



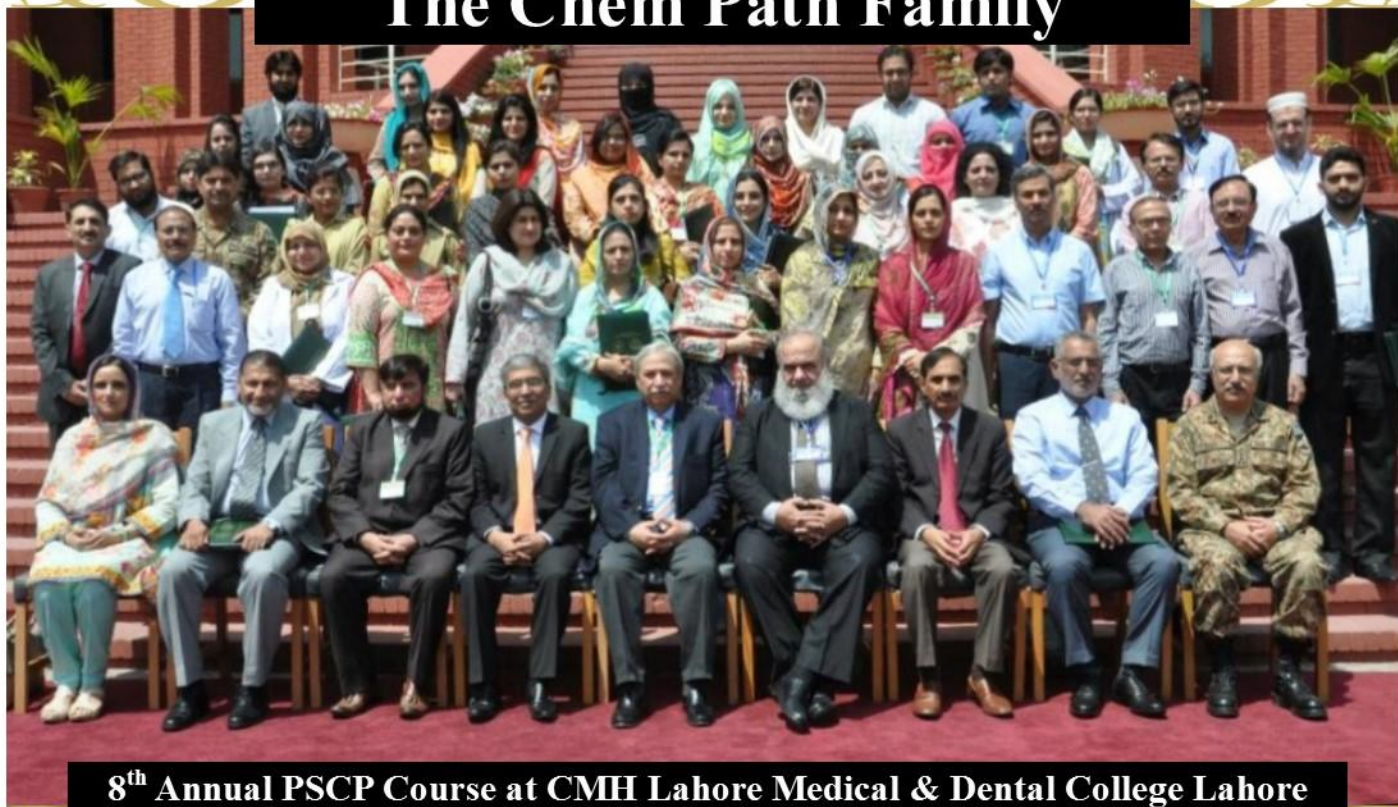
Pakistan Society of Chemical Pathologists

THE SPECTRUM

Newsletter

Volume no 6; February 2018

The Chem Path Family



8th Annual PSCP Course at CMH Lahore Medical & Dental College Lahore
28th -29th April 2017

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From the Chief Editor's Desk

