Report Information from ProQuest

29 September 2023 06:23

DAFTAR ISI

DAFTAR ISI

The Network That Never Sleeps

Mukhopadhyay, Sanjay [1]
; Kanakis, Constantine [2]
; Golab, Kathryn [3] ; Hermelin, Daniela [4] ; Crane, Genevieve M [1]
; Mirza, Kamran M [2] [1] Pathology and Laboratory Medicine Institute, Cleveland Clinic, Cleveland, Ohio [2] Department of Pathology and Laboratory Medicine, Loyola University Health System, Maywood, Illinois [3] Wisconsin Diagnostic Laboratories, Milwaukee, Wisconsin [4] Department of Pathology, St. Louis University Hospital, St. Louis, Missouri

ABSTRAK (ENGLISH)

This review describes how Twitter is currently used by laboratory professionals for education, research, and networking. This platform has a global audience. It enables users to post information publicly, easily, rapidly, and free of charge. The absence of hierarchies enables interactions that may not be feasible offline. Laboratory professionals teach thousands of people using text, images, polls, and videos. Academic discussion flourishes without paywalls. Published research is shared faster than ever before, articles are discussed in online journal clubs, and research collaborations are facilitated. Pathologists network globally and make new friends within and beyond their specialty. Pathology departments and residency programs showcase trainees and faculty and celebrate graduations. As users in one time zone go to bed, others who are just waking up begin to read and tweet, creating a 24/7/365 live global online conference. We encourage others to plug into the power of Twitter, the network that never sleeps.

DETAIL

Subjek:	Laboratories
Pengidentifikasi/kata kunci:	social media; Twitter; professional development; education; networking; collaboration
Judul:	The Network That Never Sleeps
Pengarang:	Mukhopadhyay, Sanjay1 ; Kanakis, Constantine2 ; Golab, Kathryn3; Hermelin, Daniela4; Crane, Genevieve M1 ; Mirza, Kamran M21 Pathology and Laboratory Medicine Institute, Cleveland Clinic, Cleveland, Ohio2 Department of Pathology and Laboratory Medicine, Loyola University Health System, Maywood, Illinois3 Wisconsin Diagnostic Laboratories, Milwaukee, Wisconsin4 Department of Pathology, St. Louis University Hospital, St. Louis, Missouri
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4

Halaman:	e83-e103
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa113
ID dokumen ProQuest:	2563507481
URL Dokumen:	https://www.proquest.com/scholarly-journals/network-that-never-sleeps/docview/2563507481/se-2?accountid=211160

Terakhir diperbarui:	2021-08-23
Basis data:	Public Health Database

Clinical Significance of Anti-Modified Citrullinated Vimentin Antibodies in Palindromic Rheumatism

Aida Malek Mahdavi [1] ; Rashtchizadeh, Nadereh [1] ; Khaknejad, Mahsanam [1] ; Sakhinia, Ebrahim [2] ; Khabbazi, Alireza [1] ; Kolahi, Sousan [1] 1 Connective Tissue Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran 2 Connective Tissue Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran; Division of Regenerative Medicine, School of Medicine, Faculty of Medical and Human Sciences, University of Manchester, Manchester, UK

ABSTRAK (ENGLISH)

Objective

This study evaluated anti-modified citrullinated vimentin (anti-MCV) performance in determining the clinical picture and outcomes of palindromic rheumatism (PR).

Methods

In a retrospective study, patients with PR with at least 1 year of follow-up diagnosed according to clinical criteria were enrolled. Anti-MCV antibodies were measured, and levels >20 IU/mL were considered positive. Disease prognosis was assessed according to patients acquiring remission and preventing PR from developing into rheumatoid arthritis (RA) or other diseases.

Results

Seventy-six patients with PR with a mean follow-up of 30.57 months (median = 21 months; minimum = 12 months; maximum = 48 months) were included in the study. Anti-MCV antibodies were positive in 69.7% of patients. Metacarpophalangeal (MCP) joint involvement and positive anti-cyclic citrullinated peptides were significantly higher in patients who were anti-MCV-positive, whereas ankle joint involvement was significantly lower. No significant correlation was observed between the anti-MCV titer and the severity of attacks. Remission in patients who were anti-MCV-positive and negative was 75.5% and 78.3%, respectively, with no significant difference. Evolution to RA was observed in only 3.8% of patients who were anti-MCV-positive. No patients who were anti-MCV-negative developed RA.

Conclusion

Except for MCP and ankle joint involvement, anti-MCV was not helpful in determining the clinical picture and outcome of PR.

DETAIL

Subjek:	Rheumatism; Antibodies; Clinical significance; Remission (Medicine); Medical prognosis
Pengidentifikasi/kata kunci:	anti-MCV antibodies; palindromic rheumatism; rheumatoid arthritis; prognosis; response to treatment; remission
Judul:	Clinical Significance of Anti-Modified Citrullinated Vimentin Antibodies in Palindromic Rheumatism

Pengarang:	Aida Malek Mahdavi1; Rashtchizadeh, Nadereh1; Khaknejad, Mahsanam1; Sakhinia, Ebrahim2; Khabbazi, Alireza1 ; Kolahi, Sousan11 Connective Tissue Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran2 Connective Tissue Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran; Division of Regenerative Medicine, School of Medicine, Faculty of Medical and Human Sciences, University of Manchester, Manchester, UK
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman pertama:	357
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa095
ID dokumen ProQuest:	2563507102
URL Dokumen:	https://www.proquest.com/scholarly-journals/clinical-significance-anti-modified-citrullinated/docview/2563507102/se-2?accountid=211160
Hak cipta:	
Terakhir diperbarui:	2023-05-15
Basis data:	Public Health Database

Incidence of Hepatotoxicity in Iranian Patients With HIV on Antiretroviral Therapies and Its Correlation with Virologic Response to HIV Treatment

Hashempour, Tayebeh [1] ; Moayedi, Javad [1] ; Mousavi, Zahra [1] ; Esmaeli, Masoumeh [2] ; Asadzadeh, Azizeh [3] ; Hasanshahi, Zahra [1] ; Dehghani, Behzad [1] [1] Shiraz HIV/AIDS Research Center, Institute of Health, Shiraz University of Medical Sciences, Shiraz, Iran [2] Shiraz HIV/AIDS Research Center, Institute of Health, Shiraz University of Medical Sciences, Shiraz, Iran; Department of Biology, Faculty of Science, Nour Danesh Institute of Higher Education, Isfahan, Iran [3] Department of Biology, Faculty of Science, Nour Danesh Institute of Higher Education, Isfahan, Iran

ABSTRAK (ENGLISH)

Objective

To investigate hepatotoxicity in Iranian patients with HIV to assess the association between virologic response to HIV treatment and serum alanine aminotransferase (ALT).

Methods

This study was conducted with 200 control patients, 75 patients with HIV naïve to antiretroviral therapy (ART), and 443 patients who received ARTs with virologic response (≤1000 copies/mL) or virologic treatment failure (>1000 copies/mL). Serum ALT level and HIV viral load were determined in all patients.

Results

Patient ALT levels were significantly higher than those of control patients (45.1 ± 44.4 IU/L vs 23.8 ± 5.4 IU/L). Compared to patients who were ART-naïve, patients with ART experience had significantly higher ALT levels (38.2 ± 26.2 IU/L vs 46.3 ± 46.7 IU/L), and severe hepatotoxicity was only detected in those with ART experience (8 patients, 1.8%). Mean ALT had no significant difference between virologic response/failure groups. The ALT activity and HIV load had a negative correlation coefficient, but it was not significant.

Conclusion

Periodic monitoring for the possibility of hepatotoxicity is highly recommended in all patients with HIV, especially in those receiving ART treatment.

DETAIL

Subjek:	Human immunodeficiency virus--HIV; Antiretroviral drugs

Pengidentifikasi/kata kunci:	HIV; hepatotoxicity; ALT; viral load; ART; ART-naïve
Judul:	Incidence of Hepatotoxicity in Iranian Patients With HIV on Antiretroviral Therapies and Its Correlation with Virologic Response to HIV Treatment
Pengarang:	Hashempour, Tayebeh1; Moayedi, Javad1 ; Mousavi, Zahra1; Esmaeli, Masoumeh2; Asadzadeh, Azizeh3; Hasanshahi, Zahra1; Dehghani, Behzad11 Shiraz HIV/AIDS Research Center, Institute of Health, Shiraz University of Medical Sciences, Shiraz, Iran2 Shiraz HIV/AIDS Research Center, Institute of Health, Shiraz University of Medical Sciences, Shiraz, Iran; Department of Biology, Faculty of Science, Nour Danesh Institute of Higher Education, Isfahan, Iran3 Department of Biology, Faculty of Science, Nour Danesh Institute of Higher Education, Isfahan, Iran
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	369-374
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa106
ID dokumen ProQuest:	2563506619
URL Dokumen:	https://www.proquest.com/scholarly-journals/incidence-hepatotoxicity-iranian-patients-with/docview/2563506619/se-2?accountid=211160
Hak cipta:	

Terakhir diperbarui:	2022-07-01
Basis data:	Public Health Database

Dokumen 4 dari 36

The Impact of Mass Spectrometry on Patients' Medical and Nonmedical Lives

Wu, Alan H B [1] [1] Department of Laboratory Medicine, University of California, San Francisco

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Objective

The various forms of mass spectrometry (MS) instrumentation have had a major impact on testing for analytes performed with clinical and forensic laboratories over the past decade. Improvements in MS instrumentation have led to the use of MS in many areas.

Methods

To highlight the value of MS testing, short reports are presented that are relevant to the following fields: pain management, transplant medicine, clinical toxicology, designer drug testing, genetic metabolic disorders, nutrition, dietary exposure to heavy metals, herbals and supplements, forensic pathology, pharmacogenomics, homeland security, performance enhancing drugs and peptides, clinical microbiology, physician licensing, and environmental exposures. These reports are based on real patients. The "stories" have been altered to comply with privacy regulations.

Results

Analysis of MS provides objective results that have an impact on many areas of medicine and society as a whole. Accurate analysis has an impact on guidance for medical practices.

Conclusion

The value of MS testing will continue to grow in the years to come.

DETAIL

Subjek:	Forensic pathology; Mass spectrometry; Scientific imaging; Forensic medicine
Pengidentifikasi/kata kunci:	mass spectrometry; clinical toxicology; transplantation; pharmacogenomics; forensic medicine; heavy metals

Judul:	The Impact of Mass Spectrometry on Patients' Medical and Nonmedical Lives
Pengarang:	Wu, Alan H B11 Department of Laboratory Medicine, University of California, San Francisco
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	e58-e65
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa083
ID dokumen ProQuest:	2563506538
URL Dokumen:	https://www.proquest.com/scholarly-journals/impact-mass-spectrometry-on-patients-medical/docview/2563506538/se-2?accountid=211160
Hak cipta:	
Terakhir diperbarui:	2022-08-24
Basis data:	Public Health Database

Stable Plasma Sample Storage in Acetonitrile for Angiotensin and Aldosterone Analysis

Wei, Xuefei [1] ; Wang, Yanyang [1] ; Zhu, Wenbo [2] ; Li, Jingjing [3] ; Lu, Peng [4] ; Gao, Zhiwei [5] ; Bai, Bing [6]

[1] Department of Nuclear Medicine, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, Jiangsu, PR China [2] Department of Laboratory Medicine, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, Jiangsu, PR China [3] Center for Precision Medicine, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, Jiangsu, PR China [4] Department of Laboratory Medicine, Nanjing Brain Hospital, Nanjing Medical University, Nanjing, Jiangsu, PR China [5] Department of Vascular Surgery, Second Affiliated Hospital of Zhejiang University School of Medicine, Hangzhou, PR China [6] Department of Nuclear Medicine, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, Jiangsu, PR China; Department of Laboratory Medicine, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, Jiangsu, PR China; Center for Precision Medicine, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, Jiangsu, PR China

ABSTRAK (ENGLISH)

Background

Angiotensin I, II (AI, AII) and aldosterone are unstable in plasma specimens at room temperature, making it difficult for collect samples for remote regions in centralized and collaborative studies. Here we introduce a stable storage method which do not require cold conditions..

Methods

Acetonitrile was added to the plasma to 60%, and then the supernatants were kept at 4°C and room temperature for 0, 1, 2, 3, 10 and 30 days. AI, AII and aldosterone were extracted and analyzed by chemiluminescence immunoassays.

Results

AI, AII and aldosterone were well retained in the supernatant under this method. The intra- and inter-day CVs of this method were all below 10%. The levels of AI, AII and aldosterone by this method remained stable for 30 days at room temperature.

Conclusion

Addition of 60% acetonitrile in the plasma provides a stable storage method for clinical AI, AII and aldosterone.

DETAIL

Subjek:	Plasma
Pengidentifikasi/kata kunci:	angiotensin I; angiotensin II; aldosterone; acetonitrile; immunoassay analyses
Judul:	Stable Plasma Sample Storage in Acetonitrile for Angiotensin and Aldosterone Analysis
Pengarang:	Wei, Xuefei1; Wang, Yanyang1; Zhu, Wenbo2; Li, Jingjing3; Lu, Peng4; Gao, Zhiwei5; Bai, Bing6 1 Department of Nuclear Medicine, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, Jiangsu, PR China2 Department of Laboratory Medicine, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, Jiangsu, PR China3 Center for Precision Medicine, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, Jiangsu, PR China4 Department of Laboratory Medicine, Nanjing Brain Hospital, Nanjing Medical University, Nanjing, Jiangsu, PR China5 Department of Vascular Surgery, Second Affiliated Hospital of Zhejiang University School of Medicine, Hangzhou, PR China6 Department of Nuclear Medicine, Nanjing Dru m Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, Jiangsu, PR China; Department of Laboratory Medicine, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, Jiangsu, PR China; Center for Precision Medicine, Nanjing Drum Tower Hospital, The Affiliated Hospital of Nanjing University Medical School, Nanjing, Jiangsu, PR China
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	352-356
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English

Significant Operational Improvements with Implementation of Next Generation Laboratory Automation

Tanasijevic, Milenko J [1] ; Melanson, Stacy E F [1] ; Tolan, Nicole V [1] ; Ransohoff, Jaime R [2] ; Conrad, Michael J [3] ; Hyun-il Paik [3] ; Petrides, Athena K [1] [1] Department of Pathology, Brigham and Women's Hospital, Boston, MA, USA; Department of Medicine, Brigham and Women's Hospital, Boston, MA, USA [2] Department of Pathology, Brigham and Women's Hospital, Boston, MA, USA; Harvard Medical School, Boston, MA, USA [3] Department of Pathology, Brigham and Women's Hospital, Boston, MA, USA

ABSTRAK (ENGLISH)

Objectives

To investigate the benefits and challenges of introducing next generation chemistry and coagulation automation.

