





# **SCIENTIFIC PUBLICATIONS**

ABSTRACTS FROM MEDICAL PUBLICATIONS FACILITATED BY GETZ PHARMA

VOL III - JAN 2024



THE VAULT is a collection of scientific and medical research conducted by Health Care Professionals (HCPs) across Pakistan, facilitated by Getz Pharma over the years.

The first issue of THE VAULT was dedicated to 100 publications assisted by Getz Pharma since 1995 and the second issue of The Vault was dedicated to 40 publications assisted by Getz Pharma in the year 2022, both can be viewed by scanning the below QR codes.

This (third issue) of THE VAULT is dedicated to 50 publications assisted by Getz Pharma in the year 2023.

Scan QR Code for The Vault 100

Scan QR Code for The Vault 140







### THE VAULT

### **Medical Affairs Team**

Jahanzeb Kamal (MBBS, MBA, CRCP, CMD, MCPS)

Ali Nasir (Pharm D, MPhil)

Shafqat Shahzad (BSc, MSc-Biostatistics, MBA)

Iffat Nawab (Pharm D, CRCP)

Muhammad Nabeed Tahir (MBBS, CRCP)

Arsalan Arif (MBBS)

Mahaveer Maheshwari (MBBS)

Mirza Wajahat Habib (MBBS, MD, PgD)

Shaheryar Hasan (MBBS)

Arshia Khan (MBBS)

Sachithra Wehigaldeniya (MD, MBA, AITD)

Khilola Umarova (MD)

**Joan Wambui Karingithi** (MBChB)

Muhammad Nauman Shaikh (MBBS)

Tayyab Jahangir (MBBS) Sana Khalid (BDS, MBA)

Muhammad Umar Farooqui (MBBS)

Javeria Mushtaq Raja (MBBS, MS)

Junaid Qaisar (Pharm D, MBA)

### **Public Health Team**

Wajiha Javed (MBBS, M.Sc-Epidemiology & Biostatistics)

Syed Hussain Baqar Abidi (MBBS, MBA)

Samra Maqbool (BS Nutrition - Public Health)

Yasmeen Fatima (Pharm D, CRCP)

Syed Osama Ahmed (Pharm D)

Talha Bin Abid (Pharm D)

### **Corporate Communications Team**

Salman Moied Khan AM Creative

'The Vault' is a registered name and trademark of Getz Pharma Pvt. Limited





### Khalid Mahmood Managing Director & CEO, Getz Pharma

Getz Pharma Since its inception in 1995, Getz Pharma has embraced the motto of 'Care for your Health.' Over the past 29 years, we have evolved into the largest pharmaceutical company in Pakistan and expanded our presence in over 35 countries globally. This achievement is attributed to our dedication to producing safe, effective, quality medicines while also benefitting the community through our numerous CSR projects.

When we claim to deliver world-class products, we mean it. Getz Pharma's manufacturing facility is pre-qualified by the World Health Organization (WHO), Geneva, and approved by the member countries of the Pharmaceutical Inspection Co-operation Scheme (PIC/S) and Eurasian Economic Union (EAEU). Our unwavering dedication to excellence extends beyond manufacturing our medicines; we have remained at the forefront of supporting the medical and healthcare community through grants and assistance in research and development initiatives.

Regrettably, Pakistan allocates only a fraction of its GDP to enhancing the public healthcare system. Recognizing this shortfall, we consider it our duty to contribute significantly to fostering a conducive environment for continuous research, development, and the dissemination of knowledge. Such efforts benefit the medical fraternity and the patients they serve.

Today, we take pride in surpassing 190 publications supported by Getz Pharma authored by eminent healthcare providers and researchers and published worldwide. Through collaborative endeavors with healthcare professionals nationwide, we have established a robust network that promotes research and knowledge-sharing within the medical community.

We remain steadfast in our commitment to support and facilitate further advancements in research and development within this field.





### Dr. Jahanzeb Kamal Sr. Director – Medical Affairs, Pharmacovigilance & Clinical Research, Getz Pharma

Getz Pharma is a leading pharmaceutical company driven by a robust commitment to research. Guided by our core values, we seamlessly integrate research throughout the entire lifecycle of our products—from formulation development and manufacturing to rigorous testing and delivering a diverse range of safe, effective, and quality medications. This unwavering dedication positions us at the forefront of scientific data generation and discourse across Pakistan and internationally.

The Medical Affairs team at Getz Pharma is dedicated to highlighting the innovative science underpinning our work. We strive to foster open dialogue among researchers, clinicians, and the broader medical community, ensuring transparency and collaboration at every step. Expanding our collaborations in clinical research services and publications is paramount to us. By doing so, we aim to maximize our impact on patients suffering from various diseases. With this objective in mind, we actively engage and support healthcare professionals by providing comprehensive research services, including statistical assistance and facilitating publications. We are immensely proud of our contributions, culminating in the conclusion of 50 publications in 2023 alone. These publications encompass abstracts from guidelines and manuscripts published in prestigious international and national journals recognized by the Higher Education Commission (HEC).

We are engaged in numerous clinical research projects across Pakistan and other countries. These endeavors are conducted in close collaboration with healthcare professionals and medical societies, pioneering a data-driven approach to tackle healthcare challenges by establishing disease-specific registries. This initiative enhances our understanding of disease epidemiology, has positive clinical implications, and showcases research data from Pakistan on various international platforms. Our long-term mission is rooted in fostering indigenous scientific data generation and dissemination through publications. We aspire to enhance awareness of local knowledge gaps and address unmet medical informational needs within our community. Ultimately, these efforts will translate into improved patient care and advancements in critical determinants of health.





Ali Nasir Manager Research Services & PV, Getz Pharma

Getz Pharma plays a significant role in advancing research and improving the lives of patients in its pursuit of a healthier society. Our vision is to support and lead scientific initiatives by transforming medical engagements, enhancing medical education, and advancing clinical research through strategic value creation, and by fostering collaboration to generate and disseminate scientific medical evidence.

We provide comprehensive support services such as synopsis and manuscript review, data analysis, manuscript editing and publication. Additionally, our meticulously crafted workshop modules under the banner of SIGMA (Scientific Initiatives by Getz Pharma for Medical Research Application) aims to equip healthcare professionals with essential skills on topics like Synopsis Writing, Research Methodology, SPSS Hands-on, Literature Search & End Note and Medical Paper Writing.

Through such endeavors, we aspire to revolutionize the healthcare sector, foster a culture of knowledge dissemination and innovation that ultimately will translate into enhanced patient care and the promotion of a healthier society.



### Table of Contents

20	23 Guidelines		
1.	Clinical Nutrition Guidelines in Health and Diseases	14	
2.	4th National Hypertension Guidelines	15	
2023 Publications			
3.	Modifiable risk factors among Ischemic stroke patients attending Bahawal Victoria Hospital in Bahawalpur	18	
4.	Frequency of risk factors in patients with carpal tunnel syndrome	19	
5.	Frequency of Thrombocytopenia in Malaria and its prognostic significance	20	
6.	Frequency and severity of three diabetic foot ulcer types utilizing ten points scoring scale- A study from a tertiary care hospital of Islamabad	21	
7.	Association of Vitamin D with biochemical severity markers in Dengue patients	22	
8.	Frequency of dyslipidemia in Ischemic strokes involving different regions of brain	23	
9.	Association of Acute Coronary Syndromes with blood groups: A single center, observational study	24	
10.	Morbidity and mortality in patients presenting with septic miscarriage at a tertiary care hospital	25	
11.	COVID-19 among hospitalized patients with Diabetes in Karachi: A single centre study	26	
12.	Acceptability, continuation and complication rate of postpartum insertion of intrauterine contraceptive device among Pakistani women	27	
13.	Omeprazole (Risek ${}^{\circledast}$ ) use in inpatient and outpatient departments: A postmarketing surveillance investigation	28	
14.	Association of elevated heart risk score with Myocardial Infarction in patients with chest pain	29	
15.	Assessment of Vitamin D deficiency and its possible risk with breast cancer in Pakistan	30	
16.	Burden and associated factors of overweight & obesity among Type-2 Diabetes Mellitus visiting a private healthcare facility in South Punjab, Pakistan	31	
17.	Evaluation of Angiotensin Receptor and Neprlysin Inhibition (ARNI) in patients of Heart Failure with reduced Ejection Fraction (HFrEF) - A real-world study	32	
18.	Safety and tolerability of Sacubitril/Valsartan in Heart Failure patient with reduced ejection fraction	33	
19.	Assessment of risk factors for Non-Alcoholic Fatty Liver Disease (NAFLD)	34	
20.	Comparison of dual therapy, Rifaximin plus Lactulose with monothrapy, Lactulose alone in the treatment of Portosystemic Encephalopathy	35	
21.	Frequency and pattern of presentation of neck lymphadenopathy in oral squamous cell carcinoma in patients presenting to Nishtar Hospital, Multan	36	
22.	Frequency of Iron deficiency in heart failure patients	37	
23.	Comparison of complete nasal packing with and without integrated airways	38	
24.	Efficacy and safety profile of Glucagon-Like Peptide-1 receptor agonist in obese Type-2 Diabetes patients from a private institution in Karachi	39	
25.	Effectiveness of topical vs. combination Ciprofloxacin for the treatment of Chronic Suppurative Otitis Media	40	
26.	Challenges to Asthma management	41	



### Table of Contents

27.	Challenges in the management of Community-Acquired Pneumonia in low middle income countries	42
28.	Significant challenges of COPD management in developing countries	43
29.	Challenges in Idiopathic Pulmonary Fibrosis management	44
30.	A comparison of the effects of Empagliflozin and Sitagliptin, when combined with Metformin, on lipid levels in patients with Type 2 Diabetes: A clinical investigation	45
31.	Prevalence of neurological symptoms associated with COVID-19	46
32.	Vitamin D level and bone profile among 1- to 5-year-old children in Galle municipality and Bope-Poddala areas in Sri Lanka	47
33.	Outcomes of drug (Paclitaxel) coated balloons in various coronary lesion subsets; A two-year follow-up study	48
34.	Point prevalence of Type-2 Diabetes Mellitus patients among different specialties at MTI Khyber Teaching Hospital in Peshawar	49
35.	Outcomes of Radioactive lodine (131I) therapy among hyperthyroid patients	50
36.	Evaluating the derangement of LFTs concerning statin use and probable liver injury among non-cardiac patients, in the light of R ratio	51
37.	Knowledge of risk factors and preventive measures of Hepatitis B and Hepatitis C among health care workers at Bolan Medical Complex Hospital, Quetta	52
38.	Enhancing Diabetes care in LMICs: Insights from a multinational consensus	53
39.	Safety and efficacy of Insuget® (Human Insulin rDNA) in the management of patients with Type II Diabetes Mellitus a prospective observational study	54
40.	Psychological distress among healthcare and non-healthcare workers during the COVID-19 pandemic: This too shall pass	55
41.	Hyperammonemia in patients on valproic acid therapy in a tertiary care hospital of Karachi	56
42.	Impact of Treviamet® & Treviamet XR® on quality of life besides glycemic control in type 2 DM patients	57
43.	Angiographic characteristics of culprit lesions in infarct related artery and correlation of TIMI score with SYNTAX score to predict extent and severity of coronary artery disease in patients undergoing primary percutaneous coronary interventions	58
44.	Frequency of Anemia in patients with Pulmonary Tuberculosis	59
45.	Frequency of metabolic syndrome in Patients with Type-2 Diabetes Mellitus	60
46.	Assessing the acceptability rate and comparison of lutein-zeaxanthin, Omega-3, and tears eye drops in dry eye disease	61
47.	Exploring relationships between lipid parameters and serum Vitamin-D deficiency	62
48.	Impact of SARS-Cov-2 virus and the pandemic on Tinnitus patients: A comparative cross-sectional study	63
49.	S. Rao Spiral Suturing (SRSS) of lower uterine segment: An innovative hemostatic technique in the management of placenta previa and accreta spectrum	64
50.	PAKistan Study of prEmature coronary atHerosclerosis in young AdulTs (PAK-SEHAT): A prospective longitudinal study protocol investigating the prevalence, severity and determinants of atherosclerotic cardiovascular disease in the young adult Pakistani population	65



# Takes the LEED\*

\*Leadership in Energy & Environmental Design by U.S. Green Building Council



Getz Pharma's new manufacturing facility Certification for a pharmaceutical plant,



Astola, has been awarded South Asia's First LEED Platinum by the U.S. Green Building Council



# 2023 Guidelines



### Clinical Nutrition Guidelines in Health and Diseases

### Published in

Journal of the Pakistan Medical Association. 2023

**Impact Factor** 0.9

Journal Category X

### Abstract

Nutrition is the cornerstone of overall health and well-being, serving as the fuel for our bodies to function optimally. Nutrition plays a critical role in preventing chronic diseases such as obesity, diabetes, and heart disease. Understanding the importance of proper nutrition empowers individuals to make informed choices that promote longevity and vitality.

Currently Pakistan is facing crisis in terms of adult malnutrition and it poses significant challenges to public health and socioeconomic development. Factors such as poverty, limited access to nutritious foods, inadequate healthcare infrastructure, and environmental stressors contribute to its prevalence. Chronic malnutrition among adults can lead to impaired immune function, increased susceptibility to diseases, reduced productivity, and compromised quality of life.

To address these challenges Getz Pharma took this initiative by onboarding 10 different medical societies of Pakistan in developing a comprehensive guidelines in multiple specialties. These guidelines contains 21 chapters focusing on nutritional aspect of common disease, which are more prevalent in Pakistan.

To Read Complete Guidelines, Please Scan QR Code





### 4<sup>th</sup> Hypertension guidelines for the prevention, detection, evaluation & management of hypertension

### **Published in**

Journal of the Pakistan Medical Association. 2023

Impact Factor 0.9

Journal Category X

### Abstract

Worldwide hypertension prevalence is projected to reach 1.56 billion by 2025, affecting 29% of the global population according to the WHO. It contributes to 7.5 million deaths, 3.7% of total disabilityadjusted life years (DALYs) and is responsible for causing stroke in 54% of hypertensives. Pakistan has a prevalence of 43% hypertension with merely 12.5% of controlled hypertensives. There is a pressing need for a national level intervention through uniform clinical approaches for optimum hypertension prevention, treatment and control. Through PREACH project, we prioritize primary care physicians as first-line responders and are training them on standardized hypertension guidelines to alleviate the burden from tertiary care hospitals. To detect new onset hypertension the project also incorporates early surveillance and community level screenings. This will further lead to development a robust national hypertension registry centers where the standardized guidelines are not only practiced but are also creating an impact to control hypertension.

The objective to build this guidelines was to build capacity of general practitioners (GPs) on standardized guidelines endorsed by health ministry, PCS (Pakistan Cardiac Society) & PHL (Pakistan Hypertension League). Developing standardized guidelines is crucial for ensuring consistent and high-quality care for patients. By providing dedicated sections on various aspects such as disease risk factors, accurate diagnosis, measurement methods, treatment options, and guidance on difficult or complicated cases, the document aims to equip healthcare practitioners with the necessary tools and knowledge to effectively manage hypertension. The inclusion of expert guidance and recommendations adds valuable insights into handling challenging scenarios, while the provision of test cases for practice allows practitioners to apply their knowledge and skills in real-world situations

Getz Pharma aim to create an impact in the lives of 4.3 million beneficiaries (anti-hypertensive naïve hypertensive patients of Pakistan) by implementation of hypertension guidelines under the umbrella of PREACH model. Overall, these efforts contribute to enhancing the quality of healthcare services, promoting consistency in clinical practice, and ultimately improving patient outcomes in the management of hypertension.

