cancer Therapy (SACT), diagnostic imaging and basic procedure details will feed into the dataset from other nationally mandated sources. It is the responsibility of each team to ensure that the whole of the relevant dataset is collected, and it is acknowledged that this may come from a variety of sources.

11.0 Pathology

All KMCC reporting pathologists follow The Royal College of Pathologists Histopathology Reporting on Cancers guidelines – a copy of which is available through the KMCC website:- http://kmcc.nhs.uk/tumour-sites/sub-groups-or-cross-cutting-groups/pathology-group/

Core Cell Path members of the MDT should be taking part in a general (but recognised) EQA scheme. It is expected that the K&M Trusts will monitor this and inform the TSSG in the event of any deviation from this. The Trusts should also take responsibility for agreeing and implementing any remedial actions arising from either [a] any non compliance with this measures and / or [b] matters identified through the EQA process.

12.0 Imaging

Imaging guidelines for Haemato-oncological Cancer can be located in the KMCC agreed document located on the KMCC website on the following link: http://kmcc.nhs.uk/tumour-sites/sub-groups-or-cross-cutting-groups/diagnostics-group/

13.0 Children & Young People (CYP) / Teenage & Young Adult (TYA)

13.1 Children & Young People (CYP)

Children and Young People with Haematological Cancers will be treated in accordance with principles set out in the CYP IOG.

All Children and Young People up to the age of 18 must be referred to the CYP Principal Treatment Centre which for KMCC is based at the Royal Marsden.

All Young People between 16 and 24 years of age must be offered a referral to the CYP Treatment Centre.

Referral to a CYP Principal Treatment Centre does not necessarily mean that treatment will be undertaken at that centre; shared care management protocols may allow some treatments to be undertaken locally.

13.2 Teenage & Young Adult (TYA)

The main principles in the Teenage & Young Adult guidance are as follows:

- The 16-18 age group should be seen and treated at the TYA Principal Treatment Centre (PTC) and have their management plans discussed by the TYA PTC. Although shared care can be arranged as part of the pathway
- Young Adults aged 19-24 years must be given choice where they would like to be treated either:
  - in the TYA Principal Treatment Centre.
  Or
  - an adult service designated by commissioners to treat young adults 19 to 24 years.

- In both cases all young people must be given access to the services and resources offered by the TYA MDT at the PTC, this may be remotely or through specified clinical services or supportive activities, and each trust will need a mechanism to identify all new TYA patients regardless of which MDT they initially present to.

14.0 Appendix 1 – King's HMDC Referral Proforma

King's HMDC referral form.pdf

15.0 Glossary

Acronyms in common usage throughout KMCC documentation:-

COSD	Cancer Outcomes and Services Dataset
CYP	Children & Young People (in relation to the IOG)
DCCAG	Diagnostic Cross Cutting Advisory Group
DOG	Disease Orientated Group (NSSG/TSSG/TWG)
DVH	Darent Valley Hospital
EK	East Kent
EKHUFT	East Kent Hospitals University Foundation Trust
HOG	Haematology Oncology Group
HoP	High Level Operational Policy
IOG	Improving Outcomes Guidance
IOSC	Improving Outcomes: A Strategy for Cancer
K&C	Kent & Canterbury Hospital, Canterbury, (EKHUFT)
KMCA	Kent & Medway Cancer Alliance
KMCC	Kent & Medway Cancer Collaborative
LoS	Length of Stay
LSESN	London & South East Sarcoma Network
MFT	Medway Foundation Trust
MTW	Maidstone & Tunbridge Wells NHS Trust
NOG	Non-Surgical Oncology Group *(Permanent oncologist sub group of the TSSGs with a specific responsibility for chemo/rad pathways and advice to the TSSG, KMCC and geographical locations on new drugs)*
PoC	Pathway of Care *(KMCC agreed disease site specific clinical guidelines)*
QEQM	Queen Elizabeth the Queen Mother Hospital, Margate (EKHUFT)
QoL	Quality of life
RAT	Research and Trial Group *(Permanent sub-group of the TSSGs with a specific responsibility for taking forward the clinical trials agenda)*
RMH	Royal Marsden Hospital
RNOH	Royal National Orthopaedic Hospital
QVH	Queen Victoria Foundation Trust Hospital East Grinstead
QM	Quality Measure
UCLH	University College Hospital London
WHH	William Harvey Hospital, Ashford (EKHUFT)
WK	West Kent

16.0 Revision History

Document Title	Haemato-oncological – A High Level Operational Policy
Principle author/s	M.Aldouri/R.Ireland/J.Schofield
Co-author(s)	C.Tsatsaklas/A.Jackson/B.Neame/N.Aluwalia/LBanerjee
Current version number	4.0
Current status	Final
Original publication date	June 2009
Expected review date by	February 2024

Enquiries:	
[1] Lalita Banerjee [2] Annette Wiltshire	lalita.banerjee@nhs.net annette.wiltshire@nhs.net

Revision History			
Date of revision	New Version Number	Nature of Revision	Confirmation of Accuracy by
June 2009	1.0	Published – Final version after initial development and then agreement	A.Jackson/J.Schofield/L.Caine
August 2012	1.1	Draft - Transfer to new template	G.Dunne
August 2012	1.2	Draft – Updated all sections to new format/new weblinks,figures,maps. Research section updated. NOG section updated. CYP-TYA section updated. Data Collection section updated.	C.Tsatsaklas B.Mercier C.Waters S.Dicker A.Brittle
August 2014	1.3	Draft – updated admin text i.e. removal of DOG, PCT, KMCN etc replace with KMCC, CCG – updated weblinks	C.Tsatsaklas
October 2014	1.4	Added NA as Interim KMCC Lead	N.Aluwalia
December 2014	2.0	Published version as ratified by O&Q Group	N.Aluwalia
October 2016	2.1	Revised administrative elements, added weblinks etc. Clinical updates to be added.	N.Aluwalia
July 2017	2.2	Referral info for Kings added, final amendments made, circulation for TSSG ratification.	N.Aluwalia
October 2017	3.0	Final Ratified version following circulation to O&Q Group	N.Aluwalia/ O&Q Group
November 2021	3.1	Draft – document to be reviewed and updated by chair	L. Banerjee/A Wiltshire
February 2022	4.0	Final – Ratified version following circulation to TSSG	L. Banerjee/A. Wiltshire