

# SHAIGAN INTERCOM



**SHAIGAN Pharmaceuticals (Pvt) Ltd** was established in Rawalpindi, Pakistan in 1993, having state of the art manufacturing facility, skilled and motivated work force. Shaigan has progressed over the years to become one of the leading pharmaceutical manufacturers in Pakistan, ranking among the top 30 out of 700 registered pharmaceutical companies of Pakistan.

**ISO 9001:2015   ISO/IEC 17025:2017**  
**ISO 14001:2015   ISO 18001:2018**



*"I insist you strive. Work, work and work  
for satisfaction with patience, humbleness  
and serve the nation."*

Muhammad Ali Jinnah

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# TABLE OF CONTENTS

|  |       |
|--|-------|
| 1. CMD Activities                                      | 1-6   |
| 2. Khyber-I Activities                                 | 7-8   |
| 3. Ortho Business Unit Activities                      | 9-14  |
| 4. Femicare Activities                                 | 15-22 |
| 5. International Business Activities                   | 23-28 |
| 6. Neuromed Activity                                   | 29-30 |
| 7. Khyber- II Activities                               | 31-34 |
| 8. Training & Development                              | 35-36 |
| 9. Why Pharma Industry Needs To Focus More On Training | 37-38 |
| 10. Biochemical Blood Profiling & Amenorrhea           | 39-42 |
| 11. New Joiners  | 43-44 |
| 12. Promotions   | 45-50 |

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# CMD Activities:

## ECG Workshop 2<sup>nd</sup> April 2022



An electrocardiogram (ECG) is a simple test that can be used to check your heart's rhythm and electrical activity. An ECG can help to detect:

**Arrhythmias** – where the heart beats too slowly, too quickly, or irregularly

**Coronary heart disease** – where the heart's blood supply is blocked or interrupted by a build-up of fatty substances

**Heart attacks** – where the supply of blood to the heart is suddenly blocked

**Cardiomyopathy** – where the heart walls

become thickened or enlarged

Cardio Metabolic Division engaged Forum of Pakistan Association of Family Physicians (PAFP) to educate & enhance their Expertise on the above Topic.

10 Case Studies were presented by Dr. Qurban Hussain Khan, one of the Leading Cardiologist from Rawalpindi Institute of Cardiology working as Assistant Professor of Electrophysiology & Expert of this Workshop.



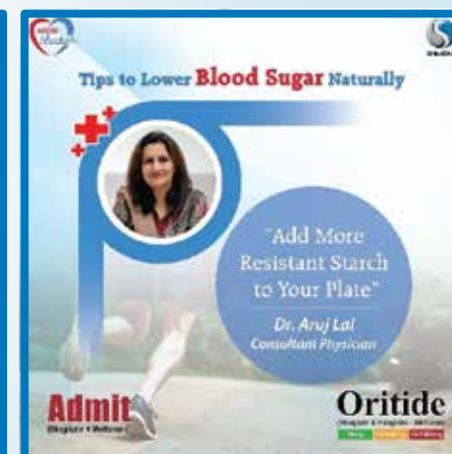
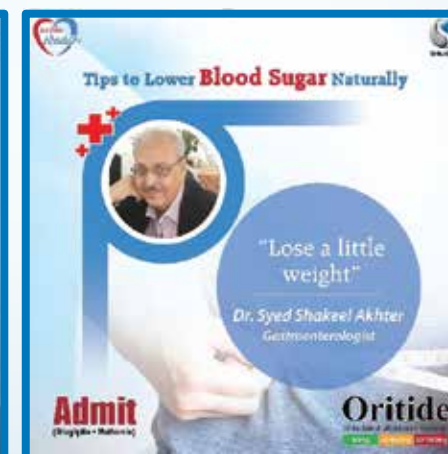
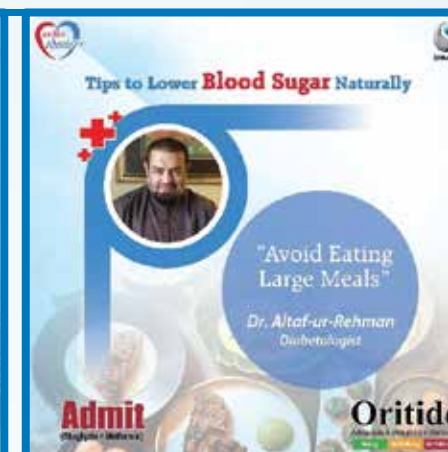
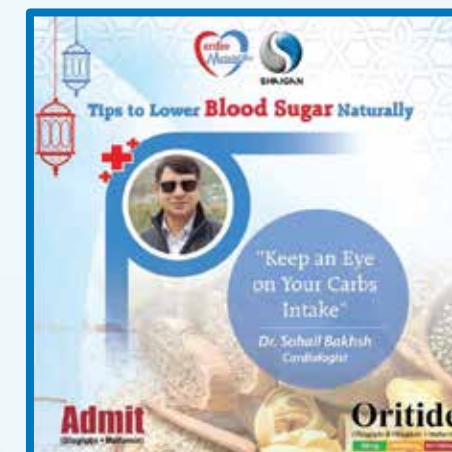
## RAMADAN MUBARAK

Fasting in Ramadan carries a very high risk for people with diabetes. This risk is particularly exacerbated in poorly controlled diabetic patients & those with limited access to medical care, unstable glycemic control or recurrent hospitalizations.

In the month of April 2022 – Cardio Metabolic Division executed Campaign “Tips for Diabetics in Ramadan” by experts of Diabetes Management.

Customers digital engagement & social media public awareness messages were shared with masses.

Along with that Ramadan Calendar of each Ashra was introduced as a gesture of Corporate Social Responsibility.