Methods

We replaced the Roche modular preanalytic system attached to Roche Cobas 6000 analyzers with the Roche 8100 preanalytical line attached to the Roche Cobas 8000 and Stago STA R Max analyzers. The system included 2 add-on buffers (AOBs) for automated specimen archival and retrieval and primary-tube specimen processing. We measured turnaround time (TAT) from specimen receipt to result for chemistry and coagulation tests before, during, and after system implementation. TAT for add-on tests was also measured.

Results

We completed the system implementation during a 17-month period using existing laboratory space. The TAT for chemistry, coagulation, and add-on tests decreased significantly (P <.005, P <.001, and P <.005, respectively). We encountered several challenges, including barcode-label errors, mechanical problems, and workflow issues due to lack of bidirectional track for coagulation testing.

Conclusions

Next generation laboratory automation yielded significantly shortened and less-variable TAT, particularly for add-on testing. Our approach could help other laboratories in the process of implementing and configuring automated systems.

DETAIL

Subjek:	Laboratories; Automation
Ketentuan indeks bisnis:	Subjek: Automation
Pengidentifikasi/kata kunci:	automation; preanalytical line; turnaround time; add-on testing; clinical chemistry; chemistry systems
Judul:	Significant Operational Improvements with Implementation of Next Generation Laboratory Automation
Pengarang:	Tanasijevic, Milenko J1; Melanson, Stacy E F1; Tolan, Nicole V1; Ransohoff, Jaime R2; Conrad, Michael J3; Hyun-il Paik3; Petrides, Athena K11 Department of Pathology, Brigham and Women's Hospital, Boston, MA, USA; Department of Medicine, Brigham and Women's Hospital, Boston, MA, USA2 Department of Pathology, Brigham and Women's Hospital, Boston, MA, USA; Harvard Medical School, Boston, MA, USA3 Department of Pathology, Brigham and Women's Hospital, Boston, MA, USA
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	329-337
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique

ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.10 93/labmed/lmaa108
ID dokumen ProQuest:	2563506048
URL Dokumen:	https://www.proquest.com/scholarly-journals/significant-operational-improvements-with/docview/2563506048/se-2?accountid=211160

| **Terakhir diperbarui:** | 2021-08-23 |
| **Basis data:** | Public Health Database |

Light Chain Predominant Intact Immunoglobulin Monoclonal Gammopathy Disorders: Shorter Survival in Light Chain Predominant Multiple Myelomas

Singh, Gurmukh [1]
; Xu, Hongyan [2] [1] Division of Clinical Pathology, Department of Pathology, Augusta, GA [2] Division of Biostatistics and Data Sciences, Medical College of Georgia at Augusta University, Augusta, GA

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Background

A proportion of intact immunoglobulin (Ig)–producing multiple myelomas (MMs) was observed to secrete much higher amounts of free light chains (LCs) than usual.

Objectives

To determine the change point between usual and LC-predominant intact Ig-secreting MMs and other monoclonal gammopathic manifestations and the biological significance of the observation.

Methods

We conducted retrospective examination of laboratory findings in 386 MM, 27 smoldering MM, and 179 monoclonal gammopathy of undetermined significance (MGUS) cases that secreted intact Igs. We recorded the highest levels of involved serum free LC, highest ratio of involved to uninvolved LC, highest concentration of involved LC per g of monoclonal Ig, and highest value for ratio of involved to uninvolved LCs divided by the monoclonal Ig concentration. Each data set was sorted into kappa- and lambda LC-associated lesions. Length of time, in months, between diagnosis and last contact with the patients having myeloma was recorded.

Results

Change point analysis of data revealed a subgroup of cases with distinctly higher levels of free LCs. In myelomas, including plasma cell leukemias, 16.4% of myelomas with kappa LCs and 22.3% of myelomas with lambda LCs, the LC secretion was distinctly higher than in the remaining cases, by a combination of 4 parameters, listed herein. Corresponding figures for smoldering myeloma (SMM) and monoclonal gammopathy of undetermined significance (MGUS) were 12.5, 27.3, 3.8, and 6.8, respectively. Ten of the 13 (77%) cases of plasma cell leukemia) and all cases of IgD myeloma (n = 4) showed excess secretion of serum free LCs. Among IgG and IgA myelomas, including plasma cell leukemias, the LC-predominant lesions had shorter survival, by an average of 22.5 months.

Conclusions

In total, 18.4% of MMs, including plasma cell leukemias, secrete distinctly higher amounts of serum free LCs than other intact Ig-secreting myelomas and confer significantly lower survival. Quantification of monoclonal serum free LCs may be useful in this subgroup in monitoring progress and potentially in ascertaining minimal residual disease. The findings also stress the need for separate criteria for kappa and lambda LC associated monoclonal gammopathic manifestations. The significantly shorter survival of patients with LC-predominant myelomas warrants consideration in prospective trials of treatments.

DETAIL

Subjek:	Plasma; Immunoglobulins; Leukemia; Multiple myeloma
Judul:	Light Chain Predominant Intact Immunoglobulin Monoclonal Gammopathy Disorders: Shorter Survival in Light Chain Predominant Multiple Myelomas
Pengarang:	Singh, Gurmukh1 ; Xu, Hongyan21 Division of Clinical Pathology, Department of Pathology, Augusta, GA2 Division of Biostatistics and Data Sciences, Medical College of Georgia at Augusta University, Augusta, GA
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	390-398
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021

Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa057
ID dokumen ProQuest:	2563505260
URL Dokumen:	https://www.proquest.com/scholarly-journals/light-chain-predominant-intact-immunoglobulin/docview/2563505260/se-2?accountid=211160
Hak cipta:	
Terakhir diperbarui:	2021-08-23
Basis data:	Public Health Database

About the Journal

Link dokumen ProQuest

DETAIL

Judul:	About the Journal
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4

Halaman:	309-310
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmab044
ID dokumen ProQuest:	2563505233
URL Dokumen:	https://www.proquest.com/scholarly-journals/about-journal/docview/2563505233/se-2?accountid=211160
Hak cipta:	
Terakhir diperbarui:	2021-08-23
Basis data:	Public Health Database

Initial Clinical Laboratory Response to COVID-19: A Survey of Medical Laboratory Professionals

Nuñez-Argote, Letycia [1]
; Baker, Dana P [1] ; Jones, Andrew P [1] [1] Department of Clinical Laboratory Sciences, University of Kansas Medical Center, Kansas City, Kansas

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Objective

To explore the experiences of medical laboratory professionals (MLPs) and their perceptions of the needs of clinical laboratories in response to COVID-19.

Methods

We surveyed laboratory professionals working in United States clinical laboratories during the initial months of the pandemic.

Results

Overall clinical laboratory testing and overtime work for laboratorians decreased during the first months of the pandemic. Laboratory professionals reported better or unchanged job satisfaction, feelings toward their work, and morale in their workplace, which were related to healthcare facility and laboratory leadership response. They reported receiving in-kind gifts, but no hazard pay, for their essential work. Important supply needs included reagents and personal protective equipment (PPE).

Conclusion

The response by healthcare facilities and laboratory leadership can influence MLPs job satisfaction, feelings toward their work, and laboratory morale during a pandemic. Current COVID-19 laboratory testing management, in the absence of sufficient reagents and supplies, cannot fully address the needs of clinical laboratories.

DETAIL

Subjek:	Medical laboratories; Job satisfaction; Coronaviruses; Pandemics; COVID-19
Ketentuan indeks bisnis:	Subjek: Job satisfaction
Pengidentifikasi/kata kunci:	COVID-19; laboratory personnel; health workforce; clinical laboratory services; management/administration; occupational safety
Judul:	Initial Clinical Laboratory Response to COVID-19: A Survey of Medical Laboratory Professionals
Pengarang:	Nuñez-Argote, Letycia1 ; Baker, Dana P1; Jones, Andrew P11 Department of Clinical Laboratory Scienc es, University of Kansas Medical Center, Kansas City, Kansas
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	e115-e124

Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmab021
ID dokumen ProQuest:	2563505178
URL Dokumen:	https://www.proquest.com/scholarly-journals/initial-clinical-laboratory-response-covid-19/docview/2563505178/se-2?accountid=211160
Hak cipta:	© American Society for Clinical Pathology, 2021. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com
Terakhir diperbarui:	2021-08-23
Basis data:	Public Health Database

Daratumumab Interference in Flow Cytometry Producing a False Kappa Light Chain Restriction in Plasma Cells

Kleinot, William [1] ; Aguilera, Nadine [1] ; Courville, Elizabeth L [1] [1] Department of Pathology, University of Virginia Health System, Charlottesville, Virginia, USA

ABSTRAK (ENGLISH)

False kappa light chain restriction on hematogones (normal B-lineage precursors) has been described in patients on the therapeutic anti-CD38 monoclonal antibody daratumumab. In this article, we present a novel case report of pseudo-kappa light chain restriction on lambda-restricted neoplastic plasma cells in a patient with progressive plasma cell myeloma while on daratumumab. Flow cytometric technologists and pathologists need to be aware of this potential diagnostic pitfall.

DETAIL

Subjek:	Monoclonal antibodies; Targeted cancer therapy; Immunotherapy
Pengidentifikasi/kata kunci:	hematopathology; hematology; plasma cell myeloma; daratumumab; flow cytometry; pseudo-kappa restriction
Judul:	Daratumumab Interference in Flow Cytometry Producing a False Kappa Light Chain Restriction in Plasma Cells
Pengarang:	Kleinot, William1; Aguilera, Nadine1; Courville, Elizabeth L11 Department of Pathology, University of Virginia Health System, Charlottesville, Virginia, USA
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	403-409
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa107

Pathology—The Beginnings of Laboratory Medicine: First in a Series

Angela Tomei Robinson [1] [1] St. John's University College of Pharmacy and Health Sciences, Queens, NY

DETAIL

Subjek:	Laboratories; Urine; Medicine; Bladder; Pathology; Blood; Manuscripts; Physicians
Judul:	Pathology—The Beginnings of Laboratory Medicine: First in a Series
Pengarang:	Angela Tomei Robinson11 St. John's University College of Pharmacy and Health Sciences, Queens, NY
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	e66-e82
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press

Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa098
ID dokumen ProQuest:	2563504201
URL Dokumen:	https://www.proquest.com/scholarly-journals/pathology-beginnings-laboratory-medicine/docview/2563504201/se-2?accountid=211160
Hak cipta:	© American Society for Clinical Pathology 2021. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com
Terakhir diperbarui:	2021-09-21
Basis data:	Public Health Database

Verification and Implementation of HIV Antibody Differentiation Testing to Improve Turnaround Time for the HIV Diagnostic Algorithm

Chambliss, Allison B [1]
; Shulman, Ira A [1] [1] Department of Pathology, Keck School of Medicine, University of Southern California, Los Angeles, CA; Department of Pathology, Los Angeles County+University of Southern California (LAC+USC) Medical Center, Los Angeles, CA

ABSTRAK (ENGLISH)

Background

Relying on reference laboratories for HIV confirmation testing may lead to delays in treatment and can cause stress for patients who have positive HIV screening results.

Objective

To internalize HIV-1/HIV-2 antibody differentiation testing within the hospital laboratory.

Methods

We analytically verified an HIV antibody differentiation immunoassay and subsequently compared result turnaround times (TATs) for HIV antibody differentiation and HIV-1 qualitative RNA in the months before and after the test internalization.

Results

HIV antibody differentiation was successfully verified. TATs for HIV antibody differentiation and HIV-1 RNA significantly improved, from medians of 40.4 hours and 156.5 hours to medians of 17.7 hours and 56.5 hours, respectively, after the internalization. The 90th-percentile turnaround times declined by 72% and 44%, respectively.

Conclusions

It is feasible for a hospital laboratory to verify HIV antibody-differentiation testing. Its implementation may considerably improve result TATs for the HIV diagnostic algorithm.

DETAIL

Subjek:	Laboratories; Antibodies; Quality control; Medical diagnosis
Ketentuan indeks bisnis:	Subjek: Quality control
Pengidentifikasi/kata kunci:	HIV; turnaround time; quality improvement; infectious disease; method validation; quality metrics
Judul:	Verification and Implementation of HIV Antibody Differentiation Testing to Improve Turnaround Time for the HIV Diagnostic Algorithm
Pengarang:	Chambliss, Allison B1 ; Shulman, Ira A11 Department of Pathology, Keck School of Medicine, University of Southern California, Los Angeles, CA; Department of Pathology, Los Angeles County+University of Southern California (LAC+USC) Medical Center, Los Angeles, CA
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	338-345
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021

Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa087
ID dokumen ProQuest:	2563501197
URL Dokumen:	https://www.proquest.com/scholarly-journals/verification-implementation-hiv-antibody/docview/2563501197/se-2?accountid=211160
Hak cipta:	© American Society for Clinical Pathology 2020. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com
Terakhir diperbarui:	2023-05-15
Basis data:	Public Health Database

Hemolytic Disease of the Fetus and Newborn Caused by Maternal Autoantibody with Mimicking Anti-E Specificity

Chen, Xueni [1] ; Feng, Jing [1]
; Jiang, Yongmei [1] [1] Department of Laboratory Medicine, West China Second University Hospital, Sichuan University, Chengdu, Sichuan, China; Key Laboratory of Birth Defects and Related Diseases of Women and Children (Sichuan University), Ministry of Education, Chengdu, Sichuan, China

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Objective

There are few reports of hemolytic disease of the fetus and newborn (HDFN) caused by maternal autoantibodies.

Methods

We describe the case of a pregnant patient aged 26 years with systemic lupus erythematosus without any transfusion history who developed autoantibody with mimicking anti-E specificity. Her newborn developed HDFN caused by the maternal autoantibody.

Results

The clinical symptoms of the newborn were not serious. After bilirubin light phototherapy and other symptomatic supportive treatment, the baby was discharged with a good prognosis.

Conclusion

This is the first reported case of HDFN caused by maternal autoantibody with mimicking anti-E specificity. However, the real antigenic target of the autoantibody was not clear.