To Read Complete Guidelines, Please Scan QR Code





# 2023 Publications



### Modifiable risk factors among ischemic stroke patients attending Bahawal Victoria Hospital in Bahawalpur

**Published in** The Professional Medical Journal. 2023

**Journal Category** Y

**Authors** <sup>1</sup>Raheel Khan, <sup>2</sup>Sadaf Shafique, <sup>3</sup>Saima Nasreen, <sup>4</sup>Sara Reza

### **Author Institute Details**

<sup>1,3</sup>Bahawal Victoria Hospital, Bahawalpur, Pakistan <sup>2,4</sup>Quaid-e-Azam Medical College, Bahawalpur, Pakistan

### Objective

To identify the prevalence of modifiable risk factors of ischemic stroke.

### Study Design

Cross Sectional Study.

### Setting

Department of Medicine, Bahawal Victoria Hospital, Bahawalpur.

### Period

July 2019 to December 2019.

### Material & Methods

Detailed history, clinical examination and CT scan (plain) of brain was performed and data was collected on pre-designed questionnaires.

### Results

Out of a total of 97 patients, there were 69.1% female and 30.1% male. Majority of the patients, 51.5% were aged more than 60 years. Hypertension was the most prevalent risk factor (56.7%) followed by ischemic heart disease (45.4%), diabetes mellitus (27.8%), dyslipidemia (26.8%) & smoking (34%).

### Conclusion

Modifiable risk factors of ischemic stroke should be identified in general population so that this disease can be prevented.

### Keywords

Ischemic Stroke, Hypertension, Diabetes Mellitus, Dyslipidemia.





### Frequency of Risk Factors in Patients with Carpal Tunnel Syndrome

### Published in

Pakistan Journal of Neurological Surgery. 2023

**Journal Category** Y

**Authors** <sup>1</sup>Sohaib Hassan, <sup>2</sup>Usman Ali, <sup>3</sup>Ali Qureshi

### **Author Institute Details**

<sup>1-3</sup>Nishtar Medical University, Multan, Pakistan

### Objective

This study aimed to ascertain the frequency of carpal tunnel syndrome risk factors.

### **Material & Methods**

A cross-sectional study was conducted at the Department of Neurology, Nishtar Hospital Multan, Pakistan. One hundred and twenty patients with Carpal Tunnel Syndrome (CTS) who attended the study site were enrolled. Baseline data, including age, gender, residential area, Duration of CTS, smoking, hypertension, diabetes mellitus, and obesity, were obtained. The blood samples were obtained for screening for hypothyroidism.

### Results

It was observed that most of the CTS patients were males (63.3%). The observed mean age was 44.3 ± 12.1 years, and 65.8% of cases belonged to urban areas. The most common risk factor observed among the currently enrolled CTS patients was obesity (70.8%), followed by smoking (50.8%), diabetes mellitus (45%), hypertension (34.2%), and hypothyroidism (22.5%).

### Conclusion

Our study shows that the most common risk factor for CTS was obesity, followed by smoking, diabetes mellitus, hypertension & hypothyroidism.

### Keywords

Carpal Tunnel Syndrome, Risk Factors, Obesity.





### Frequency of Thrombocytopenia in malaria and its prognostic significance

Published in

Journal of University Medical & Dental College. 2023

**Journal Category** Y

### Authors

Saleh Ahmad<sup>1</sup>, Saeedur Rehman<sup>2</sup>, Qazi Ikramullah<sup>3</sup>, Iqbal Ahmad<sup>4</sup>

### **Author Institute Details**

<sup>1-3</sup>District Head Quarter Hospital Timergara DIR-lower, KPK, Pakistan
<sup>4</sup>Saidu Teaching Hospital Swat, KPK, Pakistan

### **Background & Objective**

Thrombocytopenia is a common hematological manifestation of malaria, but locally there is limited data on the association of thrombocytopenia degree and malarial species in Pakistan. Therefore, the present study aims to assess the frequency of thrombocytopenia and its severity among patients with malaria.

### Methodology

In this prospective cross-sectional study, a total of 120 patients with smear-positive for malaria on microscopy were included. The patient's complete blood count (CBC) was assessed daily to monitor the platelet counts, and thrombocytopenia was divided into four categories, i.e., mild, moderate, severe, and very severe thrombocytopenia.

### Results

Out of the total 120 malaria-positive cases, 78(65%) were positive for P. vivax, 32(26.7%) were affected by P. falciparum, and 10(8.3%) patients had mixed infection. Thrombocytopenia developed among 73% of the total patients with malaria; of these, 35.23% developed mild thrombocytopenia, while 31.82%, 23.86%, and 9.09% developed moderate, severe, and

very severe thrombocytopenia, respectively. Among those 30(34.0%) infected with P. falciparum, 8(26.7%) developed mild thrombocytopenia, while 8(26.7%) and 14(46.7%) developed moderate to very severe thrombocytopenia. Similarly, most patients with P. vivax 23(39.7%) had mild to moderate 20(34.5%) thrombocytopenia, 15(25.9%) had severe, and only 5.19% had very severe thrombocytopenia p-value=0.141 shows non-significant association. Furthermore, P. vivax group developed complications, while two of the four patients of the P. falciparum group developed cerebral malaria, one developed renal failure, and the last one had pancytopenia.

### Conclusion

In conclusion, thrombocytopenia is frequent among patients with malaria. Moreover, the severity of thrombocytopenia and complications are more evident among those infected with P. falciparum than those with P. vivax.

### Keywords

Thrombocytopenia, P. falciparum, Malaria, P. vivax.





### Frequency and Severity of Three Diabetic Foot Ulcer Types Utilizing Ten Points Scoring Scale - A Study from a Tertiary Care Hospital of Islamabad

### **Published in**

Annals of Abbasi Shaheed Hospital and Karachi Medical and Dental College. 2023

### Journal Category

### Authors

Ahmed Farhan<sup>1</sup>, Ali Sufyan<sup>2</sup>, Awais Tahir<sup>3</sup>, Arsalan Ahmed<sup>4</sup>, Muhammad Adil Farooq<sup>5</sup>

### **Author Institute Details**

<sup>1-5</sup>Pakistan Institute of Medical Sciences, Pakistan

### Objective

The present study aimed to assess the frequency of types of foot ulcers, and its clinical features among diabetic patients.

### **Methods**

This prospective cross-sectional study was conducted at the Medicine Department of Pakistan Institute of Medical Sciences, Islamabad, between July to December 2019. A total of 133 diabetic patients presenting at the study site for foot ulcer treatment were recruited after obtaining informed consent. The foot ulcers were classified as neuropathic, ischemic ulcer. or neuroischemic. The severity/degree of the ulcer was determined using an internally developed ten points scoring system in which a score of 3 was considered as non-severe ulcers, 4 to 6 score was considered as mild/moderate disease, and a score >6 was referred as a severe disease for neuropathic and ischemic ulcers. Further, neuroischemic foot ulcers were established if a score of e 3 (each) was obtained in the sensory examination score for neuropathy and vascular examination score for ischemic ulcer. The collected data were analysed using SPSS version 22.0.

### Results

There was a high frequency of neuropathic ulcers (69.2%) among the enrolled diabetic patients, followed by ischemic ulcer (30.8%) and neuroischemic (24.8%). The mean neuropathic scores were significantly high among males  $(4.83 \pm 2.09)$  than females  $(4.02 \pm$ 1.77) (p= 0.025). It was also higher in those aged 50 years or greater  $(4.84 \pm 2.09)$  as compared to those with less than 50 years of age (3.80 ± 2.13) (p=0.01). While the mean vasculopathic scores were guite similar between the two genders and age groups i.e. p=0.772 and p=0.125, respectively.

### Conclusion

Neuropathic ulcers were the most frequent type of diabetic foot ulcer. Increased severityof these foot ulcers was observed with advancing age.

### Keywords

Diabetes Mellitus, Diabetic Ulcer, Neuropathic Ulcer, Foot Ulcer, Ischemic Ulcer, Neuroischemic Ulcer.





### Association of Vitamin D with Biochemical Severity Markers in Dengue Patients

### Published in

Pakistan Journal of Medical & Health Sciences. 2023

#### Journal Category Y

### Authors

Adnan Ghafoor<sup>1</sup>, Mohammed Rehan Omar Siddiqi<sup>2</sup>, Ali Ghazanfar<sup>3</sup>, Maria Sarfraz<sup>4</sup>, Aleena Hamid Shah<sup>5</sup>, Fatima Ahmad<sup>6</sup>

### **Author Institute Details**

<sup>1,3,5,6</sup>Fauji Foundation Hospital Rawalpindi, Pakistan <sup>2</sup>United Medical & Dental College, Karachi, Pakistan <sup>4</sup>Rawal Institute of Health Sciences, Islamabad, Pakistan

### **Background & Objective**

Dengue fever is a common virus that has rapidly spread to all parts of the world. Dengue causes two critical disease dengue shock syndrome and dengue hemorrhagic fever.

### Aim

To determine whether vitamin D levels and the severity of dengue are linked in any way.

### **Study Design**

Cohort study.

### Place and Duration of Study

Department of Medicine, Fauji Foundation Hospital Rawalpindi from 15-08-2022 to 15-11-2022.

### Methodology

The patient's sample was collected to monitor the complete blood picture, including total leukocyte count and hemoglobin, hematocrit, platelets, etc. The severity of dengue was assessed by looking at platelet counts and hematocrit.

### Results

The mean age was 29.19±16.80 years. There were 51% females and 49% males in the study. Vitamin D levels and platelet levels were weakly correlated with each other (rs= -.408, p= .000). There was a strong, negative correlation between Hb and Vitamin D levels, which was statistically significant (rs= -.704, p= .000). Similarly, hematocrit and highest MCHC also had a strong inverse significant correlation with Vitamin D level (rs= .698, p = .000 and rs= .751, p= .000, respectively). Surprisingly, there were significantly higher vitamin D levels in severe dengue patients than in non-severe ones (p<0.01).

### Conclusion

Vitamin D levels were higher in severe dengue cases compared to less severe ones, indicating a possible role of vitamin D as a cofactor for predicting disease severity. It is suggested that maintaining an ideal vitamin D level can help avoid the progression of asymptomatic dengue to dengue hemorrhagic fever or dengue shock syndrome.

### Keywords

Vitamin D, Biochemical severity markers, Dengue.





### Frequency of Dyslipidemia in Ischemic Strokes Involving Different Regions of Brain

### **Published in**

Pakistan Journal of Medical & Health Sciences. 2023

#### **Journal Category** Y

#### **Authors**

Adnan Ghafoor<sup>1</sup>, Ali Ghazanfar<sup>2</sup>, Maria Sarfaraz<sup>3</sup>, Syed Jibran Ashraf<sup>4</sup>, Tanzil-Ur-Rehman<sup>5</sup>, Ayesha Mujtaba<sup>6</sup>

### **Author Institute Details**

<sup>1,2,5,6</sup>Fauji Foundation Hospital, Rawalpindi, Pakistan <sup>3</sup>Rowel Institute of Health Science, Islamabad, Pakistan <sup>4</sup>United Medical & Dental College, Karachi, Pakistan

### Aim

To determine the frequency of dyslipidemia in ischemic stroke patients based on the location of the infarct.

### **Study Design**

Cross-sectional study

### Place and Duration of Study

Department of Medicine, Fauji Foundation Hospital Rawalpindi from 10 August 2021 to 10 January 2022.

#### **Methods**

Four hundred patients with MRIproven ischemic stroke were enrolled. The blood samples were obtained, and a lipid profile was used to determine the lipid abnormalities (dyslipidemia).

### Results

Middle cerebral artery involvement was the most frequently observed among the enrolled ischemic stroke patients, i.e., 54.8%. The overall frequency of dyslipidemia was 92.3%; hypercholesterolemia, hypertriglyceridemia, high LDL, and low HDL was present in 47.8%, 50.8%, 33.8%, and 93.8%, respectively. All patients with middle cerebral artery involvement had low HDL levels, 34.25% had high LDL levels, 41.10% had high triglyceride levels, and 54.79% had high cholesterol levels. A significant effect of age, gender, recurrent stroke, and location of infarct was observed on the frequency of dyslipidemia.

### Conclusion

The frequency of dyslipidemia in ischemic stroke patients in Pakistan is relatively high. This emphasized how important it is to reduce these population-wide modifiable risk factors.

### Keywords

Stroke, Dyslipidemia, Ischemic stroke, Lipid profile.





### Association of Acute Coronary Syndromes with Blood Groups: A Single-Center, Observational Study

### Published in

Pakistan Journal of Medical & Health Sciences. 2023

Journal Category

### **Authors**

Mohammed Rehan Omar Siddiqi<sup>1</sup>, Adnan Ghafoor<sup>2</sup>, Muhammad Asim Rana<sup>3</sup>, Salman Shakeel<sup>4</sup>, Jahanzeb Kamal<sup>5</sup>, Ali Nasir<sup>6</sup>

### **Author Institute Details**

<sup>1</sup>United Medical & Dental College, Karachi, Pakistan. <sup>2</sup>Fauji Foundation Hospital Rawalpindi, Pakistan. <sup>3</sup>Amna Inayat Medical College Lahore, Pakistan <sup>4</sup>Lahore General Hospital, Pakistan <sup>5</sup>College of Physicians & Surgeons Pakistan, Karachi, Pakistan <sup>6</sup>Ziauddin University, Karachi, Pakistan

### Background

Evidence suggests an association between ABO blood groups and cardiovascular diseases; particularly acute coronary syndromes, a major reason for hospitalization and mortality.

### Aim

To investigate the association between ABO blood groups and acute coronary syndrome (ACS) frequency.

### Study Design

Cross-sectional study.

### Place and Duration of Study

United Hospital, Karachi from 1st June 2022 to 31st December 2022.

### Methods

Two hundred and five participants with a diagnosis of ACS were enrolled in this study. A structured questionnaire was used to gather the data regarding the demographics and clinical characteristics of the patients. By utilizing specific antibodies and the agglutination approach, blood types were identified. ECG, coronary angiography, echocardiography and troponin-I were performed on these patients.

### Results

Blood groups B+ and O+ among ACS patients had the largest prevalence (35.1 and 28.8%, respectively) and there was a significant association between blood groups and the type of MI (p=0.008). The most frequently diagnosed MI was anterior wall myocardial infarction (AWMI), which is highly prevalent among patients with the type A (+ve) blood group. Moreover, the risk factors were equally prevalent among patients of different blood groups.

### Conclusions

The frequency of ACS and ABO blood type were significantly correlated and there was no statistically significant correlation between any risk factors under study and blood type.

### Keywords

Acute coronary syndrome, ABO blood type, Risk factors.





### Morbidity and Mortality in Patients Presenting with Septic Miscarriage at a Tertiary Care Hospital

### **Published in**

Pakistan Journal of Public Health. 2023

Journal Category Y

**Authors** Saima Ashraf<sup>1</sup>, Arooj Fatimah Khosa<sup>2</sup>, Javeria Malik<sup>3</sup>

### **Author Institute Details**

<sup>1</sup>Nishtar Medical University, Multan, Pakistan <sup>2</sup>DG Khan Medical College, Dera Ghazi Khan, Pakistan <sup>3</sup>Consultant Gynecologist, Hasil Pur, Pakistan

### Background

The study aimed to determine the frequency of maternal morbidity in terms of uterine perforation, peritonitis, and mortality in women presenting with septic miscarriage.

