Patient and laboratory medicine

Cod: 1341

AN EVALUATION OF THE CONTRIBUTION OF CLINICAL BIOCHEMICAL INVESTIGATIONS TO HEALTH CARE SERVICES IN A NIGERIA TERTIARY HOSPITAL

I.O. Omotosho[1], O. Oyedele[2], O. Akinade[2]
[1]*College of Medicine, University od Ibadan, Nigeria*
[2]*University College Hospital, Ibadan, Nigeria*

BACKGROUND: Contribution of laboratory medicine to health care services has grown over the years. This 3year longitudinal study (2010-2012) analysed requests for biochemical investigations in University College Hospital, Ibadan, Nigeria.

METHODS: Data were obtained after due process from records in the department of clinical biochemistry and the central medical records of the hospital for biochemical laboratory investigation requests and patients' attendance records respectively. The analysis covered requests for basic biochemical investigations including electrolyte and urea, liver and renal function tests, lipids profile, plasma glucose estimations, hormonal level determinations, urinalysis and a comprehensive data of the total number of patients that attended the hospital in the tears 2010, 2011 and 2012.

RESULTS: Biochemical investigations were requested for 102,832 patients (42.2%), 89,122 patients (37.1%) and 82,242 patients (29.0%) amongst 243,652.00, 240,136.00 and 284,027.00 total number of patients seen in this hospital in years 2010, 2011 and 2012 respectively. The preponderance of these requests which averaged 36.1% per annum was for electrolyte and urea, plasma glucose and basic liver function investigations in that descending order.

CONCLUSIONS: Aside from underscoring the possible prevalence of non-communicable diseases, the possible impact of this on the quality of medical care and the economic implication on the finances of this hospital was discussed in this study.

Patient and laboratory medicine

Cod: 1342

ANALYSIS OF PANIC VALUES AT HACETTEPE UNIVERSITY HOSPITALS CLINICAL PATHOLOGY LABORATORY, TURKEY

A. Alyakut[1], A. Pınar[3], İ. Lay[3], Z.G. Dikmen[3], O. Portakal[2], F. Akbıyık[3]
[1]*Hacettepe University Faculty of Medicine Department of Medical Biochemistry, Ankara, Turkey*
[2]*Hacettepe University Hospitals Clinical Chemistry Laboratories, Ankara, Turkey*
[3]*Hacettepe University Hospitals Clinical Chemistry Laboratories, Hacettepe University Faculty of Medicine Department of Medical Biochemistry, Ankara, Turkey*

BACKGROUND: A laboratory panic value refers to an extremely abnormal laboratory test results which may be life threatening unless treatment is not initiated immediately. Laboratories therefore have a responsibility and contribution on patient safety. According to the Joint Commission International (JCI) accreditation programme since 2007, we established our own panic value list in Hacettepe University Hospitals Clinical Pathology Laboratory. In this study, panic value data of two months (December 2013-January 2014) was analyzed to determine panic value ratios at Hacettepe University Hospitals, Clinical Pathology Laboratory.

METHODS: Panic value data was obtained from laboratory information system. The data was exported to Microsoft Excel 2013 for calculations and statistical studies. The absolute value and percentage of hematology and coagulation, blood gas, biochemistry, hormone tests and therapeutic drug levels were calculated.

RESULTS: During the period of the study, all laboratories reported 577,181 routine test results, only 10,028 panic values (1.7 %) were determined. The panic value ratios are 50.4 % for hematology and coagulation, 30.7 % for blood gases, 18.6 % for biochemistry and hormones, 0.3 % for therapeutic drug levels. Platelet, pO_2, total calcium and phenytoin have the highest ratio in their own group 49.2 %, 68.9 %, 22.0 % and 29.4 % respectively.