Alhamdulillah 6th issue of The Spectrum is in your hands. With each passing year an improvement in the quality of the content is due to continuous appreciation and guidance of our respected members. Giving it a beautiful layout and a logical sequence is only possible by the sheer hard work of our editors **Dr. Sara Reza and Dr. Maryam Rafiq**. During 2017 a landmark was achieved by Chemical Pathologists i.e. the number of fellows (FCPS) crossed one hundred. There are now 104 fellows in Chemical Pathology in Pakistan. We have made this as our main story in this issue. Prof Imran Siddiqui and Dr. Sibtain have collected important data related to FCPS training in the article "**The Centurion**". The biggest achievement of the present Executive Council of PSCP is revival of the registration of the society and completion of audit of the society accounts. We commend the efforts of Prof Asim Mumtaz for completing this uphill task. Well-done sir!! In this issue, we have included short articles on various topics of Chemical Pathology under a broad heading of '**Chem Path Pearls**' Iron Punch, Lets Enjoy the Breakfast, Always and Nevers of Blood Gas Analyses, Immunoglobulin G-4 Related Disease, articles on Methylmalonic acidurias, Quality of specimens and Proficiency Testing will be quite good for quick reading. Under the title of **Science Stories**, a feature on "**Partners in Life and Science: The Noble Prize Couples**" is being published to motivate our young couples to work in harmony in all walks of life. This newsletter will be InshAllah an important archiving source in years to come. Keeping this aspect in mind we have compiled the data regarding "**The PSCP Office Bearers through the years**" and "**PSCP Annual Activities over the Years**" 5 years after the first issue. Poem by Dr. Sumbal Nida is full of patriotic feelings and true reflections of her military tradition. **Meeting reports of PAP Conference and IFCC** have also great archival importance. I hope you will like our humble effort and honour us with your valuable comments and suggestions for improvements. Last but not the least we wish a great success to the Department Pathology QAMC Bahawalpur and organizers of ChemCon 2018.



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Message From The President

It is a great pleasure to thank all the organizers of THE SPECTRUM who are doing marvellous and phenomenal efforts. This is indeed a prestigious forum for members of PSCP to express their views and share academic information. I cordially congratulate Brig Aamir Ijaz (Rtd) for his passionate devotion and efforts for publishing of this newsletter.



I feel gratified to work as President of PSCP under the patronage of Maj Gen (Rtd) Farooq Ahmad Khan. His guidance and support has always been a key factor for success story of PSCP. I feel proud and blessed to work with team of motivated members of Executive Council who are putting best of their efforts for broadening the vision and scope of PSCP.

The uphill task of getting the renewal of PSCP registration after twelve years has been achieved by the present council. Moreover the audit of society has been successfully completed and bank account functioning after completing long listed requirements.

Moreover the task of website uplift and progress is under process and soon will be completed. I pay my salutation to all members for their support and particularly Dr. Nusrat Alavi and members of Lahore PSCP Chapter members who have helped with passion at every step.

I congratulate Prof. Asma Shaukat and her team members for organizing CHEMCON 2018 at QMC Bahawalpur. This academic activity will surely be a milestone in history of PSCP.

In the end I must take this opportunity to congratulate our young consultants for their efforts of presenting papers at international forums which has made all of us proud and encouraged.

I enthusiastically look forward that our young energetic Chemical Pathologists members progress positively and make the PSCP more recognized at nationally as well as international forums.

At the end I want to congratulate editor and all other council members who worked tirelessly to make the dream of our own newsletter a reality and commend their hard work and dedication.

Congratulations

On the behalf of members of PSCP, we want to congratulate Prof Asim Mumtaz and the whole Executive Council of the society for completing the process of re-registration of PSCP and restoring the bank account. Indeed it was an uphill task in the current security situation of the country. Your achievement will go long way in prosperity of the speciality in the country``

Best Wishes

‘The Spectrum’ and PSCP welcome participants of ChemCon 2018 (9th Annual Conference of PSCP) to be held at Quaid-e-Azam Medical College Bahawalpur from 23rd -24th Feb 2018. We hope this event will help participants learn some new knowledge and skills in Chemical Pathology.



