LKS Current Awareness Bulletin

HAEMATOLOGY AND TRANSFUSION MEDICINE
September-October 2019

A current awareness update service from Library and Knowledge Services. If you know anyone who could benefit from receiving this please ask them to sign up by emailing Patrick.glaister@elht.nhs.uk **or** library.blackburn@elht.nhs.uk

SIGN UP TO OTHER BULLETINS

We hope this bulletin is useful. We are keen to promote our services at your team meetings/huddles. If you feel that this would be useful, then please contact me to arrange a brief induction to how we can support you in education and training, researching for information, literature support, critical appraisal skills, free article requests, social media training (learn to Tweet!) and much more.

Kind regards

Abbas

Abbas Bismillah

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Point of Care in General Haematology

Source: British Society for Haematology

Follow this link to read the guideline

Author: Mooney, Ciaran et al

Date: 3th October 2019

Publication type: Guideline

Description: This guideline is an update of the BSH 2008 Guideline for point of care testing: haematology (Briggs et al, 2008). Point of care testing (POCT) refers to any testing performed outside the hospital laboratory, near or at the site of the patient where the result influences patient management. The aim of

this guideline is to provide an overview of point of care (POC) assays available and a framework for implementing and maintaining a POCT service compliant with international standards (ISO, 2012, 2016).

UK guidelines on the management of iron deficiency in pregnancy

Source: British Society for Haematology

Follow this link to read the guideline

Author: Pavord, Sue et al

Date: 2nd October 2019

Publication type: Guideline

Description: Iron deficiency remains a significant problem for pregnant women in the UK. The objective of these guidelines is to provide healthcare professionals with recommendations for the prevention, diagnosis and treatment of iron deficiency in pregnancy and in the postpartum period. The guidelines update and replace the previous ones (Pavord *et al*, **2012**). The prevalence of anaemia in pregnancy remains high. In order to minimise adverse outcomes, including use of blood transfusion, further research is required to define optimal management, as many current recommendations are not supported by high quality evidence.

Family origin questionnaire: sickle cell and thalassaemia screening

Source: Public Health England

Follow this link to read the questionnaire

Author: Public Health England

Date: 1st October 2019

Publication type: Questionnaire

Description:

The Family Origin Questionnaire (FOQ) is a form to use in antenatal screening for sickle cell and thalassaemia (SCT). Complete the form to help determine if a person is likely to be a carrier for SCT or other haemoglobin disorders. In low prevalence areas of England, use the FOQ as a preliminary tool to assess the risk that the pregnant woman is a sickle cell carrier. In high prevalence areas, fill in the form to assist the laboratory in the interpretation of results.

If you would like to request full text of this article email library.blackburn@elht.nhs.uk

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HSIB highlights impact of blood sampling errors across NHS

Source: Healthcare Safety Investigation Branch

Follow this link to read the report

Author: HSIB

Date: 26th September 2019

Publication type: Report

Description:

Our latest report highlights that mislabelling of blood samples could pose a deadly risk to patients. The reference event in the report is a case where patient details became mixed up on blood samples sent from a maternity unit. In the case of mislabelling on blood transfusion samples, the impact could be devastating. There's the potential for serious injuries and even death. But, even the delay in care resulting from wrong blood test results could cause significant psychological distress to patients.

UK SMI B 37: investigation of blood cultures (for organisms other than Mycobacterium species)

Source: Public Health England

Follow this link to read the standards

Author: Public Health England

Date: 6th September 2019

Publication type: Report

Description:

The following syndromic algorithms provide supporting information related to this UK SMI

- S 1: Acute infective hepatitis

- S 2: Pneumonia
- S 5: Meningoencephalitis
- S 7: Gastroenteritis and diarrhoea

If you would like to request full text of this article email library.blackburn@elht.nhs.uk

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Integrative genomic analysis identifies key pathogenic mechanisms in primary mediastinal large B-cell lymphoma

Source: Blood

Follow this link to read the abstract

Author: Mottock, Anja et al

Date: 5th September 2019

Publication type: Journal article

Description:

Primary mediastinal large B-cell lymphoma (PMBL) represents a clinically and pathologically distinct subtype of large B-cell lymphomas. Furthermore, molecular studies, including global gene expression profiling, have provided evidence that PMBL is more closely related to classical Hodgkin lymphoma (cHL). Although targeted sequencing studies have revealed a number of mutations involved in PMBL pathogenesis, a comprehensive description of disease-associated genetic alterations and perturbed pathways is still lacking. Here, we performed whole-exome sequencing of 95 PMBL tumors to inform on oncogenic driver genes and recurrent copy number alterations. The integration of somatic gene mutations with gene expression signatures provides further insights into genotype–phenotype interrelation in PMBL. We identified highly recurrent oncogenic mutations in the Janus kinase-signal transducer and activator of transcription and nuclear factor κB pathways, and provide additional evidence of the importance of immune evasion in PMBL (*CIITA, CD58, B2M, CD274,* and *PDCD1LG2*). Our analyses highlight the interferon response factor (IRF) pathway as a putative novel hallmark with frequent alterations in multiple pathway members (*IRF2BP2, IRF4,* and *IRF8*). In addition, our integrative analysis illustrates the importance of *JAK1, RELB,* and *EP300* mutations driving oncogenic signaling. The identified driver genes were significantly more frequently mutated in PMBL compared with diffuse large B-cell lymphoma, whereas only a limited number of genes were significantly different between PMBL and cHL, emphasizing the close relation between these entities. Our study, performed on a large cohort of PMBL, highlights the importance of distinctive genetic alterations for disease taxonomy with relevance for diagnostic evaluation and therapeutic decision-making.

If you would like to request full text of this article email library.blackburn@elht.nhs.uk

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Low iron promotes megakaryocytic commitment of megakaryocytic-erythroid progenitors in humans and mice

Source: Blood

Follow this link to read the abstract

Author: Mottock, Anja et al

Date: 31st October 2019

Publication type: Journal article

Description:

The mechanisms underlying thrombocytosis in patients with iron deficiency anemia remain unknown. Here, we present findings that support the hypothesis that low iron biases the commitment of megakaryocytic (Mk)-erythroid progenitors (MEPs) toward the Mk lineage in both human and mouse. In MEPs of transmembrane serine protease 6 knockout (*Tmprss6*$^{-/-}$) mice, which exhibit iron deficiency anemia and thrombocytosis, we observed a Mk bias, decreased labile iron, and decreased proliferation relative to wild-type (WT) MEPs. Bone marrow transplantation assays suggest that systemic iron deficiency, rather than a local role for *Tmprss6*$^{-/-}$ in hematopoietic cells, contributes to the MEP lineage commitment bias observed in *Tmprss6*$^{-/-}$ mice. Nontransgenic mice with acquired iron deficiency anemia also show thrombocytosis and Mk-biased MEPs. Gene expression analysis reveals that messenger RNAs encoding genes involved in metabolic, vascular endothelial growth factor, and extracellular signal-regulated kinase (ERK) pathways are enriched in *Tmprss6*$^{-/-}$ vs WT MEPs. Corroborating our findings from the murine models of iron deficiency anemia, primary human MEPs exhibit decreased proliferation and Mk-biased commitment after knockdown of transferrin receptor 2, a putative iron sensor. Signal transduction analyses reveal that both human and murine MEP have lower levels of phospho-ERK1/2 in iron-deficient conditions compared with controls. These data are consistent with a model in which low iron in the marrow environment affects MEP metabolism, attenuates ERK signaling, slows proliferation, and biases MEPs toward Mk lineage commitment..

If you would like to request full text of this article email library.blackburn@elht.nhs.uk

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Longer-term efficiency and safety of increasing the frequency of whole blood donation (INTERVAL): extension study of a randomised trial of 20 757 blood donors

Source: Blood

Follow this link to read the abstract

Author: Mottock, Anja et al

Date: 1st October 2019

Publication type: Journal article

Description:

The INTERVAL trial showed that, over a 2-year period, inter-donation intervals for whole blood donation can be safely reduced to meet blood shortages. We extended the INTERVAL trial for a further 2 years to evaluate the longer-term risks and benefits of varying inter-donation intervals, and to compare routine versus more intensive reminders to help donors keep appointments.

If you would like to request full text of this article email library.blackburn@elht.nhs.uk

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A Systematic Literature Review And Meta-Analysis Of Minimal Residual Disease As A Prognostic Indicator In Adult B-Cell Acute Lymphoblastic Leukemia

Source: Haematologica

Follow this link to read the abstract

Author: Bassan, Renato

Date: October 2019

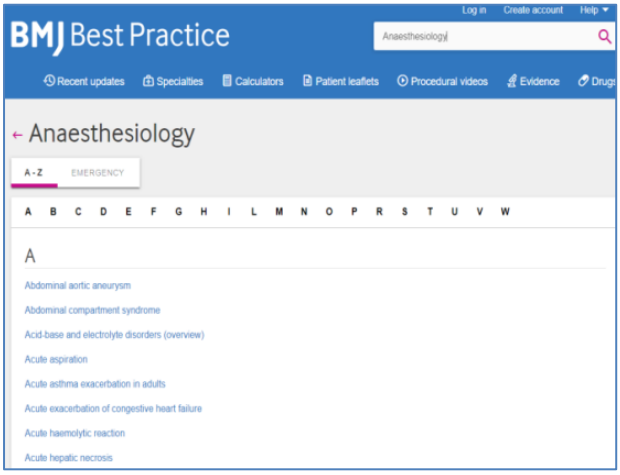
Publication type: Journal article

Description:

Minimal (or 'measurable') residual disease in acute lymphoblastic leukemia appears to be a prognostic indicator, with potential value in informing individualized treatment decisions. Complete understanding of the strength of the association between minimal residual disease and long-term outcomes is, however, lacking. A systematic literature review and meta-analysis were performed to elucidate the clinical significance of minimal residual disease with respect to relapse-free survival and overall survival in precursor B-cell acute lymphoblastic leukemia. A total of 23 articles and abstracts, most published between 2012 and 2016, were identified for inclusion in the primary meta-analysis. Typically, patients were in their first complete remission at the time of minimal residual disease assessment; in two studies, all patients were in their second, or later, complete remission. The primary analysis revealed improved relapse-free survival across all studies for patients who achieved minimal residual disease negativity (random effects hazard ratio, 2.34; 95% confidence interval, 1.91–2.86). Improved overall survival for patients who achieved minimal residual disease negativity was also observed (hazard ratio, 2.19; 95% confidence interval, 1.63–2.94). There was no observed difference in the impact of minimal residual disease status in subgroups based on disease stage, minimal residual disease sensitivity threshold level, Philadelphia chromosome status, histological phenotype, risk group, minimal residual disease testing location, minimal residual disease timing after induction, or minimal residual disease detection method. Despite heterogeneity in study design and patient populations between the contributing studies, these data provide a compelling argument for minimal residual disease as a clinical tool for assessing prognosis and guiding treatment decisions in precursor B-cell acute lymphoblastic leukemia.

If you would like to request full text of this article email library.blackburn@elht.nhs.uk

For references where there is a link to the full text, you may need to use your NHS Athens username & password to access
https://openathens.nice.org.uk/



BMJ Best Practice is a decision-support tool published by the BMJ Group and is a single source of evidence based medicine, which combines the latest research evidence, guidelines and expert opinion – providing essential learning on prevention, diagnosis, treatment and prognosis. BMJ Best Practice is of use to all staff - Doctors, Nurses and Midwives, HCAs, Patients, Volunteers, Admin. The website also has a CME/CPD activity tracking tool which logs your searches and active hours and allows users to create activity certificates to support revalidation and CME/CPD.

BMJ Learning FREE learning modules for ALL staff and students at ELHT

We can show you how you too can access these resources and more.

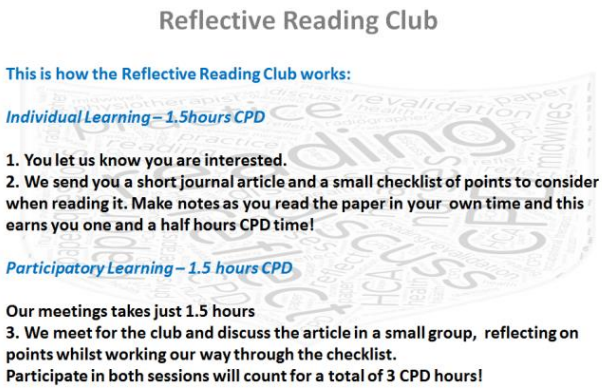
Have you heard of BMJ Learning? Do you know how to register? Do you need help finding courses?
Free training sessions on BMJ Learning to all staff and students at East Lancashire Hospitals.

We will show you how to register and find eLearning courses relevant to you. These courses can be counted towards your CPD and you will receive a certificate of completion.

How to Book

- Go to **http://bit.ly/2obLR99**
- Choose your 30-minute slot
- Come to the Learning Centre Library, RBTH on your chosen time - we will provide tea, coffee and biscuits too!

If you cannot attend these sessions please contact **Abbas Bismillah,** Head of Library and Knowledge Services (Ext. 84308) to arrange one for a more convenient time.