## WORLD HYPERTENSION DAY – 17<sup>th</sup> May 2022



More than 1 billion people around the world live with hypertension (High blood pressure), which is a major cause of Cardiovascular Disease & Premature Death Worldwide.

The burden of hypertension is felt disproportionately in low and middle-income countries, where two thirds of cases are found due to increased risk factors in population. What's more, around half of people living with hypertension are unaware of their condition, putting them at risk of avoidable medical

complications and death.

A digital campaign was initiated to share **Expert Opinions of Leading KOL's of Cardiology** for public awareness, to know about their blood pressure numbers, and to have better control with Life style modification & appropriate medications. These videos are available on Shaigan's Corporate Social Media Pages which are thought provoking for everyone, all Insight of these experts are backed up by decades of experience.



## Pakistan Endocrine Mid-Summer Meeting – 19<sup>th</sup> to 22<sup>nd</sup> May 2022

Worldwide 537 million people are having Diabetes, according to current IDF Diabetes Atlas.

Pakistan is ranked as 3rd largest country with diabetic population after China & India. This is the time that we should unite to create public awareness & emphasize towards healthy

life style to eliminate the diabetes burden.

Shaigan Pharma has been on forefront, in not merely working on disease awareness but is playing pivotal role by participating in Scientific Programs, hands in hands with “Pakistan Endocrine Society” Mid-Summer meeting held on 19<sup>th</sup> - 22<sup>nd</sup> May 2022.





## Head Office & Factory Visit – 28<sup>th</sup> May 2022

Producing pharma products versus producing quality pharma products are two entirely different concepts. Shaigan Pharma believe and endeavors in delivering total quality medicine at affordable prices in Pakistan.

The Pakistan Family Physician Forum Rawalpindi/Islamabad was invited to witness, the whole manufacturing process & understand what it means to produce QUALITY.



## "Father's Day" On 19<sup>th</sup> June 2022

"Cardio Metabolic" division of Shaigan Pharmaceuticals Pvt. Ltd celebrated **"Father's Day"** in a unique and heartwarming way to give honor to fatherhood & further strengthening the bond of all HCP's with their parents & children across Pakistan.

240 Leading Customers which included

Cardiologist, Diabetologist & Physicians were in the engagement list with 100% execution of the campaign.

Response of the campaign was beyond expectations as it was very emotional moment for majority of doctors & their families.





# Khyber – I Activities

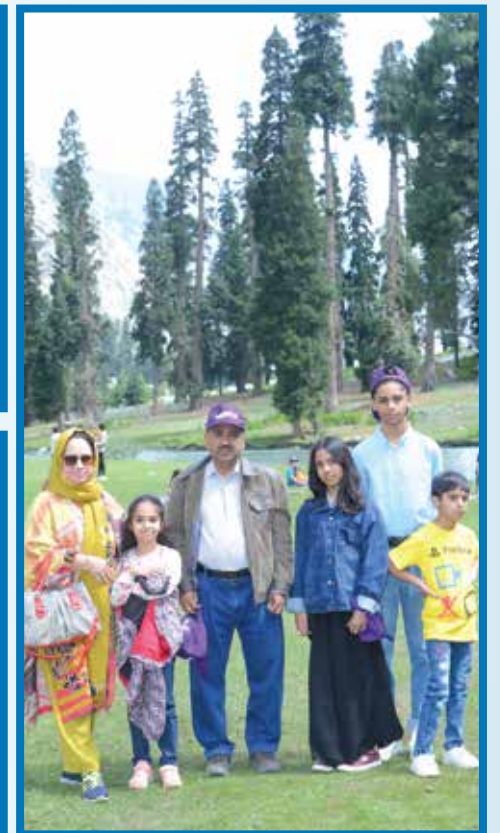
Khyber-1 Executed Esso-40 Ramzan Sehar and Iftar Campaign with the Name of Fazeelat-e-Ramzan in which team deliver Sehar and Iftar to the doctors in the ER and Wards.

Khyber-1 Executed Mera Pehla Roza Activity for the doctor's children at their home.

EID With ESSO-40; Khyber-1 distributed Sulman Sweet Akhrot Halwa as EID Greetings

on the Eid Occasion at the clinics of key consultants.

Khyber-1 successfully executed NARAN CME in June by involving key Consultants from the different regions at National Level.





# OBU Marketing Activities

## Pakistan Society of Internal Medicine Conference



OBU participated in Pakistan Society of Internal Medicine (PSIM) Conference held in Karachi Move n Pick Hotel on 6<sup>th</sup>-8<sup>th</sup> May-2022. Mr. Aftab Saleem (SPM) OBU & Mr. Babar Shahzad (DSP) attended the PSIM conference. Shaigan Pharmaceutical as a part of academic activity sponsored the lecture of Prof Aftab

Mohsin Principal (Rashid Latif Medical College Lahore) in which he unveiled **"Pakistan's 1st Nausea & Vomiting Guide Lines"** The Stall was decorated with Zedron Branding. Visiting doctors were given cultural Ajrak , mask, ball pen (Zedron branded).



# Zedron Nausea & Vomiting Management FM 100 program Pan Pakistan



OBU arranged Zedron Nausea & Vomiting Management FM 100 program all over the Pakistan, in which leading consultants gave talks on FM 100 to Manage **Nausea & Vomiting**





## Zedron Family Ramzan Iftar Dinner

Zedron Family Ramzan Iftar Dinner gathering was arranged in different cities of Pakistan and

all leading doctors participated in these Iftar Dinner along with their families.



## Zedron Eid Celebration

OBU also arranged Zedron Eid celebration in which Eid suits were given to leading

doctors across Pakistan.



## Zedron Safe Ward Activity



As a part of Zedron Marketing activity. OBU Placed Green Walls in leading Gynecology

wards across Pakistan's leading hospitals.