Chemical Pathology The Centurion

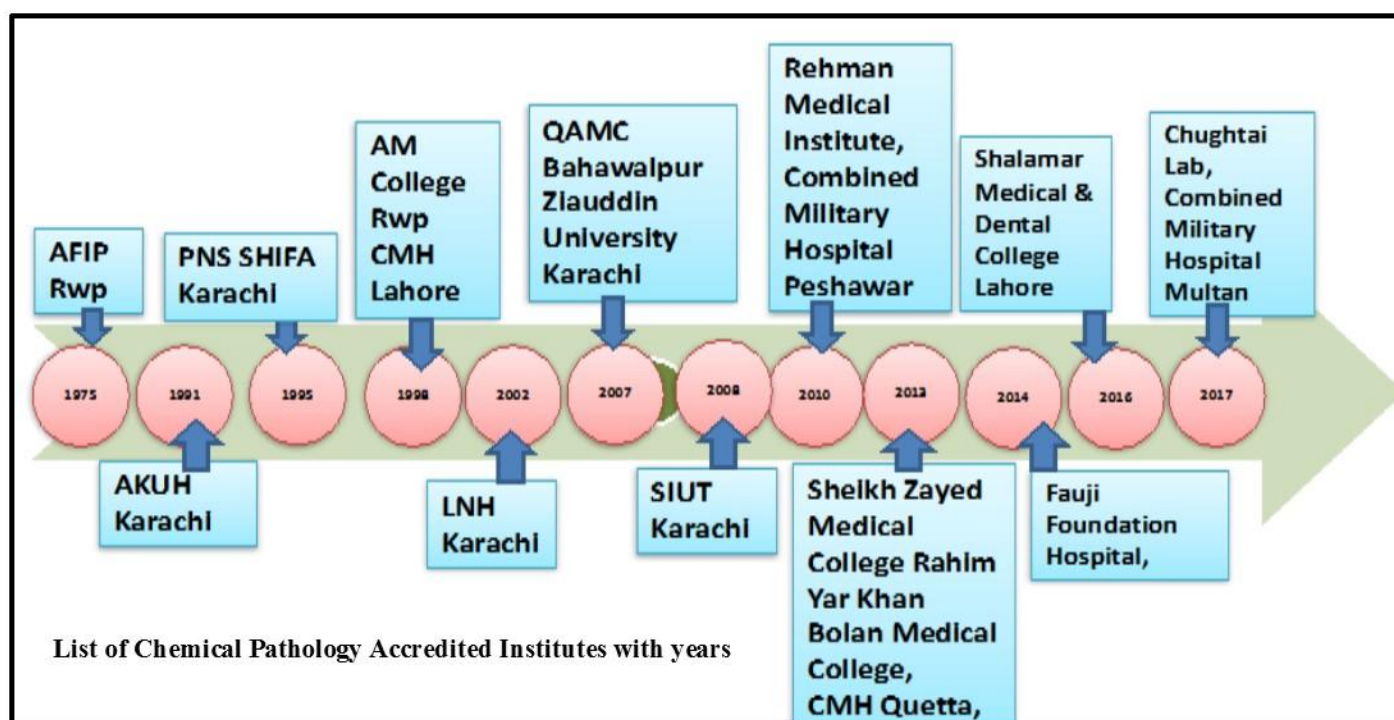


Prof Imran Siddiqui
AKUH Karachi



Dr Sibtain Ahmed
AKUH Karachi

FCPS Chemical Pathology was started in 1975 and AFIP Rawalpindi was the first accredited institute. AFIP provided FCPS training in all disciplines of Pathology until other institutes came up in early nineties. Lt Gen Syed Azhar Ahmed (Retd), who passed FRCPath (Chemical Pathology) in the very first examination held in London UK, supervised four students namely Dr Dawood, Dr Shahida, Brig Waqar Azim and Maj Gen Farooq Ahmad Khan (Retd). The torch of light was passed from Gen Farooq Khan to all over the country. Now FCPS (Chemical Pathology) training is given at 19 different centres in the country. In 2017 104th doctor passed FCPS Chemical Pathology, which was really a landmark. Currently, nearly 30 residents are undergoing training at these centres. In addition to FCPS, other qualifications are also available in Chemical Pathology, which include PhD and MPhil under the auspices of various universities. There is a need to collect the exact data of these qualifications too. And now it is high time that Chemical Pathology should have its own independent Faculty at College of Physicians and Surgeons (CPSP), Karachi with its own Dean and Secretary.



CHEM PATH GOLDS

Two Gold Medals are awarded to the best performers in FCPS Examinations i.e. Burki Medal (Overall best performance) Prof Muzzaffar Medal (Best performance in Pathology). Three Chemical Pathologists have won these gold medals until now. We commend the performance of these members of PSCP.

1. Prof Muhammad Dilawar (1995);
2. Lt Col Ayesha Hafeez (2007);
3. Maj Safia Fatima (2016)

PSCP Office Bearers over the years

Year	President	Vice President	Secretary
2004-2006			
2007-2008			
2009-2010			
2011-2012			
2013-2014			
2015-2016			
2017 – till now			

PSCP Activity over the years

Year	Activity	Venue
24-26 Feb 2005	1 st Biennial Conference	KE Medical College Lhr
18-20 Aug 2006	1 st Biennial Course	AFIP Rwp
9-10 Mar 2007	2 nd Biennial Conference	AKU Karachi
1-3 Feb 2008	2 nd Biennial Course	AM College, Rwp
6-8 Mar 2009	3 rd Biennial Conference	QAMC Bwp
2-3 April 2010	3 rd Biennial Course	AFIP Rwp
25-26 Feb 2011	4 th Biennial Conference	AIMC Lhr
16-17 Mar 2012	4 th Biennial Course	AFIP Rwp
7-8 Dec 2012	1 st Joint Conference	AFIP Rwp
20-22 Dec 2013	2 nd Joint Conference	PC Hotel Lhr
3-4 May 2014	5 th Annual Course	AFIP Rwp
15-16 May 2015	6 th Annual Course	AFIP Rwp
6-7 Nov 2015	3 rd Joint Conference	PC Hotel Lhr
13-14 May 2016	7 th Annual Course	AFIP Rwp
24-26 Nov 2016	4 th Joint Conference	KMU Peshawar
28-29 April 2017	8 th Annual Course	CMH Lhr
23-24 Feb 2018	9 th Annual Conference (ChemCon 2018)	QAMC Bwp