Come and join our Reflective Reading Club which will provide attendees with 3 hours of valuable CPD! It will give healthcare staff the opportunity to read, discuss and to critically reflect upon a published paper using a set of guided questions. Participants are required to read a pre-set paper prior to attending the session.

https://twitter.com/beckystanworth1/status/1178709749409419264?s=20

Contact us at library.blackburn@elht.nhs.uk
01254 734312 or Ext. 84312

Learn to Tweet

Social Media Training at East Lancs Hospitals NHS Trust Library Services for staff and students

To Tweet or not to Tweet! Here are just some of the reasons why you may want to consider how to use Twitter. We can help. Book with the library staff Library.Blackburn@elht.nhs.uk

- ❑ **Let us show you how to promote all the amazing things that you and your teams do for patient care.**
- ❑ **Let us show you how you and your teams can keep up-to-date**
- ❑ **Let us show you how you and your teams can network, regionally, nationally and internationally**
- ❑ **Let us show you how you and your teams can learn from others too.**

Follow us on twitter
ELHT Library @elhtlibrary **Abbas - @bazzie1967**

Safe | Personal | Effective

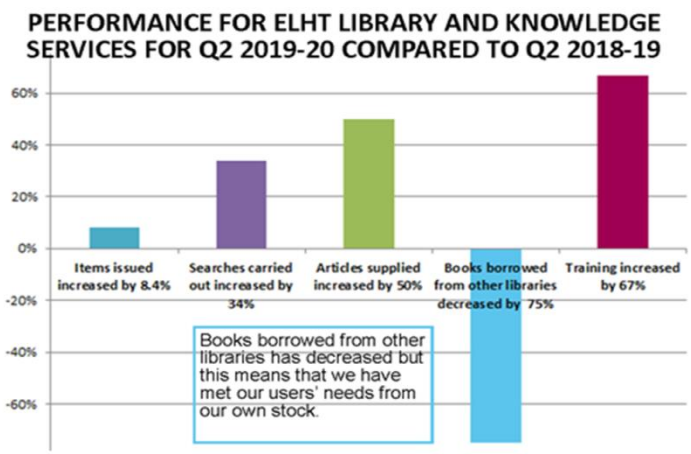
Did you know… *that we have staff who can help support you in finding the evidence for* ***General Interest and Personal Development, Writing for Publication and Presentation, Research or Assignment, Education and Training, Evidence Based Practice for Patient Care, Service Management, Up-to-date Protocols and Guidelines. If you require a literature search, then please do ask us. We can save you the time. Please share with your colleagues***

Library and Knowledge Services Team

Abbas Bismillah	**Head of Library and Knowledge Services**
Clare Morton	**Library Operational Services Manager**
Patrick Glaister	**Clinical Librarian**
Judith Aquino	**E-Resources Librarian**
Sarah Glover	**Library Services Officer**
Charlotte Holden	**Library Services Officer**
Lauren Kay	**Library Services Officer**

This is a good library service. In 2018/19 our Library was accredited as 92% compliant in the Library Quality Assurance Framework (LQAF)

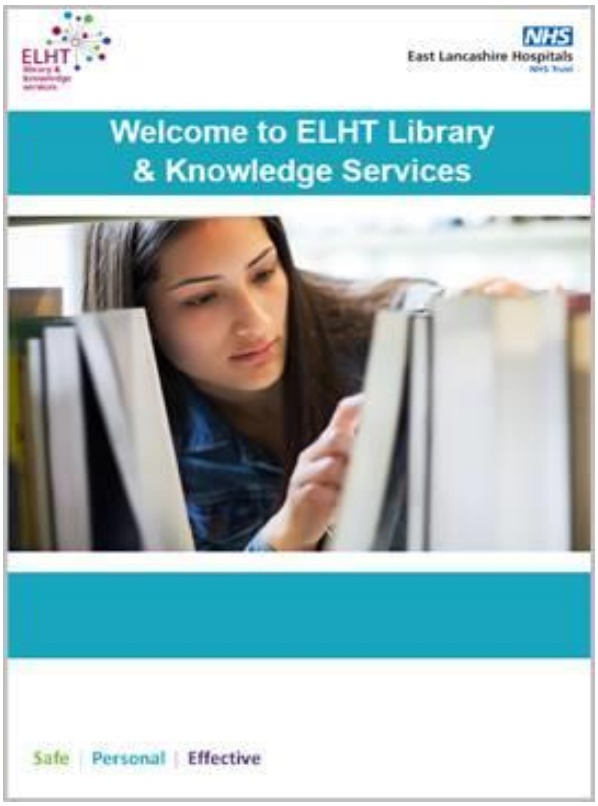
Please visit our website for more information



Performance Indicators – In Q2, we have increased delivery on many of our training programmes. This includes literature searches and our social media training. To ensure that these programmes are of benefit to the learner, we have implemented a range of tools to measure the quality and the impact of what we do. For example, our learners tell us that ***our library induction is the best induction that they have ever had at any Trust (FY2s).*** In

addition to this, our social media training questionnaire has received very favourable comments, including ***"the training received has been brilliant and I can't wait to use this to promote all the things that we do".***

Education @ELHT is produced every two months and it highlights all the wonderful work that the department does. Our Library Guide highlights all the services that we offer. Click on the Bulletin or Guide and find out more about how we can support you, whether you are staff, student, or volunteers.



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