## Zedron Nausea & Vomiting Management Forum Meeting (HUNZA- MALAMJABA)



OBU arranged Zedron Nausea & Vomiting Management Forum meeting at HUNZA-MALAMJABA from 30<sup>th</sup> June to 3<sup>rd</sup> July. Pakistan's leading Gastroenterologist, Gynecologist and Oncologist like Prof Javed Akram VC UHS, Prof Aftab Mohsin, Prof Aziz Ur Rehman, Prof Javed Iqbal Farooqi,

Prof Sajid Obaid Ullah, Prof Robina Sohail, Prof Sohail Khurshid, Prof Muhammad Hafeez Butt and many more participated in two venues meeting held at PC Malamjaba & Hunza in which **Pakistan's 1<sup>st</sup> Nausea & Vomiting Guidelines were finalized and endorsed.**



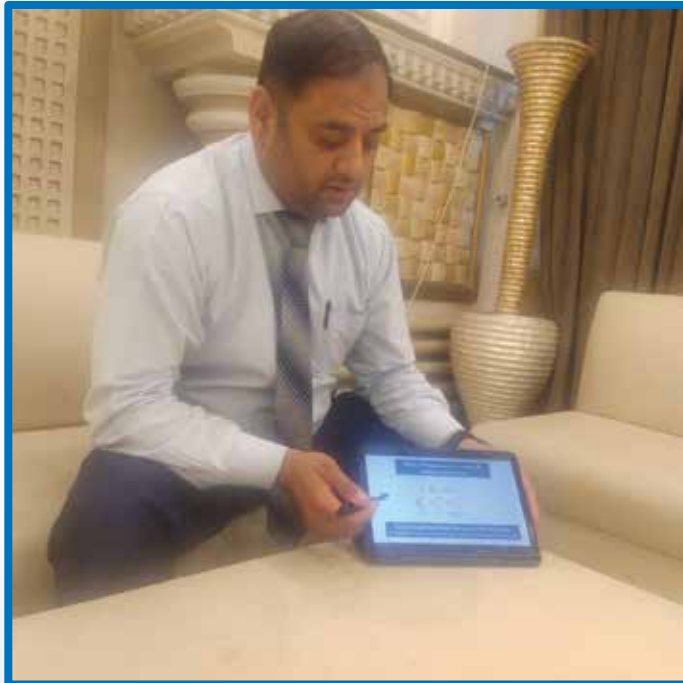


# Femicare Activities

## Chamber Presentations

Shaigan always believes in academic activities like ward & chamber presentations to strengthen the brand image/ promotion & marketing. Several chamber presentations were conducted with leading consultants.

Gynecologists (especially non-prescribers) were convinced to prescribe our brand after successful presentation in their chambers by Brand managers & Marketing Manager using the digital means.



## Dream World

Most memorable CME of Dream World was executed on 21 & 22 May 2022 by Femicare Business Unit of Shaigan Pharmaceuticals hosted 20 (Twenty) top notch Doctors/ Gynecologists with families from South region (Karachi, Hyderabad & Sukkur). The main attractions of the CME were;

- Scientific session
- Indoor & Out door Games (Water slides, Artificial Sea, Desert safari, Horse riding etc.)
- Musical evening with famous violinist
- Gala Dinner
- Surprise Birthday celebrations of doctors & their families

Distinguished doctors from Karachi like Salma Shah, Shamim Mohsin, Aisha Khatoon, Naheed Khilji & from Sukkur Mehroz Alvi, Aijaz Sumair, Khanzadi Bozdar & from Hyderabad Raheela Bhatti, Nayyer Nasir, Dr Naheed Awan, Aneeta Memon participated with their families.

All the participants enjoyed fun activities, luxurious stay and most importantly scientific session which was the center of attraction in which the leading Gynecologist Prof Ayesha Khatoon from Karachi presented the role of Ossein Mineral Complex & Vitamin D (Zybon D) during Pregnancy, Lactation & Menopause, she also explained the practical complications of Bacterial Vaginosis in pregnant & non pregnant women.

Brand features along with benefits & treatment guidelines were presented during brand presentations of Zybon D & Clycin V by Sr. GPM (Raja Umber Habib). Corporate objectives, role & vision were highlighted / presented by DSM Mr. Zar Sharaf & M.M Mr. Xubair Qureshi Overall it was a marvelous activity coupled with fun & Continuous Medical Education, all doctors were highly obliged and committed to prescribe our priority brands (Zybon D & Clycin V).





## Father's Day



Life and family are incomplete without Father's love, affection, care & protection. Father's Day celebrated on 19th June of every year to pay special tribute to all the fathers for their sacrifice / hardships they go through in the brought up of their family.

Shaigan Pharmaceuticals (Femicare Business Unit) celebrated "Father's Day" with great pride and honor during the Kalam CME.

Cake cutting was done along with special (emotional) soundtrack played which was followed by speech/ sharing of memories and wishes from kids & their mothers about their fathers (present & passed away)

It was wonderful and everlasting memorable event bringing tears of smile, love and affection on everyone's face.



## Ramadan Campaign



Femicare Business Unit Shaigan Pharmaceuticals arranged Special Iftar dinners in the holy month of Ramadan at various regions through-out the country. During this activity Shaigan pharma paid a

token of thanks to important KOLs, Professors and consultants for their relentless efforts to keep our communities safe and their valuable support in empowering our brands with prescription.





## CME - Kalam



Femicare Business Unit organized & executed CME - Kalam. It was one of the most exciting and memorable trip during the peak of summer season (16th June to 19th June 2022).

Event took place in the cool & green valley of Swat (Kalam) surrounded by huge mountains & glaciers, floating crystal clear rivers, green forests, fertile farms, fresh fruits & flowers.