PSCP Activities in 2017

Several academic activities took place in 2017 under the auspices of PSCP:

1. On 21st Jan 2017 a ‘Multi-disciplinary Team (MDT) was held at AFIP Rawalpindi on the topic of ‘Maternal and Newborn Screening’. The meeting was followed by Inaugural Meeting of new PSCP Executive Council attended among others by President, Vice President and Secretary PSCP.
2. Zoom Lectures, which were started in 2016 continued until Feb 2017. These lectures proved to be a great source of learning.
3. On 1st April 2017 a CME Seminar on “Newborn Screening and IMDs was held at Lahore under the joint auspices of PSCP, Chughtai Laboratories, and ZB Foundation
4. On 28th April and 29th April 2017 8th PSCP Annual Course was held at CMH Lahore Medical and Dental College, Lahore (Group photo on title)
5. On 02 Aug 2017 Meeting of Prof Aamir Ijaz with Dr. R Camb, HOD Chem Path at QE Hospital Birmingham UK.
6. On 12th Aug 2017 ChemCon 2017 was held at AFIP Rawalpindi
7. On 28th September 2017, a seminar on “Spectrum of Endocrine Disorders” was held at Shalamar Medical and Dental College Lahore



Short Intensive Training (SIT) Courses

SIT courses was started to provide practical training to the senior residents, who are appearing in the FCPS exam in near future. The concept was well received by the trainees so candidates came from all over the country to attend these courses. It will be unfair not to mention the name of one great teacher who made these courses successful. **Brig Naveed Asif** whole-heartedly conducted training usually from 9 am to 9 pm.

Until now four SIT courses have been conducted:

- 1st SIT Course: 16th - 20th May 2016
- 2nd SIT Course: 24th - 29th Oct 2016
- 3rd SIT Course: 10th - 14th Feb 2017
- 4th SIT Course: 7th - 11th Aug 2017

Some glimpses of SIT Course are here.



THE LAND OF PEACE

Sitting on the chair alone
Watching the time that has flown

Flown into the valleys of past
Never to return Alas !

Days and night lost
Pain and joy not felt at any cost

I listen hard at the door
Can't find someone to stroll

Stroll along the green grass
To feel the breeze like a mask

The touch of soft hands
The scent of lovely lands

I wonder where the road goes
Still seeking the bend and bows

Gone are the whisper of girls
Their smiles precious as pearls

The boys with laughter so loud
The sacred prayers so proud

I wonder clenching the keys
That may lead me to the land of
peace

Peace of mind and soul
There to taste bounties in a bowl

Maj. Sumbal Nida
AFIP



The Iron Punch (Five Tips for Iron Disorders)

1. Non-anaemic Iron Deficiency is three times more common than Iron Deficiency Anaemia (IDA). Serum ferritin test should precede haemoglobin estimation and Chemical Pathologist should be the first to report iron deficiency!
2. There is no second cause of low ferritin (<12 ug/L) (Do you know the first cause?)
3. Human kidneys cannot excrete iron but body gets rid of it by cell shedding. Intestinal absorption is the only physiological route of iron entry and hepcidin is the major regulator.
4. Anaemia of chronic disorder (ACD) is a protective phenomenon of body against infections and malignancy. Hepcidin traps iron in the macrophages to cut the supply of the iron to these microorganisms and cells. So empirical iron supplementation can be dangerous in these conditions.
5. Ferritin is a positive acute phase protein (APP) while iron and TIBC (or Transferrin Saturation) are negative acute phase reactants and have no advantage over ferritin in the diagnosis of IDA when inflammation coexists (Study by brig Naveed et al 2017). Soluble transferrin receptor sTFR is not an APP. So the best investigation to differentiate IDA from ACD is a ratio between sTFR and log of ferritin.

Nevers and Always (Ten Tips about Blood Gas Analyses)

It is said that '*never*' and '*always*' should be avoided in medicine as nothing can be absolute in biology but we dare to use these terms in blood gas analyses (BGA). Here are some '*nevers*' and '*always*' of BGA:

Never transfer blood samples collected for BGA to a sample tube but send the sample to the lab in the very syringe used for arterial or venous puncture. Transferring the sample to tubes can mix air gases into the sample

Always transport sample for BGA to the lab within 10 minutes and carry out the test in the lab on top priority.

Never use sodium heparin for rinsing the syringe used for sample collection and **always** use lithium heparin syringes for the collection of blood gas samples. If these syringes are not available then do not report sodium results, as it may be falsely high or falsely normal.

Never think that anion gap exists in any physiological or pathological conditions. It is a measure of unmeasured anions.

Never use HCO₃ calculated by Handerson-Hasselbach equation (by a blood gas analyser) for the calculation of anion gap. **Always** calculate anion gap with serum or plasma HCO₃ (Total CO₂) measured colourimetrically or by ISE.