CONCLUSIONS: According to the distribution of the panic values, the highest panic value ratio was observed in hematology and coagulation test groups. The panic value reporting is a quality indicator for post-analytical phase in clinical laboratories. Therefore, we planned to use more effective and rapid communication system for panic values, especially for hematology and coagulation test groups.
Keywords: Panic value, clinical laboratories, hematology, patient safety

Patient and laboratory medicine

Cod: 1343

ONLINE CONSULTATION OF LABORATORY SPECIALISTS: AN APPRECIATED SERVICE TO THE PATIENT

D. Bakkeren[1], M. Schellings[1], A. Tintu[1], E. Boorsma[3], J. van Til[3], R. Kusters[2]
[1]*NVKC (Dutch Society for Clinical Chemistry and Laboratory Medicine)*
[2]*NVKC (Dutch Society for Clinical Chemistry and Laboratory Medicine) and University of Twente*
[3]*University of Twente*

BACKGROUND: The amount of online medical and diagnostic information increases rapidly, making it difficult for the public to find reliable resources. In 2003 the Dutch Society for Clinical Chemistry and Laboratory Medicine (NVKC) stimulated interpretive reporting to clinicians. This is an expanding initiative to explain and interpret laboratory results to the patients by consulting a team of clinical chemists by email. Sequentially, NVKC expanded this service in 2008 with www.uwbloedserieus.nl, explaining clinical chemistry tests and hereby boosting public engagement. Here we assessed patient satisfaction of this free online professional service, using questionnaire.

METHODS: A questionnaire (19 questions) was made in Survey Monkey (SM) and sent by email to all patients that contacted our service between 2011-2013 (n=2414). Among others, actions that patients undertook upon receiving the answers, comprehension and satisfaction towards this service were assessed. Patient satisfaction was also scored with respect to interaction quality, quality of the final result and quality on the internet environment. Results analysis was performed in SPSS.

RESULTS: A total of 29% (n=692) of the participants started the questionnaire, and 23% (n=562) completed it. Due to an error in SM, 5% (n=130) was unable to finish the survey. 66% of the questions received in our service were after consulting a clinician. Patient satisfaction was rated as high as 65% and no further clinical contact was necessary. However, 24% of the participants still requested a clinical second opinion after receiving the answer by our team, and 10% was unsatisfied with the answer. Overall, a mean score of 8.3 (on a scale of 0-10) in satisfaction was obtained.

CONCLUSIONS: Here we show that the public values these services and demands better online medical sources. Therefore, both clinicians and laboratory specialists must be in lead in order to assure high quality and reliable medical and diagnostic information. Since the number of patients as well as healthcare costs is increasingly growing, this kind of initiatives should be embraced and accepted widely. The NVKC decided to incorporate the supervised online consultation of laboratory specialists in the resident clinical chemists' curriculum.

Patient and laboratory medicine

Cod: 1344

TRANSFUSION OF BLOOD PRODUCTS IN THE HOSPITALS OF A HOSPITAL ASSOCIATION IN SAXONY

S. Birgit[1], F. Rainer [2], G. Annelies[1]
[1]*ELBLAB GmbH, Zentrum für LaborMedizin, Weinbergstr. 8, 01589 Riesa, Germany*
[2]*Oberlausitz-Kliniken gGmbH Institute for Laboratory Diagnostic, Microbiology and Hospital Hygiene, Am Stadtwall 3, 02625 Bautzen, Germany*

BACKGROUND: This research project investigated the transfusion of blood products in the hospitals of a hospital association in Saxony. The hospital association consists of four hospitals with about 1.200 beds and includes clinics for Internal Medicine, Surgery, Orthopaedics and Traumatology, Gynaecol-ogy and Obstetrics, Paediatrics, Psychiatry, Ophthalmology, Oto-Rhino-Laryngology and Urology.

METHODS: The clinics of the four hospitals of the hospital association were combined to the following three medical disciplines: a) Predominantly internal working disciplines [Internal Medicine; Paediatrics, Psychiatry, Ophthalmology, Oto-Rhino-Laryngology]; b) Predominantly surgical working disciplines [Surgery, Orthopaedics and Traumatology, Gynaecology and Obstetrics, Urology] and c) Intensive care. The transfusion of the following blood products was statistically evaluated from 2005 to 2010: heterologous and autologous red blood cells (RBCs); heterologous and autologous fresh frozen plasma (FFP); platelets; prothrombine complex (PPSB), Antithrombin III (ATIII) and Fibrinogen.

RESULTS: In all three disciplines an increase in the transfusion of heterologous RBCs was observed. The transfusion of autologous RBCs continuously decreased during that period. In contrast, the trans-fusion of platelets increased in all three medical disciplines. While transfusions of PPSB and Fibrino-gen increased, the number of transfusions of ATIII significantly decreased.