25 (Twenty five) leading Gynecologists with families from North & Center regions were hosted by Femicare team with following activities;

- Scientific session

- Luxurious stay at Kalam (river side hotel) & PC Malamjabba
- Jeep safari tour of Mahodand lake
- Fresh fruit party
- Boating
- Bonfire dinner
- Chairlift ride
- Surprise Birthdays celebrations of Doctors & their families
- Musical evening
- Gala Dinner
- Surprise Father's Day celebration with cake cutting.



All participants enjoyed the fun activities, luxurious stay and most of all, the scientific session which was the most vital part of the CME.

Leading Gynecologist "Prof Sadaqat Jabeen" (Peshawar) & "Prof Robina Ali" (Faisalabad) presented Zybon D & Clycin V brands respectively. They enlightened the role of "Ossein Mineral complex & vitamin D" during Pregnancy, Lactation & Menopause and also Causes/ Practical complications/ risk factors associated with Bacterial Vaginosis in pregnant & non-pregnant women.

The expert panel of discussion comprised of Prof Shamshad Begum (HMC Peshawar), Prof Naeema Utman (HMC Peshawar), Assistant Prof Riffat Qaiser (DHQ Faisalabad) & Consultant

Gynecologist Dr Mariam Zulfiqar (LGH Lahore) who presented their clinical experiences and expert guidelines by answering all the queries of participating doctors.

Brand features along with benefits & treatment guidelines were presented during brand presentations of Zybon D & Clycin V by Sr. Group Product Manager (Raja Umber Habib).

Director Marketing & Sales (Mr. Zar Sharaf) & Marketing Manager (Mr. Xubair Qureshi) highlighted the corporate image, role & vision of Shaigan Pharmaceuticals pvt ltd.

Overall it was a marvelous "Continuous Medical Education" activity coupled with fun, entertainment, innovation & Education.

All doctors were highly obliged and committed to prescribe our priority brands (Zybon D & Clycin V).





## Mother's Day



Although every day is Mother's Day (full of mother's love, care & affection) yet Mother's Day is celebrated to highlight & enlighten mother's affection, love, care and sacrifices which she goes through during parenthood.

Shaigan Pharmaceuticals (Femicare business unit) has celebrated Mother's Day with pride showing great respect and honor to all the Mothers of the world.

Femicare engaged 17 (seventeen) leading hospitals in which Mother's Day has been celebrated showing gratitude to all the mothers of nation who equally participated in the prosperity of our great nation.

On Mother's Day all doctors of the ward participated in which Head of departments specially highlighted the role of working Mothers who work side by side with men in the prosperity of our great nation also the importance &

respect of mother in light of Islam.

It was a great day with cake cutting by respective HOD's/ Professors followed by their emotional remarks on the Product Banner (Zybon D) already displayed in their conference rooms/ wards, most importantly HODs/ Senior doctors highlighted the role of our brand & composition along with latest clinical guidelines to their respective juniors also provided commitment to prescribe the brands of Shaigan Pharmaceuticals with trust and confidence.

Brand Managers, RSM's/ ASM's/ SM's highlighted the Feature, Advantage & Benefits of brand successfully.





## International Business Activities

### TOPAD (Training on Products and Diseases)

**“An investment in knowledge pays the best interest.”**

Benjamin Franklin

Shaigan Pharmaceuticals conducted Training on products and diseases (TOPAD) for the Kabul team.

It is ensured to impart knowledge to the field

force as per their understanding using charts, pictorial presentation and animated videos. The training will be extended to all the other stations in the coming days.



## Grand Iftar Dinner

Shaigan Pharmaceuticals hosted a Grand Iftar Dinner for the leading doctors of Kabul. 45 doctors from different specialties were invited. Shaigan is in no way falling behind in executing

the marketing activities and has generated a loyal customer's pool. Progressing toward the goal we set, efforts are being made on the journey to success.





## World Hypertension Day - 17 May 2022

On Tuesday, 17 May 2022 in collaboration with the major hospitals of Afghanistan, Shaigan Pharmaceuticals observed World Hypertension Day 2022 with the aim to educate the public and increase awareness among the masses.

Hypertension is a major preventable cause of heart attack, stroke & premature deaths. This silent killer shows no early symptoms so most people don't know they have it.

Our patient-focused medical communication plays a crucial role in educating, raising

awareness, and promoting the routine measurement of BP by a healthcare professional at all clinical encounters.

Shaigan Pharmaceuticals executed the activity as per plan with a maximum number of engagements in hospitals & clinics. In 9 major cities of Afghanistan, 18 hospitals and 27 clinics were engaged with 160 doctors. The HCPs richly participated and appreciated the activity.



## World Environment Day - 5 June 2022

A single tree will absorb one ton of carbon dioxide over its lifetime.

Shaigan Pharmaceuticals observed the World Environment Day 2022 global campaign **#OnlyOneEarth** throughout Afghanistan on

June 5, 2022. The leading doctors of Afghanistan were involved in this awareness campaign by planting the saplings. In 7 major cities of Afghanistan 15 hospitals with 75 doctors participated in the campaign.





## Shaigan Refreshment Time (SRT)

Shaigan values its people. For the purpose, the General Manager of International Business visited Afghanistan in qtr. 2<sup>nd</sup> and had a gathering with the

team. He encouraged the team, appreciated their performance and reviewed for improvement where required, and injected motivation into them.



## Round Table Discussion

The job of the marketing team is to engage the target customers, build and maintain company's reputation, relevance and relationship with the

customers. The General Manager of International Business engaged our customer pool on his tour to Afghanistan.