### **Methods**

This Descriptive cross-sectional was conducted at the Obstetrics and Gynaecology department of Nishtar Hospital, Multan-Pakistan, from 1st September 2019 to 31st March 2020. A total of 240 females presenting with septic miscarriage having parity < 5 were included in the study.

A pelvic ultrasound was done to find any retained products of conception and to see uterine perforation and any free fluid in the peritoneal cavity. Where uterine perforation was found, laparotomy was performed. Retained products of conception were evacuated by dilatation and curettage.

Data regarding maternal morbidity (uterine perforation and peritonitis) & mortality was recorded.

### Results

In this study, the mean time of miscarriage to admission was 37.30 ± 9.24 hours. Regarding parity, 83.8% of females were with parity of 0-2, and 16.3% of women had a parity of 3-4. Around 38.8% of females had a medical termination of pregnancy, and 61.7% underwent surgical evacuation. Peritonitis and uterine perforation were seen in 25% and 13.3% of the patients. However, death was recorded in 7.5% of patients.

### Conclusion

It is concluded that septic miscarriage is a frequently encountered gynecological complication, necessitating hospital admission and treatment. It adversely affects women's health and quality of life, leading to mortality.

### Keywords

Septic miscarriage, maternal morbidity, peritonitis, uterine perforation.





### COVID-19 among Hospitalized Patients with Diabetes in Karachi: A Single Centre Study

### Published in

Pakistan Journal of Medical & Health Sciences. 2023

Journal Category Y

### **Authors**

Wasfa Aijaz<sup>1</sup>, Tasnim Ahsan<sup>2</sup>, Babar Pal<sup>3</sup>, Bharta Rani<sup>4</sup>, Paras Imran<sup>5</sup>, Saeeda Fouzia Qasim<sup>6</sup>

### **Author Institute Details**

<sup>1,2</sup>Orthopedic Medical Institute (OMI) Hospital, Karachi, Pakistan <sup>3,4</sup>Medicell Institute of Diabetes Endocrinology & Metabolism, Karachi <sup>5,6</sup>Consultant Physician, Karachi, Pakistan

### Aim

To evaluate the clinical characteristics, severity, and outcomes of local COVID-19 patients with diabetes.

### **Study Design**

Case series.

### Place and Duration of Study

Orthopedic Medical Institute Hospital, Karachi from 1st September 2020 to 28th February 2021.

### Methods

One hundred and forty seven COVID-19 positive patients with diabetes and pre-diabetes were enrolled. The patients' demographic and clinical information specific to COVID-19 and diabetes was collected and analyzed.

### Results

The mean age of 64.03±11.56 years. The ischemic heart disease (39.9%) and hypertension (74.3%) were the two most prevalent comorbid conditions. The overall mortality rate of 20.3%. Between patients with diabetes receiving steroids and those receiving no steroids, the mean fasting (FBG) and random blood glucose (RBG) were relatively elevated. Glycemic control had no discernible impact on the severity, results, or length of the COVID-19 hospital stay (p>0.05).

### Conclusion

No significant effect of diabetes mellitus control on COVID severity and outcomes, but the altered blood glucose levels suggest a need to define specific targeted intervention for COVID-19 patients with comorbidities, specifically diabetes mellitus.

### Keywords

COVID-19, Diabetes mellitus, Diabetes control, Outcome.





### Acceptability, continuation and complication rate of postpartum insertion of intrauterine contraceptive device among Pakistani women

### **Published in**

Journal of Pakistan Medical Association. 2023

Impact Factor 0.9

Journal Category X

**Authors** Azra Ahsan<sup>1</sup>, Aleya Ali<sup>2</sup>

### **Author Institute Details**

<sup>1,2</sup>National Committee for Maternal and Neonatal Health, Karachi, Pakistan

### Objective

To determine level of acceptability, continuation and complication rate associated with postpartum intrauterine contraceptive device uptake.

### **Methods**

The multicentre study was conducted from April 2012 to December 2020 in selected health facilities across Pakistan. After approval from the ethics review committee of the Pakistan Medical Association data was analysed retrospectively. This comprised women attending antenatal clinics and those who came in labour without prior registration. The subjects were counselled, and those who consented were given family planning services of their choice, particularly postpartum intrauterine contraceptive device. The subjects were followed up at 6 weeks and then again at 6 months. Data was analysed using SPSS 20.0.

### Results

Of the 3,523,404 women available, 525,819 (15%) were counselled. Of them, 208,663 (39.7%) were aged 25-29 years, 185,495 (35.3%) had secondary education, 476,992 (90.7%) were unemployed, and 261,590 (49.74%) had 1-2 children. Of the total, 387,500 (73.7%) consented to receive postpartum intrauterine

contraceptive device, 149,833 (38.7%) actually came for insertion. Those who did receive postpartum intrauterine contraceptive device were 146,318 (97.65%), and, of them, 58,660 (40%) were lost to follow-up. Acceptance and uptake of postpartum intrauterine contraceptive device was positively and significantly dependent on the professional level of counsellor and the place of counselling (p<0.01). Age, education, number of living children and gravida were significantly associated with device insertion status (p<0.01). Of the 87,658 (60%) subjects followed up, those who came at 6 weeks were 30,727 (35.05%) and device discontinuation rate was 3,409 (11.09%). At 6 months, there were 56,931 (64.94%) follow-ups and the discontinuation rate was 6,395 [11.23%].

### Conclusion

Counselling done by doctors in early labour positively influenced the postpartum intrauterine contraceptive device insertion rate.

### Keywords

Counselling, Acceptability, and Insertion, Non-insertion reasons, Postpartum intrauterine contraceptive device, PPIUCD.





### Omeprazole (Risek®) Use in Inpatient and Outpatient Departments: A Post-Marketing Surveillance Investigation

### Published in

Pakistan Journal of Health Sciences. 2023

**Journal Category** Y

### Authors

<sup>1</sup>Jahanzeb Kamal Khan, <sup>2</sup>Syed Hasan Danish, <sup>3</sup>Muhammad Nauman Shaikh, <sup>4</sup>Rizwan Mahmud, <sup>5</sup>Saima Shafqat and <sup>6</sup>Muhammad Usama

### **Author Institute Details**

<sup>1</sup>College of Physicians and Surgeons, Karachi, Pakistan
<sup>2</sup>Ziauddin Medical College, Karachi, Pakistan
<sup>3</sup>Institute of Business
<sup>3</sup>Institute of Business
Management, Karachi, Pakistan
<sup>4</sup>Benazir Bhutto Hospital, Rawalpindi, Pakistan
<sup>5</sup>Federal Government Polyclinic, Islamabad, Pakistan
<sup>6</sup>DHQ Teaching Hospital, Sahiwal, Pakistan

#### **Objectives**

To ascertain whether the Omeprazole (Risek®)-PPIs prescription patterns by practitioners in the inpatient and outpatient departments of various healthcare facilities in Pakistan are in compliance with the therapeutic indications and to evaluate the safety profile associated with each therapeutic indication.

### **Methods**

A cross-sectional multicenter study was conducted for 4 months at various healthcare facilities inpatient and outpatient departments. A total of 1384 patients ≥ 18 years prescribed Omeprazole (Risek®) were enrolled while pregnant or lactating women, patients with chronic diarrhea, those with a history of Omeprazole allergic reaction, and with diagnosed malignancy of the GI tract were excluded. The drug use was determined based on the prescribed frequency, dosage, and duration of therapy with respect to each indication

### Results

Of the total, 29.8% were already taking oral PPI or Histamine H2-Receptor Antagonists. The common indication for Omeprazole (Risek®) was Gastroesophageal Reflux

Disease (GERD), followed by peptic ulcer. Mostly the drug was infused/ injected in 40 mg dosage, once daily and for five days among 76.6% and 41.8%, respectively. Around 13.3% of patients experienced mild adverse events like flatulence. fever, vomiting, abdominal pain, constipation, diarrhea, nausea, rash, etc. Most off-label uses were observed in GERD concerning the duration of therapy (55.9%). prescribed frequency (19.7%), and dosage (5.9%). The Omeprazole (Risek®) treatment was also prescribed for stress ulcer prophylaxis and upper GI bleeding against the treatment protocol for the particular therapeutic indication. The adverse events were most frequent among patients with GERD, followed by NSAID-induced ulcers.

### Conclusions

This study provides clinical evidence on the Omeprazole (Risek®) use in concordance with the product label, in both inpatient and outpatient departments of Pakistan for various therapeutic indications.

### Keywords

Off-Label Use, Proton Pump Inhibitors, Omeprazole.





### Association of Elevated Heart Risk Score with Myocardial Infarction in Patients with Chest Pain

### Published in

Pakistan Journal of Health Science. 2023

Journal Category Y

**Authors** Ayaz Ghulam Rasool<sup>1</sup>, Asia Ayaz<sup>2</sup>

### **Author Institute Details**

<sup>1</sup>Ziauddin University Hospital, Karachi, Pakistan <sup>2</sup>Suleiman Al Habib Hospital, Riyadh, Saudi Arabia

### Objective

To assess the importance of HEART score in our population.

### Methods

This study was conducted at emergency department of Ziauddin University Hospital, Karachi, Pakistan from 01 January 2021 to 30 June 2022. A cohort study of the HEART risk score in myocardial infarction (MI) patients presented with chest pain was conducted. 244 patients were selected by consecutive sampling and distributed into two groups i.e., non-exposed (HEART risk score 0-3) and exposed group (HEART risk score ≥ 4). The HEART risk score was calculated and patients were followed for the next 48 hours

### Results

Patients of both groups were monitored for forty-eight hours and the results were myocardial infarction (MI) in 1 (0.8%) patient and 86 (70.5%) patients in group A (low risk) and group B (high risk) respectively. One patient (0.8%) in each group A (low risk) and in group B (high risk) left against medical advice (LAMA). One hundred twenty (98.4%) patients in group A and thirty-five (28.7%) patients in group B (high risk) were discharged. No patient (0.0%) expired in group A (low risk) and in group B (high risk) respectively.

### Conclusions

It was concluded from the study that the HEART risk score is very much helpful as a diagnostic tool in patients with chest pain, presented in the emergency.

### Keywords

HEART Risk Score, Myocardial Infarction, Hypertension, Diabetes Mellitus.





### Assessment of Vitamin D Deficiency and its Possible Risk with Breast Cancer in Pakistan

### Published in

Pakistan Journal of Medical and Health Sciences. 2023

#### Journal Category Y

### Authors

Amir Iqbal Memon<sup>1</sup>, Aisha Masroor Bhatti<sup>2</sup>, Rizwan Khan<sup>3</sup>, Nayab<sup>4</sup>, Suhail Raza<sup>5</sup>, Mohammed Qasim<sup>6</sup>

### **Author Institute Details**

<sup>1,2,4-6</sup>Liaquat University of Medical and Health Sciences, Jamshoro, Pakistan <sup>3</sup>Combined Military Hospital Rawalpindi, Pakistan

### Aim

To assess the vitamin D deficiency as a possible risk factor in breast cancer.

Study Design

Cross-sectional study

### Place and Duration of Study

Surgical Unit-II, Ward 5, Liaquat University of Medical & Health Sciences Jamshoro from 1st January 2022 to 31st December 2022.

### Methodology

One hundred and twenty-seven patients with the complaints of lump/mass in the breast or nipple discharge >6-week duration and diagnosed as breast cancer regardless of stage/grade presented were enrolled.

### Results

59.8% while the illiterate, primary, middle, secondary and higher were 36.2%, 14.2%, 17.3%, 20.5% and 11.8%. The statistical significance was observed for vitamin D deficiency in accordance with residence (p=0.03), duration of disease (p=0.05), educational status (p=0.05), hypertension (p=0.01), smoking (p=0.00), obesity (p=0.02), diabetes mellitus (p=0.04), raised CRP (p=0.00), hypocalcemia (p=0.00), ER/PR positive (p=0.01) and family history of breast cancer (p=0.04).

### Conclusion

Vitamin D deficiency is more prevalent in patients with breast cancer with rural population predominance.

### Keywords

Breast cancer, breast carcinoma, and vitamin D deficiency.





### Burden and Associated Factors of Overweight and Obesity among Type-2 Diabetes Mellitus Visiting a Private Healthcare Facility in South Punjab, Pakistan

### **Published in**

Journal of Pakistan Society of Internal Medicine. 2023

#### Journal Category Y

**Authors** Qazi Masroor Ali<sup>1</sup>, Saba Anjum<sup>2</sup>, Ali Imran<sup>3</sup>, Sadaf Shafigue<sup>4</sup>

### **Author Institute Details**

<sup>1</sup>Aleena Hospital Bahawalpur, Pakistan <sup>2</sup>Shahida Islam Teaching Hospital Lodhran, Pakistan <sup>3</sup>Quaid-e-Azam Medical College, Bahawalpur, Pakistan <sup>4</sup>Bahawal Victoria Hospital, Bahawalpur, Pakistan

### Objective

To determine the burden of overweight and obesity among type-2 diabetes mellitus (T2DM) patients visiting outpatient department of a private healthcare facility of South Punjab, Pakistan.

### Methods

This cross-sectional study was performed at the outpatient department of medicine, Aleena Hospital, Bahawalpur, Pakistan from 1st January 2021 to 30th November 2022. We included 3030 known cases of T2DM with disease duration of ≥6 months. At the time of enrollment, medical history was taken and clinical examination performed. Demographic characteristics and body mass index (BMI) were noted while blood sample was sent to institutional laboratory for HbA1c evaluation.

### Results

In a total of 3030 patients with T2DM, 1528 (50.4%) were females whereas the mean age was 50.09±11.98 years. The mean duration of diabetes was 5.94±5.89 years while the mean HbA1c was 9.63±2.29%. The mean BMI was noted to be 26.42±5.65 kg/m2 while 149 (57.7%) patents were obese, 462 (15.2%) overweight and 819 (27.0%) had normal BMI. It was observed that age (p<0.001) and hypertension (p<0.001) were having significant association with BMI categories. Multiple logistic regression model showed that obesity was having a significant relationship with age between 31-45 years (p=0.029) with adjusted OR of 1.5 (95% CI: 1.05-2.27) and hypertension (p<0.001) with adjusted OR of 1.8 (95% CI: 1.49-2.14).

### Conclusion

The burden of overweight and obesity was very high among T2DM. Age between 31-45 years and hypertension were having significant relationship with obesity.

### Keywords

Body mass index, diabetes mellitus, hypertension, obesity, overweight.





### Evaluation of Angiotensin Receptor and Neprlysin Inhibition (ARNI) in Patients of Heart Failure With Reduced Ejection Fraction (HFrEF) - A Real-World Study

**Published in** Pakistan Heart Journal. 2023

**Journal Category** Y

**Authors** 

Mohammad Hafizullah<sup>1</sup>, Wahaj Aman<sup>2</sup>, Hisar Afridi<sup>3</sup>

### **Author Institute Details**

<sup>1</sup>Lady Reading Hospital, Peshawar, Pakistan, <sup>2</sup>Memorial Hermann Hospital, Katy, Texas, USA <sup>3</sup>Shamshatu BHU, Peshawar, Pakistan

### Objectives

This is a real world prospective study to evaluate the effects of Neprlysin Inhibition (ARNI) using sacubitril/ valsartan in patients with heart failure with reduced ejection fraction (HFrEF).