CONCLUSIONS: On the one hand, the results of this investigation reflect the new guidelines in transfu-sion medicine. On the other hand, the results also provide information about the modified and new im-plemented methods of treatment in most disciplines of the hospitals of the hospital association.

Patient and laboratory medicine

Cod: 1345

DEPLOYMENT OF A CENTRALIZED, PROVINCE-WIDE, COLORECTAL CANCER (CRC) SCREENING LABORATORY USING HIGH VOLUME IMMUNOLOGICAL FECAL OCCULT BLOOD TEST (IFOBT) ANALYZERS

D. Jean[1], C. François[1], P. Lehouillier[1]

[1]*Centre Hospitalier Universitaire de Sherbrooke (CHUS) and Université de Sherbrooke, 3001, 12e avenue Nord, Sherbrooke, Québec, Canada, J1H 5N4*

BACKGROUND: CRC is third cause of cancer in Canada. Screening for CRC with iFOBT was showed to have increased sensitivity, specificity and compliance in patients compared to those based on Guaiac (gFOBT). The health ministry of the province of Québec mandated our institution to replace gFOBT by iFOBT in a centralized province-wide screening laboratory. The Québec population is 8.2 million and is distributed on a 1 667 441 km^2 territory that is divided in 17 administrative regions. Based on gFOBT data, initial monthly volume were estimated at 16 000 specimens. Deployment in this context was a challenging endeavor.

METHODS: Two OC-Diana analyzers were selected for the CRC screening laboratory. Over a nine-month period, all 17 administrative regions stopped gFOBT, using a region-by-region plan, and started sending iFOBT to our central laboratory. The laboratory recorded iFOBT data daily for each region and statistics were calculated monthly. Positivity rate using a threshold of 175 ng/ml and rejected specimens were also monitored. Clerks were trained to process the specimens. After a five-month familiarization period, a process optimization specialist analyzed and optimized the process over a four-month period. Multiple “time and movement” audits before and after the optimization were done to monitor performance.

RESULTS: The volumes of iFOBT increased the 9 months from 677 to 32 000 specimens per month. Volume estimations (based on gFOBT) for iFOBT were 100% higher than anticipated probably due to higher patient compliance, modifications in the clinicians use of the test and low gFOBT sample return ratio. Positivity rates for iFOBT were initially at 6,9% and are now 5.6% although this difference is probably due to data sampling size. Sample rejection rates were below 0.4%. Process optimization decreased mean processing time per specimen by clerks from 118 seconds to 79. This optimization decreased the number of clerks needed to process 32 000 specimens/month from eleven to seven.

CONCLUSIONS: Deployment of a centralized province-wide, large population screening laboratory for colorectal cancer (CRC) using a high volume immunological fecal occult blood test (iFOBT) is achievable within a nine-month period.

Patient and laboratory medicine

Cod: 1346

IMPROVE UTILIZATION OF LABORATORY SERVICES FOR THE BENEFIT OF PATIENT CASE MANAGEMENT

K.M. Kamvuma[1]
[1]*Livingstone General Hospital*

BACKGROUND: Livingstone General Hospital's Quality improvement (QI) committee received a lot of complaints from clinicians of missing laboratory reports. Clinicians complained that this was negatively affecting the quality of care of their patients. The implications of this problem on service delivery include increased patient waiting time, increased cost of health care, delayed diagnosis, patient discomfort, increased mortality etc. The purpose of this project was to improve utilization of laboratory services for the benefit of patient case management.

METHODS: A flow chart for the process of sample collection through to results coming back to the ward for filing was done. Some of the identified causes to the problem include incomplete patient information on request forms, Lack of standard laboratory forms, Poor filling system, none availability of laboratory handbook, Poor communication systems etc. A fishbone analysis tool was then employed to identify the root causes. Weighted voting was done for prioritising the root causes and project decision matrices.Interventions based on the root causes were developed and implementation of the identified interventions began from the month of June, 2013. Follow up checks to monitor the effectiveness of implemented actions were then conducted.