# Neuromed Activity - Iftar Dinner



To mark the 27th Anniversary of, Effective & Safe Leading brand of Shaigan Pharma FAMOT (Famotidine) a premium Iftar experience was arranged across all major towns of the country, to help bring the doctors community together in the blessed month of Ramadan. Almost 500 doctors attended these programs and appreciated Efficacy and safety of FAMOT in their patients and shared their clinical experience during discussions. Thanks to the kind generosity of the Shaigan Pharmaceuticals (Pvt) Limited. Shaigan Head office participated in these programs to further build a strong corporate image and brand persona among the doctors community. Mr. Mansoor Ahmed Kayani (Business Unit Head) attended Faisalabad, Sargodha, Gujranwala, Lahore A & Lahore B programs. Mr. Maqsood Ahmed Jatt (Business Manager South) attended Karachi, Hyderabad programs. Mr. Asad Iqbal (Group Product Manager) attended Rawalpindi, Islamabad, Multan, Bahawalpur & Sahiwal programs. Mr. Ahmed Khan (Product Manager) attended Mingora/ Swat & Peshawar programs.





# KHYBER-II ACTIVITIES

## Iftar Activity

Khyber -II under the dynamic leadership of General Manger SBU II Mr. Asrar Shah conducted Iftar activity in Tertiary care hospitals

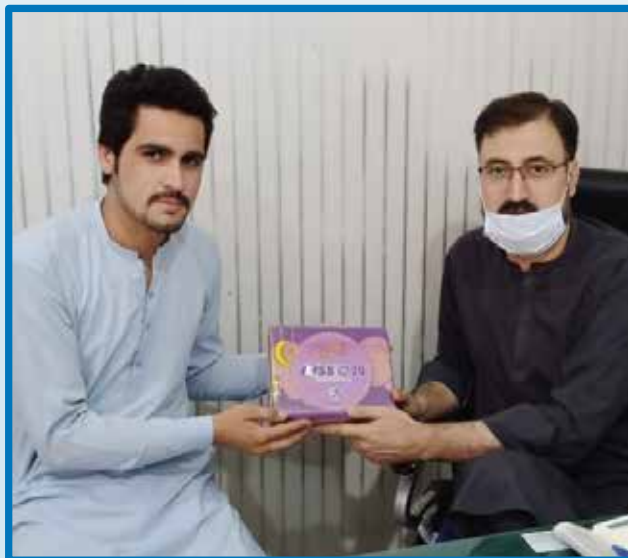
across the country which was well appreciated by the doctors



## ESSO 20 Arabian Delight Activity

Khyber-II honors its valuable customer and shares the moment of joy with them. The tradition of distribution of Arabian Delight to

KOLs on Eid Ul Fitr was a landmark achievement where the doctors appreciated Shaigan and committed to write their products.



## ESSO 20 Mehndi Activity

Khyber II took initiative and conducted a Mehndi activity of the occasion of Eid where 32 doctors of GYNEA wards where engaged. Since this

was a innovative activity, it was immensely liked by the doctors of Gynae ward, who committed to write the products of Khyber II



## ESSO 20 Umbrella Activity

ESSO-20 Umbrella activity was a unique activity as part of Corporate Social Responsibility

(CSR). Khyber II conducted Umbrella activity in all Major Private hospitals of the country.





## ESSO 20 Medico Marketing

Khyber-II engaged a number of post graduate doctors and enhanced their Synopsis writing skill by conducting an educative interactive session.



## ESSO 20 Table Clock

ESSO-20 as always, value its customers and in order to appreciate the contributions of the doctors. A table clock activity was initiated which would help in maintaining and strengthening the relationship between Khyber II and the doctors across Pakistan.



## ESSO 20 Brand Ambassador

ESSO-20 conducted an impactful activity which included our brand ambassador **Mr. Abdul Razzaq**. This activity was appreciated by the doctors.



## ESSO 20 CME Naran

ESSO-20 conducted an Expert Meet-Up session at Naran which was attended by a lot of prominent doctors, who appreciated Khyber II and its continuous desire to inculcate the education zeal in young doctors by conducting such a memorable event.





# Training and development



Training and development initiatives are educational activities within an organization that are designed to improve the job performance of an individual or group. These programs typically involve advancing a worker's knowledge and skill sets and instilling greater motivation to enhance job performance.

## Top 5 Challenges of Training and Development of Professionals

- Dealing with Change.
- Developing Leaders.
- Engaging Learners.
- Delivering Training on a Consistent Basis.
- Instilling Conflict-Management Skills.





# Why Pharma Industry Needs to Focus More On Training

Sheharyar Saeed Malik  
(Manager Training)



It's no secret that employees are the building blocks of any organization. The pharmaceutical industry continues to face many challenges, both familiar and novel. Lack of proficient and talented employees along with vigorous competition puts companies at risk of falling behind their competitors.

Continuous training can serve as a solution to many problems and help companies to provide care for people and change their lives for the better.

## Three key areas to constantly train and develop

Managers, should be fully engaged in developing their employees and helping them meet their professional goals in addition to aligning their interests with specific business objectives.

Here are some main areas that leaders and professionals should develop in their teams:

### 1. General skills training

General skills involve industry and job-specific learning courses such as:

- [Human anatomy and physiology.](#)

This includes information on cells and tissues, the functions of different organs, systems, and various health conditions.

- [Diseases](#)

These courses answer questions like: What diseases or disorders are being treated by the pharmaceutical company where we work? What are the symptoms of these diseases?

- [Drugs](#)

These courses cover questions like: In what way do drugs help to cure a specific disease or the mode of action? What are the indications for drug use? What are the possible side-effects

- [Skills](#)

Employees are also taught essential business-like

planning, negotiation and communication, time management, adaptability and flexibility etc.

### 2. Sales training

Sales reps in the pharmaceutical industry need to be the real experts in what they sell. They should know how to start an open conversation, how to deal with objections, and how to promote drugs effectively in a very short time without engaging in misconduct or unethical practices.