### Methodology

This was an outpatient study on patients of HFrEF (EF<40%) and stable blood pressure after obtaining informed consent. Consecutive patients were enrolled and followed at 6 and 12 weeks. Detailed clinical and echocardiographic examinations were performed on all visits. Biochemistry evaluating ProBNP, renal profile, HbA1C and electrolytes were performed in 24 patients at baseline and follow-up.

### Results

We enrolled 80 patients, but 63 patients could be followed. Mean age was 53.54±13.32 years and 55% were males. After 12 weeks treatment improvement in NYHA functional class was seen in 66% and improvement by more than one grade in 31% (p<0.01). Pro-BNP reduced from 3552.71±1804.74 at the baseline to 723±930 on the second FU visit (p<0.002). Structural improvement was seen in 33% of patients. Left ventricular (LV) end-diastolic diameter (EDD) reduced by 3.49 mm and LV end systolic diameter (ESD) by 3.97 mm (p<0.014). Fractional shortening (FS) increased by 2.07% and EF by 3.52 (p<0.01). Patients tolerated the drug well, but most could not tolerate the higher recommended dosage. Renal status, electrolytes, and HbA1C did not alter significantly.

### Conclusion

Treatment with sacubitril/valsartan in addition to the guideline directed medical therapy (GDMT) resulted in marked reduction in ProBNP, significant improvement in functional class and enhancement of cardiac pumping activity with reduction in LVEDD and LVESD and improvement in FS and EF.

### Keywords

Sacubitril/Valsartan, Heart failure, Reduced EF.





### Safety and tolerability of Sacubitril/Valsartan in heart failure patient with reduced ejection fraction

### Published in

BMC Cardiovascular Disorders. 2023

**Impact Factor** 2.1

Journal Category X

### **Authors**

Muhammad Nauman Khan<sup>1</sup>, Najia Aslam Soomro<sup>2</sup>, Khalid Naseeb<sup>1</sup>, Usman Hanif Bhatti<sup>1</sup>, Rubina Rauf<sup>1</sup>, Iram Jehan Balouch<sup>3</sup>, Ali Moazzam<sup>1</sup>, Sonia Bashir<sup>1</sup>, Tariq Ashraf<sup>4</sup> and Musa Karim<sup>1</sup>

### **Author Institute Details**

<sup>1</sup>National Institute of Cardiovascular Diseases (NICVD), Karachi, Pakistan <sup>2</sup>Liaquat National Hospital, Karachi, Pakistan <sup>3</sup>National Institute of Cardiovascular Diseases (NICVD), Hyderabad, Pakistan <sup>4</sup>Karachi Institute of Heart Diseases (KIHD), Karachi, Pakistan

#### Background

Angiotensin receptor blocker and a neprilysin inhibitor (ARNI) has emerged as an innovative therapy for patients of heart failure with reduced ejection fraction (HFrEF). The purpose of this study was to assess the safety and tolerability of Sacubitril/Valsartan in patient with HFrEF in Pakistani population.

### **Methods**

This proof-of-concept, open label non-randomized clinical trial was conducted at a tertiary care cardiac center of Karachi, Pakistan. Patients with HFrEF were prescribed with Sacubitril/Valsartan and followed for 12 weeks for the assessment of safety and tolerability. Safety measures included incidence of hypotension, renal dysfunction, hyperkalemia, and angioedema.

### Results

Among the 120 HFrEF patients, majority were male (79.2%) with means age of 52.73±12.23 years. At the end of 12 weeks, four (3.3%) patients died and eight (6.7%) dropped out of the study. In the remaining 108 patients, 80.6% (87) of the patients were tolerant to the prescribed dose. Functional class improved gradually with 75.0% (81) in class I and 24.1% (26) in class II, and only one (0.9%) patient in class III at the end of 12 weeks. Hyperkalemia remains the main safety concern with incidence rate of 21.3% (23) followed by hypotension in 19.4% (21), and renal dysfunction in 3.7% (4) of the patients.

### Conclusions

Sacubitril/Valsartan therapy in HFrEF patients is safe and moderately tolerated among the Pakistani population. It can be used as frst line of treatment for these patients.

Trial registration NCT05387967. Registered 24 May 2022-Retrospectively registered, https://clinicaltrials.gov/ct2/show/ NCT05387967.

### Keywords

Sacubitril, Heart failure, Reduced ejection fraction, Safety and tolerability.





### Assessment of Risk Factors for Non-Alcoholic Fatty Liver Disease (NAFLD)

### Published in

Pakistan Journal of Health Sciences. 2023

**Journal Category** Y

### Authors

Zahid Hussain<sup>1</sup>, Muhammad Aslam Rind<sup>1</sup>, Maria Nazir<sup>1</sup> and Muhammad Saleem<sup>2</sup>

### **Author Institute Details**

<sup>1</sup>Liaquat University of Medical and Health Sciences, Jamshoro, Pakistan <sup>2</sup>Peoples University of Medical and Health Sciences, Nawabshah, Pakistan

### Objective

To assess risk factors for Nonalcoholic fatty liver disease. This study was conducted at the Department of Medicine Liaquat University, Hospital Jamshoro, from 7th September 2020 to 6th March 2021.

### Methods

This research was cross-sectional. The study recruited a total of 195 patients via nonprobability sequential sampling. The ultrasound of all the patients was done by a sonologist for detecting NAFLD.

### Results

The stratification of NAFLD according to smoking, hypertension, obesity, hyperlipidemia, uncontrolled diabetes mellitus, and vitamin D deficiency was done. The statistical significance was observed for NAFLD in accordance with smoking, (p=0.00), hypertension (p=0.04), obesity (p=0.04), hyperlipidemia (p=0.03), uncontrolled diabetes mellitus (p=0.04), vitamin D deficiency (p=0.04).

### Conclusions

This study has shown that the percentage of NAFLD was highest in age group (40-49 years). Males were more affected as compared to females. Smokers, hypertensive, hyperlipidemias and diabetics were more prone to develop NAFLD.

### Keywords

Non-Alcoholic Fatty Liver Disease (NAFLD), Smoking, Hypertension, Obesity.





### Comparison of Dual Therapy, Rifaximin plus Lactulose with Monothrapy, Lactulose Alone in the Treatment of Portosystemic Encephalopathy

### **Published in**

Pakistan Journal of Medical and Health Sciences. 2023

#### Journal Category Y

### Authors

Hyder Wajid Abbasi<sup>1</sup>, Mashood Ali<sup>2</sup>, Irfan Younus<sup>3</sup>, Furqan Tahir<sup>4</sup>, Adnan Qadir<sup>5</sup>, Talha Firoz<sup>6</sup>

### **Author Institute Details**

<sup>1,2</sup>Pakistan Institute of Medical Sciences, Islamabad, Pakistan
<sup>3</sup>Nawaz Sharif Medical College, Gujrat, Pakistan
<sup>4</sup>Aziz Bhatti Shaheed Teaching Hospital, Gujrat, Pakistan
<sup>5</sup>Islamic international Medical College, Rawalpindi, Pakistan
<sup>6</sup>Parliament Lodges Dispensary, Islamabad, Pakistan

### Objective

To compare the efficacy of dual therapy (rifaximin and lactulose) and lactulose monotherapy in the treatment of porto-systemic encephalopathy.

### Study Design

Randomized control trial.

### Place and Duration of Study

Department of Gastroenterology, PIMS Hospital, Islamabad from 1st July 2020 to 31st December 2020.

### Methodology

One hundred and fifty patients of both genders age ranges from 18-65 years with liver cirrhosis having hepatic encephalopathy grade II or above were included. They were divided in two groups; each group comprised 75 patients. Group A took lactulose and rifaximin, while lactulose alone was given to Group B. All patients were monitored for 5 days on the basis of Child Pugh Criteria.

### Results

The mean age was 40.02+24.4 years. One hundred twenty six (85.1%) of patients were above 50 years. Males were 60%, majority of patients were from the emergency department, while 17 were from OPD. HCV was identified as the major cause of cirrhosis (72.6%), while HBV (14.6%), alcohol (4%) and others (8.6%) contributed nominally. Constipation was major precipitating factor in 83 patients while sepsis and UGI Bleed was culprit in 31 and 19 patients respectively. Sixty patients (80%) of group A of both genders showed improvement in five days, while 42 patients (56%) of group B showed improvement in the same period of time (p=0.006). It was found more in males and elder patients.

### Conclusion

Rifaximin plus lactulose therapy was far superior to lactulose monotherapy in every age group and either gender.

### Keywords

Porto systemic encephalopathy, Decompensated chronic liver disease, Rifaximin lactulose therapy, Lactulose monotherapy.





### Frequency and Pattern of Presentation of Neck Lymphadenopathy in Oral Squamous Cell Carcinoma in Patients Presenting to Nishtar Hospital, Multan

### Published in

Pakistan Journal of Medical and Health Sciences. 2023

#### Journal Category Y

#### **Authors**

Sidra Tulmuntaha<sup>1</sup>, Muhammad Fishan<sup>2</sup>, Asif Nazir<sup>3</sup>, Muhammad Inqalab Fareed<sup>4</sup>, Safoora Hashmi<sup>5</sup>, Nasir Abbas<sup>6</sup>

### **Author Institute Details**

<sup>1-6</sup>Nishtar Institute of Dentistry, Multan, Pakistan

### Objective

Frequency and pattern of presentation of neck lymphadenopathy in oral squamous cell carcinoma.

### Place and Duration of Study

Nishtar Institute of Dentistry Multan from 1st January 2021 to 31st December 2021.

### Methodology

Forty lymph nodal involvement were assed, either unilateral, bilateral and multiple or single. It was checked how many lymph nodes are involved; extra capsular spread was assessed. The findings of a histological examination of the removed tissue were obtained. Level of lymph adenopathy was measured.

### Results

Mean age was found to be 46.9 with minimum of 20 and maximum of 75. There were total 25(62.5%) males and 15(37.5%) females. Ten (25%) patients had lip involvement and 22(55%) had buccal mucosa, 6(15%) had gingival, 2(5%) has palate evolved. Eight (20%) were found to be having unilateral lymph node evolved while 32(80%) were found to be having bilateral evolvement. 20(50%) were having single lymph node involvement and 20 (50%) were having multiple lymph node involvement. Twenty (50%) were having <3 lymph node size and 20 (50%) were having 3-6 lymph node size. Consistency of lymph node was hard 18 (45%) and rubbery in 22 (55%). Twenty-six (65%) were having 1-3 lymph node involvement and 14 (35%) were having 5-10 lymph node involved. Extra capsular spread was seen in 2 (5%) cases.

### Conclusion

Most of cases presented of oral squamous carcinoma were stage I and stage II. Bilateral lymph nodal involvement was seen was common and buccal mucosa was commonly affected site.

### Keywords

Carcinoma, Oral squamous carcinoma, Lymph node, Lymph adenopathy.





### Frequency of Iron Deficiency in Heart Failure Patients

#### **Published in**

Pakistan Journal of Medical and Health Sciences. 2023

#### Journal Category Y

#### **Authors**

Muhammad Qasim<sup>1</sup>, Bushra Anwar<sup>2</sup>, Amir Qureshi<sup>3</sup>, Muazam Ali Shehzad<sup>4</sup>, Syed Imran Ahmed Kazmi<sup>5</sup>, Ayesha Bibi<sup>6</sup>

#### **Author Institute Details**

<sup>1-3</sup>Ayub Teaching Hospital, Abbottabad, Pakistan
<sup>4</sup>Women Medical College, Abbottabad, Pakistan
<sup>5</sup>DHQ Hospital, Abbottabad, Pakistan
<sup>6</sup>Ayub Medical Complex, Abbottabad, Pakistan

#### Aim

This research sought to determine the prevalence of iron insufficiency in people with chronic heart failure.

#### Design of the Study

This study is cross-sectional.

#### Place of the Study

Ayub Teaching Hospital Abbottabad from November 2019 to April 2020.

#### Methodology

After obtaining written informed permission, the research participants who met the inclusion criteria were chosen. Patients between the ages of 40 and 70, of either gender, were included in the research group if they had a documented history of CHF for less than six months and an echocardiogram showed an LVEF of less than 45%.

#### Results

Mean age of the patients was 55.79±9.926, ranging from 40 to 70 years and the mean BMI was 29.03±5.043 ranging from 19 to 49kg/ m2, mean serum ferritin level was 226.03±160.297 ranging from 70 to 500µg/L and mean transferrin saturation was 23.15±6.449 ranging from 15 to 38%. In the frequency of heart failure, patients of heart failure were 72(48%) and 78(52%) had no HF. In the frequency of iron deficiency, patients found with a deficiency were 82(54.7%) and 68(45.3%) had no deficiency.

#### Conclusion

Men with functional classes II–III were more likely to have iron deficiency anaemia (72% prevalence). Hypertension was the most prevalent comorbidity.

#### Keywords

Iron deficiency, Heart failure, Anemia.





## Comparison of complete nasal packing with and without integrated airways

#### Published in

Pakistan Journal of Medical and Health Sciences. 2023

**Impact Factor** 2.2

Journal Category X

#### Authors

Afifa Jamil<sup>1</sup>, Hira Abdul Hameed<sup>2</sup>, Atif Hafeez Sidiqqui<sup>3</sup>, M. Shuja Farrukh<sup>4</sup>

#### **Author Institute Details**

<sup>1-4</sup>Dr Ruth K.M. PFAU, Civil Hospital, DUHS, Karachi, Pakistan

#### Objective

To compare the effects of nasal packing using a Nasopore nasal packing with and without an airway tube on postoperative pain, SpO2, nasal obstruction, and difficulty in breathing complaints.

#### Methods

This comparative study was conducted at Dow University of Health Sciences (DUHS), DMC Civil Hospital Karachi between September 18, 2021, to May 19, 2022. A total of 70 patients who underwent septoplasty for septal deviation and chronic hypertrophic rhinitis were equally divided into two groups. Group-A patients received nasal packing using a Nasopore nasal packing with an airway tube, and Group-B patients received nasal packing using a Nasopore nasal packing without an airway tube. Post-operation Nasal pain sensations were measured using the Wong-Baker Faces Pain Rating Scale at 2 and 12 hours. SpO2 was measured at 30 minutes preoperatively with an O2 saturation monitor and 12 hours postoperatively during sleep.

#### Results

The postoperative pain at two hours and 12 hours was compared between the two groups, and a significant difference was observed. In Group-A, the average SpO2 decreased > 4% from baseline in 5.7% patients, and 37% in Group-B. A significant difference was observed in the severity of nasal obstruction and difficulty breathing, P-value < 0.05.

#### Conclusion

It is concluded that septoplasty followed by applying nasal packing with integrated airway reduces postoperative pain and improves oxygen saturation compared to nasal packing without integrated airways.

#### Keywords

Nasal Packing, Nasal Airway, Septoplasty, Oxygen Saturation, Postoperative Pain.





# Efficacy and safety profile of Glucagon-Like Peptide-1 Receptor Agonist in obese Type-2 diabetes patients from a private institution in Karachi

#### **Published in**

Pakistan Journal of Medical Sciences. 2023

Impact Factor 2.2

Journal Category X

#### Authors

Saeeda Fouzia Qasim<sup>1</sup>, Tasnim Ahsan<sup>2</sup>, Saima Ghaus<sup>3</sup>, Paras Imran<sup>4</sup>

#### **Author Institute Details**

<sup>1,2,4</sup>Jinnah Postgraduate Medical Centre, Karachi, Pakistan <sup>1,2,3</sup>Medicell Institute of Diabetes, Endocrinology and Metabolism (MIDEM), Karachi, Pakistan

#### Objective

To assess the effectiveness of GLP-1RAs in managing obese T2DM patients.