RESULTS: At baseline 5.3% (464/8763) of laboratory reports were found undelivered and the laboratory received 41 complaints of missing results. Over the months of July, August, September 2013 follow up visits were conducted. In July, 2013 we had 4.7% (359/7640) results found in the boxes and 42 complaints of missing results, in August, 2013 1.1% (99/9056) laboratory reports with 22 complaints and final data was collected in the month of September, 2013 which showed 0.4% (42/10492) with 14 complaints.

CONCLUSIONS: Systems strengthening through quality improvement strategies can enhance effective health service delivery. We can see from the results that there was a significant reduction in number complaints from clinicians from baseline 42 complaints/month to14 complaints/month. In order to sustain the gains the QI committee has formulated strategies such as constant monitoring, conducting orientation programs, good communication systems, proper filling, Circulation of the lab handbook etc.

Patient and laboratory medicine

Cod: 1347

HETEROLOGOUS SERUM EYE DROPS AGAINST KERATOCONJUNCTIVITIS SICCA IN SJöGREN' S SYNDROME: A CASE OF STUDY

I. Katsakoulas[1], C. Lougovoi[1], P. Paraskevopoulou[1], I. Kastrinelli [1], V. Viskakis [2]
[1]*Biochemical Lab. of Konstantopouleio General Hospital of Nea Ionia, Greece*
[2]*Biochemical Lab. of VLABS, Piraeus*

BACKGROUND: Keratoconjunctivitis sicca (KCS, dry eye syndrome) is of the most frequent reasons for seeking eye care, with Sjögren's syndrome (SS, autoimmune epithelitis) being one of its leading causes; however, data from the last three decades have revealed benefit from the application of eye drops made of blood products to the extent that this approach has become an insurance-covered benefit in some countries. This study aimed to the production of heterologous serum eye drops in our setting.

METHODS: Patient: woman, 67 yr, with severe subjective symptoms due to KCS related to 15 years' SS, treated unsuccessfully with artificial tears and Restasis®. Donor: The patients' s free of medical record son. After obtaining a written consent from both, blood serum was isolated under aseptic conditions, maintained until the delivery of the final preparation. Schirmer test (ST), break up time (BUT) and subjective symptoms were recorded before treatment, at 1 and 2 months under monotherapy with 100% heterologous serum 4x/day.

RESULTS: At 1st month, a significant change was recorded by ST (from 6 to 12 mm) and BUT (from 6 to 15 mm) in the right eye and by ST (from 6 to 10 mm) in the left eye. The change in BUT in the left eye was not significant even at 2nd month, but it was significant (from 6 to 15 mm) in the right eye by the 1st month. The values of ST in the 2 eyes and BUT in the right eye at 2nd month were recorded exactly the same with the corresponding values at 1st month indicating completion of the beneficial effect within the 1st month. Subjective symptoms were evaluated as improved by the 2nd week. Rose Bengal staining remained negative. No infection, other side effect or complaint were observed, neither during coadministration with commonly marketed artificial tears for another 2 months. The cost was considered most acceptable by the patient while it was reduced further through a semi-automated process.

CONCLUSIONS: Heterologous serum eye drops provide a potentially beneficial, of low cost, applicable treatment of the ocular epithelium, without side effects. We suggest the treatment be included in the modern armamentarium against SS related or unrelated KCS so that its eventual widespread application leads to its future coverage by insurance funds.

Patient and laboratory medicine

Cod: 1348

TEN YEARS OF PREANALYTICAL MONITORING AND CONTROL: SYNTHETIC BALANCED SCORE CARD INDICATOR

R. Lillo[1], A. Santo-Quiles[1], M. Butron[1], M. Lopez-Garrigos[1], M. Salinas[1]
[1]*Hospital Universitario de San Juan de Alicante*

BACKGROUND: To evaluate and analyze the ten year period phlebotomy centers unsuitable samples indicators results and a synthetic indicator to be included in the balanced scorecard management system (BSC). Through strategies design, objectives are achieved in every one of the four BSC perspectives and hence in the long term, the organization vision.

METHODS: We collected individual preanalytical errors in hematology, coagulation, chemistry, and urine samples. The synthetic indicator represents the sum of all types of preanalytical errors with respect to all samples collected expressed in a sigma value.