- [Learning is becoming social and collaborative](#)

Discussion boards built into a learning platform are great hubs for knowledge sharing and thought exchanges. Positive incentives for completed tasks will promote friendly competition among colleagues to make training more engaging. In addition, learning platforms provide you with real results, showing how training effects performance and business KPIs while developing a culture of continuous learning and growth.

A smart and performance-based learning platform is a great way to boost employees' compliance, competitive skills, and sales productivity as well as develop their professional expertise in the pharmaceutical industry.

Many times, the judgment of skill levels go wrong while recruiting or deploying an employee on a specific job role.

### Leadership outlook towards employee development is paramount:

As soon as an employee joins an organization, the line function is in a hurry to place him in the vacant position to ease the pressure on rest of the team. Imagine a person without training flying an aero plane!

Same is the case for refresher training, as resources are always limited and sparing employees for training is considered as an additional burden

The most important factor for success is the leadership vision in an enterprise. Does the company leadership view it as a cost, or as an investment? Cost of failure due to poor quality of execution always outweighs the cost of right-first-time execution through well-groomed employees.

Some corporate leaders are hesitant to train and develop their employees due to the fear of losing them to competitors, hence prefer to get experienced employees from outside organizations who are supposedly fit-for-purpose. This not only hinders the growth of the employees but also of the corporation in the long run. It has a much larger impact on the morale of the employees and the overall engagement level in the organization.

As Zig Ziglar says, "The only thing worse than training your people and losing them is not training them and keeping them."



# Biochemical Blood Profiling & Amenorrhea

By Dr. Shah Noor Ul Husnain Rph,  
MPhil Pharmacy Regulatory Officer, Department of Regulatory Affairs



Dietary elements play an important role in amenorrhea. A very minute quantity of essential or dietary elements are required for the proper body functioning, growth and development, these nutrients or elements are commonly called trace elements (Soto- Jimenez 2011). The human body has a vast system for management and regulation of essential elements which circulate in blood and then stored in cells (Osredkar and Sustar 2011). So for evaluating the serum scale of these minerals and trace elements in amenorrhea, the normal mean serum level of minerals and trace elements in normal healthy women is also calculated to find out the correlation of minerals and trace elements between both the normal and amenorrheic women groups. The result of the analysis revealed that the serum level of calcium, cadmium and iron are elevated in the amenorrheic group with respect to serum level of normal

healthy women while serum level of potassium and copper reduced in amenorrheic women with respect to serum level of normal healthy women population. But the results indicated that there is no change in the serum level of magnesium, sodium and zinc between the both normal and amenorrheic women population. Trace elements are involved in many biological process of body which includes production of energy, hormones and other biological processes (Qureshi, Memon et al. 2005). Trace elements mostly act as cofactor or catalyst for many enzymes and play an important role in biochemical reaction (Prashanth, Kattapagari et al. 2015). Along with the blood samples collected for the analysis of serum level of minerals and trace elements in both normal and amenorrheic groups, data for general signs and symptoms was also collected to evaluate the change in percentage of problems with respect to

amenorrhea. The results revealed that there is also change in the percentages of problems with respect to amenorrhea. The amenorrheic population have greater percentages of anorexia, anxiety, fatigue, stiffness, generalized body pain, hot flashes, palpitation and joint disorders problem. As it is reported that the disruption in the hypothalamic-pituitary adrenal axis results in amenorrhea (Welt, Hall et al. 2005) and also a cause of fatigue which results in anorexia, anxiety, stiffness and generalized body pain (Matura, Malone et al. 2018). However, according to literature the research is focusing more towards male reproductive functions than females. Only limited studies available that shows effect of trace elements on female fertility (Buhling and Grajecki 2013) including amenorrhea. When it comes to ovarian functions, development of follicles and hormone synthesis lesser information is available. In the late 1990s, it is defined that trace elements could be one of the factors causing unexplained infertility (Xian, Zuansun et al. 1997). It is reported that increased levels of Ca have been found in the women with polycystic ovarian syndrome (Kurdoglu, Kurdoglu et al. 2012, Chakraborty, Ghosh et al. 2013). It has been described that LH synthesis is also dependent upon the extent of calcium ion (Liu and Jackson 1985). The results of the study also revealed about the elevated serum level of calcium which may disrupt the normal menstrual cycle by increasing the synthesis of luteinizing hormone which may lead to polycystic ovarian syndrome (Franks, Stark et al. 2008) which is a major cause of amenorrhea. In case of cadmium, the results revealed that there is increase in the serum level of cadmium in the amenorrheic population which may lead to luteal phase deficiency (LPD) a condition of inadequate progesterone contact to retain a

normal secretory endometrium and for normal embryo establishment and growth (Medicine 2012). It is reported that Cd has been displayed to exert substantial effects on ovarian and reproductive tract morphology with high levels reported to inhibit synthesis of ovarian luteal progesterone (Henson and Chedrese 2004). In case of potassium and copper, the serum level of both elements reduced in amenorrheic population with respect to normal healthy population. It is reported that copper is involve in the stimulation of hypothalamus (Murawski, Bydlon et al. 2006, Kim, Wactawski-Wende et al. 2018) and also serve as antioxidants in controlling oxidative stress, which has been shown to promote ovulation (Ruder, Hartman et al. 2009). Change in the level of copper result in suppression of hypothalamus and increase of oxidative stress which lead to anovulatory amenorrhea. It is reported that Potassium is involve in regulating the functioning of the hypothalamus- pituitary-ovarian axis as well as the synthesis of progesterone (Kim, Song et al. 2020). Result of the study revealed that any change in the level of potassium may lead to disruption in the regulation of hypothalamus-pituitary-ovarian axis which lead to amenorrhea (Rebar 2015).