#### Methods

This prospective cohort analysis was conducted at Medicell Institute of Diabetes, Karachi, Pakistan; from July 2019 to July 2021. A total of 97 obese individuals >16 years of age with T2DM and IGT were initially enrolled, and 81 patients who showed up for the follow-up were prescribed one of the three GLP-1RAs available in Pakistan.

#### Results

Out of 81 patients who showed up for the follow-up visit, 43 had received Liraglutide, 25 were taking Dulaglutide, and 13 had been prescribed IDegLira supplemented with oral hypoglycemic medications ± insulin. The mean age of the enrolled patients was 49.21(12.44) years, and there was female predominance (55.6%). Overall, there was a significant weight and BMI reduction among the patients treated with either of the GLP-1RAs (P<.01). Furthermore, significant glycemic control was observed in all three groups after the treatment. The Dulaglutide group

demonstrated a more significant reduction of HbA1c compared to Liraglutide group, which showed more pronounced weight and BMI reduction. Nevertheless, this class of medications was well-tolerated, with nausea being the most often reported side effect.

#### Conclusion

GLP-1RAs showed favorable weight and HbA1c reduction among patients of all three treatment groups.

#### Keywords

Diabetes Mellitus, GLP-1RA, Obesity, Glycemic control, HbA1c.





# Effectiveness of topical vs. combination ciprofloxacin for the treatment of chronic suppurative otitis media

#### Published in

Journal of University Medical & Dental College. 2023

**Journal Category** Y

Authors Nasir Wakeel<sup>1</sup>, Aasma Tariq<sup>2</sup>, Igra Gull<sup>3</sup>, Hamna Hafeez<sup>4</sup>

#### **Author Institute Details**

<sup>1</sup>Quaid-e-Azam Medical College, Bahawal Victoria Hospital, Bahawalpur, Pakistan <sup>2</sup>Bahawal Victoria Hospital, Bahawalpur, Pakistan <sup>3</sup>THQ Hospital, Khairpur Tamewali, Bahawalpur, Pakistan <sup>4</sup>CMH Institute of Medical Sciences, Bahawalpur, Pakistan

#### **Background & Objective**

Topical antibiotics are a popular choice for treating chronic suppurative otitis media (CSOM), but there is no consensus on their penetration ability in the middle ear, mastoid cavities, and effectiveness against the causative pathogens. Hence, the present study aimed to compare the efficacy of empirical treatment of Chronic Suppurative Otitis Media (CSOM) with topical ciprofloxacin alone and in combination with oral ciprofloxacin.

#### Methodology

In this prospective study, 98 consecutive patients presented with diagnosed CSOM of tubotympanic type were recruited from the ENT Department of Bahawal Victoria Hospital. The enrolled patients were randomly subjected to the treatment groups (49 in each group), i.e., topical ciprofloxacin drops alone or oral and topical ciprofloxacin in combination; the therapy continued for 1 week. After 7 days of treatment, patients were assessed to observe the resolution of discharge and adverse effects of the drugs.

#### Results

It was observed that 95.9% of the patients had complete resolution of discharge after 7 days of treatment; the outcomes were comparable in both treatment groups (p=1.00). There was no statistically significant difference between the patients of both treatment groups concerning gender, age, and discharge duration (p>0.05). There were minimal side effects but apparently, they were more frequent among group B patients than in group A.

#### Conclusion

It is concluded from the study that topical ciprofloxacin alone is as efficacious as oral and topical combination therapy for the treatment of CSOM.

#### Keywords

Chronic Suppurative Otitis Media, Adverse Effects, Patient Discharge, Ciprofloxacin, Anti-Bacterial Agents.





### Challenges to Asthma Management

#### **Published in**

Journal of Pakistan Medical Association. 2023

### Impact Factor 0.9

## Journal Category X

#### Authors

Dr. Earl Sempio<sup>1</sup> Dr. Saleem Adhami<sup>2</sup> Dr. Saw Win<sup>3</sup> Dr. Tair Nurpeissurn<sup>4</sup> Dr. Syed Munis Ul Hasan<sup>5</sup> Dr. Jahanzeb Kamal Khan<sup>6</sup> Dr. Javed Iqbal<sup>7</sup> Dr. Joseph A Aluoch<sup>8</sup> Dr. Jumaa Bwika<sup>9</sup> Dr. Kenneth Alberca<sup>10</sup>

#### Author Institute Details

<sup>1</sup>University of Santo Tomas Hospital, Philippine <sup>2</sup>Shalamar Hospital, Lahore, Pakistan <sup>3</sup>Patron of Myanmar Pediatric Society, Myanmar <sup>4</sup>Misnistry of Health, Kazakhstan <sup>5</sup>Dow University of Health Sciences, Pakistan <sup>6</sup>College of Physicians & Surgeons of Pakistan, Pakistan <sup>7</sup>Bahawalpur Victoria Hospital, Pakistan <sup>8</sup>President, Pan African Thoracic Society, Kenya <sup>9</sup>The Aga Khan University Hospital Nairobi, Kenya <sup>10</sup>Caraga Regional Hospital, Philippines

#### Abstract

Despite significant advancements in our understanding of the disease process, the increased morbidity and mortality from asthma may be due in part to inadequate attention being paid to the management of the condition and approaches to improve bronchial asthma control. Data about the difficulties encountered in managing asthma in Low-middle income countries (LMIC) is scarce. The authors aimed to evaluate the challenges faced by each stakeholder in Asthma management. The International Respiratory Forum Conference 2022 commenced in Ho Chi Minh City, Vietnam, including 140 pulmonologists from 11 countries. A survey was conducted using a predesigned structured questionnaire about the challenges faced by each stakeholder (patients, family/caretakers, healthcare professionals, and healthcare policymakers) for Asthma management. Four groups were formed, physicians were randomly divided, and only one section of the questionnaire was distributed among the physicians of each group. Per the physician's perception regarding challenges faced by patients for asthma management, awareness about how to administer the dose or have poor inhaler techniques is usually still being determined. More than 50% believed that there is a

need for additional patient education about the day-to-day management of their disease. The cost of therapy was considered the significant barrier faced by the family/ caretakers affecting drug adherence. The frequently reported challenge from the physician's end was poor technique use because of poor asthma disease education followed by hurried communication by health care providers to the patients. Around 53% of pulmonologists from the policy maker group reported that the lack of access to affordable quality-assured inhaled medications was the major avoidable barrier that needs to be tackled on the highest priority by the policymakers. This survey has gauged the influence of personal, social, and clinical factors on asthma management and pointed out the gaps regarding adherence from patients' and health professionals' perspectives. The resolutions and inputs suggested providing a practical framework for patient-centered care that treats asthma as an inflammatory disorder and education promoting treatment compliance.

#### Keywords

Asthma Management, Challenges, Developing Countries.





# Challenges in the Management of Community-Acquired Pneumonia in Low-Middle Income Countries

#### Published in

Journal of Pakistan Medical Association. 2023

Impact Factor

Journal Category  $\boldsymbol{X}$ 

#### **Authors**

Dr. Muhammad Irfan<sup>1</sup> Dr. Imelda Mateo<sup>2</sup> Dr. Shamsiev Furkat Mukhitdinovich<sup>3</sup> Dr. Kenneth Alberca<sup>4</sup> Dr. Syed Munis Ul Hasan<sup>5</sup> Dr. Jahanzeb Kamal Khan<sup>6</sup> Dr. Javed Iqbal<sup>7</sup> Dr. Jumaa Bwika<sup>8</sup> Dr. Saleem Uz Zaman Adhami<sup>9</sup>

#### **Author Institute Details**

<sup>1</sup>Department of Pulmonology, The Aga Khan University, Karachi, Pakistan <sup>2</sup>Amang Rodriguez Memorial Medical Center Medical Center Lung Center of Philippines, St. Luke's Medical Center Institute of Pulmonary Medicine, Philippines <sup>3</sup>Ministry of Health, Uzbekistan <sup>4</sup>Caraga Regional Hospital, Philippine <sup>5</sup>Dow University of Health Sciences, Pakistan <sup>6</sup>College of Physicians & Surgeons of Pakistan, Pakistan <sup>7</sup>Bahawalpur Victoria Hospital, Pakistan <sup>8</sup>The Aga Khan University Hospital Nairobi, Kenya <sup>9</sup>Services Hospital Lahore, Pakistan

#### Abstract

Despite progress in developing new and powerful medications, Community-acquired Pneumonia (CAP) is still closely linked to significant morbidity and mortality, especially in Low-middle income countries (LMICs). Hence, a group of experts gathered to discuss the main challenges associated with CAP management by the stakeholders (patients, their families/caretakers, Healthcare professionals, and Healthcare policymakers & organizations). During the commencement of the International **Respiratory Forum Conference** 2022 held in Ho Chi Minh City, Vietnam, a survey was conducted, including 140 pulmonologists from 11 countries. A predesigned structured questionnaire was developed pertaining to challenges faced by each stakeholder for CAP management in LMICs. Physicians were randomly divided into four groups, and only one section of the questionnaire was distributed among the participants to determine their opinion regarding that respective stakeholder's challenges. Among the patientrelated challenges, most physicians believed that self-medication was the most significant reason behind

the high mortality rate from CAP as the patients continue to have various troubles in seeking timely diagnosis and treatment. It was found that healthcare expenditure is the most intriguing challenge experienced by families and caretakers of patients with CAP. Moreover, 52% agreed that the diagnosis made by healthcare providers are primarily based on clinical judgment, and Pneumonia Severity Index (PSI) is not commonly used for clinical prediction and patient outcomes. The physicians mostly believed that healthcare policymakers must focus on establishing early diagnostic and treatment strategies to reduce hospitalization rates and costs.

#### Keywords

Community-Acquired Pneumonia, Management, Challenges.





# Significant challenges of COPD Management in developing countries

#### **Published in**

Journal of Pakistan Medical Association. 2023

**Impact Factor** 0.9

## Journal Category X

#### **Authors**

Dr. Saadia Ashraf<sup>1</sup> Dr. Andrew Owuor<sup>2</sup> Dr. Sumedha Heenagamage<sup>3</sup> Dr. Naghman Bashir<sup>4</sup> Dr. Syed Munis Ul Hasan<sup>5</sup> Dr. Jahanzeb Kamal Khan<sup>6</sup> Dr. Salim Rashid Masoud<sup>7</sup> Dr. Dhamith Nandadeva<sup>8</sup> Dr. Maqbool Ahmed<sup>9</sup>

#### **Author Institute Details**

<sup>1</sup>Khyber Teaching Hospital, Peshawar, Pakistan <sup>2</sup>Kenyatta University, Teaching and Referral Hospital, Kenya <sup>3</sup>District General Hospital, Sri Lanka <sup>4</sup>Medicsi, Islamabad, Pakistan <sup>5</sup>Dow University of Health Sciences, Pakistan <sup>6</sup>College of Physicians & Surgeons of Pakistan, Pakistan <sup>7</sup>Kenyatta University Teaching, Referral and Research Hospital, Kenya <sup>8</sup>District General Hospital Monaragala and Chest Clinic Monaragala, Sri Lanka <sup>9</sup>Fatima Jinnah institute of chest

diseases Quetta, Pakistan

#### Abstract

To explore the challenges faced by each stakeholder for COPD management, including the patients, their family/caretakers, healthcare professionals, and healthcare policymakers & organizations, the authors conducted a survey during the International Respiratory Forum conference 2022 in Ho Chi Minh City, Vietnam. A total of 140 pulmonologists from 11 countries participated in the study. A predesigned structured questionnaire was developed pertaining to questions related to challenges faced by each stakeholder for COPD management in Low-middle income countries (LMIC). Each group received one of the four sections of the questionnaire. It was found that 47% of doctors thought that patients couldn't understand the early symptoms as indicators of a serious illness and were afraid of forming a dependency on long-term drugs. According to 64% of doctors, the most frequent implications experienced by caregivers when caring for COPD patients were the financial burden of lifelong therapies and disappointments from treatment failure brought on by a lack of access to highquality or specialized healthcare. Of the difficulties experienced by healthcare professionals, 50%

said that misusing investigations for diagnosis resulted in delayed or underdiagnoses of COPD. The biggest issue with COPD referrals in developing nations was general practitioners' ignorance of recognizing highrisk patients and the need for their referrals. Approximately 80% of respondents said that a sizeable percentage of annual healthcare spending was consumed by expenses related to exacerbations and repeated ER visits. It is concluded that the questionnaire responses reflect physicians' perceptions and experiences in routine clinical practice. Increased knowledge of COPD diagnosis and treatment recommendations, as well as proactive identification of patients at higher risk of developing COPD due to environmental or lifestyle exposures, will help with prompt, accurate diagnoses and efficient treatments, ultimately improving patient outcomes.

#### Keywords

COPD Management, Challenges, Developing Countries.





### Challenges in Idiopathic Pulmonary Fibrosis Management

#### **Published in**

Journal of Pakistan Medical Association. 2023

### Impact Factor

0.9

### Journal Category $\boldsymbol{X}$

#### Authors

Dr. George Nyale<sup>1</sup> Dr. Stefanni Paraguas<sup>2</sup> Dr. Shereen Khan<sup>3</sup> Dr. Syed Munis Ul Hasan<sup>4</sup> Dr. Jahanzeb Kamal Khan<sup>5</sup> Dr. Maqbool Ahmed<sup>6</sup> Dr. Dhamith Nandadeva<sup>7</sup> Dr. Andrew Owuor<sup>8</sup> Dr. Sumedha Heenagamage<sup>9</sup>

#### **Author Institute Details**

<sup>1</sup>Respiratory Society of Kenya, Kenyatta National & Referral Hospital, Kenya <sup>2</sup>Philippine Heart Center, Philippine <sup>3</sup>Fatima Institute of Chest Diseases, Quetta, Pakistan <sup>4</sup>Dow University of Health Sciences, Pakistan <sup>5</sup>College of Physicians & Surgeons of Pakistan, Pakistan <sup>6</sup>Fatima Jinnah institute of chest diseases Quetta. Pakistan <sup>7</sup>District General Hospital Monaragala and Chest Clinic Monaragala, Sri Lanka <sup>8</sup>Kenyatta University, Teaching and Referral Hospital, Kenya <sup>9</sup>District General Hospital, Sri Lanka

#### Objective

The authors aim to evaluate the challenges faced by each stakeholder for Idiopathic pulmonary fibrosis (IPF) management, including the patients, their families/caretakers, Healthcare professionals, & Healthcare policymakers & organizations in Low-middle income countries (LMICs) as perceived by 140 pulmonologists from 11 countries who participated in International Respiratory Forum conference 2022 in Ho Chi Minh City, Vietnam.

#### Methodology

A predesigned structured questionnaire was developed about challenges faced by each stakeholder for IPF management. Study participants were randomly divided into four groups, and only one section of the questionnaire was distributed among the participants of each group.