DETAIL

Subjek:	Fetuses; Newborn babies
Pengidentifikasi/kata kunci:	hemolytic disease of the fetus and newborn; autoantibodies; mimicking; anti-E
Judul:	Hemolytic Disease of the Fetus and Newborn Caused by Maternal Autoantibody with Mimicking Anti-E Specificity
Pengarang:	Chen, Xueni1; Feng, Jing1 ; Jiang, Yongmei11 Department of Laboratory Medicine, West China Second University Hospital, Sichuan University, Chengdu, Sichuan, China; Key Laboratory of Birth Defects and Related Diseases of Women and Children (Sichuan University), Ministry of Education, Chengdu, Sichuan, China
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	399-402
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago

Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa096
ID dokumen ProQuest:	2563501158
URL Dokumen:	https://www.proquest.com/scholarly-journals/hemolytic-disease-fetus-newborn-caused-maternal/docview/2563501158/se-2?accountid=211160
Hak cipta:	© American Society for Clinical Pathology 2020. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com
Terakhir diperbarui:	2023-05-15
Basis data:	Public Health Database

Laboratory Predictors of COVID-19 Pneumonia in Patients with Mild to Moderate Symptoms

Li, Jiaxia [1] ; Li, Wan [2] ; Yuan, Feng [1] ; Zuo, Huilin [3] ; Zhao, Qian [3] ; Ren, Jiecheng [3] ; Zhang, Xiaochu [3] ; Xia, Mingwu [1] [1] Department of Neurology, the Second People's Hospital of Hefei, Affiliated Hefei Hospital of Anhui Medical University, Hefei, Anhui, China [2] Affiliated Psychological Hospital of Anhui Medical University, Hefei Fourth People's Hospital, Anhui Mental Health Center, Hefei, Anhui, China; National Clinic Research Center for Mental Disorders-Anhui Branch, Anhui, China [3] Division of Life Science and Medicine, University of Science and Technology of China, Hefei, Anhui, China

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Objective

This research aims to develop a laboratory model that can accurately distinguish pneumonia from nonpneumonia in patients with COVID-19 and to identify potential protective factors against lung infection.

Methods

We recruited 50 patients diagnosed with COVID-19 infection with or without pneumonia. We selected candidate predictors through group comparison and punitive least absolute shrinkage and selection operator (LASSO) analysis. A stepwise logistic regression model was used to distinguish patients with and without pneumonia. Finally, we used a decision-tree method and randomly selected 50% of the patients 1000 times from the same specimen to verify the effectiveness of the model.

Results

We found that the percentage of eosinophils, a high–fluorescence-reticulocyte ratio, and creatinine had better discriminatory power than other factors. Age and underlying diseases were not significant for discrimination. The model correctly discriminated 77.1% of patients. In the final validation step, we observed that the model had an overall predictive rate of 81.3%.

Conclusion

We developed a laboratory model for COVID-19 pneumonia in patients with mild to moderate symptoms. In the clinical setting, the model will be able to predict and differentiate pneumonia vs nonpneumonia before any lung computed tomography findings. In addition, the percentage of eosinophils, a high–fluorescence-reticulocyte ratio, and creatinine were considered protective factors against lung infection in patients without pneumonia.

DETAIL

Subjek:	Laboratories; Infections; Pneumonia; Coronaviruses; Creatinine; COVID-19
Pengidentifikasi/kata kunci:	COVID-19 infection; pneumonia; non-pneumonia; predictive model; protective factor; laboratory examination
Judul:	Laboratory Predictors of COVID-19 Pneumonia in Patients with Mild to Moderate Symptoms
Pengarang:	Li, Jiaxia1; Li, Wan2; Yuan, Feng1; Zuo, Huilin3; Zhao, Qian3; Ren, Jiecheng3; Zhang, Xiaochu3; Xia, Mingwu11 Department of Neurology, the Second People's Hospital of Hefei, Affiliated Hefei Hospital of Anhui Medical University, Hefei, Anhui, China2 Affiliated Psychological Hospital of Anhui Medical University, Hefei Fourth People's Hospital, Anhui Mental Health Center, Hefei, Anhui, China; National Clinic Research Center for Mental Disorders-Anhui Branch, Anhui, China3 Division of Life Science and Medicine, University of Science and Technology of China, Hefei, Anhui, China
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	e104-e114
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021

Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmab015
ID dokumen ProQuest:	2563501031
URL Dokumen:	https://www.proquest.com/scholarly-journals/laboratory-predictors-covid-19-pneumonia-patients/docview/2563501031/se-2?accountid=2 11160
Hak cipta:	© Crown copyright 2021.
Terakhir diperbarui:	2021-08-23
Basis data:	Public Health Database

Evaluation of the NG-Test CARBA 5 Kit for Rapid Detection of Carbapenemase Resistant Enterobacteriaceae

Ben-Haim, Or [1] ; Azrad, Maya [1] ; Saleh, Nora [2] ; Tkhawkho, Linda [2] ; Peretz, Avi [3] [1] The Azrieli Faculty of Medicine, Bar-Ilan University, Safed, Israel [2] Clinical Microbiology Laboratory, The Baruch Padeh Medical Center, Poriya, Tiberias, Israel [3] The Azrieli Faculty of Medicine, Bar-Ilan University, Safed, Israel; Clinical Microbiology Laboratory, The Baruch Padeh Medical Center, Poriya, Tiberias, Israel

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Objective

We evaluated NG-Test CARBA 5, a new phenotypic carbapenemase detection assay, and compared it to the

routine Xpert CARBA-R polymerase chain reaction assay. Furthermore, we tested the kit's performance after bacterial growth on 4 different solid media.

Methods

Seventy carbapenem resistant *Enterobacteriaceae* (CRE) isolates (60 were carbapenemase producers) were collected at the Poriya Baruch Padeh Medical Center. All isolates were grown on 4 types of agar media—BD BBL CHROMagar carbapenem resistant *Enterobacteriaceae*, BD CHROMagar Orientation, BD MacConkey II agar, and BD Trypticase Soy Agar II with 5% sheep blood—and were then subjected to NG-Test CARBA 5 kit analysis.

Results

The NG-Test CARBA 5 specificity was 100% for all 4 media. However, the sensitivity was higher when bacteria were grown on TSA with 5% sheep blood (98.3%) as compared with the Orientation medium (88.3%), the CPE medium (84.7%), and the MacConkey medium (83.6%). In addition, some of the carbapenemase mechanisms such as Verona Integron-Mediated Metallo-β-lactamase were detected with low agreement levels in specific media but higher agreement levels in the other media.

Conclusion

NG-Test CARBA 5 may enable faster detection of carbapenemase producing CRE, which will be of value for treatment adjustment and prevention control. However, the medium type on which the bacteria are grown affects kit sensitivity.

DETAIL

Subjek:	Infections; Laboratories; Monoclonal antibodies; Methods; Sheep; Polymerase chain reaction; Enzymes; Sepsis; Antibiotics; Bacteria; Medical diagnosis
Pengidentifikasi/kata kunci:	carbapenem resistant Enterobacteriaceae; carbapenemase producing Enterobacteriaceae; NG-Test Carba 5 kit; performance; diagnostic accuracy; rapid test
Judul:	Evaluation of the NG-Test CARBA 5 Kit for Rapid Detection of Carbapenemase Resistant Enterobacteriaceae
Pengarang:	Ben-Haim, Or1; Azrad, Maya1; Saleh, Nora2; Tkhawkho, Linda2; Peretz, Avi31 The Azrieli Faculty of Medicine, Bar-Ilan University, Safed, Israel2 Clinical Microbiology Laboratory, The Baruch Padeh Medical Center, Poriya, Tiberias, Israel3 The Azrieli Faculty of Medicine, Bar-Ilan University, Safed, Israel; Clinical Microbiology Laboratory, The Baruch Padeh Medical Center, Poriya, Tiberias, Israel
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	375-380

Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa084
ID dokumen ProQuest:	2563500701
URL Dokumen:	https://www.proquest.com/scholarly-journals/evaluation-ng-test-carba-5-kit-rapid-detection/docview/2563500701/se-2?accountid=211160

Terakhir diperbarui:	2023-05-15
Basis data:	Public Health Database

A High-Level Overview of the Regulations Surrounding a Clinical Laboratory and Upcoming Regulatory Challenges for Laboratory Developed Tests

Graden, Kevin C [1] ; Bennett, Shannon A [1] ; Delaney, Sarah R; Gill, Hillary E [1] ; Willrich, Maria A V [1]
[1] Department of Laboratory Medicine and Pathology, Mayo Clinic, Rochester, Minnesota

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Objective

Regulations for clinical laboratories in the United States are complex. The goal of this review is to improve the clarity of laboratory-developed test (LDT) regulation to facilitate innovation.

Methods

A literature and regulation review of current legislation for compliance by U.S. clinical laboratories was performed, and examples of the steps to implement LDTs within compliance with the regulatory environment are shared.

Results

Many federal and state jurisdictions are critical to the functionality of a laboratory in addition to upcoming potential promulgation of the Verifying Accurate Leading-Edge IVCT Development Act. Increased regulation, although imperative to maintain consistent, high-standard clinical care, could mean additional costs for developers and healthcare while also hindering innovation.

Conclusion

An extensive discussion of proposed regulations for LDTs needs to occur. Laboratory testing requires the sustained use of innovative methods at a cost that will permit continued, timely, uninterrupted high-quality service.

DETAIL

Subjek:	Innovations; Medical laboratories; Regulation
Lokasi:	United States--US
Pengidentifikasi/kata kunci:	regulations; CLIA; laboratory developed test; innovation; VALID Act; clinical laboratory
Judul:	A High-Level Overview of the Regulations Surrounding a Clinical Laboratory and Upcoming Regulatory Challenges for Laboratory Developed Tests
Pengarang:	Graden, Kevin C1; Bennett, Shannon A1; Delaney, Sarah R; Gill, Hillary E1; Willrich, Maria A V1 1 Department of Laboratory Medicine and Pathology, Mayo Clinic, Rochester, Minnesota
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	315-328
Tahun publikasi:	2021

Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa086
ID dokumen ProQuest:	2563500099
URL Dokumen:	https://www.proquest.com/scholarly-journals/high-level-overview-regulations-surrounding/docview/2563500099/se-2?accountid=211160

Terakhir diperbarui:	2021-08-23
Basis data:	Public Health Database

Trimethylamine N-Oxide is Associated with Heart Failure Risk in Patients with Preserved Ejection Fraction

Dong, Zengxiang [1] ; Zheng, Sijia [2] ; Shen, Zhaoqian [3] ; Luo, Yingchun [3] ; Xin Hai [2 1] Departments of Pharmacy and First Affiliated Hospital of Harbin Medical University, Harbin, China; Departments of Cardiology, First Affiliated Hospital of Harbin Medical University, Harbin, China [2] Departments of Pharmacy and First Affiliated Hospital of Harbin Medical University, Harbin, China [3] Departments of Cardiology, First Affiliated Hospital of Harbin Medical University, Harbin, China

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Background

Trimethylamine N-oxide (TMAO) has been considered to be an independent risk factor of heart failure (HF).

Objectives

To further determine the plasma levels of TMAO in patients who have HF with preserved ejection fraction (HFpEF), and to analyze the relationship between TMAO and HFpEF risk.

Methods

A total of 57 control participants and 61 patients with HFpEF were recruited. We measured and analyzed plasma levels of TMAO and performed biochemical examination of all patients.

Results

The mean (SD) plasma levels of TMAO in patients with HFpEF (6.84 [1.12] μmol/L) were significantly higher than in controls (1.63 [0.08] μmol/L; P <.01). The area under the curve (AUC) of TMAO and N-terminal pro b-type natriuretic peptide (NT-proBNP) was 0.817 and 0.924, respectively, which were determined by receiver operating characteristic (ROC) analysis. TMAO was an independent risk factor in patients with HFpEF, as revealed by univariate and multivariate logistic regression analysis. The level of TMAO was correlated with blood urea nitrogen (BUN), creatinine, and NT-proBNP.

Conclusions

TMAO level was highly associated with HFpEF risk.

DETAIL

Subjek:	Ejection fraction; Heart failure
Pengidentifikasi/kata kunci:	gut microbiota; trimethylamine N-oxide; heart failure; preserved ejection fraction; risk factors; N-terminal pro b-type natriuretic peptide
Judul:	Trimethylamine N-Oxide is Associated with Heart Failure Risk in Patients with Preserved Ejection Fraction
Pengarang:	Dong, Zengxiang1; Zheng, Sijia2; Shen, Zhaoqian3; Luo, Yingchun3; Xin Hai21 Departments of Pharmacy and First Affiliated Hospital of Harbin Medical University, Harbin, China; Departments of Cardiology, First Affiliated Hospital of Harbin Medical University, Harbin, China2 Departments of Pharmacy and First Affiliated Hospital of Harbin Medical University, Harbin, China3 Departments of Cardiology, First Affiliated Hospital of Harbin Medical University, Harbin, China
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4

Halaman:	346-351
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa075
ID dokumen ProQuest:	2563499943
URL Dokumen:	https://www.proquest.com/scholarly-journals/trimethylamine-n-oxide-is-associated-with-heart/docview/2563499943/se-2?accountid=211160
Hak cipta:	
Terakhir diperbarui:	2021-08-23
Basis data:	Public Health Database

Point-of-Care Testing Effectiveness on Blood Donor Hemoglobin Testing

Grech, Kayleigh [1] ; Zammit, Vanessa [2] [1] Faculty of Health Sciences, University of Malta, Malta [2] Faculty of Health Sciences, University of Malta, Malta; National Blood Transfusion Service, Malta

ABSTRAK (ENGLISH)

Background

Hemoglobin (Hb) evaluation by point-of-care testing (POCT) identifies borderline or anaemic asymptomatic blood donors. Although quality control checks confirm that this device is fit for use, it is still not clear whether the analyser is performing effectively. A protocol comparing the POCT EKF Diagnostics with the Sysmex XN-550 automated cell counter (ACC) has been designed.

Methods

Various scenarios of Hb measurements from the ACC and the POCT device are compared using the Spearman correlation and Intraclass correlation. The Bland-Altman method was used to analyse the level of agreement between the two devices.

Results

Correlation between the two devices was best observed in the venous vs venous blood scenario.

Conclusion

The POCT device overestimates the Hb levels in capillary blood, meaning that Hb requirements should be adjusted and when feasible testing repeated on venous blood using an ACC. Furthermore, it is suggested thar each Facility determine their own Hb threshold.

DETAIL

Subjek:	Hemoglobin; Blood &organ donations; Point of care testing
Judul:	Point-of-Care Testing Effectiveness on Blood Donor Hemoglobin Testing
Pengarang:	Grech, Kayleigh1; Zammit, Vanessa21 Faculty of Health Sciences, University of Malta, Malta2 Faculty of Health Sciences, University of Malta, Malta; National Blood Transfusion Service, Malta
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	364-368
Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago

Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa102
ID dokumen ProQuest:	2563499777
URL Dokumen:	https://www.proquest.com/scholarly-journals/point-care-testing-effectiveness-on-blood-donor/docview/2563499777/se-2?accountid=211160

Terakhir diperbarui:	2021-08-23
Basis data:	Public Health Database

Clinical Predictors of SARS-CoV-2 Testing Pressure on Clinical Laboratories: A Multinational Study Analyzing Google Trends and Over 100 Million Diagnostic Tests

Lippi, Giuseppe [1] ; Mattiuzzi, Camilla [2] ; Maria Helena Santos de Oliveira [3] ; Henry, Brandon M [4] [1] Section of Clinical Biochemistry, University of Verona, Verona, Italy [2] Service of Clinical Governance, Provincial Agency for Social and Sanitary Services, Trento, Italy [3] Department of Statistics, Federal University of Parana, Curitiba, Brazil [4] Cardiac Intensive Care Unit, The Heart Institute, Cincinnati Children's Hospital Medical Center, Ohio, USA

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Objective

Evidence has shown that Google searches for clinical symptom keywords correlates with the number of new weekly patients with COVID-19. This multinational study assessed whether demand for SARS-CoV-2 tests could also be predicted by Google searches for key COVID-19 symptoms.