The serum level of minerals and trace elements show different concentration in amenorrheic population having different duration of amenorrheic age. So the duration of amenorrheic age in amenorrheic women was also co-related to the serum scale of minerals and trace elements in amenorrheic women. The results revealed that there is an inverse linkage between the serum concentration of magnesium, sodium, copper and zinc with respect to duration of amenorrhea. The serum concentration of magnesium, sodium, copper and zinc decrease



with increase in the duration of amenorrheic age but in case of serum concentration of potassium and cadmium, there is a direct relation with duration of amenorrhea showing that serum concentration of potassium and cadmium increased with respect to increase in the duration of amenorrheic age. The results also revealed that there is no direct or indirect relation between the mean serum levels of iron and calcium. As the duration of amenorrhea increased the mean serum levels of iron and calcium remains the same.

In case of hypomagnesaemia, the body have risk of serious cardiac arrhythmias, such as torsade's de pointes i.e. polymorphous ventricular tachycardia with clear QT elongation. Furthermore, more chances of ventricular arrhythmias may occur within the first 24 hours in patients with acute myocardial infarction arrhythmias (Gragossian, Bashir et al. 2018). In case of reduced level of sodium, the patient is moving toward hyponatremia state which may cause neurologic dysfunction along with reduced mental function and also cerebral edema, gait disturbances and falls, osteoporosis and fractures (Giuliani and Peri 2014). The decrease serum level of copper result in problems with connective tissue, muscle weakness along with blood related problems including anaemia, low white blood cell count, neurological problems, and paleness (Wazir and Ghobrial 2017). However in case of zinc it is reported that increased levels of Zn is associated with women with polycystic ovarian syndrome (Kurdoglu, Kurdoglu et al. 2012, Chakraborty, Ghosh et al. 2013).

In case of cadmium it is reported that cadmium has been revealed to exert notable effects on ovarian and reproductive tract morphology. At high dosages it is involved in the inhibition of ovarian luteal progesterone while at low dosages it stimulate ovarian luteal progesterone biosynthesis (Henson and Chedrese 2004). Long-term experience to cadmium results in cancer and organ structure toxicity such as skeletal, urinary,

reproductive, cardiovascular, central and peripheral nervous and respiratory systems but increase in serum potassium level is linked with an improved risk of death and can explained by cardiac arrhythmia induced by hyperkalemia. In addition to its cleared effects on cardiac excitability, it also leads to renal tubular acidosis and peripheral neuropathy as well. (Hunter and Bailey 2019).

The study revealed that serum levels of potassium, calcium, magnesium, copper and cadmium were found different to that of serum levels in normal healthy female volunteers. Serum potassium and copper were reduced beyond normal serum values while serum calcium, magnesium and cadmium were increased beyond normal values in amenorrheic women. Women suffering from amenorrhea may experience deficiency of minerals and trace elements along with associated symptoms. Therefore, adequate amount of minerals and trace elements has to be advised to patients suffering from amenorrhea.

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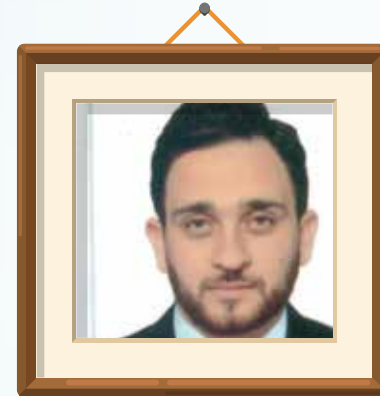
# New Joiners



**Syed Hasan Iqbal Rizvi**  
*Senior Product Manager*



**Zubair Ahmad**  
*Manager Sales Force Effectiveness*



**Mohib Ullah**  
*Product Manager*



**Danish Ali**  
*Maintenance Helper*



**Tariq Fayyaz**  
*Business Unit Manager*



**Kainat Zahra**  
*Regulatory Officer*



**Muhammad Tayyab Liaqat**  
*Accountant*



**Bilal Azam**  
*Sr. Manager HR & Admin*



**Shahid Iqbal**  
*Security Guard*



**Usama Saeed**  
*Impex Coordinator*



**Abdul Khaliq**  
*Group Product Manager*



**Muhammad Waleed**  
*SAS Analyst*



# Promotions



**Adeel Ahmed**  
*Sr. Production Pharmacist*



**Muhammad Farooq**  
*Sr. Production Worker*



**Umair Anjum**  
*Sr. Production Worker*



**Babar Mehmood**  
*Sr. Production Worker*



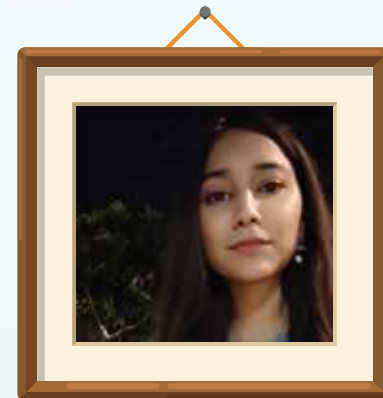
**Hina Shahid**  
*Production Executive*



**Maryam Sarfraz**  
*Production Executive*



**Tanzeel Ur Rehman**  
*Production Executive*



**Mamoonah Sahar**  
*Sr. QA Inspector Compliance*



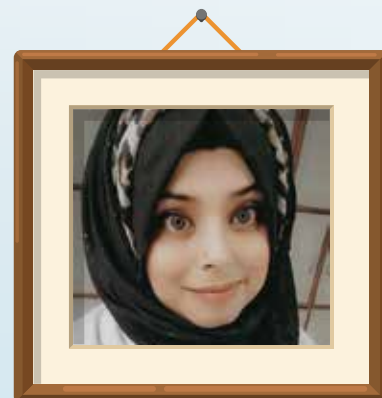
**Zaheer Abbas**  
*Sr. Production Executive*