#### Results

It was observed that the physicians greatly supported the psychological well-being of the patients/caregivers and awareness among Healthcare professionals (HCPs) for timely referrals and diagnosis. The caregivers must support the patients to keep their willpower intact. The availability of only those therapies with modest treatment outcomes with no benefits in halting the disease or reducing mortality & the absence of disease-modifying drugs was considered the major challenge faced by Pulmonologists. Patient affordability was considered the key hindering factor affecting High

Resolution Computed Tomography (HRCT) utilization. The development of Interstitial lung disease (ILD) national registries to keep track of disease prevalence & challenges at hand was defined as the urgent healthcare initiatives that need to be taken by the concerned healthcare policymaking authorities. Moreover, the healthcare systems considered comprehensive patient education about disease management & outcomes the most effective self-management strategy to be incorporated & disseminated. Although a small number of patients with ILDs, specifically IPF, receive a prompt and accurate diagnosis, the survey found that protracted delays, frequent misdiagnoses, exposure to expensive and invasive diagnostic procedures, and significant use of healthcare resources mark the more typical diagnostic experience for those with ILD.

#### Conclusion

These findings indicate the requirement for novel diagnostic tools, best clinical practices, and HCPs training to improve the accuracy of diagnoses in ILD patients.

#### Keywords

Idiopathic Pulmonary Fibrosis, Management, Challenges.





# A Comparison of the Effects of Empagliflozin and Sitagliptin, When Combined With Metformin, on Lipid Levels in Patients with Type 2 Diabetes: A Clinical Investigation

#### **Published in**

Cureus.2023

#### Journal Category Y

#### **Authors**

<sup>1</sup>Mazhar Ahmed, <sup>1</sup>Asjad Saeed, <sup>1</sup>Muhammad Zarar Khan, <sup>2</sup>Sana Z. Javaid, <sup>1</sup>Farhan Aslam, <sup>1</sup>Savida Ilyas Dar

#### **Author Institute Details**

<sup>1</sup>Federal Government Polyclinic Hospital, Islamabad, Pakistan <sup>2</sup>Shifa College of Medicine, Shifa International Hospital, Islamabad, Pakistan

#### Introduction

Type 2 diabetes (T2D) is emerging as a major global health concern. An associated condition, dyslipidemia, which acts as a significant modifiable risk factor for T2D, exhibits variations across different ethnicities and socioeconomic backgrounds. While many patients rely on metformin as their primary treatment, it does not always effectively control hyperglycemia. As a result, there is a growing need for adjunctive treatments, including sodium-glucose cotransporter-2 (SGLT2) and dipeptidyl peptidase-4 (DPP-4) inhibitors. This study evaluated the comparative effects of empagliflozin (an SGLT2 inhibitor) and sitagliptin (a DPP-4 inhibitor), both combined with metformin, on the lipid profiles of individuals with T2D

#### **Methods**

Over six months at the Federal Government Polyclinic Hospital in Islamabad, we enrolled 126 participants diagnosed with T2D. Using a nonprobability consecutive sampling technique, we divided them into two groups. Group A received metformin and empagliflozin, while Group B was administered metformin and sitagliptin. We assessed their fasting lipid profiles three months into the treatment.

#### Results

Both groups consisted of 63 patients each. We observed that those in Group B, treated with sitagliptin and metformin, demonstrated a more significant reduction in total cholesterol and low-density lipoprotein-C levels than those in Group A, treated with empagliflozin and metformin. This difference proved to be statistically meaningful.

#### Conclusion

The combination of sitagliptin and metformin showed enhanced benefits in lipid profile management compared to the combination of empagliflozin and metformin in patients with T2D. This discovery underscores the need for holistic treatment modalities that factor in blood glucose levels and cardiovascular health.

#### Keywords

sitagliptin, metformin, lipid profile, empagliflozin, diabetes mellitus.





### Prevalence of Neurological Symptoms Associated with COVID-19

#### Published in:

Pakistan Journal of Health Sciences.2023

Journal category Y

#### Authors

<sup>1</sup>Syed Hassan Tanvir Ramzi, <sup>2</sup>Ubaidullah Ansari, <sup>3</sup>Sana Manzoor, <sup>4</sup>Namal Ilyas and <sup>5</sup>Nabeel Ahmed

#### **Author Institute Details**

<sup>1</sup>Bakhtawar Amin Medical and Dental College, Multan, Pakistan <sup>2,3</sup>Multan Medical and Dental College, Multan, Pakistan <sup>4</sup>Social Security Hospital, Faisalabad, Pakistan <sup>5</sup>Recep Tayyip Erdogan Hospital, Muzaffargarh, Pakistan

#### Objective

To better understand the prevalence of neurological symptoms associated with COVID-19. Several factors such as age, gender, and comorbidity are explored to create a more holistic understanding of the impact of COVID-19.

#### Methods

After meeting inclusion and exclusion criteria, 111 patients admitted to Ibne Sina Hospital were recruited between October 2021 and February 2022. A descriptive statistical analysis was conducted to summarize patients most often encountered signs and symptoms concerning the above parameters.

#### Results

Out of 111 patients, a significant proportion of symptoms occurred in patients aged 40-60 years, with Dysgeusia being the most widespread (75.5%), followed by Encephalitis (45.9%), GBS (28.8%), Encephalopathy (18.9%), and Ischemic Stroke (6.3%). These were most prevalent in hypertensive individuals (46%) and Diabetes Mellitus (31%). In asthmatic individuals, they are the least prevalent (10.8%).

#### Conclusions

Despite the predominance of neurological manifestations, the present scientific literature cannot demonstrate a definitive causal association between the symptoms and the virus. This study carefully ensures a link age, gender, and comorbidity along with the prevalence of neurological manifestations of COVID-19. For a comprehensive treatment plan, a holistic understanding of symptoms is critical.

#### Keywords

COVID-19, Neurological Associations, GBS, Encephalopathy, Encephalitis, Dysgeusia, Stroke.





# Vitamin D level and bone profile among 1- to 5-year-old children in Galle municipality and Bope-Poddala areas in Sri Lanka

Published in: Sage Open Medicine. 2023

**Impact factor** 2.3

Journal category  $\chi$ 

**Authors** <sup>1</sup>Pushpika Jayawardana and <sup>2</sup>Gayani Liyanage

#### **Author Institute Details**

<sup>1,2</sup>University of Ruhuna, Galle, Sri Lanka

#### Objective

Identify the incidence and risk factors of vitamin D deficiency/ vitamin D insufficiency in children aged 1–5years.

#### **Methods**

A cross-sectional survey was conducted among children between the ages of 1 and 5 in the Bope-Poddala and Galle municipality areas. The sample was obtained by cluster sampling method. Data on socio-demography, pregnancy, sun exposure, and diet were obtained. Serum 25(OH) D concentrations were measured and the cutoff value was determined as per the global consensus in 2016.

#### Results

Among 100 children, the mean serum 25(OH) D level was 86.4 nmol/L (24.06 ng/mL). The prevalence of vitamin D deficiency and vitamin D insufficiency was 7% and 28%, respectively. Birth weight and sunlight exposure were significantly different among vitamin D deficiency/vitamin D insufficiency and sufficient groups. Both were found to be risk factors for vitamin D deficiency/vitamin D insufficiency in logistic regression.

#### Conclusion

Vitamin D deficiency/vitamin D insufficiency is significant among children aged 1–5years and decreased sun exposure and low birth weight are the main risk factors.

#### Keywords

Children, deficiency, insufficiency, serum 25(OH) D, vitamin D.





## Outcomes of drug (paclitaxel) coated balloons in various coronary lesion subsets; a two-year follow-up study

#### **Published in:**

Pakistan Journal of Cardiovascular intervention. 2023

### Journal Category

Υ

#### Authors

<sup>1</sup>Salman Ishaque Shaikh, <sup>2</sup>Bashir Hanif, <sup>3</sup>Abdul Salam Majeed Agha, <sup>4</sup>Hasan Sohail, <sup>5</sup>Syed Husban Ali, <sup>6</sup>Muhammad Amin

#### **Author Institute Details**

<sup>1-6</sup>Tabba Heart Institute, Karachi, Pakistan

#### Background

Drug-coated balloons (DCB) are a promising treatment for coronary artery disease (CAD), but their long-term efficacy in different lesion subsets is unknown. This study assessed the clinical outcomes of paclitaxel-coated balloons over two years, examining various lesion types and patient characteristics.

#### Methodology

This retrospective cohort study analyzed 102 patients who underwent drug-coated balloon (DCB) treatment for denovo or restenotic lesions. Paclitaxeleluting balloons were utilized, and the primary objective was to assess the occurrence of major adverse cardiovascular events (MACE), defined as death, myocardial infarction, target lesion revasculariazation, and target vessel revascularization at different time intervals. Secondary outcomes, including target lesion failure (TLF), target lesion revascularization (TLR), target vessel revascularization (TVR), and target vessel myocardial infarction (TVMI), were also evaluated. Statistical analysis was conducted using SPSS version 22.0.

#### Results

In this study, the mean age of the participants was 58.49 years, with the majority being male (81.4%). Lesion types included both de novo [49.0%] and in-stent restenosis (ISR) (51.0%). Bifurcation lesions were present in 29.4% of cases, and ostial lesions were observed in 40% of cases. Thrombus was found in 4.9% of cases. The occurrence of MACE was low, with one patient experiencing MACE at 30 days, nine patients between 30 days and 1 year, and six patients between 1 and 2 years. The overall rates of TLF, TLR, TVR, and TVMI were also low. Some patient characteristics, such as diabetes, dyslipidemia, chronic kidney disease (CKD), and dialysis, were associated with a higher risk of MACE. Importantly, no significant differences in outcomes were observed between various lesion subsets and presentations.

#### Conclusion

DCB proves to be a viable and efficient treatment option for different types of coronary lesions. The occurrence rates of MACE, TLR, TLF, TVR, and cardiac death following the use of DCB are low.

#### Keywords

Paclitaxel, Drug-Coated Balloon Angioplasty, MACE.





### Point Prevalence of Type 2 Diabetes Mellitus Patients among Different Specialties at MTI Khyber Teaching Hospital in Peshawar

#### Published in:

Journal of Liaquat University of Medical & Health Sciences. 2023

#### Journal Category Y

#### Authors

<sup>1</sup>Suleman Elahi Malik, <sup>2</sup>Iqbal Haider, <sup>3</sup>Romesa Akhtar Khattak, <sup>4</sup>Sidra Bibi, <sup>5</sup>Hammad Naeem, <sup>6</sup>Marhaba Iqbal

#### **Author Institute Details**

<sup>1-6</sup>MTI Khyber Teaching Hospital, Peshawar, Pakistan

#### Objective

The main goal of this research study was to analyze the profile and prevalence of type 2 diabetic patients admitted to the MTI Khyber Teaching Hospital, Peshawar.

#### Methodology

A hospital-based point prevalence cross-sectional descriptive study was carried out as a pilot project in November 2022 at MTI Khyber Teaching Hospital, Peshawar, Pakistan. Patients satisfying the inclusion and exclusion criteria enrolled in the study, and a nonprobability consecutive sampling technique was used.

#### Results

A total of 850 patients were admitted during the study period; out of them, 24.7% had type II diabetes mellitus (T2DM). The mean length of hospital stay was significantly high among T2DM patients (p < 0.01). Moreover, there were statistically significant differences  $\chi^2(2) = 94.67$ , p < 0.01, in the mode of admission among the T2DM patients, with fewer cases shifted from other units compared to ER and OPD. The antidiabetic regimen prescribed during the hospitalization included an oral antidiabetic regimen (36.9%), oral plus twice-daily insulin regimen (19.63%), and basal-bolus insulin (15.07%). CCU and ophthalmology ward had the highest proportion of

admissions of T2DM patients (40% each). Patients were admitted for various indications; 11.0% were admitted due to diabetic foot ulcer, 9.5% for elective surgery, 9.55% had acute coronary syndrome (ACS), and 9.0% had diabetic kidney disease.

#### Conclusion

Patients admitted exhibited a high prevalence of T2DM. We highlighted some of the substantial characteristics of these patients attending various specialties.

#### Keywords

Point Prevalence, Type 2 Diabetes Mellitus, Indications, Admission Rate, Treatment Regimen.





### Outcomes of Radioactive Iodine (<sup>131</sup>I) Therapy among Hyperthyroid patients

#### Published in:

Pakistan Journal of Medical Sciences. 2023

**Impact factor** 2.2

Journal category  $\boldsymbol{X}$ 

#### Authors

<sup>1</sup>Muhammad Sajjad Ali Khan, <sup>2</sup>Arshad Hussain, <sup>3</sup>Shahzad Ahmad, <sup>4</sup>Muhammad Harris Shah

#### **Author Institute Details**

<sup>1-4</sup>North West Teaching Hospital & Research Center, Peshawar, Pakistan

#### Objective

The present study aimed to assess the thyroid outcomes six-months after radioactive lodine-131 therapy (RIT) among hyperthyroid patients and identify the factors associated with them.

#### Methods

This retrospective observational study was conducted at the department of Nuclear Medicine and Molecular Imaging, Northwest General Hospital & Research Centre during 2013 to 2019. For the study purpose, the thyroid outcomes of 153 hyperthyroid patients were studied retrospectively for six months after RIT. The data was obtained from the medical records. Patient baseline characteristics, clinical features, laboratory investigations, results of thyroid imaging, and therapeutic investigations were acquired and recorded in a structured questionnaire.

#### Results

Out of the 153 screened records of hyperthyroid patients, 19.6% became euthyroid, 9.2% remained hyperthyroid, and 25.5% developed hypothyroidism after six months of RIT. The observed remission rate by the end of six months was 80.95%. Three months post-RIT, gender and RAI doses had a significant effect on thyroid function. The frequency of hypothyroidism was higher among those treated with an RAI dose of ≤ 20 mCi (83.0%) than those treated with a higher dose > 20 mCi (17%). Moreover, most patients receiving > 20 mCi radioiodine became euthyroid (64.5%). Similar outcomes were observed after six months of the therapy, except gender was replaced by etiologies of hyperthyroidism (p=0.009).

#### Conclusion

Radioactive iodine (131-I) therapy is effective for the treatment of hyperthyroidism. However, the appropriate dose is still debatable, as there was a high incidence of hypothyroidism post-therapy.

#### Keywords

I-131, Radioactive Iodine, Hyperthyroidism, Treatment Effectiveness.





# Evaluating the derangement of LFTs concerning statin use and probable liver injury among non-cardiac patients, in the light of R ratio

#### Published in:

International Journal of Endorsing Health Science Research. 2023

#### Journal Category

Υ

#### **Authors**

<sup>1</sup>Muhammad Ali Khan, <sup>2</sup>Adeel Ahmed, <sup>2</sup>Aziz Ur Rehman, <sup>2</sup>Syed Jibran Ashraf, <sup>3</sup>Adnan Ghafoor, <sup>2</sup>Abdul Mueed, <sup>4</sup>Farhan Haleem & <sup>5</sup>Muhammad Ashhad Ahmed

#### **Author Institute Details**

<sup>1</sup>Sindh Government Hospital, Liaquatabad, Pakistan <sup>2</sup>National Institute of Cardiovascular Diseases, Karachi, Pakistan <sup>3</sup>Fauji Foundation Hospital, Rawalpindi, Pakistan <sup>4</sup>Sindh Government Hospital, Thatta, Pakistan <sup>5</sup>Institute of Business Administration, Karachi, Pakistan

#### Background

To evaluate the derangement of Liver Function Tests (LFTs) concerning statin use and probable liver injury among non-cardiac patients in light of the R ratio.