Methods

The weekly number of SARS-CoV-2 tests performed in Italy and the United States was retrieved from official sources. A concomitant electronic search was performed in Google Trends, using terms for key COVID-19 symptoms.

Results

The model that provided the highest coefficient of determination for the United States (R^2 = 82.8%) included a combination of searching for cough (with a time lag of 2 weeks), fever (with a time lag of 2 weeks), and headache (with a time lag of 3 weeks; the time lag refers to the amount of time between when a search was conducted and when a test was administered). In Italy, headache provided the model with the highest adjusted R^2 (86.8%), with time lags of both 1 and 2 weeks.

Conclusion

Weekly monitoring of Google Trends scores for nonspecific COVID-19 symptoms is a reliable approach for anticipating SARS-CoV-2 testing demands ~2 weeks in the future.

DETAIL

Subjek:	Trends; Severe acute respiratory syndrome coronavirus 2; Coronaviruses; COVID-19; Medical diagnosis
Lokasi:	Italy; United States--US
Pengidentifikasi/kata kunci:	laboratory medicine; SARS-CoV-2; diagnostic testing; infodemiology; laboratory management; COVID-19
Judul:	Clinical Predictors of SARS-CoV-2 Testing Pressure on Clinical Laboratories: A Multinational Study Analyzing Google Trends and Over 100 Million Diagnostic Tests
Pengarang:	Lippi, Giuseppe1 ; Mattiuzzi, Camilla2; Maria Helena Santos de Oliveira3; Henry, Brandon M41 Section of Clinical Biochemistry, University of Verona, Verona, Italy2 Service of Clinical Governance, Provincial Agency for Social and Sanitary Services, Trento, Italy3 Department of Statistics, Federal University of Parana, Curitiba, Brazil4 Cardiac Intensive Care Unit, The Heart Institute, Cincinnati Children’s H ospital Medical Center, Ohio, USA
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	311-314

Tahun publikasi:	2021
Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmab013
ID dokumen ProQuest:	2563499093
URL Dokumen:	https://www.proquest.com/scholarly-journals/clinical-predictors-sars-cov-2-testing-pressure/docview/2563499093/se-2?accountid=211160

Terakhir diperbarui:	2023-05-15
Basis data:	Public Health Database

Evaluation of Serum GDF15, AFP, and PIVKA-II as Diagnostic Markers for HBV-Associated Hepatocellular Carcinoma

Chen, Juanjuan [1] ; Tang, Dongling [1] ; Chu, Xu [1] ; Niu, Zhili [1] ; Li, Huan [1] ; Li, Yan [1] ; Zhang, Pingan [1]

[1] Department of Clinical Laboratory, Renmin Hospital of Wuhan University, Wuhan, Hubei Province, PR China

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Objective

To evaluate the potential diagnostic value of growth differentiation factor 15 (GDF15) alone and its combination with protein induced by vitamin K absence-II (PIVKA-II) and alpha-fetoprotein (AFP) for hepatitis B virus (HBV)-associated hepatocellular carcinoma (HCC).

Methods

Serum levels of GDF15, PIVKA-II, and AFP were measured in 110 patients with HBV-associated HCC, 70 patients with HBV-related liver cirrhosis (LC), 70 patients with chronic hepatitis B (CHB), and 110 healthy patients.

Results

Serum GDF15 was positively related to the levels of PIVKA-II and AFP in patients with HCC ($r = 0.352$ and $r = 0.378$; all $P < .0001$). When the receiver operating characteristic (ROC) curve was plotted for patients with HCC vs all control patients, serum GDF15 had diagnostic parameters of an area under the curve (AUC) of 0.693, a sensitivity of 67.30%, and a specificity of 66.70%, which were lower than parameters for PIVKA-II and AFP (all $P < .0001$). When the ROC curve was plotted for patients with HCC vs patients with LC, the combination of GDF15 and PIVKA-II had the highest diagnostic accuracy of AUC and specificity as compared with other combinations (all $P < .0001$).

Conclusion

We found that GDF15 is a potent serum marker for the detection of HBV-associated HCC and that PIVKA-II combined with GDF15 can improve diagnostic accuracy for HBV-associated HCC.

DETAIL

Subjek:	Liver cancer; Interferon; Hepatitis B; Liver cirrhosis; Medical diagnosis
Pengidentifikasi/kata kunci:	growth differentiation factor 15; protein induced by vitamin K absence or antagonist II; alpha-fetoprotein; hepatitis B virus; hepatocellular carcinoma; diagnosis
Judul:	Evaluation of Serum GDF15, AFP, and PIVKA-II as Diagnostic Markers for HBV-Associated Hepatocellular Carcinoma
Pengarang:	Chen, Juanjuan1; Tang, Dongling1; Chu, Xu1; Niu, Zhili1; Li, Huan1; Li, Yan1; Zhang, Pingan1 1 Department of Clinical Laboratory, Renmin Hospital of Wuhan University, Wuhan, Hubei Province, PR China
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	4
Halaman:	381-389
Tahun publikasi:	2021

Tanggal publikasi:	Jul 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa089
ID dokumen ProQuest:	2563494912
URL Dokumen:	https://www.proquest.com/scholarly-journals/evaluation-serum-gdf15-afp-pivka-ii-as-diagnostic/docview/2563494912/se-2?accountid=211160

Terakhir diperbarui:	2023-05-15
Basis data:	Public Health Database

Detection of a Cryptic EP300/ZNF384 Gene Fusion by Chromosomal Microarray and Next-Generation Sequencing Studies in a Pediatric Patient with B-Lymphoblastic Leukemia

Berg, Holly E [1] ; Blackburn, Patrick R [2] ; Smadbeck, James B [3] ; Swanson, Kirsten E [2] ; Rice, Christopher S [2] ; Webley, Matthew R [2] ; Johnson, Sarah H [3] ; Vasmatzis, George [3] ; Xu, Xinjie [2] ; Greipp, Patricia T [2] ; Hoppman, Nicole L [2] ; Ketterling, Rhett P [2] ; Baughn, Linda B [2] ; Boston, Catherine H [4] ; Sutton, Lisa M [5] ; Peterson, Jess F [2 1] Department of Laboratory Medicine and Pathology, Rochester, Minnesota [2] Division of Laboratory Genetics and Genomics, Department of Laboratory Medicine and Pathology, Rochester, Minnesota [3] Center for Individualized Medicine-Biomarker Discovery, Mayo Clinic, Rochester, Minnesota [4] Cancer and Blood Disorders Center, Corpus Christi, Texas [5] Department of Pathology and Laboratory Medicine, Driscoll Children’s Hospital, Corpus Christi,

Texas

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Zinc-finger protein 384 (*ZNF384*) gene fusions with *EP300* have recently been described as a recurrent fusion in B-cell acute lymphoblastic leukemia (B-ALL) with a good response to conventional chemotherapy, suggesting a favorable prognosis. Herein, we report on a female patient aged 12 years with uninformative conventional chromosome and B-ALL panel fluorescence in situ hybridization studies with chromosomal microarray showing multiple copy number gains, including relative gains in the *ZNF384* (12p13.31) and *EP300* (22q13.2) gene regions, suggesting a cryptic *EP300/ZNF384* fusion. Ultimately, a next-generation sequencing assay, mate pair sequencing, was utilized to confirm *EP300/ZNF384* fusion in this B-ALL clone, which may confer a favorable overall prognosis and potential targeted therapy.

DETAIL

Subjek:	Leukemia; Chromosomes; Nonsteroidal anti-inflammatory drugs; Genomes; Bone marrow; Ewings sarcoma; Pathology; Anti-inflammatory agents; Genes; Blood; Pediatrics; Chemotherapy; Proteins; Case reports; Medical laboratories
Pengidentifikasi/kata kunci:	B-cell acute lymphoblastic leukemia (B-ALL); EP300; ZNF384; chromosomal microarray; next-generation sequencing; mate pair sequencing
Judul:	Detection of a Cryptic EP300/ZNF384 Gene Fusion by Chromosomal Microarray and Next-Generation Sequencing Studies in a Pediatric Patient with B-Lymphoblastic Leukemia
Pengarang:	Berg, Holly E1; Blackburn, Patrick R2; Smadbeck, James B3; Swanson, Kirsten E2; Rice, Christopher S2; Webley, Matthew R2; Johnson, Sarah H3; Vasmatzis, George3; Xu, Xinjie2; Greipp, Patricia T2; Hoppman, Nicole L2; Ketterling, Rhett P2; Baughn, Linda B2; Boston, Catherine H4; Sutton, Lisa M5; Peterson, Jess F21 Department of Laboratory Medicine and Pathology, Rochester, Minnesota2 Division of Laboratory Genetics and Genomics, Department of Laboratory Me dicine and Pathology, Rochester, Minnesota3 Center for Individualized Medicine-Biomarker Discovery, Mayo Clinic, Rochester, Minnesota4 Cancer and Blood Disorders Center, Corpus Christi, Texas5 Department of Pathology and Laboratory Medicine, Driscoll Children’s Hospital, Corpus Christi, Texas
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	297-302
Tahun publikasi:	2021

Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Case Study, Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa085
ID dokumen ProQuest:	2823857793
URL Dokumen:	https://www.proquest.com/scholarly-journals/detection-cryptic-i-ep300-znf384-gene-fusion/docview/2823857793/se-2?accountid=211160

Terakhir diperbarui:	2023-06-29
Basis data:	Public Health Database

Evaluation of the Impact of Changing Quality Control Rules and Frequency on the Risk Management Index: Results from the Clinical Routine of a Medical Laboratory

Karnutsch, Daniela [1] ; Occhipinti, Francesca [1] ; Tumiatti, Daniel [1] ; Mueller, Thomas [1] [1] Department of Clinical Pathology, Hospital of Bolzano, Bolzano, Italy

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Objective

The consideration of the principles of risk management in the analytical process is a current trend. The aim of this study was to evaluate whether the risk management index (RMI) for various laboratory parameters can be influenced by interventions that change the internal quality control (IQC) strategy.

Methods

We selected 10 laboratory parameters associated with cardiovascular disease for the study (myoglobin, N-terminal fragment of the pro B-type natriuretic polypeptide, cardiac troponin T, creatinine kinase, lactate dehydrogenase, glucose, triglycerides, total cholesterol, and low-density lipoprotein and high-density lipoprotein cholesterol). The study-specific interventions included changing the IQC rules and changing the IQC schedule. This was a one-armed intervention study in which changes in the RMI, a measure of patient harm risk, was recorded over time.

Results

Before the intervention, the mean RMI was 1.022 (95% confidence interval [CI], 0.269–1.776). After the intervention, the mean RMI was 0.934 (95% CI, 0.088–1.956). The RMI values before and after the intervention were not significantly different (P =.89).

Conclusion

The study-specific interventions did not lead to an improvement of the RMI in the clinical routines of a medical laboratory. There is a great need to further explore this subject area with interventional studies to clarify how the risk of unintended patient harm can be measurably improved.

DETAIL

Subjek:	Triglycerides; Reagents; Hypotheses; Intervention; High density lipoprotein; Quality control; Cholesterol; Hospitals; Glucose; Medical laboratories; Lipoproteins; Pathology; Confidence intervals; Dehydrogenases; Polypeptides; Lithium
Ketentuan indeks bisnis:	Subjek: Quality control
Pengidentifikasi/kata kunci:	analytical quality; patient harm; quality control; rejection rules; risk management; intervention study
Judul:	Evaluation of the Impact of Changing Quality Control Rules and Frequency on the Risk Management Index: Results from the Clinical Routine of a Medical Laboratory
Pengarang:	Karnutsch, Daniela1; Occhipinti, Francesca1; Tumiatti, Daniel1; Mueller, Thomas11 Department of Clinical Pathology, Hospital of Bolzano, Bolzano, Italy
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	211-218

Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa064
ID dokumen ProQuest:	2823857760
URL Dokumen:	https://www.proquest.com/scholarly-journals/evaluation-impact-changing-quality-control-rules/docview/2823857760/se-2?accountid=211160

Terakhir diperbarui:	2023-06-29
Basis data:	Public Health Database

Association of Mild Hyperbilirubinemia with Decreased ECG-Based Ventricular Repolarization Parameters in Young Men

Sengul, Cihan [1] ; Sen, Ahmet [2] ; Barutcu, Suleyman [1] ; Cakir, Cayan [1] ; Sarikaya, Remzi [1] [1] Department of Cardiology, University of Health Sciences, Van Education and Research Hospital, Van, Turkey [2] Department of Biochemistry, University of Health Sciences, Van Education and Research Hospital, Van, Turkey

ABSTRAK (ENGLISH)

Objective

Hyperbilirubinemia is associated with protection against various oxidative stress-mediated diseases. We aimed to investigate the association between bilirubin and novel electrocardiography (ECG)-based ventricular repolarization parameters.

Methods

We enrolled 201 healthy men with mild hyperbilirubinemia (group 1) and 219 healthy men with normal bilirubin levels (group 2). The Tpeak-Tend (Tp-e) interval (defined as the interval from the peak of the T wave to the end of the T wave), corrected (c) Tp-e interval, QT interval, cQT interval, and Tp-e interval/QT interval ratio were measured from leads V_5 and V_6 with 20 mm/mV amplitude and 50 mm/second rate.

Results

The Tp-e interval, cTp-e interval, and Tp-e interval/QT interval ratio were significantly lower in group 1 compared with group 2. The cTp-e interval showed a significant negative correlation with total bilirubin, conjugated bilirubin, and unconjugated bilirubin. The cTp-e interval (odds ratio [OR], 0.900; *P* =.002) and Tp-e interval/QT interval ratio (OR, 0.922; *P* =.04) were significantly associated with mild hyperbilirubinemia.

Conclusion

We showed the association of mild hyperbilirubinemia with decreased novel ECG-based ventricular repolarization parameters.