RESULTS: There was a gradually decrease of errors along the years. Hematology and coagulation samples showed a slightly increase in year 2012. This pattern was confirmed in primary care patients, inpatients and outpatients. The synthetic indicator showed the same trend. Less rate of errors occurred in outpatients, followed by inpatients and the most percentage in primary care patients.

CONCLUSIONS: We have showed a practical and effective methodology for identification and monitoring unsuitable sample preanalytical errors, and the indicators results over a ten year period. Less rate of errors occurred in laboratory outpatients, followed by inpatients and the most percentage was generated in primary care patients whose samples were collected in PCC. The farther are the phlebotomy personnel from the laboratory the more number of errors occur. The synthetic indicator results, expressed in a sigma value, reflect annual preanalytical sample errors, and demonstrate that can be used as part of BSC management system. The implementation of systematic and continuous preanalytical monitoring over years, will promote a continuous improvement which always will benefit patient outcome and safety.

Patient and laboratory medicine

Cod: 1349

TEN YEARS OF TURN AROUND TIME (TAT) MONITORING AND CONTROL

M. Lopez-Garrigos[1], M. Salinas[1], R. Lillo[1], M. Gutiérrez[1], J. Lugo[1], A. Santo-Quiles[1]
[1]*Hospital Universitario de San Juan de Alicante*

BACKGROUND: To show ten year monitoring of postanalitical turnaround time (TAT) adapted to every clinician and patient situation, to evaluate and analyse the ten year period indicators results and also to show a synthetic appropriate indicator to be included in the balanced scorecard (BSC) management system.

METHODS: TAT indicator for routine samples was devised as the percentage of certain key tests that were verified before a specific time on phlebotomy day. A weighted mean synthetic indicator was also designed. The individual and synthetic indicators were calculated for inpatients at 3:00pm and 12:00am and for primary care patients only at 3:00pm. The troponin TAT of emergency department patients, calculated as the difference between the troponin verification and registration time, was selected as the stat laboratory and calculated, in a monthly and annual basis, in the 10 year period.

RESULTS: The percentage of routine key tests verified before 15:00pm in inpatients and primary care patients, and before 12:00am in inpatients improved along the ten years study period. The synthetic indicator showed the same trend. The monthly evolution of troponin TAT improved along the ten year period. From May 2010 the indicator target (30 minutes) has been systematically achieved.

CONCLUSIONS: We have showed a practical and effective methodology for identification and monitoring TAT in routine and stat patients. Results over a ten year period are analyzed. As a whole customized TAT measurement, depending on the requesting clinician and type of patient, has improved along the years. The synthetic indicator results shows at a glance that TAT is improving, and can be used as part of BSC management system. The implementation of systematic and continuous TAT monitoring over years, will promote a continuous improvement which always will benefit patient outcome and safety

Patient and laboratory medicine

Cod: 1350

THE RATIONALIZATION OF SPENDITURE IN LABORATORY DEPARTMENT IN PRIMARY HEALTH CARE SYSTEM IN SERBIA

J. Mitrovic[2], V. Milatovic Jezdic[1]
[1]*Primary Health Care Centre Savski Venac, Belgrade*
[2]*University Children's Hospital, Belgrade, Serbia*

BACKGROUND: Clinical biochemistry is a science which task is in vitro analysis human biological materials in order to determine potential risk of illness, to confirmed or exclude presence of illness, to monitor progression of illness, for therapeutic drug monitoring, or to predict outcome of the therapy. Number of tests is in progress every year and that has an impact on dynamic of organizational changes in the laboratory.

METHODS: Qualitative research, analysis
Resume: Laboratory- laboratory result as an answer on the specific clinician question, is not only simple result of chemical analysis, it includes number of processes which are providing true laboratory result. Laboratory as a service which is fulfilling user request is monitored from the management aspect with procedures, orders, quality control system. In this segment, laboratory work processes are introduced and how it is possible to provide rationalization in the laboratory, which includes preanalytical, analytical and postanalytical phase, choosing the procedure, procedure and procedure checking with solution proposal for rationalization. Information system- during this seminar it will be made a quick look on the importance of the information system with the accent on: approach-ordering laboratory test, managing work routine, laboratory result report.

RESULTS: Nowadays we are witnesses of diagnostic parameters expansion. Problem is how to choose parameters which will be requested from the laboratory department. Every non-reasonable request has as a consequence overloading laboratory staff and non rational financial cost. That is why is very important to define result request process from chosen clinician, which in many cases can be defined by algorithm.