**Waseem Hamayun**  
*AM Microbiology*



**Zukhruf Azad**  
*Sr. QC Analyst*



**Rija Khan**  
*Sr. QA Inspector*



**Naveed Islam**  
*Senior Marketing Executive*



**Bilal Ahmed**  
*Marketing Executive*



**Habib Ur Rehman**  
*Senior Marketing Executive*



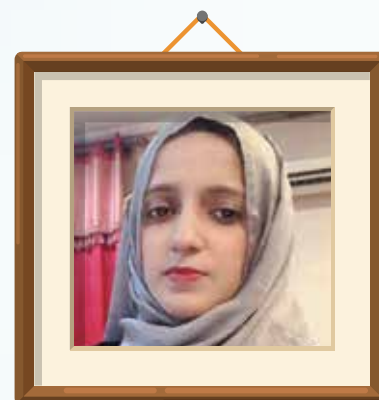
# Promotions



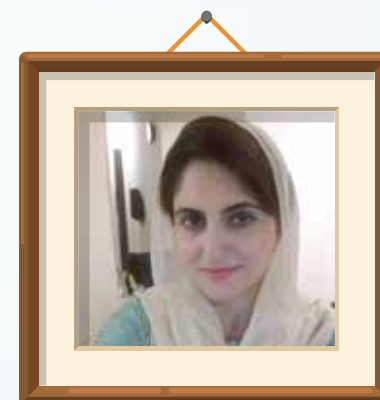
**Habib Ur Rehman**  
*Senior Marketing Executive*



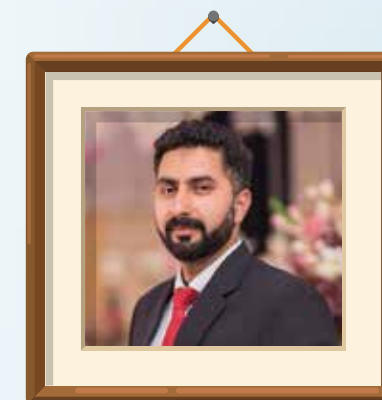
**Abdul Ghani Minhas**  
*GM Supply Chain*



**Fareeha Farrukh**  
*Sr. Manager Impex*



**Mussarat Shaheen**  
*Manager Regulatory Affairs*



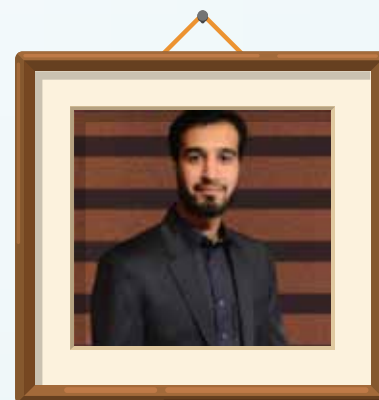
**Ali Raza**  
*Deputy Manager Impex*



**Atta ur Rehman**  
*Deputy Manager Procurement  
& Packaging*



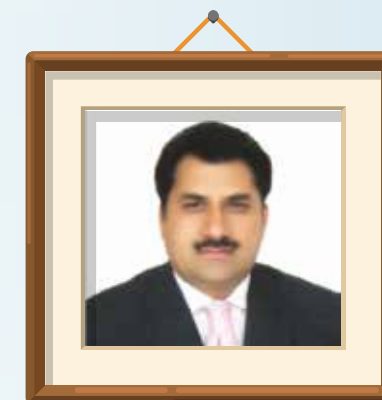
**Nouman Shoukat**  
*Impex Executive*



**Ahmed Rasheed**  
*Deputy Manager QA & Compliance*



**Bilal Abbas**  
*Deputy Manager document  
& data control*



**Khurram Shahzad Qureshi**  
*BUH*



**Sheharyar Wali Lone**  
*Marketing Manager*



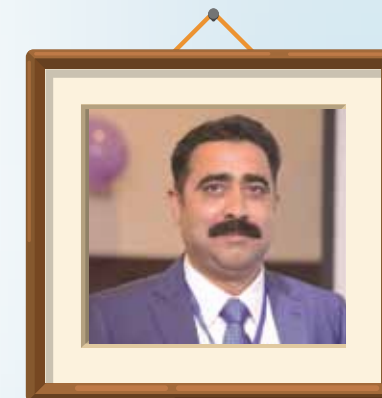
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*Marketing Manager*



**Syed Touqeer Naqvi**  
*BUH*



**Muhammad Qaisar Nadeem**  
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# Promotions



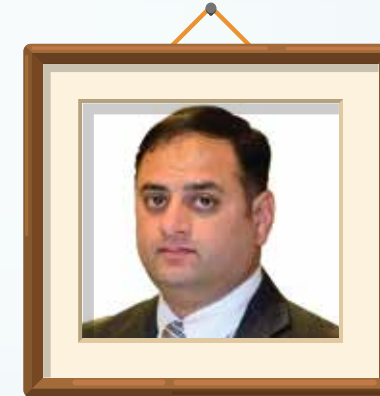
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*BUH*



**Muhammad Usman**  
*BUH*



**Muhammad Asif**  
*BUH*



**Raja Umber Habib**  
*Sr. GPM*



**Amjad Iqbal**  
*GPM*



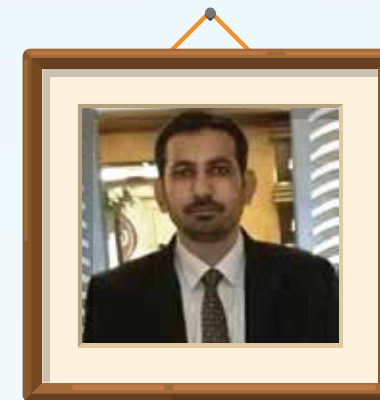
**Asad Iqbal Khan**  
*GPM*



**Syed Zeeshan Haider**  
*GPM*



**Muhammad Azeem Khan**  
*GPM*



**Mohammad Latif**  
*SPM*