DETAIL

Subjek:	Diabetes; Smoking; Cardiac arrhythmia; Blood diseases; Body mass index; Blood pressure; Heart failure; Electrocardiography; Gallbladder diseases; Correlation analysis; Medical screening; Gallbladder; Heart rate; Oxidative stress; Young adults; Mens health
Pengidentifikasi/kata kunci:	bilirubin; Tp-e interval; Tp-e interval/QT interval ratio; QT interval; ventricular arrhythmia; ECG
Judul:	Association of Mild Hyperbilirubinemia with Decreased ECG-Based Ventricular Repolarization Parameters in Young Men
Pengarang:	Sengul, Cihan1; Sen, Ahmet2; Barutcu, Suleyman1; Cakir, Cayan1; Sarikaya, Remzi11 Department of Cardiology, University of Health Sciences, Van Education and Research Hospital, Van, Turkey2 Department of Biochemistry, University of Health Sciences, Van Education and Research Hospital, Van, Turkey
Judul publikasi:	Labmedicine; Chicago
Volume:	52

Edisi:	3
Halaman:	226-231
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa063
ID dokumen ProQuest:	2823857717
URL Dokumen:	https://www.proquest.com/scholarly-journals/association-mild-hyperbilirubinemia-with/docview/2823857717/se-2?accountid=21116 0
Hak cipta:	© American Society for Clinical Pathology 2020. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com
Terakhir diperbarui:	2023-06-29
Basis data:	Public Health Database

Acute Myeloid Leukemia Case Harboring Unusual FLT3 Variant: Somatic vs Germline?

Singh, Nirupama [1] ; Morlote, Diana [1] ; Vnencak-Jones, Cindy [2] ; Papadantonakis, Nikolaos [3] ; Harada, Shuko [1] [1] Department of Pathology, Department of Medicine, University of Alabama at Birmingham, Birmingham, Alabama [2] Department of Pathology, Vanderbilt University, Nashville, Tennessee [3] Division of Hematology and Medical Oncology, Emory Winship Cancer Institute, Emory University, Atlanta, Georgia

ABSTRAK (ENGLISH)

FLT3 mutations are considered a prognostic and predictive marker. Here we report on a patient with a rare *FLT3* germline variant in the context of relapsed acute myeloid leukemia (AML). A female patient aged 57 years presented with AML with mutations in the *IDH2, ASXL1,* and *DNMT3A* genes. She underwent allogenic hematopoietic stem cell transplant but relapsed 2 years posttransplant. Targeted next generation sequencing identified a new missense variant in the *FLT3* tyrosine kinase domain c.2440G >T (p.A814S). The treating team considered the possibility of patient eligibility for an *FLT3* inhibitor. Because both somatic and germline mutations can be identified in tumor tissue with high-throughput sequencing, it becomes important to distinguish the origin of these alterations when possible—especially, in this challenging case, to define the treatment modality. Simultaneous tumor/germline sequencing allows for the identification of rare germline mutations and may help in determining their significance in the pathogenesis of disease.

DETAIL

Subjek:	Patients; Ligands; Pathology; Leukemia; Genes; Kinases; Mutation; Cytogenetics; Stem cell transplantation; Medical laboratories
Pengidentifikasi/kata kunci:	Hematopathology; Molecular pathology; Highthroughput sequencing; Somatic vs Germline alterations/mutations; FLT3; Cytogenetically normal (CN)-AML
Judul:	Acute Myeloid Leukemia Case Harboring Unusual FLT3 Variant: Somatic vs Germline?
Pengarang:	Singh, Nirupama1; Morlote, Diana1; Vnencak-Jones, Cindy2; Papadantonakis, Nikolaos3; Harada, Shuko11 Department of Pathology, Department of Medicine, University of Alabama at Birmingham, Birmingham, Alabama2 Department of Pathology, Vanderbilt University, Nashville, Tennessee3 Division of Hematology and Medical Oncology, Emory Winship Cancer Institute, Emory University, Atlanta, Georgia
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	e53-e56
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago

Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa080
ID dokumen ProQuest:	2823857695
URL Dokumen:	https://www.proquest.com/scholarly-journals/acute-myeloid-leukemia-case-harboring-unusual-i/docview/2823857695/se-2?accountid=211160
Hak cipta:	© American Society for Clinical Pathology 2020. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com
Terakhir diperbarui:	2023-06-29
Basis data:	Public Health Database

The Frequency of Discordant Variant Classification in the Human Gene Mutation Database: A Comparison of the American College of Medical Genetics and Genomics Guidelines and ClinVar

Kyoung-Jin, Park [1] ; Lee, Woochang [2] ; Chun, Sail [2] ; Won-Ki, Min [2 1] Department of Laboratory Medicine, Myongji Hospital, Hanyang University College of Medicine, Goyang-Si, Gyeonggi-Do, Korea [2] Department of Laboratory Medicine, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Objective

Discordant variant classifications among public databases is one of the well-documented limitations when interpreting the pathogenicity of variants. The aim of this study is to investigate the level of germline variant

misannotation from the Human Gene Mutation Database (HGMD) and the annotation concordance between databases.

Methods

We used a total of 188,106 classified variants (disease-causing mutations [n = 179,454] and polymorphisms [n = 8652]) in 6466 genes from the HGMD. All variants were reanalyzed based on the American College of Medical Genetics and Genomics (ACMG) guidelines and compared to ClinVar database variants.

Results

When variants were classified based on the ACMG guidelines, misclassification was observed in 3.47% (2289/65,896) of variants. The overall concordance between HGMD and ClinVar was 97.62% (52,499/53,780) of variants studied.

Conclusion

Variants in databases must be used with caution when variant pathogenicity is interpreted. This study reveals the frequency of misannotation of the HGMD variants and annotation concordance between databases in depth.

DETAIL

Subjek:	Databases; Testing laboratories; Genomes; Pathology; Genomics; Annotations; Genes; Mutation; Polymorphism; Classification
Pengidentifikasi/kata kunci:	classification; ClinVar; database; Human Gene Mutation Database; pathogenicity; variant
Judul:	The Frequency of Discordant Variant Classification in the Human Gene Mutation Database: A Comparison of the American College of Medical Genetics and Genomics Guidelines and ClinVar
Pengarang:	Kyoung-Jin, Park1; Lee, Woochang2; Chun, Sail2; Won-Ki, Min21 Department of Laboratory Medicine, Myongji Hospital, Hanyang University College of Medicine, Goyang-Si, Gyeonggi-Do, Korea2 Department of Laboratory Medicine, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	250-259
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press

Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa072
ID dokumen ProQuest:	2823857693
URL Dokumen:	https://www.proquest.com/scholarly-journals/frequency-discordant-variant-classification-human/docview/2823857693/se-2?accountid=211160
Hak cipta:	© American Society for Clinical Pathology 2020. All rights res erved. For permissions, please e-mail: journals.permissions@oup.com
Terakhir diperbarui:	2023-06-29
Basis data:	Public Health Database

A Hemolytic Transfusion Reaction Caused by an Unexpected Le^{b} Antibody

Delk, Alexander A [1] ; Gammon, Richard R [2] ; Alvarez, Harold [3] ; Benitez, Nancy [1] ; Bright, Frieda [1] [1] Immunohematology Reference Laboratory and Technical Direction, OneBlood, Inc, Orlando, Florida, USA [2] Scientific Medical and Technical Direction, OneBlood, Inc, Orlando, Florida, USA [3] Pathology Department, Baptist Health, Miami, Florida, USA

Link dokumen ProQuest

ABSTRAK (ENGLISH)

A Black male patient aged 21 years with a history of sickle cell disease and HIV was admitted to the hospital with vaso-occlusive crisis. A transfusion reaction was called after the patient developed a fever (39.5°C), tachycardia, chills, and hematuria after receiving 300 mL of red blood cells. A posttransfusion specimen was submitted to the Immunohematology Reference Laboratory for investigation. Antibody identification revealed an anti-Le^{b} as the probable cause of the immediate acute hemolytic transfusion reaction. Lewis antibodies are considered clinically

insignificant. This case shows the importance of considering cold antibodies, including Lewis antibodies, as a possible cause of an acute hemolytic transfusion reaction.

DETAIL

Subjek:	Plasma; Antigens; Antibodies; Cardiac arrhythmia; Blood groups; Clinical significance; Sickle cell disease; Hematuria; Blood transfusions; Case reports
Pengidentifikasi/kata kunci:	Lewis b; hemolysis; transfusion reaction; antibodies; immunohematology; sickle cell disease
Judul:	A Hemolytic Transfusion Reaction Caused by an Unexpected Leb Antibody
Pengarang:	Delk, Alexander A1; Gammon, Richard R2; Alvarez, Harold3; Benitez, Nancy1; Bright, Frieda11 Immunohematology Reference Laboratory and Technical Direction, OneBlood, Inc, Orlando, Florida, USA2 Scientific Medical and Technical Direction, OneBlood, Inc, Orlando, Florida, USA3 Pathology Department, Baptist Health, Miami, Florida, USA
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	303-306
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Case Study, Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa070
ID dokumen ProQuest:	2823857274

Plasma Cell Proliferation Is Reduced in Myeloma-Induced Hypercalcemia and in Co-Culture with Normal Healthy BM-MSCs

Shiran, Nader Vazifeh [1] ; Abroun, Saeid [1] [1] Department of Hematology and Blood Banking, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran

ABSTRAK (ENGLISH)

Objective

In multiple myeloma (MM), stimulation of osteoclasts and bone marrow (BM) lesions lead to hypercalcemia, renal failure, and anemia. Co-culture of the myeloma cells in both hypocalcemia and hypercalcemia concentrations with bone marrow-mesenchymal stem cells were evaluated.

Materials and Methods

Viability and survival of myeloma cells were assessed by microculture tetrazolium test and flow cytometric assays. Mesenchymal stem cells (MSCs) were extracted from normal and myeloma patients and were co-cultured with myeloma cells.

Results

Myeloma cells showed less survival in both hypocalcaemia and hypercalcemia conditions (P <.01). The paracrine and juxtacrine conditions of demineralized bone matrix-induced hypercalcemia increased the proliferation and survival of the cells (P <.05). Unlike myeloma MSCs, normal MSCs reduced the survival of and induced apoptosis in myeloma cells (P <.1).

Conclusion

Normal healthy-MSCs do not protect myeloma cells, but inhibit them. However, increasing the ratio of myeloma cells to MSCs reduces their inhibitory effects of MSCs and leads to their myelomatous transformation.

DETAIL

Subjek:	Tomography; Plasma; Hemoglobin; Anemia; Vascular endothelial growth factor; Cytokines; Ligands; Bone marrow; Apoptosis; Cell growth; Stem cells; Kinases; Hypercalcemia; Insulin-like growth factors; Hypocalcemia; Cell culture; Multiple myeloma; Creatinine; Proteins
Pengidentifikasi/kata kunci:	myeloma line; hypercalcemia; co-culture; mesenchymal stem cells; demineralized bone matrix
Judul:	Plasma Cell Proliferation Is Reduced in Myeloma-Induced Hypercalcemia and in Co-Culture with Normal Healthy BM-MSCs
Pengarang:	Shiran, Nader Vazifeh1; Abroun, Saeid11 Department of Hematology and Blood Banking, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	273-289
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa060
ID dokumen ProQuest:	2823857264
URL Dokumen:	https://www.proquest.com/scholarly-journals/plasma-cell-proliferation-is-reduced-myeloma/docview/2823857264/se-2?accountid=211160

Cording in Disseminated Mycobacterium chelonae Infection in an Immunocompromised Patient

Olson, Gregory [1] ; McNulty, Moira C [1] ; Mullane, Kathleen [1] ; Beavis, Kathleen G [2] ; Tesic, Vera [2 1]
Infectious Diseases and Global Health, University of Chicago Medical Center, Chicago, Illinois [2]
Department of Pathology, University of Chicago Medical Center, Chicago, Illinois

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Cording is a phenomenon in which acid fast bacilli grow in parallel and was previously used as a means of presumptive microscopic identification of *Mycobacterium tuberculosis* (TB). However, this process has been shown in multiple other nontuberculous mycobacterial (NTM) species. Here we present the case of an immunocompromised adult who presented with wrist pain, weight loss, and cough. A positron emission tomography scan showed uptake in the right ulna, multiple soft tissue sites, and the left lung. Biopsies and cultures were obtained from multiple sites, and the patient was ultimately diagnosed with disseminated *Mycobacterium chelonae* infection. The organism showed cording in culture. As seen in this patient, cording may occur in multiple NTM species and is not reliable as the sole indicator of the presence of TB.

DETAIL

Subjek:	Infections; Tomography; Acids; Bone marrow; Pathology; Virulence; Tuberculosis; Stem cell transplantation; Biopsy; Case reports; Bacterial infections
Pengidentifikasi/kata kunci:	Mycobacterium; Mycobacterium chelonae; cording; transplant; nontuberculous mycobacteria; stem cell transplant
Judul:	Cording in Disseminated Mycobacterium chelonae Infection in an Immunocompromised Patient
Pengarang:	Olson, Gregory1; McNulty, Moira C1; Mullane, Kathleen1; Beavis, Kathleen G2; Tesic, Vera21 Infectious Diseases and Global Health, University of Chicago Medical Center, Chicago, Illinois2 Department of Pathology, University of Chicago Medical Center, Chicago, Illinois
Judul publikasi:	Labmedicine; Chicago

Volume:	52
Edisi:	3
Halaman:	e50-e52
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Case Study, Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa082
ID dokumen ProQuest:	2823856932
URL Dokumen:	https://www.proquest.com/scholarly-journals/cording-disseminated-i-mycobacterium-chelonae/docview/2823856932/se-2?accountid=211160
Hak cipta:	
Terakhir diperbarui:	2023-06-29
Basis data:	Public Health Database

Trimester-Specific Reference Intervals of Serum Urea, Creatinine, and Uric Acid Among Healthy Pregnant Women in Zhengzhou, China

Gao, Yuhua [1] ; Jia, Jia [2] ; Liu, Xianan [1] ; Guo, Shuren [1] ; Liang, Ming [1] [1] Department of Clinical Laboratory, The First Affiliated Hospital of Zhengzhou University, Zhengzhou, China [2] School of

Environment, Beijing Normal University, Beijing, China

ABSTRAK (ENGLISH)

Objective

To verify the differences in serum levels of urea, creatinine, and uric acid (UA) between pregnant and nonpregnant women and establish specific reference intervals of serum urea, creatinine, and UA for pregnant women, and thus help for the detection of kidney disease in pregnancy.

Methods

Based on the selection criteria, 1312 apparently healthy pregnant women and 1301 nonpregnant women were enrolled in this study. The levels of serum urea, creatinine, and UA were compared between the pregnant and nonpregnant women. The differences in the 3 indicators among different age groups and trimesters in pregnant women were studied. Finally, reference intervals were established by nonparametric methods according to the recommendation of Clinical and Laboratory Standards Institute guideline C28-A3.