CONCLUSIONS: During the time of limited financial recourses in which we are streaming to equally availability of health care system and increasing quality of service, it is necessary to make a balance between real clinician need for test request (test information), quality of the result and spenditure of financial resources. When we are talking about rationalization of spenditure in health care system, question of usefulness of laboratory test result is very important. Rational laboratory diagnostic is becoming a lab manager responsibility.

Patient and laboratory medicine

Cod: 1351

PROCALCITONIN: ASSESSMENT OF DEMAND

M. Ortuno Alonso[1], S. Esteve Poblador[1], S. Gorriz Pintado[1], J.A. Orts Costa[1]
[1]*Hospital Universitario La Ribera, Alzira, Spain*

BACKGROUND: Procalcitonin (PCT) is a biomarker for early diagnosis of sepsis. The number of PCT tests performed in our laboratory has increased by 166.2% in the last three years. The cost of PCT is three times the C-reactive protein (CRP) and white blood cell count (WBC) together. The aim of the study is to assess the need to determine PCT when CRP and WBC are not pathological.

METHODS: Retrospective study of 2336 patients collected all along the year 2013. PCT values were assayed by chemiluminescence (XP Centaur, Siemens), PCR by turbidimetry (Advia 1800, Siemens) and WBC on a Siemens Advia 2120. Patients were classified according to the service of origin, and the percentage (%) of patients in each group, the sensitivity (S) and specificity (E) of the PCT regarding CRP and WBC was determined. Statistical analysis was performed using Medcal® and Excel® 2003 statistical programs.

RESULTS: 2336 patients with the three assays were collected, the average age was 28 years (56% male and 44% female). Services of origin were: 58% pediatrics, 17% surgery, 15% emergency department (ED), 4% internal medicine, 3% nephrology, 1% intensive care unit and 2% other services. Of total PCT requested 35% were positive. 380 patients were normal for PCR and WBC, of which 22 (6%) with positive PCT (average age 0.6 years, 64% male and 36% female) and 100% were from pediatrics; and 358 (94%) with normal PCT (mean age 11.6 years, 54% male and 46% female), 81% from pediatrics, 9% from ED, 5% from surgery and 5% from other services. Moreover, there were 533 patients with PCR and WBC positives, of which 290 (54%) had normal PCT and 243 (46%) positive PCT. Considering as benchmark CRP and WBC, we obtained for PCT a S of 43.65% and a E of 92.76%.

CONCLUSIONS: When CRP and WBC are normal, PCT is positive only in the 6% of cases, and always in pediatric patients, therefore the completion of 358 determinations of PCT (15%) could have been prevented. We propose the implementation of an algorithm which avoids the determination of PCT when PCR and WBC are normal, except in pediatric cases.

Patient and laboratory medicine

Cod: 1352

PREGNANCY LABORATORY PROFILES: DEMAND AFTER TOXOPLASMA GONDII SCREENING EXCLUSION

P. Rodriguez Vazquez[1], C. Barbuzano Safont[1], I. Garcia Del Pino Castro[1], G. Bou Arevalo[1], N. Valino Calvino[1], A. Martinez Bugallo[1]
[1]*Complexo Hospitalario Universitario A Coruña, Spain*

BACKGROUND: In September 2011 toxoplasmosis immunologic status screening was excluded of our Pregnancy Laboratory profiles (agreed guidance for years), (1st and 3rd trimester examinations), after being evaluated by a multidisciplinary group that consisted of laboratory specialists (Biochemistry and Microbiology), endocrinologists and obstetricians. This is a review of these last two years: demand, response of requestors (matrons, GPs and Obstetricians) and patient results.

METHODS: clinical results obtained from Laboratory Information System: Servolab (Siemens). Excel for Windows xp.