#### Methodology

This retrospective observational cohort study was conducted at Sindh Government Hospital Liaguatabad (SGHL) in Karachi, including 142 non-cardiac patients. Both male and female patients, aged  $\geq$  18 years, continuously using statin irrespective of dose or duration, were included in the study. While non-alcoholic fatty liver disease (NAFLD) patients, those with alcoholic liver diseases, chronic or acute hepatitis, chronic renal failure, disorders of the thyroid or parathyroid glands, cardiovascular, endocrine and any other disease that might alter or elevate liver enzymes, recreational drug users, smokers, users of tobacco products and those patients using herbal medications were excluded from the study sample. The data regarding patients' characteristics, including demographics and clinical characteristics (LFTs result and treatment), were obtained from the hospital records and noted using a structured guestionnaire. The R ratio for suspected druginduced liver injury was calculated

following the American College of Gastroenterology (ACG) guidelines. The statistical analysis was performed on SPSS version 22.0

#### Results

The enrolled patients predominantly used rosuvastatin 20 mg/ day 124(87.3%), and the mean duration of statin use after the first prescription was  $18.28 \pm 14.33$ months. The LFT levels were mildly elevated concerning statin use, and this borderline elevation did not require further investigation, nor was there any evidence of clinical liver injury. The mean R ratio was 1.81 ± 0.56; most cases presented a cholestatic picture 86(60.6%) complementing the liver safety profile of statins in patients without cardiac diseases.

#### Conclusion

In conclusion, statins use caused only borderline clinically and statistically insignificant elevations in the LFTs over time among noncardiac patients.

#### Keywords

Drug-Induced Liver Injury, Statins, Liver Function Tests.





## Knowledge of risk factors and preventive measures of Hepatitis B and Hepatitis C among Health care workers at Bolan Medical Complex Hospital, Quetta.

#### **Published In:**

International Journal of Endorsing Health Science Research. 2023

Journal Category Y

#### **Authors**

<sup>1</sup>Waheeda Baloch, <sup>2</sup>Irshad Ahmed, <sup>3</sup>Abdul Bari, <sup>3</sup>Sunil Kumar, <sup>4</sup>Azmatullah & <sup>5</sup>Muhammad Ibrahim

#### **Author Institute Details**

<sup>1-3</sup>Jhalawan Medical College, Khuzdar, Pakistan
<sup>4</sup>Sandeman Provincial Hospital SPH, Quetta, Pakistan
<sup>5</sup>Bolan Medical Complex Hospital, Quetta, Pakistan

#### Background

This study aimed to determine the frequency of adequate knowledge regarding risk factors and preventive measures of Hepatitis B and C among healthcare workers (HCWs) at Bolan Medical Complex Hospital, Quetta.

#### Methodology

A cross-sectional study of 141 participants was conducted at Bolan Medical Complex Hospital, Quetta, after obtaining approval from the ethical review board of Bolan Medical Complex Hospital, Quetta. The sample size was calculated, keeping the prevalence of adequate knowledge of risk factors and preventive measures of Hepatitis B and Hepatitis C among healthcare workers at 62.5%, the margin of error d=8%, and 95% confidence level. The study continued from 1st January to 31st June 2016. All healthcare workers between 25 to 60 years of age, working in a hospital for more than six months, were included in the study. While all the non-consenting participants, those with anti-HCV and HBsAg positive analyzed via ELIZA methods, were kept in the exclusion criteria. The enrolled healthcare workers were interviewed, and knowledge of hepatitis risk factors and preventive measures was assessed using a 10item structured self-administered questionnaire. The data were analyzed using SPSS version 19.0.

#### Results

The mean age of the study participants was  $33.16 \pm 8.31$  years. The majority were female (69.50%) and > 40 years old (70.92%). Most of the enrolled healthcare workers were doctors (61.70%). The mean service duration was  $7.85 \pm 9.10$ years. Out of 141 HCWs, 71(50.35%) had adequate knowledge of risk factors and preventive measures for Hepatitis B and C. Doctors had significantly more adequate knowledge than staff nurses (76.05%) vs. 23.94%; p=0.000). Moreover, those with more formal educational years had significantly adequate knowledge of Hepatitis B and C risk factors and preventive measures than those with lesser educational years (p<0.05).

#### Conclusion

According to the survey findings, there is an adequate level of knowledge among the enrolled HCWs.

#### Keywords

Chronic Liver Disease, Health Care Workers, Hepatitis B, Hepatitis C, Prevention, Risk Factors





# Enhancing Diabetes Care in LMICs: Insights from a Multinational Consensus

#### Published in:

Pakistan Journal of Medical Sciences. 2023

Impact Factor 2.2

Journal Category X

#### **Authors**

<sup>1</sup>Jose Carlos Miranda, <sup>2</sup>S. Abbas Raza, <sup>3</sup>Babatope Kolawole, <sup>4</sup>Jahanzeb Kamal Khan, <sup>5</sup>Atiba Alvi, <sup>6</sup>Fariha Sadiq Ali, <sup>7</sup>Ejim Emmanuel Chukwudi, <sup>8</sup>Nanik Ram, <sup>9</sup>Amira Oluwatoyin

#### **Author Institute Details**

<sup>1</sup>CEO Southeast Asian Medical Center, Philippines <sup>2</sup>Shaukat Khanum Cancer Hospital & Research Center and National Hospital, Lahore, Pakistan <sup>3</sup>Obafemi Awolowo University and Teaching Hospital (OAUTH) Ile-Ife, Nigeria <sup>4</sup>College of Physicians & Surgeons of Pakistan, Karachi, Pakistan <sup>5</sup>Institute of Business Management, Karachi, Pakistan <sup>6</sup>Tabba Heart Institute, Karachi, Pakistan <sup>7</sup>University of Nigeria Teaching Hospital, Ituku-Ozalla, Enugu State, Nigeria <sup>8</sup>The Aga Khan University Hospital, Karachi, Pakistan <sup>9</sup>Lagos University Teaching Hospital Idi-Araba, Nigeria

#### Abstract

The International Cardio-Metabolic Forum held a plenary session to establish a multinational consensus on the challenges faced in diabetes management within lower-middleincome countries (LMICs) and their potential solutions. Stakeholders. including patients, family/caretakers, healthcare professionals, and healthcare policymakers & organizations, participated in discussions. The audience of 280 doctors from different countries (Pakistan, Qatar, Sri Lanka, Kenya, Myanmar, Georgia, Nigeria, Philippines, Uzbekistan, Iraq, Tanzania, Cambodia, Kazakhstan, South Sudan and Libya) was divided into 4 groups led by Group Leaders to represent each stakeholder group. Questionnaires addressing key challenges and solutions specific to each group were used to facilitate consensus development. Participants voted on relevant options based on their clinical experience. SLIDO software was used for polling, generating separate results for each group. The insights shared by healthcare professionals highlighted the importance of improving medication accessibility and cost-effectiveness for patients, emphasizing the need for adherence to treatment plans and lifestyle modifications. The significance of balanced nutrition with low glycemic index food for enhancing quality of life was recognized. Caregivers of diabetic patients with comorbidities face increasing demands for care,

particularly in relation to agerelated milestones. Healthcare professionals emphasized the challenges posed by cultural beliefs and health awareness, underscoring the importance of teamwork and early referral for managing comorbidities.

Healthcare policymakers need to focus on disease education, awareness programs, screening guidelines, and advocacy for community and clinical screening. By addressing these challenges, a more comprehensive and effective approach to diabetes management can be achieved in LMICs, ultimately improving outcomes for individuals with diabetes.

#### Keywords

Diabetes Care, LMICs, Consensus, Disease Management, International Collaboration.





## Safety and Efficacy of Insuget® (Human Insulin rDNA) in the Management of Patients with Type II Diabetes Mellitus: A Prospective Observational Study

#### **Published In:**

Journal of Hunan University Natural Sciences. 2023

### Journal Category X

#### Authors

<sup>1</sup>Jahanzeb Kamal, <sup>2</sup>Nadeem Islam Sheikh, <sup>3</sup>Muhammad Haroon Ansar, <sup>4</sup>Naeem Dilawar Kazmi, <sup>5</sup>Adnan Ghafoor, <sup>6</sup>Mohammed Rehan Omar Siddiqi, <sup>7</sup>Waseem Ahmad, <sup>8</sup>Muhammad Ahmad, <sup>9</sup>Syed Hussain Baqar Abidi

#### **Author Institute Details**

<sup>1</sup>College of Physicians and Surgeons, Karachi, Pakistan <sup>2</sup>Rawalpindi medical college, Rawalpindi, Pakistan <sup>3</sup>Allama Iqbal medical college, Lahore, Pakistan <sup>4</sup>Carol Davila, University of medicine & pharmacy, Bucharest, Romania <sup>5</sup>Fauji foundation hospital. Rawalpindi, Pakistan <sup>6</sup>National Institute of Cardiovascular diseases, Cardiology, Karachi, Pakistan <sup>7</sup>Department of Allied Health Sciences, SHS Peshawar, Pakistan <sup>8</sup>Punjab University, Lahore <sup>9</sup>Institute of Business Management (IoBM), Karachi, Pakistan

#### Abstract

This study aimed to assess the safety and efficacy profile of Insuget® (human insulin rDNA) in patients with T2DM. An open-label, prospective, observational, singlearm, multicenter, post-marketing surveillance study observed the safety and efficacy of Insuget® in patients with T2DM. Data on glycemic control, blood pressure, adverse events, and other relevant parameters were collected following patients for six months after initiating Insuget®. The 337 patients participated in the study, with 63.5% being males. The mean age was  $53.27 \pm 11.10$  years. Treatment with Insuget® significantly reduced mean HbA1c and fasting blood sugar levels (p < 0.01) with a significant improvement in systolic and diastolic blood pressure. However, the mean weight significantly increased (p < 0.01). The frequency of adverse events related to hypoglycemia and hypokalemia decreased over time, whereas injection site-related adverse events increased by the last follow-up visit. Comparison with other studies revealed that the findings are consistent with earlier research on recombinant insulin. This study emphasizes the potential advantages of Insuget® in managing T2DM, particularly in individuals who have uncontrolled diabetes

despite previous medications. The observed improvements in glycemic control and blood pressure highlight the relevance of recombinant insulin in diabetes care regimens. The complete evaluation of numerous parameters, including glycemic control, blood pressure, and adverse events, provides full knowledge of the safety and efficacy of Insuget® and strengthens the study. Limitations include the small sample size and the relatively short follow-up time, which make it difficult to draw conclusive conclusions. Additional studies, including varied individuals and direct comparisons with alternative insulin formulations, should improve the knowledge of Insuget® comparative efficacy.

#### Keywords

human insulin rDNA, type II diabetes mellitus, HbA1c, hypoglycemia, hypokalemia.





### Psychological Distress among Healthcare and Non-Healthcare Workers during the COVID-19 Pandemic: This Too Shall Pass

#### Published in:

Pakistan Journal of Medical and Health Sciences. 2023

Journal category Y

**Authors** <sup>1</sup>Shazma Khan, <sup>2</sup>Fatima Zaina, <sup>3</sup>Quratulain Khan

**Author Institute Details** <sup>1-3</sup>Ziauddin University Hospital, Karachi

#### Objective

This study aimed to evaluate the psychological distress experienced by healthcare and non-healthcare professionals working in a hospital setting during the Coronavirus Disease 2019 (COVID-19) pandemic.

#### Methodology

This survey-based cross-sectional study included 361 professionals (288 healthcare and 73 nonhealthcare professionals) working at Ziauddin University Hospital, Karachi, Pakistan. Psychological distress was assessed using Depression Anxiety Stress Scale – 21 (DASS-21).

#### Results

There was a higher prevalence of anxiety, depression, and stress among healthcare professionals as compared to the non-healthcare professionals, as indicated by the mean depression, anxiety, and stress scores on DASS-21 (p<0.05). The univariate logistic regression analysis showed that the odds of psychological distress were similar in both genders and individuals of all age groups. Healthcare professionals were twice more likely to be severely depressed and stressed as compared to nonhealthcare professionals (p<0.05).

#### Conclusion

This study concludes that psychological distress is more prevalent among healthcare workers than non-healthcare workers.

#### Keywords

Psychological Distress, COVID-19, Anxiety, Depression, Stress, Healthcare Workers, Non-Healthcare Workers.





# Hyperammonemia in patients on Valproic Acid therapy in a tertiary care hospital of Karachi

**Published in:** Khyber Medical University Journal. 2023

Journal category Y

**Authors** <sup>1</sup>Iqra Ali, <sup>2</sup>Bashir Ahmed Soomro, <sup>3</sup>Farrukh Malik

#### **Author Institute Details**

<sup>1</sup>Dr. A. Q. Khan, Institute of Behavioral Sciences, Karachi, Pakistan <sup>2</sup>Ziauddin Hospital, Karachi, Pakistan <sup>3</sup>National Institute of Cardiovascular Diseases, Karachi, Pakistan

#### Objective

To assess the incidence of hyperammonemia in patients receiving valproic acid (VPA) therapy.

#### Methods

This cross-sectional study was conducted at the Department of Neurology, Ziauddin Medical University and Hospital, Karachi, for six months from April to October 2019. A total of 158 patients of both genders, aged between 18 to 80 years, presented in emergency with complaints of seizures and who had received a minimum dose of valproic acid before blood withdrawal were included. Pregnant women, patients with cirrhotic liver, or chronic renal impairment were excluded from the study.

#### Results

Out of 158 patients, 80 (50.6%) were females and 78 (49.4%) were males. Mean age of patients was 55.53±18.26 years. Among the participants, 27 (17.1%) had undergone VPA therapy for 30 days or more, while 131 (82.9%) had received it for less than 30 days. The mean duration of VPA therapy was 8.58±10.41 days. Among the 158 patients, 95 (60.1%) with seizures receiving VPA treatment were diagnosed with hyperammonemia. The mean serum ammonia level was 66.50±44.59 mg/dL, and mean VPA dose administered was 1000±125 mg/day. There was a statistically significant association between the dose of VPA and the incidence of hyperammonemia (p <0.05). Patients receiving a daily dose of VPA exceeding 1000 mg were more likely to develop hyperammonemia.

#### Conclusion

This study revealed a high incidence of hyperammonemia among patients undergoing VPA therapy, with 60.1% of the total patients receiving VPA therapy experiencing hyperammonemia.

#### Keywords

Seizures (MeSH); Valproic Acid (MeSH); Valproic acid therapy (Non-MeSH); Hyperammonemia (MeSH).





# Impact of Treviamet® & Treviamet XR® on quality of life besides glycemic control in type 2 DM patients

Published in:

BMC Endocrine Disorders. 2023

Impact Factor 3.263

Journal category X

#### **Authors**

<sup>1</sup>Asima Khan, <sup>2</sup>Muhammad Adnan Kanpurwala, <sup>3</sup>Riasat Ali Khan, <sup>4</sup>Najum F. Mahmudi, <sup>4</sup>Verumal Lohano,
<sup>5</sup>Shakeel Ahmed, <sup>6</sup>Majid Khan, <sup>6</sup>Fareed Uddin, <sup>7</sup>Syed Mohammad Ali, <sup>8</sup>Maliha Saghir,
<sup>9</sup>Syed Hussain Baqar Abidi and
<sup>10</sup>Jahanzeb Kamal

#### **Author Institute Details**

<sup>1</sup>Bagai Institute of Diabetology and Endocrinology, Karachi, Pakistan <sup>2</sup>Karachi Institute of Medical Sciences affiliated with NUMS, Karachi, Pakistan <sup>3</sup>Bagai Institute of Diabetology and Endocrinology, Karachi, Pakistan <sup>4</sup>Primary Care Diabetes Association, Karachi, Pakistan <sup>5</sup>College of Family Medicine, Karachi, Pakistan <sup>6</sup>Memon Medical Complex, Karachi, Pakistan <sup>7</sup>London School of Hygiene and Tropical Medicine, London <sup>8</sup>Bahria University, Islamabad <sup>9</sup>Institute of Business Management, Karachi, Pakistan <sup>10</sup>College of Physicians and Surgeons Pakistan, Karachi, Pakistan

#### Background

Maintaining the quality of life is the main objective of managing type 2 diabetes (T2DM) (QoL). Since it is a key factor in patient motivation and adherence, treatment-related QoL has always been considered when choosing glucose-lowering medicines. The objective of the study was to evaluate the quality of life besides glycemic control among type 2 diabetes mellitus patients receiving Treviamet® & Treviamet XR® (Sitagliptin with Metformin) in routine care.