Results

Compared with nonpregnant women, pregnant women had a significantly lower level of serum urea, creatinine, and UA (all $P < .01$), and no significant age-related differences in the 3 indicators were observed among the pregnant women ($P > .05$). However, the levels of these indicators were significantly different among the 3 trimesters (all $P < .01$ or $P = .01$). Accordingly, trimester-specific reference intervals of serum urea (1.6–4.4 mmol/L; 1.6–4.2 mmol/L; 1.6–4.4 mmol/L), creatinine (36–68 μmol/L; 34–66 μmol/L; 36–68 μmol/L), and UA (122–297 μmol/L; 129–327 μmol/L; 147–376 μmol/L) for trimesters 1, 2, and 3, respectively, were established.

Conclusion

These newly established reference intervals will be valuable for the detection and monitoring of kidney disease in pregnancy.

DETAIL

Subjek:	Pregnancy; Womens health; Kidney diseases; Uric acid; Creatinine; Biomarkers
Lokasi:	China
Pengidentifikasi/kata kunci:	pregnant women; reference intervals; urea; creatinine; uric acid; kidney disease
Judul:	Trimester-Specific Reference Intervals of Serum Urea, Creatinine, and Uric Acid Among Healthy Pregnant Women in Zhengzhou, China
Pengarang:	Gao, Yuhua1; Jia, Jia2; Liu, Xianan1; Guo, Shuren1; Liang, Ming11 Department of Clinical Laboratory, The First Affiliated Hospital of Zhengzhou University, Zhengzhou, China2 School of Environment, Beijing Normal University, Beijing, China

Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	267-272
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa088
ID dokumen ProQuest:	2823856898
URL Dokumen:	https://www.proquest.com/scholarly-journals/trimester-specific-reference-intervals-serum-urea/docview/2823856898/se-2?accountid=211160
Hak cipta:	© American Society for Clinical Pathology 2020. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com
Terakhir diperbarui:	2023-06-29
Basis data:	Public Health Database

Erratum

Link dokumen ProQuest

DETAIL

Judul:	Erratum
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman pertama:	e57
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Corrections/Retraction
DOI:	https://doi.org/10.1093/labmed/lmz061
ID dokumen ProQuest:	2823856897
URL Dokumen:	https://www.proquest.com/scholarly-journals/erratum/docview/2823856897/se-2?accountid=211160
Hak cipta:	
Terakhir diperbarui:	2023-06-09
Basis data:	Public Health Database

Rapid Molecular Detection for Differentiation of Homozygous HbE and ß ^{0} -Thalassemia/HbE in Samples Related With HbE >80% and Variable HbF Levels

Tepakhan, Wanicha [1] ; Jomoui, Wittaya [2] [1] Department of Pathology, Faculty of Medicine, Prince of Songkla University, Songkhla, Thailand [2] Department of Pathology, Maha Chakri Sirindhorn Medical Center, Faculty of Medicine, Srinakharinwirot University, Nakhon Nayok, Thailand

ABSTRAK (ENGLISH)

Objective

To validate a novel rapid molecular testing method for differentiation of homozygous hemoglobin (Hb)E and HbE/β ^{0}-thalassemia genotypes using multiplex melt curve combined with high-resolution melt (HRM) analysis in a single test tube.

Methods

All 10 genotypes contained (β ^{N}/β ^{N}; n = 95), (β ^{N}/β $^{3.5\text{-kb}}$; n = 71), (β ^{N}/β $^{45\text{-kb}}$; n = 28), (β ^{N}/β ^{E}; n = 10), (β ^{E}/β $^{3.5\text{-kb}}$; n = 6), (β ^{E}/β $^{45\text{-kb}}$; n = 4), (β ^{E}/β $^{41/42}$; n = 28), (β ^{E}/β ^{17}; n = 9), (β ^{E}/β $^{IVSI\#1}$; n = 6), and (β ^{E}/β ^{E}; n = 76) were recruited for validation. A proposed strategy for rapid differentiation of β ^{0}-thalassemia/HbE disease and homozygous Hb E in specimens with HbE greater than 80% and variable HbF levels was demonstrated.

Results

In the validation method, all genotypes showed 100% concordance, compared with the conventional reverse dot blot (RDB) and gap–polymerase chain reaction (PCR) methods.

Conclusions

Our newly developed method could be useful in routine laboratory settings. The method is rapid, simple, and cost effective; does not require a post-PCR step; and can be applied in routine settings.

DETAIL

Subjek:	Hemoglobin; Thermal cycling; Chromatography; Pathology; Polymerase chain reaction; Capillary electrophoresis; Blood diseases; Mutation; Diagnostic tests; Medical laboratories
Pengidentifikasi/kata kunci:	HbE/β0-thalassemia; homozygous HbE; HRM analysis; melt-curve analysis; 3.5-kb deletion; 45-kb deletion

Judul:	Rapid Molecular Detection for Differentiation of Homozygous HbE and ß0 - Thalassemia/HbE in Samples Related With HbE > 80% and Variable HbF Levels
Pengarang:	Tepakhan, Wanicha1; Jomoui, Wittaya21 Department of Pathology, Faculty of Medicine, Prince of Songkla University, Songkhla, Thailand2 Department of Pathology, Maha Chakri Sirindhorn Medical Center, Faculty of Medicine, Srinakharinwirot University, Nakhon Nayok, Thailand
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	232-239
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa065
ID dokumen ProQuest:	2823856851
URL Dokumen:	https://www.proquest.com/scholarly-journals/rapid-molecular-detection-differentiation/docview/2823856851/se-2?accountid=211160
Hak cipta:	
Terakhir diperbarui:	2023-06-29
Basis data:	Public Health Database

The Association Between Serum Human Epididymis Protein 4 Level and Cardiovascular Events in Patients with Chronic Obstructive Pulmonary Disease

Lin, Hui [1] ; Xiao, Jianhong [1] ; Su, Xianghua [2] ; Song, Bin [1] [1] Department of Respiratory Medicine, Mindong Hospital of Fujian Medical University, Fuan, Fujian, China [2] Neurosurgery Department, Mindong Hospital of Fujian Medical University, Fuan, Fujian, China

ABSTRAK (ENGLISH)

Objective

Serum human epididymis protein 4 (HE4) is associated with immune and inflammatory responses. This study aimed to assess the performance of serum HE4 in the early detection of cardiovascular (CV) events in patients with chronic obstructive pulmonary disease (COPD).

Methods

Serum HE4 levels were measured in 199 patients with COPD, all of whom were prospectively followed up for a median period of 36 months (range = 3 months–38 months). Logistic regression analysis was performed to assess the association between cardiovascular disease (CVD) history and HE4 in patients with COPD. Cox proportional hazard analysis was performed to assess the prognostic value of serum HE4 for predicting CV events.

Results

Serum HE4 levels were higher in patients with COPD with CV events than in those without CV events (252.6 pmol/L [186.4–366.8] vs 111.0 pmol/L [84.8–157.1]; *P* <.001). The multivariate logistic regression model revealed that serum HE4 (odds ratio = 1.639; 95% confidence interval [CI], 1.213–2.317; P_{trend} =.009) was independently associated with CVD history after adjusting for age, sex, body mass index, current smoking status, current alcohol consumption status, admission systolic blood pressure and diastolic blood pressure, hyperlipidemia, left ventricular ejection fraction, primary diseases, and laboratory measurements in patients with COPD at baseline. The multivariate Cox proportional hazard analysis revealed that serum HE4 (hazard ratio = 2.012; 95% CI, 1.773–4.469; *P* <.001) was an independent prognostic factor for CV events in these patients. The Kaplan-Meier analysis showed that the rate of CV events was higher in patients with COPD with HE4 levels above the median (187.5 pmol/L) than in those with HE4 levels below the median.

Conclusion

Our results showed that serum HE4 was significantly and independently associated with CVD history and had independent predictive value for CV events in patients with COPD. Serum HE4 may enable early recognition of CV complication development among patients with COPD.

DETAIL

Subjek:	Cardiovascular disease; Body mass index; Chronic obstructive pulmonary disease; Biomarkers; Proteins
Pengidentifikasi/kata kunci:	human epididymis protein 4; chronic obstructive pulmonary disease; cardiovascular events; cardiovascular events; C ox regression; prognosis
Judul:	The Association Between Serum Human Epididymis Protein 4 Level and Cardiovascular Events in Patients with Chronic Obstructive Pulmonary Disease
Pengarang:	Lin, Hui1; Xiao, Jianhong1; Su, Xianghua2; Song, Bin11 Department of Respiratory Medicine, Mindong Hospital of Fujian Medical University, Fuan, Fujian, China2 Neurosurgery Department, Mindong Hospital of Fujian Medical University, Fuan, Fujian, China
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	260-266
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa076
ID dokumen ProQuest:	2823856820
URL Dokumen:	https://www.proquest.com/scholarly-journals/association-between-serum-human-epididymis/docview/2823856820/se-2?accountid=211160

Evaluation of Transforming Growth Factor-β1 and Interleukin-35 Serum Levels in Patients with Placenta Accreta

Khamoushi, Tayyebe [1] ; Ahmadi, Moslem [2] ; Ali-Hassanzadeh, Mohammad [3] ; Zare, Maryam [2] ; Hesampour, Fateme [2] ; Gharesi-Fard, Behrouz [4] ; Amooee, Sedigheh [1] [1] Department of Obstetrics and Gynecology, Shiraz University of Medical Sciences, Shiraz, Iran [2] Department of Immunology, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran [3] Department of Immunology, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran; Department of Immunology, School of Medicine, Jiroft University of Medical Sciences, Jiroft, Iran [4] Department of Immunology, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran; Infertility Research Center, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Objective

Placenta accreta is a pregnancy-related disorder with extreme trophoblast invasion and the adherence of the placenta to the uterine wall. This study aimed to investigate the serum level of transforming growth factor-beta 1 (TGF-β1) and interleukin (IL)-35 in patients with placenta accreta.

Methods

Thirty-one women with placenta accreta and 57 healthy pregnant women were enrolled. The serum levels of TGF-β1 and IL-35 were measured using the enzyme-linked immunosorbent assay method.

Results

The serum levels of both TGF-β and IL-35 were significantly higher in the placenta accreta group compared with the group of healthy women (1082.48 pg/mL vs 497.33 pg/mL and 4541.14 pg/mL vs 1306.04 pg/mL; P <.001, respectively). Moreover, the level of TGF-β1 positively correlated with the IL-35 level but other factors such as age, gestations, live births, and abortions did not correlate with IL-35 and TGF-β1 levels.

Conclusion

The serum levels of IL-35 and TGF-β1 may contribute to the pathogenesis of placenta accreta and could be considered as potential targets in clinical and diagnostic approaches.

DETAIL

Subjek:	Growth factors; Fetuses; Placenta; Womens health; Gynecology; Immune system; Cytokines; Immunology; Lymphocytes; Pregnancy; Cesarean section; Preeclampsia; Apoptosis; Abortion; Enzymes; Pathophysiology; Angiogenesis; Pregnancy complications
Pengidentifikasi/kata kunci:	pregnancy; placenta accreta; interleukin-35; transforming growth factor-beta 1
Judul:	Evaluation of Transforming Growth Factor-β1 and Interleukin-35 Serum Levels in Patients with Placenta Accreta
Pengarang:	Khamoushi, Tayyebe1; Ahmadi, Moslem2; Ali-Hassanzadeh, Mohammad3; Zare, Maryam2; Hesampour, Fateme2; Gharesi-Fard, Behrouz4; Amooee, Sedigheh11 Department of Obstetrics and Gynecology, Shiraz University of Medical Sciences, Shiraz, Iran2 Department of Immunology, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran3 Department of Immunology, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran; Department of Immunology, School of Medicine, Jiroft University of Medical Sciences, Jiroft, Iran4 Department of Immunology, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran; Infertility Research Center, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	245-249
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik

Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093 /labmed/lmaa071
ID dokumen ProQuest:	2823856784
URL Dokumen:	https://www.proquest.com/scholarly-journals/evaluation-transforming-growth-factor-β1/docview/2823856784/se-2?accountid=211160
Hak cipta:	© American Society for Clinical Pathology 2020. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com
Terakhir diperbarui:	2023-06-29
Basis data:	Public Health Database

Monocytic Acute Myeloid Leukemias with KM2TA Translocations to Chromosome 17q that May Clinically Mimic Acute Promyelocytic Leukemia

Balbuena-Merle, Raisa I [1] ; Tormey, Christopher A [2] ; DiAdamo, Autumn [3] ; Rinder, Henry M [4] ; Siddon, Alexa J [2] [1] Department of Laboratory Medicine, Yale University School of Medicine, New Haven, Connecticut; Pathology and Laboratory Medicine Service, VA Connecticut Healthcare System, West Haven, Connecticut [2] Department of Laboratory Medicine, Yale University School of Medicine, New Haven, Connecticut [3] Department of Genetics and [4] Department of Laboratory Medicine, Yale University School of Medicine, New Haven, Connecticut; Internal Medicine (Hematology), Yale University School of Medicine, New Haven, Connecticut

ABSTRAK (ENGLISH)

Objective

Acute promyelocytic leukemia (APL) with variant *RARA* translocation, eg, t(11;17), is not sensitive to all-trans retinoic acid and requires distinct chemotherapy. However, there are some leukemic entities that may mimic aspects of the clinical and/or laboratory picture of APL and cause confusion because of karyotype nomenclature. Therefore, recognition of such entities may be of therapeutic and prognostic significance.

Methods

We present 2 cases of acute myeloid leukemia (AML) with t(11;17) that were clinically concerning for APL based

primarily on clinical presentation but were ultimately diagnosed as AML with monocytic differentiation.

Results

Both leukemias harbored *KMT2A* translocations, one located near but not involving *RARA* and the other with *SEPT9.*

Conclusion

In leukemias that clinically and/or immunophenotypically mimic APL, identification of specific gene translocations can lead to the correct diagnosis and may carry therapeutic/prognostic implications.