RESULTS:
2010: 1st trimester pregnancy profiles ordered: 3894 (number of new gestations) Total Toxoplasma IgG: 9855 (1st +3rd trimester: 7788)
2011: 1st trimester pregnancy profiles: 3772 (number of new gestations) Total Toxoplasma IgG: 8615 (1st+3rd trimester: 7544)
Sept 2011 toxoplasma was excluded of the profile composition.
2012: New gestations: 3541 Total IgG Toxoplasma: 5072
2013: New gestations: 3485 Total IgG Toxoplasma: 3706 total requisitions. Can we infer from that global data, that our requestors, ignoring new guidelines still demand IgG toxoplasma?
2013 results were analyzed focusing on requestors, patients, and results.
Analysis of demand: Toxoplasma out of 1st trimester gestation profile, but at the same requisition and phletomomy: 738
Toxoplasma ordered in pregnant women at different requisition and phlebotomy: 105 (3%)
Total requisitions out of profile 843 (24.18% of the new pregnancies)
Analysis of clinical results: Negative result IgG toxoplasma: 706
Automatically rejected (previous positive results): 73
Positive without previous result: 64
Avidity of toxoplasma IgG antibodies was performed for one patient.

CONCLUSIONS: Lack of reliability in agreed guidance, has conduce to 24% demand out of profiles and even at 3% new phlebotomies in pregnant patients. Along these two years, neither women newly infected with Toxoplasma during pregnancy nor cases of neonatal toxoplasmosis have been reported.

Patient and laboratory medicine

Cod: 1353

RESULTS OF THE ASSESSMENT OF THE LABORATORY STATUS IN MONGOLIA

E. T[1], P. Dubois[2], G. Ghadiok[2]
[1]*National Center for Public Health, Ulaanbaatar, Mongolia*
[2]*WHO, Manila, the Philippines*

BACKGROUND: Effective healthcare starts with an accurate diagnosis, and laboratory plays an important role in this. Laboratory services are used not only in disease diagnosis and treatment monitoring but also in public health programs for evidence based decisions. The goal of the assessment of the laboratory status in Mongolia was to identify areas in which efforts should be directed in order to strengthen the national laboratory system.

METHODS: Two areas of the national laboratory system (strategic organization at the national level and specific technical capacities at the laboratories level) were assessed using the WHO developed Laboratory Assessment Tool.

RESULTS: The strongest areas of the national laboratory system at the policy and regulatory level were “Coordination and Management” and “Laboratory Information System”. The laboratory related coordination at the Ministry of Health level was well established and functional, and the national laboratory data collection and analysis was centralized and conducted by MOH. The weaker (below 75%) areas were “Structure and Organizations”, “Regulations”, “Infrastructure and Human Resources”. The main problems detected in the area of “Human Resources” were insufficient financial and organizational support for continuous education of laboratory workers, shortage of trained personnel and an incomplete national registration system of laboratory professionals. The assessment of laboratories revealed that the laboratories were strong in “Data and Information Management”, “Specimen Collection and Handling” and “Consumables and Reagents”. The testing performance of most laboratories was excellent but the external quality assurance was not available in some test disciplines. Weaker areas were “Facilities”, “Public Health Functions” and “Biorisk Management”. Although the general safety management of laboratories was very good, the biosafety component was not incorporated in it.

CONCLUSIONS:
1. A national regulatory body needs to be established for the registration of all laboratories and laboratory staff.
2. A formal continuous education system for laboratory professionals should be set-up.
3. Biosafety policy and implementation plans need to be developed.

Patient and laboratory medicine

Cod: 1354

CURRENT PRACTICE OF REPORTING OF TEST RESULTS AND PATIENT ACCESS TO RESULTS AMONG EUROPEAN COUNTRIES

I. Watson[3], S. Sandberg[8], J. Corberand [7], P. Jorgensen[6], W. Oosterhuis[4], J. Siodmiak[1], S. Jovicic[2], Z.G. Dikmen[5]
[1] *Department of Laboratory Medicine, University of Nicolaus Copernicus, Collegium Medicum, Bydgoszcz, Poland*
[2]*Center for Medical Biochemistry, Clinical Center of Serbia, Belgrade, Serbia*
[3]*Department Clinical Biochemistry, University of Liverpool, United Kingdom*
[4]*Department Clinical Chemistry, Atrium Medical Center, Heerlen,The Netherlands*
[5]*Department of Biochemistry, University of Hacettepe, Ankara, Turkey*
[6]*Glostrup Hospital, Glostrup, Denmark*
[7]*Haematology Department, Rangueil Hospital, Toulouse, France*
[8]*Laboratory of Clinical Biochemistry, Haukeland University Hospital, Bergen, Norway*

BACKGROUND: There is growing interest in enabling patients to have access to their medical records including laboratory test results. There is also discussion concerning clinical comments and accuracy of their unification for patients and clinicians. EFLM recognized this trend and to understand the perspectives of its member societies created the EFLM-Working Group "Patient Focused Laboratory Medicine". A survey concerning these topics was sent to laboratories within European countries.