Never report PO₂ if blood gas analyses has been carried on a venous sample (which is now one of the samples for BGA).

Always use target values of pH (7.40), PCO₂ (40 mmHg) and HCO₃ (24 mmol/L) while interpreting blood gas reports.

Always consider coexisting respiratory acidosis if PCO₂ is > 44 mmHg and coexisting respiratory alkalosis if PCO₂ is < 10 mmHg in a patient with metabolic acidosis (HCO₃ < 24 mmol/L).

Never think of respiratory acidosis and respiratory alkalosis in the same patient whereas metabolic acidosis and metabolic alkalosis can be present in the same patient (triple disorder)

Never use delta; delta ratio ($\Delta\text{AG}/\Delta\text{HCO}_3$) in a patient of respiratory acidosis as it can be > 2 without the presence of a triple disorder

Enjoy The Breakfast

A lot of literature is coming up with benefits of taking breakfast in the morning. One plausible explanation is that serum cortisol is high in the morning that causes catabolism of body proteins for gluconeogenesis, if breakfast is not taken in the morning. Probably that is also a reason that in Islam, great emphasis is given on taking sehri in Ramadan fasting. Moreover, it is very difficult for some patients to omit breakfast, so either they don't go to the lab for fasting test or lie about their fasting state. So, is not it the right time that we should replace fasting tests with non-fasting tests and let our patients enjoy their breakfast. Here is some progress in this direction:

Non-Fasting lipid profile has been introduced at AFIP Rawalpindi after conclusion of the study by Dr Safia Fatima et al (2017) showing that serum cholesterol, HDL-Cholesterol, LDL-Cholesterol and Non-HDL Cholesterol estimation does not require fasting. Other studies have shown non-fasting triglycerides as a better coronary risk predictor as compared to fasting triglycerides but new reference values have to be established. However, LDL-Cholesterol calculated by Friedwald equation has to be in fasting state as it assumes chylomicrons to be the negligible source of triglycerides.

Random Plasma Glucose (RPG) with Lower Cut-off Value: Major issue with RPG is its very high cut-off values. Advance report from an on-going study by Dr Qurat Ul Ain Mustafa et al has shown that if the cut-off value of random plasma glucose (RPG) is kept at 5.6 mmol/L (100 mg/dL), we can use RPG as the first test for diabetes mellitus. A novel category has been introduced by the name of Impaired Random Glucose (IRG), value between 5.6 -11.1 mmol/L (100-200 mg/dL). These patients will be recommended oral glucose tolerance test (OGTT) for final diagnosis. RPG will be used in tandem with glycosylated haemoglobin if there are financial constrained.

Random OGTT: A study is in the planning stage waiting formal approval to compare the results of OGTT in fasting and non-fasting state. Do you remember that 50 g glucose challenge test in two-stage diagnostic protocol of diabetes in pregnancy is also done in non-fasting stage. *Note: References of the content of Chem Path Pearls are available with the Editorial team of The Spectrum.*

Brig Aamir Ijaz (Retd)

CHALLENGING DIAGNOSIS OF A FASCINATING CLINICAL ENTITY OF IMMUNOGLOBULIN G4-RELATED DISEASE

Immunoglobulin G4-related diseases (IgG4-RD) are a group of immune mediated, chronic inflammatory conditions that affect multiple organs of the body. The pathogenesis of IgG4-RD is poorly understood; findings consistent with both an autoimmune disorder and an allergic disorder are present. The clinical picture and the presenting symptoms are very diverse owing to the ability of this disease to affect virtually any organ of the body. There are no definitive criteria for the diagnosis of IgG4-RD however in 2011, a Japanese research team published a comprehensive diagnostic criteria for IgG4-RD which featured parameters like serum IgG4 concentration >135 mg/dL, the infiltration of >10 IgG4+ cells per high power field and an IgG4+/IgG+ cell ratio >40% and swelling that can be examined clinically. Since then, serum IgG4 levels have been widely used as a reliable criterion for the diagnosis of IgG4-RD. The common features of IgG4-related disease are lymphoplasmacytic tissue

infiltration usually accompanied by fibrosis, obliterative phlebitis, and elevated serum IgG4. However, approximately 30% of patients have normal serum IgG4 concentrations. Swelling of salivary and lacrimal glands, lymphadenopathy, and type 1 autoimmune pancreatitis (AIP) are the most common manifestations of the disease. However, other tissues and organs, may be involved. Type 1 autoimmune pancreatitis is the most frequent manifestation of this disease. Early detection is important to avoid organ damage and potentially serious complications. Diagnosing IgG4-RD is challenging and the awareness of this disease is low. Clinicians may encounter this new disease in daily practice, and there is a dire need of proper diagnostic criteria.