DETAIL

Subjek:	Hemoglobin; Leukemia; Leukocytes; Hybridization; Remission (Medicine); Polymerase chain reaction; Genes; Blood; Kinases; Morphology; Cytogenetics; Chemotherapy; Medical laboratories
Pengidentifikasi/kata kunci:	acute myeloid leukemia; RARA variants; acute promyelocytic leukemia; genetic sequencing; karyotype; fluorescence in situ hybridization; molecular diagnostics
Judul:	Monocytic Acute Myeloid Leukemias with KM2TA Translocations to Chromosome 17q that May Clinically Mimic Acute Promyelocytic Leukemia
Pengarang:	Balbuena-Merle, Raisa I1; Tormey, Christopher A2; DiAdamo, Autumn3; Rinder, Henry M4; Siddon, Alexa J21 Department of Laboratory Medicine, Yale University School of Medicine, New Haven, Connecticut; Pathology and Laboratory Medicine Service, VA Connecticut Healthcare System, West Haven, Connecticut2 Department of Laboratory Medicine, Yale University School of Medicine, New Haven, Connecticut3 Department of Genetics and4 Department of Laboratory Medicine, Yale University School of Medicine, New Haven, Connecticut; Internal Medicine (Hematology), Yale University School of Medicine, New Haven, Connecticut
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	290-296
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago

Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique
ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa 078
ID dokumen ProQuest:	2823856757
URL Dokumen:	https://www.proquest.com/scholarly-journals/monocytic-acute-myeloid-leukemias-with-km2ta/docview/2823856757/se-2?accountid=211160
Hak cipta:	© American Society for Clinical Pathology 2020. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com
Terakhir diperbarui:	2023-06-29
Basis data:	Public Health Database

Evaluation of HCV RNA by PCR and Signal-to-Cutoff Ratios of HCV Antibody Assays for Diagnosis of HCV Infection

Kim, Myeong Hee [1] ; So Young Kang [1] ; Woo In Lee [1] ; Min Young Lee [1] [1] Department of Laboratory Medicine, Kyung Hee University School of Medicine and Kyung Hee University Hospital at Gangdong, Seoul, Korea

ABSTRAK (ENGLISH)

Objective

In this study, we assessed whether a hepatitis C virus (HCV) RNA test could replace recombinant immunoblot assay (RIBA) and reduce unnecessary supplemental tests as the signal-to-cutoff (S/Co) ratio from anti-HCV antibody (Ab) tests.

Methods

Anti-HCV Ab tests were performed to screen for HCV infections, and RIBA and real-time polymerase chain reaction

were performed for HCV RNA to confirm HCV infection. Receiver operating characteristic curves were evaluated to determine the optimal S/Co ratios for predicting HCV infection.

Results

The cutoff value for the S/Co ratio was 3.63 for predicting RIBA results and 10.6 for predicting HCV RNA results. Our data suggested that an S/Co ratio ≥10.6 indicated a high risk of active HCV infection. An S/Co ratio of 3.63 to 10.6 needed further evaluation and repeat HCV RNA testing. No further testing was required for S/Co ratios <3.63 or ≥10.6.

Conclusion

We determined that the S/Co ratio of the anti-HCV Ab test provides useful information to confirm HCV infections, including the need for further laboratory testing or clinical follow-up.

DETAIL

Subjek:	Infections; Medical laboratories; Antigens; Polymerase chain reaction; Antibodies; Confidence intervals; Hepatitis C; Disease control; Ribonucleic acid--RNA; Diagnostic tests
Pengidentifikasi/kata kunci:	HCV infection; RIBA; Anti-HCV Ab; S/Co ratio; HCV RNA; RT-PCR
Judul:	Evaluation of HCV RNA by PCR and Signal-to-Cutoff Ratios of HCV Antibody Assays for Diagnosis of HCV Infection
Pengarang:	Kim, Myeong Hee1; So Young Kang1; Woo In Lee1; Min Young Lee11 Department of Laboratory Medicine, Kyung Hee University School of Medicine and Kyung Hee University Hospital at Gangdong, Seoul, Korea
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	240-244
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique

ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa074
ID dokumen ProQuest:	2823856735
URL Dokumen:	https://www.proquest.com/scholarly-journals/evaluation-hcv-rna-pcr-signal-cutoff-ratios/docview/2823856735/se-2?accountid=211160

Terakhir diperbarui:	2023-06-29
Basis data:	Public Health Database

Comparison of Serum Free and Bioavailable 25-Hydroxyvitamin D Levels in Alzheimer's Disease and Healthy Control Patients

Ertilav, Esra [1] ; Nur Ebru Barcin [2] ; Ozdem, Sebahat [3] [1] Department of Neurology, Adnan Menderes University Faculty of Medicine, Aydın, Turkey [2] Department of Neurology, and Akdeniz University Faculty of Medicine, Antalya, Turkey [3] Department of Biochemistry, Akdeniz University Faculty of Medicine, Antalya, Turkey

Link dokumen ProQuest

ABSTRAK (ENGLISH)

Objective

Many studies have investigated lower 25-hydroxyvitamin D (25[OH]D) levels in patients with Alzheimer's disease (AD) compared with those in control patients. In the present study, we aimed to evaluate serum free and bioavailable 25(OH)D levels in patients with AD and in healthy control patients.

Methods

The AD group consisted of 85 patients aged >60 years who were diagnosed with possible AD according to National Institute on Aging-Alzheimer's Association criteria and 85 healthy control patients. Serum levels of total 1,25-

dihydroxyvitamin D, total 25(OH)D, vitamin D binding protein (VDBP), parathormone, calcium, phosphorus and albumin, free 25(OH)D, bioavailable 25(OH)D, and the bioavailable 25(OH)D/total 25(OH)D ratio were compared in both groups.

Results

Total 25(OH)D, free 25(OH)D, bioavailable 25(OH)D, and the bioavailable 25(OH)D/total 25(OH)D ratio were significantly lower (P <.001, P <.001, P <.001, P <.05, respectively) in the AD group, whereas the VDBP level was significantly higher (P <.05) in the AD than in the control group.

Conclusion

Free and bioavailable 25(OH)D detected at lower levels in patients with AD limit the target central effects of 25(OH)D; this result suggests that reduced levels of the active free form of vitamin D may be a risk factor for AD and dementia.

DETAIL

Subjek:	Bioavailability; Alzheimers disease; Cognitive ability; Vitamin D; Dementia
Pengidentifikasi/kata kunci:	Alzheimer’s disease; free 25-hydroxyvitamin D; bioavailable 25-hydroxyvitamin D; cognitive impairment; dementia; vitamin D binding protein
Judul:	Comparison of Serum Free and Bioavailable 25-Hydroxyvitamin D Levels in Alzheimer’s Disease and Healthy Control Patients
Pengarang:	Ertilav, Esra1; Nur Ebru Barcin2; Ozdem, Sebahat31 Department of Neurology, Adnan Menderes University Faculty of Medicine, Aydın, Turkey2 Department of Neurology, and Akdeniz University Faculty of Medicine, Antalya, Turkey3 Department of Biochemistry, Akdeniz University Faculty of Medicine, Antalya, Turkey
Judul publikasi:	Labmedicine; Chicago
Volume:	52
Edisi:	3
Halaman:	219-225
Tahun publikasi:	2021
Tanggal publikasi:	May 2021
Penerbit:	Oxford University Press
Tempat publikasi:	Chicago
Negara publikasi:	United States, Chicago
Subjek publikasi:	Medical Sciences, Medical Sciences--Experimental Medicine, Laboratory Technique

ISSN:	00075027
Jenis sumber:	Jurnal Akademik
Bahasa publikasi:	English
Jenis dokumen:	Journal Article
DOI:	https://doi.org/10.1093/labmed/lmaa066
ID dokumen ProQuest:	2823856721
URL Dokumen:	https://www.proquest.com/scholarly-journals/comparison-serum-free-bioavailable-25/docview/2823856721/se-2?accountid=211160

| **Terakhir diperbarui:** | 2023-06-12 |
| **Basis data:** | Public Health Database |

Mukhopadhyay, S., Kanakis, C., Golab, K., Hermelin, D., Crane, G. M., & Mirza, K. M. (2021). The network that never sleeps. Labmedicine, 52(4), e83-e103. doi:https://doi.org/10.1093/labmed/lmaa113

This review describes how Twitter is currently used by laboratory professionals for education, research, and networking. This platform has a global audience. It enables users to post information publicly, easily, rapidly, and free of charge. The absence of hierarchies enables interactions that may not be feasible offline. Laboratory professionals teach thousands of people using text, images, polls, and videos. Academic discussion flourishes without paywalls. Published research is shared faster than ever before, articles are discussed in online journal clubs, and research collaborations are facilitated. Pathologists network globally and make new friends within and beyond their specialty. Pathology departments and residency programs showcase trainees and faculty and celebrate graduations. As users in one time zone go to bed, others who are just waking up begin to read and tweet, creating a 24/7/365 live global online conference. We encourage others to plug into the power of Twitter, the network that never sleeps.

Aida, M. M., Rashtchizadeh, N., Khaknejad, M., Sakhinia, E., Khabbazi, A., & Kolahi, S. (2021). Clinical significance of anti-modified citrullinated vimentin antibodies in palindromic rheumatism. Labmedicine, 52(4), 357. doi:https://doi.org/10.1093/labmed/lmaa095

Objective This study evaluated anti-modified citrullinated vimentin (anti-MCV) performance in determining the clinical picture and outcomes of palindromic rheumatism (PR). Methods In a retrospective study, patients with PR with at least 1 year of follow-up diagnosed according to clinical criteria were enrolled. Anti-MCV antibodies were measured, and levels >20 IU/mL were considered positive. Disease prognosis was assessed according to patients acquiring remission and preventing PR from developing into rheumatoid arthritis (RA) or other diseases. Results Seventy-six patients with PR with a mean follow-up of 30.57 months (median = 21 months; minimum = 12 months; maximum = 48 months) were included in the study. Anti-MCV antibodies were positive in 69.7% of patients. Metacarpophalangeal (MCP) joint involvement and positive anti-cyclic citrullinated peptides were significantly higher in patients who were anti-MCV-positive, whereas ankle joint involvement was significantly lower. No significant correlation was observed between the anti-MCV titer and the severity of attacks. Remission in patients who were anti-MCV-positive and negative was 75.5% and 78.3%, respectively, with no significant difference. Evolution to RA was observed in only 3.8% of patients who were anti-MCV-positive. No patients who were anti-MCV-negative developed RA. Conclusion Except for MCP and ankle joint involvement, anti-MCV was not helpful in determining the clinical picture and outcome of PR.

Hashempour, T., Moayedi, J., Mousavi, Z., Esmaeli, M., Asadzadeh, A., Hasanshahi, Z., & Dehghani, B. (2021). Incidence of hepatotoxicity in iranian patients with HIV on antiretroviral therapies and its correlation with virologic response to HIV treatment. Labmedicine, 52(4), 369-374. doi:https://doi.org/10.1093/labmed/lmaa106

Objective To investigate hepatotoxicity in Iranian patients with HIV to assess the association between virologic response to HIV treatment and serum alanine aminotransferase (ALT). Methods This study was conducted with 200 control patients, 75 patients with HIV naïve to antiretroviral therapy (ART), and 443 patients who received ARTs with virologic response (≤1000 copies/mL) or virologic treatment failure (>1000 copies/mL). Serum ALT level and HIV viral load were determined in all patients. Results Patient ALT levels were significantly higher than those of control patients (45.1 ± 44.4 IU/L vs 23.8 ± 5.4 IU/L). Compared to patients who were ART-naïve, patients with ART experience had significantly higher ALT levels (38.2 ± 26.2 IU/L vs 46.3 ± 46.7 IU/L), and severe hepatotoxicity was only detected in those with ART experience (8 patients, 1.8%). Mean ALT had no significant difference between virologic response/failure groups. The ALT activity and HIV load had a negative correlation coefficient, but it was not significant. Conclusion Periodic monitoring for the possibility of hepatotoxicity is highly recommended in all patients with HIV, especially in those receiving ART treatment.

Wu, A. H. B. (2021). The impact of mass spectrometry on patients' medical and nonmedical lives. Labmedicine, 52(4), e58-e65. doi:https://doi.org/10.1093/labmed/lmaa083

Objective The various forms of mass spectrometry (MS) instrumentation have had a major impact on testing for analytes performed with clinical and forensic laboratories over the past decade. Improvements in MS instrumentation have led to the use of MS in many areas. Methods To highlight the value of MS testing, short reports are presented that are relevant to the following fields: pain management, transplant medicine, clinical toxicology, designer drug testing, genetic metabolic disorders, nutrition, dietary exposure to heavy metals, herbals and supplements, forensic pathology, pharmacogenomics, homeland security, performance enhancing drugs and peptides, clinical microbiology, physician licensing, and environmental exposures. These reports are based on real patients. The "stories" have been altered to comply with privacy regulations. Results Analysis of MS provides objective results that have an impact on many areas of medicine and society as a whole. Accurate analysis has an impact on guidance for medical practices. Conclusion The value of MS testing will continue to grow in the years to come.

Wei, X., Wang, Y., Zhu, W., Li, J., Lu, P., Gao, Z., & Bai, B. (2021). Stable plasma sample storage in acetonitrile for angiotensin and aldosterone analysis. Labmedicine, 52(4), 352-356. doi:https://doi.org/10.1093/labmed/lmaa079

Background Angiotensin I, II (AI, AII) and aldosterone are unstable in plasma specimens at room temperature, making it difficult for collect samples for remote regions in centralized and collaborative studies. Here we introduce a stable storage method which do not require cold conditions.. Methods Acetonitrile was added to the plasma to 60%, and then the supernatants were kept at 4°C and room temperature for 0, 1, 2, 3, 10 and 30 days. AI, AII and aldosterone were extracted and analyzed by chemiluminescence immunoassays. Results AI, AII and aldosterone were well retained in the supernatant under this method. The intra- and inter-day CVs of this method were all below 10%. The levels of AI, AII and aldosterone by this method remained stable for 30 days at room temperature. Conclusion Addition of 60% acetonitrile in the plasma provides a stable storage method for clinical AI, AII and aldosterone.

Tanasijevic, M. J., Melanson, S. E. F., Tolan, N. V., Ransohoff, J. R., Conrad, M. J., Hyun-il Paik, & Petrides, A. K. (2021). Significant operational improvements with implementation of next generation laboratory automation. Labmedicine, 52(4), 329-337. doi:https://doi.org/10.1093/labmed/lmaa108

Objectives To investigate the benefits and challenges of introducing next generation chemistry and coagulation automation. Methods We replaced the Roche modular preanalytic system attached to Roche Cobas 6000 analyzers with the Roche 8100 preanalytical line attached to the Roche Cobas 8000 and Stago STA R Max analyzers. The system included 2 add-on buffers (AOBs) for automated specimen archival and retrieval and primary-tube specimen processing. We measured turnaround time (TAT) from specimen receipt to result for chemistry and coagulation tests before, during, and after system implementation. TAT for add-on tests was also measured. Results We completed the system implementation during a 17-month period using existing laboratory space. The TAT for chemistry, coagulation, and add-on tests decreased significantly ($P < .005$, $P < .001$, and $P < .005$, respectively). We encountered several challenges, including barcode-label errors, mechanical problems, and workflow issues due to lack of bidirectional track for coagulation testing. Conclusions Next generation laboratory automation yielded significantly shortened and less-variable TAT, particularly for add-on testing. Our approach could help other laboratories in the process of implementing and configuring automated systems.