METHODS: The electronic questionnaire was sent to individual Specialists in Laboratory Medicine by National Representatives of EFLM.

RESULTS: 683 responses were received from 27 countries (% of total): France (70%) Belgium and Turkey (both 5%), UK and Poland (both 3,5%), and other countries. In most cases laboratory results are delivered to physicians by computer link (63%), than by post (42%) and finally by fax (38%); in France 42% of laboratories reported that patients received the results and brought them to their physician, double the rate of the aggregate of the other counties combined. Patients could receive their lab results on demand from physician in most of European countries (60%), in France in 82% of surveyed laboratories; it is not allowed (17%) or only in special cases (24%). Laboratory specialists often (34%) did not support delivering laboratory results to patients while in France 45% did. On the other hand, in 49% of cases 1-5 patients (in France >5) per day ask laboratory specialists about the significance of laboratory results outside the reference range, while in 40% (in France 1,5%) of laboratories patients do not ask at all. In more than a half of the analyzed countries there are no legal issues about delivering and interpreting laboratory results to patients. When clinical comments are added to the result, they are identical for patients and clinicians (50%; in France 75%), while in more than 9% comments they are never added when the results are given for patients upon their request.

CONCLUSIONS: There is a significant need of consistency and unification of issues concerning patients right for access to their medical records. The legal issues associated with direct patient access to laboratory results is an obstacle in some countries.

Patient and laboratory medicine

Cod: 1355

STREPTOCOCCUS ß HAEMOLYTICUS- ARE WE MODELLING THE TOXICITY?

L. Zabaznoska[1]
[1]*University Clinic of Infectious Diseases, Skopje, Macedonia*

BACKGROUND: Upper Respiratory Tract Inflammations (URTI) are most frequent cause for antibiotic use especially among children. Even a common cold/fever or rhinorhoe appears to be a cause for unreasonable and unwarrantable prescription of antibiotics-something completely inappropriate. Such a-b misusing is of a great importance in modelling upper respiratory tract bacterial flora. Saprophytes and low resistant pathogens, as competitors to pathogens, are wiped away as a result of a-b effect (in the very beginning), leaving the throat as unprotected field of richness for secondary colonisation with highly pathogenic bacteria. Pointing out the global problem of the increasing multiresistens among pathogens, we get to the point why the clinicians confront the numerous children population with streptococcal Tonsillitis. One of the most significant parameters for detecting tonsil inflammation caused by Str. Pyogenes is antistreptolysine-test (AST). Risen levels usually suggest repeated and numerous streptococcal tonsil inflammations, promoting streptococcal tonsil focus, or sometimes high AST can be result of intense acute streptococcal inflammation (pointing out that the values can be within the normal range at the beginning of illness).

METHODS: 173 children (ageed 2-10 years) were proceed and healed as outpatients at the subspecialistic respiratory diseases ambulance in one year long period, (2012-2013) diagnosed as acute bacterial Tonsillitis, Tonsylopharingitis or Scarlatina.

RESULTS: First visit-AST was increased (>200IU) among 161child (93.06%); 42 patients had AST≤4ooIU(24.3%); 98 with AST≤800IU(56.64%); 26 had AST≤1200IU(15.02%); 7 had AST≤ 1600IU (4.04%). Scarlatina, as hipertoxic expression of streptococcal tonsillitis was diagnosed in 36 cases, 24 of them with AST in range 800-1400IU (~79.2%).

CONCLUSIONS: Clinitions in our region are facing a problem of highly increased number of patients with streptococcal Tonsylitis especially among children. Antibiotics are powerfull weapon again bacterias, but allso a promotors of their colonisation and resistans. Only their most rational, criticaly selected, adequate, prompt, intensive use where needed is the only real choice. AST level remains a main test of ß-hemolytic streptococcal praesens and toxicity.