Dr Lena Jafri
Consultant Chemical
Pathologist, AKUH



Partners in Life and Science The Couples who Won Nobel Prize

Nobel prize is the most famous award started in 1901 in the fields of Physics, Chemistry, Physiology or Medicine, Peace and literature. Economics was added many years later. Accompanied by a handsome amount of money, it may be given to one scientist or shared by one, two or three. Only on a few occasions married couples shared it. Here are some details



Marie Curie



Marie Curie has many records in the history of Noble Prize e.g. she is the first women to win this prize. In 1903 Marie and her husband **Pierre Curie** won noble prize (Physics) “in recognition of the extraordinary services they have rendered by their joint researches on the radiation phenomena discovered by Professor Henri Becquerel” Henri Becquerel shared the prize. In 1911 Marie Curie was again awarded Noble Prize (Chemistry) on her historical discovery of two new elements - polonium and radium So she became the first scientist to win the prize twice. Her daughter Irene also won noble prize (see Below).



Irène Joliot Curie was the eldest daughter of Marie and Pierre Curie. She followed in her parents' footsteps, and worked with her husband **Frédéric Joliot**. at their Radium Institute. Their greatest discovery was artificial radioactivity, for which they were jointly awarded the Chemistry Noble Prize in 1935.



Gerty and Carl Cori went through medical school together, graduated, married, and emigrated from Vienna to US. In 1947, they were jointly awarded the Noble Prize (Medicine) for their discovery of **Cori cycle** the metabolic pathway . (Quite close to Chemical Pathology!!)



Same Interests - Different Prizes Alva and Gunnar Myrdals are so far the only wife/husband team to acquire two awards in different disciplines. Gunnar was awarded the 1974 Prize in Economic while Alva was awarded the Nobel Peace Prize in 1982 for her work countering nuclear proliferation



In 2014 **May-Britt and Edvard Moser** were awarded the Medicine Prize for their discovery of networks of cells that form the brain's navigational system. This fundamental work in neuroscience could have applications in Alzheimer's **"inner GPS"**.

Chief Editor 'The Spectrum' being honored by the Executive Council PSCP and Lahore Chapter PSCP on 27 Sep 2017 on his retirement from uniform service . What a memorable moment of affection!!



MEETING REPORT

40th Annual Conference of Pakistan Association of Pathologist



The 40th Annual Conference of Pakistan Association of Pathologist (PAP) was held at the Sindh Institute of Urology and Transplantation (SIUT), Karachi from December 14-18th 2017. Prior to conference Preconference workshop related to various fields in Pathology were conducted. Two workshops were conducted for Chemical Pathology, 'Quality Control Procedures' and 'Interpretation of Biochemical Genetics Results: it's time to Flip now' attended by trainees and consultants Chemical Pathologist from around the country. In all 12 preconference workshops were conducted by working groups of different institutes of Pakistan. For the conference high quality scientific programme pertaining to Hematology, Histopathology, Microbiology, Immunology, Molecular and Chemical Pathology were arranged. Conference included 5 plenary sessions, 14 symposia's and 10 free paper presentation sessions, covering wide range of top-

ics ranging from innovations in techniques, Developments in field of Pathology in Pakistan, transplantation, challenges in infectious diseases and updates in anatomic pathology.

In Chemical Pathology sessions 12 free papers and 33 posters were presented by trainees and consultants from all over Pakistan.

Young researchers were encouraged for their active participation and best oral and poster awards were presented to 12 young researchers from different areas in the closing ceremony. Conference was attended by more than a 1000 participant from around the country. The Conference provided a concise and practical overview of latest advances in the field of laboratory medicine

Reported by Dr Hafsa Majid (AKUH)



Participants at Chemical Pathology Symposia 'Metabolic Medicine' at PAP 2017

“DO’S & DON’TS” FOR RELIABLE SPECIMEN

Laboratory tests contribute vital information about a patient's health. Correct diagnostic and therapeutic decisions rely in part on the accuracy and reliability of test results. Adequate patient preparation, specimen collection, and specimen handling are essential prerequisites for accurate test results. The accuracy of test results is dependent on the integrity of specimens and information provided on the specimen requisition form.

Below mentioned Do's & Don'ts can improve Reliability and accuracy of Laboratory Results.

DO

Do ask Patient's name, Date of Birth, hospital number, and ward/department.

Do write Type of specimen and the site from which it was obtained.

Do mention Date and time collected.

Do Write Diagnosis with history and reasons for request such as returning from abroad (specify country) with diarrhea and vomiting, rash, pyrexia, catheters in situ or invasive devices used, or surgical details regarding post-operative wound infection.

Do give information about Name and number of the clinician who ordered the investigation, as it may be necessary to telephone preliminary results and discuss treatment before the final result is authorized.

Do wash Hands before and after specimen collection.

Do follow prescribed order of draw (blood cultures, blue tops, red or gold tops, green tops/ with or without gel, lavender tops, and gray tops).