Singh, G., & Xu, H. (2021). Light chain predominant intact immunoglobulin monoclonal gammopathy disorders: Shorter survival in light chain predominant multiple myelomas. Labmedicine, 52(4), 390-398. doi:https://doi.org/10.1093/labmed/lmaa057

Background A proportion of intact immunoglobulin (Ig)–producing multiple myelomas (MMs) was observed to secrete much higher amounts of free light chains (LCs) than usual. Objectives To determine the change point between usual and LC-predominant intact Ig-secreting MMs and other monoclonal gammopathic manifestations and the biological significance of the observation. Methods We conducted retrospective examination of laboratory

findings in 386 MM, 27 smoldering MM, and 179 monoclonal gammopathy of undetermined significance (MGUS) cases that secreted intact Igs. We recorded the highest levels of involved serum free LC, highest ratio of involved to uninvolved LC, highest concentration of involved LC per g of monoclonal Ig, and highest value for ratio of involved to uninvolved LCs divided by the monoclonal Ig concentration. Each data set was sorted into kappa- and lambda LC-associated lesions. Length of time, in months, between diagnosis and last contact with the patients having myeloma was recorded. Results Change point analysis of data revealed a subgroup of cases with distinctly higher levels of free LCs. In myelomas, including plasma cell leukemias, 16.4% of myelomas with kappa LCs and 22.3% of myelomas with lambda LCs, the LC secretion was distinctly higher than in the remaining cases, by a combination of 4 parameters, listed herein. Corresponding figures for smoldering myeloma (SMM) and monoclonal gammopathy of undetermined significance (MGUS) were 12.5, 27.3, 3.8, and 6.8, respectively. Ten of the 13 (77%) cases of plasma cell leukemia) and all cases of IgD myeloma (n = 4) showed excess secretion of serum free LCs. Among IgG and IgA myelomas, including plasma cell leukemias, the LC-predominant lesions had shorter survival, by an average of 22.5 months. Conclusions In total, 18.4% of MMs, including plasma cell leukemias, secrete distinctly higher amounts of serum free LCs than other intact Ig-secreting myelomas and confer significantly lower survival. Quantification of monoclonal serum free LCs may be useful in this subgroup in monitoring progress and potentially in ascertaining minimal residual disease. The findings also stress the need for separate criteria for kappa and lambda LC associated monoclonal gammopathic manifestations. The significantly shorter survival of patients with LC-predominant myelomas warrants consideration in prospective trials of treatments.

About the journal. (2021). Labmedicine, 52(4), 309-310. doi:https://doi.org/10.1093/labmed/lmab044

Nuñez-Argote, L., Baker, D. P., & Jones, A. P. (2021). Initial clinical laboratory response to COVID-19: A survey of medical laboratory professionals. Labmedicine, 52(4), e115-e124. doi:https://doi.org/10.1093/labmed/lmab021

Objective To explore the experiences of medical laboratory professionals (MLPs) and their perceptions of the needs of clinical laboratories in response to COVID-19. Methods We surveyed laboratory professionals working in United States clinical laboratories during the initial months of the pandemic. Results Overall clinical laboratory testing and overtime work for laboratorians decreased during the first months of the pandemic. Laboratory professionals reported better or unchanged job satisfaction, feelings toward their work, and morale in their workplace, which were related to healthcare facility and laboratory leadership response. They reported receiving in-kind gifts, but no hazard pay, for their essential work. Important supply needs included reagents and personal protective equipment (PPE). Conclusion The response by healthcare facilities and laboratory leadership can influence MLPs job satisfaction, feelings toward their work, and laboratory morale during a pandemic. Current COVID-19 laboratory testing management, in the absence of sufficient reagents and supplies, cannot fully address the needs of clinical laboratories.

Kleinot, W., Aguilera, N., & Courville, E. L. (2021). Daratumumab interference in flow cytometry producing a false kappa light chain restriction in plasma cells. Labmedicine, 52(4), 403-409. doi:https://doi.org/10.1093/labmed/lmaa107

False kappa light chain restriction on hematogones (normal B-lineage precursors) has been described in patients on the therapeutic anti-CD38 monoclonal antibody daratumumab. In this article, we present a novel case report of pseudo-kappa light chain restriction on lambda-restricted neoplastic plasma cells in a patient with progressive plasma cell myeloma while on daratumumab. Flow cytometric technologists and pathologists need to be aware of this potential diagnostic pitfall.

Angela, T. R. (2021). Pathology—The beginnings of laboratory medicine: First in a series. Labmedicine, 52(4), e66-e82. doi:https://doi.org/10.1093/labmed/lmaa098

Chambliss, A. B., & Shulman, I. A. (2021). Verification and implementation of HIV antibody differentiation testing to improve turnaround time for the HIV diagnostic algorithm. Labmedicine, 52(4), 338-345. doi:https://doi.org/10.1093/labmed/lmaa087

Background Relying on reference laboratories for HIV confirmation testing may lead to delays in treatment and can cause stress for patients who have positive HIV screening results. Objective To internalize HIV-1/HIV-2 antibody differentiation testing within the hospital laboratory. Methods We analytically verified an HIV antibody differentiation immunoassay and subsequently compared result turnaround times (TATs) for HIV antibody differentiation and HIV-1 qualitative RNA in the months before and after the test internalization. Results HIV antibody differentiation was successfully verified. TATs for HIV antibody differentiation and HIV-1 RNA significantly improved, from medians of 40.4 hours and 156.5 hours to medians of 17.7 hours and 56.5 hours, respectively, after the internalization. The 90th-percentile turnaround times declined by 72% and 44%, respectively. Conclusions It is feasible for a hospital laboratory to verify HIV antibody-differentiation testing. Its implementation may considerably improve result TATs for the HIV diagnostic algorithm.

Chen, X., Feng, J., & Jiang, Y. (2021). Hemolytic disease of the fetus and newborn caused by maternal autoantibody with mimicking anti-E specificity. Labmedicine, 52(4), 399-402. doi:https://doi.org/10.1093/labmed/lmaa096

Objective There are few reports of hemolytic disease of the fetus and newborn (HDFN) caused by maternal autoantibodies. Methods We describe the case of a pregnant patient aged 26 years with systemic lupus erythematosus without any transfusion history who developed autoantibody with mimicking anti-E specificity. Her newborn developed HDFN caused by the maternal autoantibody. Results The clinical symptoms of the newborn were not serious. After bilirubin light phototherapy and other symptomatic supportive treatment, the baby was discharged with a good prognosis. Conclusion This is the first reported case of HDFN caused by maternal autoantibody with mimicking anti-E specificity. However, the real antigenic target of the autoantibody was not clear.

Li, J., Li, W., Yuan, F., Zuo, H., Zhao, Q., Ren, J., . . . Xia, M. (2021). Laboratory predictors of COVID-19 pneumonia in patients with mild to moderate symptoms. Labmedicine, 52(4), e104-e114. doi:https://doi.org/10.1093/labmed/lmab015

Objective This research aims to develop a laboratory model that can accurately distinguish pneumonia from nonpneumonia in patients with COVID-19 and to identify potential protective factors against lung infection. Methods We recruited 50 patients diagnosed with COVID-19 infection with or without pneumonia. We selected candidate predictors through group comparison and punitive least absolute shrinkage and selection operator (LASSO) analysis. A stepwise logistic regression model was used to distinguish patients with and without pneumonia. Finally, we used a decision-tree method and randomly selected 50% of the patients 1000 times from the same specimen to verify the effectiveness of the model. Results We found that the percentage of eosinophils, a high–fluorescence-reticulocyte ratio, and creatinine had better discriminatory power than other factors. Age and underlying diseases were not significant for discrimination. The model correctly discriminated 77.1% of patients. In the final validation step, we observed that the model had an overall predictive rate of 81.3%. Conclusion We developed a laboratory model for COVID-19 pneumonia in patients with mild to moderate symptoms. In the clinical setting, the model will be able to predict and differentiate pneumonia vs nonpneumonia before any lung computed tomography findings. In addition, the percentage of eosinophils, a high–fluorescence-reticulocyte ratio, and creatinine were considered protective factors against lung infection in patients without pneumonia.

Ben-Haim, O., Azrad, M., Saleh, N., Tkhawkho, L., & Peretz, A. (2021). Evaluation of the NG-test CARBA 5 kit for rapid detection of carbapenemase resistant enterobacteriaceae. Labmedicine, 52(4), 375-380. doi:https://doi.org/10.1093/labmed/lmaa084

Objective We evaluated NG-Test CARBA 5, a new phenotypic carbapenemase detection assay, and compared it to the routine Xpert CARBA-R polymerase chain reaction assay. Furthermore, we tested the kit’s performance after bacterial growth on 4 different solid media. Methods Seventy carbapenem resistant Enterobacteriaceae (CRE) isolates (60 were carbapenemase producers) were collected at the Poriya Baruch Padeh Medical Center. All isolates were grown on 4 types of agar media—BD BBL CHROMagar carbapenem resistant Enterobacteriaceae, BD CHROMagar Orientation, BD MacConkey II agar, and BD Trypticase Soy Agar II with 5% sheep blood—and were

then subjected to NG-Test CARBA 5 kit analysis. Results The NG-Test CARBA 5 specificity was 100% for all 4 media. However, the sensitivity was higher when bacteria were grown on TSA with 5% sheep blood (98.3%) as compared with the Orientation medium (88.3%), the CPE medium (84.7%), and the MacConkey medium (83.6%). In addition, some of the carbapenemase mechanisms such as Verona Integron-Mediated Metallo-β-lactamase were detected with low agreement levels in specific media but higher agreement levels in the other media. Conclusion NG-Test CARBA 5 may enable faster detection of carbapenemase producing CRE, which will be of value for treatment adjustment and prevention control. However, the medium type on which the bacteria are grown affects kit sensitivity.

Graden, K. C., Bennett, S. A., Delaney, S. R., Gill, H. E., & Willrich, M. A. V. (2021). A high-level overview of the regulations surrounding a clinical laboratory and upcoming regulatory challenges for laboratory developed tests. Labmedicine, 52(4), 315-328. doi:https://doi.org/10.1093/labmed/lmaa086

Objective Regulations for clinical laboratories in the United States are complex. The goal of this review is to improve the clarity of laboratory-developed test (LDT) regulation to facilitate innovation. Methods A literature and regulation review of current legislation for compliance by U.S. clinical laboratories was performed, and examples of the steps to implement LDTs within compliance with the regulatory environment are shared. Results Many federal and state jurisdictions are critical to the functionality of a laboratory in addition to upcoming potential promulgation of the Verifying Accurate Leading-Edge IVCT Development Act. Increased regulation, although imperative to maintain consistent, high-standard clinical care, could mean additional costs for developers and healthcare while also hindering innovation. Conclusion An extensive discussion of proposed regulations for LDTs needs to occur. Laboratory testing requires the sustained use of innovative methods at a cost that will permit continued, timely, uninterrupted high-quality service.

Dong, Z., Zheng, S., Shen, Z., Luo, Y., & Hai, X. (2021). Trimethylamine N-oxide is associated with heart failure risk in patients with preserved ejection fraction. Labmedicine, 52(4), 346-351. doi:https://doi.org/10.1093/labmed/lmaa075

Background Trimethylamine N-oxide (TMAO) has been considered to be an independent risk factor of heart failure (HF). Objectives To further determine the plasma levels of TMAO in patients who have HF with preserved ejection fraction (HFpEF), and to analyze the relationship between TMAO and HFpEF risk. Methods A total of 57 control participants and 61 patients with HFpEF were recruited. We measured and analyzed plasma levels of TMAO and performed biochemical examination of all patients. Results The mean (SD) plasma levels of TMAO in patients with HFpEF (6.84 1.12] μmol/L) were significantly higher than in controls (1.63 0.08] μmol/L; P <.01). The area under the curve (AUC) of TMAO and N-terminal pro b-type natriuretic peptide (NT-proBNP) was 0.817 and 0.924, respectively, which were determined by receiver operating characteristic (ROC) analysis. TMAO was an independent risk factor in patients with HFpEF, as revealed by univariate and multivariate logistic regression analysis. The level of TMAO was correlated with blood urea nitrogen (BUN), creatinine, and NT-proBNP. Conclusions TMAO level was highly associated with HFpEF risk.

Grech, K., & Zammit, V. (2021). Point-of-care testing effectiveness on blood donor hemoglobin testing. Labmedicine, 52(4), 364-368. doi:https://doi.org/10.1093/labmed/lmaa102

Background Hemoglobin (Hb) evaluation by point-of-care testing (POCT) identifies borderline or anaemic asymptomatic blood donors. Although quality control checks confirm that this device is fit for use, it is still not clear whether the analyser is performing effectively. A protocol comparing the POCT EKF Diagnostics with the Sysmex XN-550 automated cell counter (ACC) has been designed. Methods Various scenarios of Hb measurements from the ACC and the POCT device are compared using the Spearman correlation and Intraclass correlation. The Bland-Altman method was used to analyse the level of agreement between the two devices. Results Correlation between the two devices was best observed in the venous vs venous blood scenario. Conclusion The POCT device overestimates the Hb levels in capillary blood, meaning that Hb requirements should be adjusted and when feasible testing repeated on venous blood using an ACC. Furthermore, it is suggested thar each Facility determine their own

Hb threshold.

Lippi, G., Mattiuzzi, C., Maria Helena Santos, d. O., & Henry, B. M. (2021). Clinical predictors of SARS-CoV-2 testing pressure on clinical laboratories: A multinational study analyzing google trends and over 100 million diagnostic tests. Labmedicine, 52(4), 311-314. doi:https://doi.org/10.1093/labmed/lmab013

Objective Evidence has shown that Google searches for clinical symptom keywords correlates with the number of new weekly patients with COVID-19. This multinational study assessed whether demand for SARS-CoV-2 tests could also be predicted by Google searches for key COVID-19 symptoms. Methods The weekly number of SARS-CoV-2 tests performed in Italy and the United States was retrieved from official sources. A concomitant electronic search was performed in Google Trends, using terms for key COVID-19 symptoms. Results The model that provided the highest coefficient of determination for the United States (R2 = 82.8%) included a combination of searching for cough (with a time lag of 2 weeks), fever (with a time lag of 2 weeks), and headache (with a time lag of 3 weeks; the time lag refers to the amount of time between when a search was conducted and when a test was administered). In Italy, headache provided the model with the highest adjusted R2 (86.8%), with time lags of both 1 and 2 weeks. Conclusion Weekly monitoring of Google Trends scores for nonspecific COVID-19 symptoms is a reliable approach for anticipating SARS-CoV-2 testing demands ~2 weeks in the future.