Do ensure that tubes with an indicated fill line or minimum fill line (such as blue top tubes) are appropriately filled.

Do transport sample to concerned department as per protocol (ABG,S in Lithium Heparin syringe, PTH in EDTA tube with Ice pack)

DON'T

DON'T instruct the patient to clench/pump the fist before or during draw; may ask patient to close the hand to distend veins, then release. Don't leave tourniquet on for more than 60 seconds.

DON'T combine serum/plasma from a difficult draw with that from another stick to "get enough".

DON'T refrigerate unspun blood samples that are collected for K levels.

DON'T freeze an aliquot if red cells are present.

DON'T Take sample from part where I/V fluids given.

DON'T Take sample in Na Heparin Tube for Serum Electrolytes , It gives erroneous result.

DON'T Take Non fasting Sample where fasting is required.



Maj Qurat ul Ain Mustafa
CMH Quetta

An Ode To Our Teacher "Sir Aamir Ijaz"



Maj Alveena Younis
AFIP Rwp

As eyes sparkle and smiles speak
Speak of purity, of devotion at its peak

I stand there on the other side of hill
Mesmerised with the mighty falcons' drill

Oh' so immaculate, so divine, so true
Shimmering with colours of life, still no shade of rue

I yearn, I pray
The noble spirit may never sway

An Approach to Differentiating Etiologies of Methylmalonic acidurias

Methylmalonic acid (MMA) is an Intermediate metabolite in metabolism of certain amino acids (methionine, threonine, isoleucine and valine) and odd chain fatty acids & cholesterol. It is an autosomal recessive disorders with estimated incidence in western populations ranging from 1:48,000 to 1:61,000 per live births. However its true incidence in Pakistan are still unknown.

Elevated levels of MMA result from inherited metabolic defects (IMDs) or non-inborn errors of metabolism (non-IEM) causes and biochemical metabolites elevated are listed below:

Cause	Primary defect	Elevated metabolite
Benign MMAuria		MMAuria
Vitamin B-12 Deficiency	Pernicious Anemia, Gut Bacterial metabolism, Gastroenteritis in very young infants, Short bowel syndrome, Malnutrition	MMAuria & plasma homocysteine
Mut0 /Mut	Methylmalonyl CoA mutase enzyme deficiency	MMAuria
Disorders of Intra-cellular Cobalamin Metabolism	Cb1A	MMAuria
	Cb1B	MMAuria
	Cb1C	MMAuria & plasma homocysteine
	Cb1D	MMAuria & plasma homocysteine
	Cb1F	MMAuria & plasma homocysteine
SUCL-A2/G1	Succinyl CoA ligase enzyme deficiency	MMA & Kreb's cycle markers in urine

This disorders should be considered in any newborn/child (whether critically ill or not) with unexplained metabolic acidosis with elevated anion gap, raised lactate, hyperammonemia, hypoglycemia, leukopenia, thrombocytopenia, anemia and /or ketosis. Screening for methylmalonic acidurias is performed by plasma amino acids, urinary organic acids and plasma acylcarnitines testing. To differentiate the non-IEM causes one needs to perform reflex testing of vitamin B12 and plasma total homocysteine. While confirmatory diagnosis requires testing of enzyme assay for Methylmalonyl CoA Mutase and mutational analysis. Availability of diagnostics is challenging in our country, where none of the confirmatory tests are available. While differentiation into the etiology of MMAuria is important for the correct diagnosis, treatment and outcome of the patients.

Dr Hafsa Majid,
Aga Khan University, Karachi, Pakistan



News from Pakistan

Pakistan Society of Chemical Pathologists (PSCP)
organizes the 8th Annual PSCP Course

by Nusrat Alavi
Shalamar Medical and Dental College
Secretary Treasurer of PSCP

Pakistan Society of Chemical Pathologists (PSCP) organized the 8th annual course in Chemical Pathology at CMH Lahore Medical College on 28-29 April 2017.

The president and a dedicated team of chemical pathologists made a very successful endeavour of a very scientific and educational programme in these sessions. The inaugural session had a state of the art session on novel Cardiac Markers by Maj. General Ahmed Khan HI (R), Patron PSCP.



Organizing Committee of the PSCP Course

After that very informative and innovative talks were delivered by our senior chemical pathologists in very well attended sessions covering following topics:

- Precocious Puberty
- Short stature and chemical analysis
- Laboratory safety
- Acid base balance and albuminuria update
- ADA recommendations of standard of medical care in diabetes
- Unveiling the secrets of cushingoid features in infants

There were total of three sessions on the first day followed by mock objective structured practical examination (OSPE) exam for trainees. The second day had two sessions including a meet the expert session. The activity targeted the clinicians, pediatricians and post-graduate trainees of Chemical Pathology.

PSCP always keeps the tradition of promoting academic and research culture in the country and keeps updating the guidelines according to international standards.



Representation of PSCP in International Federation Of Clinical Chemistry and Laboratory Medicine (IFCC).

Meeting report: International Federation of Clinical chemistry World Lab 2017 Meeting

“Multi-Omics and Laboratory Medicine”



International Federation of Clinical Chemistry (IFCC) hosted 23rd International Congress of Clinical Chemistry and Laboratory Medicine from 22nd Oct till 25th Oct 2017 in Durban, South Africa. These conferences always provide to be very good learning resources due to their high quality and direct relevance to modern laboratory medicine.

It was a great honor to be nominated as IFCC scholarship awardee for attending this innovative conference where the theme was “multi-omics and laboratory medicine.” Durban was no doubt a beautiful coastal city in eastern South Africa’s KwaZulu-Natal province.

Our conference journey started with the pre-conference satellite education workshop related to “Intelligent Clinical Laboratory Management: Impact on Quality System Improvement”. It was a one day workshop at the Hilton Hotel, Durban and unique of its kind as various speakers from around the world had share their experiences. It gave insights on how to overcome and implement best quality practices in clinical laboratory.

WorldLab 2017 started in ICC Durban with well-balanced program. All the symposia were so relevant that it was really difficult to choose the sessions and people were literally hopping between the rooms in hope of catching the session of their interest. This conference reflected the changing directions of laboratory medicine with a greater attention paid to big data in quality improvement, risk management, measurement of uncertainty and standardization practices. It was great chance to collaborate and exchange ideas with world’s leading speakers and participants from all over the world. The accompanying industrial exhibition also provided information and advice on the most up to date equipment, diagnostics, informatics and professional practice. Overall IFCC WorldLab was a blend of innovative science and evidence-based laboratory medicine, with emphasis on personalized medicine and indeed one of the best conference in recent times! I would like to thank IFCC for giving this opportunity to collaborate with the leading people in the field along with many young pathologists or scientists and establishing promising liaison for improvement of clinical chemistry and laboratory medicine practices globally.

Dr. Noreen Sherazi
Consultant Chemical Pathologist



PROFICIENCY TESTING

Quality Tool In The Laboratories

Proficiency testing determines the performance of individual laboratories for specific tests or measurements and is used to monitor laboratories' continuing performance.

Proficiency testing is also called interlaboratory comparison. As this term implies, proficiency testing compares the measuring results obtained by different laboratories. It is also mandated by accreditation bodies that laboratories participate in proficiency testing programs for all types of analyses undertaken in that laboratory, when suitable programs exist.

Proficiency testing involves a group of laboratories or analysts performing the same analyses on the same samples and comparing results. The key requirements of such comparisons are that the samples are homogenous and stable, and also that the set of samples analysed are appropriate to test and display similarities and differences in results.

The results reported by each laboratory for a measurand are compared to the reference value for that measurand. The reference value can be determined in various ways. The two most common ways are to use a reference laboratory or use the average of the values reported by the participants.

In the past the statistical handling of results was done by means of calculating averages and standard deviations. The current preferred method of data handling is via 'robust statistics', where the median result and inter-quartile range (range of the middle 50% of data) are taken to calculate the acceptable result range. This approach is thought to be a much fairer form of analysis than the classical style.

Benefits of Proficiency Tests

The successful completion of a well-designed proficiency test can validate the measurement method, technical training, traceability of standards, and uncertainty budgets of the laboratory.

The lab will have assurance of the good performance.

Establish comparative analysis of new test method, permitting their validation.

The lab will have information that can assist in future planning for equipment upgrades and staff training.

By participating in programs, laboratory staff can gain confidence in their abilities, and knowledge of their capabilities for identification of potential problems and implementation of preventive and corrective actions.

Overall, laboratory staff will have the knowledge that they are playing a valuable part amongst the company group to ensure product quality and safety, which boosts teamwork both in and beyond the laboratory environment.



Dr Farheen Aslam
Assistant Professor
QAMC, Bahawalpur

FACILITATIONS

We offer our warmest congratulations to following members on passing their FCPS II exam in August 2017. Wish you all a bright future filled with the promise of a wonderful career.

Dr. Usman (Zia Ud din Hospital Karachi),

Dr Sumbal Nida (AFIP Rwp),

Dr Maryam Rafiq and Dr Sibgha Bashir, (Quaid-e-Azam Medical College, Bahawalpur) ,

Dr Shabnam(Agha Khan University Hospital, Karachi)

Dr Lubna Falak (RahimyarKhan)

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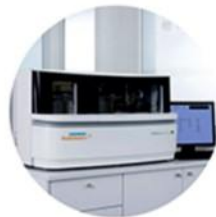
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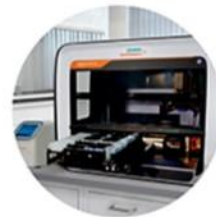
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