#### **Methods**

It was a prospective, openlabel, non-randomized clinical trial including T2DM patients uncontrolled on Metformin therapy. All patients received Treviamet® & Treviamet XR® for six months. Sequential changes in QoL, fasting plasma glucose, HbA1c, body weight, and blood pressure were monitored from baseline to 3 consecutive follow-up visits. The frequency of adverse events (AEs) was also noted throughout the study.

#### Results

A total of 504 patients were screened; 188 completed all three follow-ups. The mean QoL score significantly declined from 57.09% at baseline to 33.64% at the 3rd follow-up visit (p<0.01). Moreover, a significant decline in mean HbA1c and FPG levels was observed from baseline to 3rd follow-up visit (p<0.01). Minor adverse events were observed, including abdominal discomfort, nausea, flatulence, and indigestion. Gender, HbA1c, diarrhea, and abdominal discomfort were significant predictors of a patient's QoL, as revealed by the Linear Regression Model (R2=0.265, F (16, 99) =2.231).

#### Conclusion

Treviamet® & Treviamet XR® significantly improved glycemic control (HbA1c levels) and QoL in T2DM patients without serious adverse events.

#### **Trial registration**

ClinicalTrials.gov identifier (NCT05167513), Date of registration: December 22, 2021.

#### Keywords

Quality of life, Type 2 Diabetes Mellitus, Sitagliptin, Metformin.





Angiographic characteristics of culprit lesions in infarct related artery and correlation of TIMI score with SYNTAX score to predict extent and severity of coronary artery disease in patients undergoing primary percutaneous coronary interventions R

**Published in** Pakistan Journal of Medical Sciences, 2023

**Impact Factor** 2.2

Journal category  $\boldsymbol{X}$ 

**Authors** <sup>1</sup>Rizwanullah, <sup>2</sup>Jawaid Akbar Sial, <sup>3</sup>Nasir Ali, <sup>4</sup>M. Shehzad

#### **Author Institute Details**

<sup>1-4</sup>National Institute of Cardiovascular Diseases, Karachi

#### Objective

The current study was designed to explore the relationship of TIMI and SYNTAX risk score to predict the CAD extent and severity in STEMI patients.

#### **Methods**

For this cross-sectional study, 304 STEMI patients undergoing PPCI were enrolled at Department of Interventional Cardiology NICVD Karachi from September 2021 to January 2022. And the TIMI risk score was determined at enrolment. Based on these scorings, the patients were grouped as low, intermediate, and high risk, i.e., a score of < 3, 4 to 7, and > 8, respectively. The SYNTAX scores were utilized to assess the extent of CAD.

#### Results

Statistically significant difference was found in symptoms to balloon time (p=0.001), history of diabetes (p=0.006), angina (p=0.011), obesity (p=0.048), STEMI type (p=0.003), Killip classes (p=0.000), Infarct-Related Artery (p=0.006), number of diseased vessels (p<0.01), LMS > 50% (p=0.000), PCI type (p<0.01), collateral circulation (p<0.01), In-hospital mortality (p<0.01), LV support (p<0.01), and postprocedural TIMI flow (p=0.013), among the three TIMI risk groups. Significant correlation was found among TIMI risk score and SYNTAX score.

#### Conclusion

It is observed that the TIMI risk scores are highly correlated with the SYNTAX Score in predicting the CAD severity in STEMI patients.

#### Keywords

CAD, STEMI, TIMI risk score, SYNTAX score, PPCI.





# Frequency of anemia in patients with Pulmonary Tuberculosis

#### Published in:

International Journal of Endorsing Health Science Research. 2023

#### Journal category Y

#### Authors

<sup>1</sup>Saleh Ahmad, <sup>1</sup>Saeedur Rehman, <sup>1</sup>Qazi Ikramullah & <sup>2</sup>Iqbal Ahmad

#### **Author Institute Details**

<sup>1</sup>DHQ hospital, Timergara Lower Dir, KPK- Pakistan <sup>2</sup>Saidu Teaching Hospital, Swat, KPK, Pakistan

#### Background

Tuberculosis affects millions of people across the globe annually. Pakistan is ranked 5th among the leading TB countries in the world. Anemia is a common observation among TB patients with the multifactorial phenomenon. The present study aimed to determine the frequency of anemia in patients with pulmonary TB and its classification as per the severity and morphological characteristics.

#### Methodology

This retrospective cross-sectional study was conducted at DHQ Hospital Timergara, Lower Dir. A total of 109 TB patients were enrolled and underwent physical and systemic examination. Blood samples were collected to estimate complete blood counts (CBC), liver and renal function tests (LFT; RFT), serum albumin, and C-reactive protein (CRP) levels. Abdominal ultrasound was performed when any organomegaly was suspected. Hemoglobin was estimated using an automated analyzer (SYSMEX-SP100), and it was repeated via manual method among doubted cases. Written informed consent was obtained from all patients before inclusion, and the collected data was analyzed using SPSS version 22.0.

#### Results

There was a female majority (54%) in the studied sample, with a mean age of  $38 \pm 15.3$  years. Majority of them belonged to low socioeconomic status (80%). Moreover, 43% of them were from Dir Lower, 30% from Dir Upper, while the remaining were from Bajaur district, Chitral, and Malakand Swat districts. Anemia was found in 82.56% of the enrolled TB patients. Most patients were moderately weak (Hb < 10 g/dl > 7 g/dl), and microcytic anemia was found in more than 80% of the anemic patients. CRP level was raised in 70% of these patients, and there was hypoalbuminemia in 80%. Furthermore, females were more anemic than males.

#### Conclusion

In our study, anemia was prevalent in TB patients, specifically microcytic anemia. Hence, TB patients must be monitored for dietary deficiencies and/or inflammatory modulators to avoid such complications.

#### Keywords

Tuberculosis, Anemia, Iron Deficiency Anemia, Anemia of Inflammation.





## Frequency of Metabolic Syndrome in Patients with Type 2 Diabetes Mellitus

#### **Published in:**

International Journal of Endorsing Health Science Research. 2023

### Journal category

Y

#### Authors

<sup>1</sup>Salman Khan, <sup>1</sup>Izhar ul Haq, <sup>1</sup>Maryam Afridi, <sup>1</sup>Muhammad Fayyaz, <sup>1</sup>Khalid Khan, <sup>1</sup>Wasim Akram & <sup>2</sup>Amir Alam

#### **Author Institute Details**

<sup>1</sup>Saidu Group of Teaching Hospital, Swat, Pakistan <sup>2</sup>University of Haripur, Haripur, Pakistan

#### Background

Diabetes Mellitus (DM) is now one of the world's most common noncommunicable diseases and the fourth leading cause of death in most high-income countries. It is anticipated that 380 million people will have type 2 diabetes and 418 million will have impaired glucose tolerance by 2025. The objective of the study was to assess the frequency of Metabolic Syndrome in local patients with Type 2 Diabetes Mellitus.

#### Methodology

A total of 257 type 2 Diabetes Mellitus patients presenting at the Department of Medicine, Post Graduate Medical Institute Hayatabad Medical Complex (PGMI-HMC), Peshawar, from February to August 2018 were enrolled in this cross-sectional study. The sample size was determined using WHO sample size determination software. After explaining the study's purpose and objectives, informed consent was obtained from each patient, and data confidentiality was maintained. All Type 2 Diabetes Mellitus patients under 60 years of age were included in the study, while those on lipid-lowering drugs in the past, with liver failure, and those taking multivitamin supplements were all excluded from the study. All patients were evaluated with a thorough history and clinical examination, followed by pertinent investigations; their blood pressure, waist circumference, fasting blood glucose, and lipid profile were measured. The presence of metabolic syndrome

was indicated by the collection of three of the five components, including high waist circumference, hypertension, poor glycemic control, hypertriglyceridemia, and lowered high-density lipoprotein (HDL) (good cholesterol). The data was analyzed using SPSS version 20.0.

#### Results

The overall mean age of the patients was 55 ± 1.26 years, the majority being females, i.e., 139(54%). The frequency of metabolic syndrome was 68% among the enrolled diabetes patients, with poor glycemic control as the most frequent component (81.71%), followed by hypertension (75.59%) and hypertriglyceridemia (71.65%). There was no gender and age-related effect on the frequency of metabolic syndrome (p>0.05).

#### Conclusion

In conclusion, the observed frequency of metabolic syndrome among Type 2 Diabetes Mellitus patients was high, with poor glycemic control being the most prevalent component of metabolic syndrome.

#### Keywords

Type 2 Diabetes Mellitus, Metabolic Syndrome, NCEP ATP III.





## Assessing the acceptability rate and Comparison of lutein-zeaxanthin, Omega-3, and tears eye Drops in dry Eye disease

#### Published in:

Journal of Xi'an Shiyou University, Natural Science Edition. 2023

#### Impact Factor

0.26

### Journal category X

#### **Authors**

Komal Mushtaq<sup>1</sup>, Nimra Gul<sup>2</sup>, Lubna Mushtaq<sup>3</sup>, Aqsa Yousaf<sup>4</sup>, Sidra Laraib<sup>5</sup>, Hafsa Nazeer<sup>6</sup>, Shafqat Shahzad<sup>7</sup>

#### **Author Institute Details**

<sup>1,2,4-7</sup>The University of Faisalabad <sup>3</sup>D.G.Khan Medical College

#### Abstract

To evaluate the difference in the effect of Lutein-Zeaxanthin, and Omega-3 oral supplements on evaporative dry eye. And assessing the acceptability rate of patient with oral supplements and artificial tears eye drop for the management of evaporative dry eve.A Quasi-Experimental study was conducted at the Department of Ophthalmology in DG Eye Care Hospital, Dera Ghazi Khan from September 2022 to May 2023. The sample size was calculated using a Rao-soft sample calculator by estimating the prevalence rate with a confidence interval of 95% and a margin of error of 5%. A total of 90 patients were selected. Data was collected in a questionnaire format and analyzed through SPSS software version 23. Out of 90 patients, Group 1 (Omega-3 oral supplement) had a mean value and standard deviation of n 11.17+.874, group 2 lutein-zeaxanthin oral supplement had a mean value and standard deviation of 9.53+.730 and group 3 artificial tears eye drop had a mean value of 10.57+.165. The overall results showed that a significant difference of p=0.00 (p<0.05) was present between the omega-3 oral supplement with the lutein-zeaxanthin oral supplement and artificial tears eye Drop, with a

slightly significant value of p=0.046 (p<0.05). The lutein-zeaxanthin oral supplement showed a significant difference of p=0.000 and p=0.000 with other treatments. Meanwhile. the artificial tears eye drop showed a difference of p=0.046 (p<0.05) with the omega-3 oral supplement. The overall results showed that a significant difference of p=0.00 (p<0.05) was present. The study showed omega-3 was more effective, and artificial tear eye drops had a minimal difference in effectiveness compared to omega-3 fatty acids, which showed remarkable potential in decreasing the symptoms associated with dry eye.

#### Index Terms

Dry Eye, Lutein-Zeaxanthin, Omega-3, tears Eye Drop





# Exploring relationships between Lipid parameters and Serum Vitamin-D deficiency

#### **Published in:**

International Journal of Endorsing Health Science Research. 2023

#### Journal category

Υ

#### Authors

<sup>1</sup>Farhan Haleem, <sup>2</sup>Ghulam Basit,
<sup>2</sup>Riaz Hussain,
<sup>2</sup>Sabir Ali, <sup>3</sup>Beenish Imam,
<sup>1</sup>Muhammad Ali Khan, <sup>4</sup>Ashad Ahmed & <sup>5</sup>Syed Jibran Ashraf

#### **Author Institute Details**

<sup>1</sup>Sindh Govt Hospital, Thatta <sup>2</sup>Jinnah Postgraduate Medical Centre, Karachi <sup>3</sup>Civil Hospital, Karachi <sup>4</sup>Institute of Business Administration, Karachi <sup>5</sup>United Medical and Dental College, Karachi

#### Background

Vitamin D deficiency is a prevalent global health concern. To investigate the relationship between serum vitamin D levels and lipid parameters.

#### Methodology

A prospective observational cohort study was carried out at Sindh Government Hospital Liaquatabad from October 2021 to February 2022. The study included a total of 171 participants, comprising both males and females aged 18 years or older, with vitamin D levels falling below 30 ng/ml. Participant selection employed a consecutive non-probability sampling method. Serum vitamin D levels were quantified using the COBAS method. Dyslipidemia and hypertriglyceridemia were defined based on established clinical guidelines. Exclusion criteria encompassed individuals with specific medical conditions and those currently using medications. Statistical analysis was conducted using SPSS version 22.0.

#### Results

Out of the 171 participants, the majority were female, constituting 129 (75.43%), while 42 (24.56%) were male. Interestingly, a higher prevalence of vitamin D deficiency was observed among younger patients, with the age group of 30-39 years displaying the highest rate of vitamin D deficiency. Regarding lipid profiles, dyslipidemia was significantly more common in female patients (50.87%) compared to their male counterparts (5.26%). However, it's noteworthy that male patients exhibited higher triglyceride levels (167.21 ± 89.64 mg/dl) than females.

#### Conclusion

This study reveals a strong relationship between vitamin D deficiency and lipid parameters.

#### Keywords

Vitamin D, Dyslipidemia, Hypertriglyceridemia, Vitamin D Deficiency.





### Impact of SARS-Cov-2 Virus and The Pandemic on Tinnitus Patients: A Comparative Cross-sectional Study

#### Published in:

Pakistan Journal of Health Science. 2023

#### Journal category Y

#### Authors

<sup>1</sup>Amna Awais, <sup>1</sup>Nukhbat Ullah Awan, <sup>2</sup>Ghulam Saqulain, <sup>3</sup>Shahana Azmat, <sup>4</sup>Sher Zaman, <sup>5</sup>Paras Laraib and <sup>6</sup>Shafqat Shahzad

#### **Author Institute Details**

<sup>1</sup>King Edward Medical University, Lahore <sup>2</sup>DHQ Hospital, Islamabad <sup>3</sup>The Children's Hospital, Lahore <sup>4</sup>Heriot-Watt University, Edinburg, Scotland <sup>5</sup>Jinnah Postgraduate Medical Center, Karachi <sup>6</sup>University of the Punjab, Lahore

#### Objective

To determine the effect of the COVID-19 and the pandemic on tinnitus patients.

#### Methods

Comparative Cross-sectional study was conducted at Mayo Hospital, Lahore. Total 110 patients with tinnitus were included in this study using convenience sampling. Sample included both genders, aged 17 and above with Group A including patients who were inflicted from SARS-COV-2 and group B who did not encounter the virus. Tinnitus Severity Index and a questionnaire was used for data collection. A relationship between the tinnitus severity scale scores obtained before suffering from the coronavirus and after suffering from it. Similarly, a relationship between tinnitus severity scale scores obtained before the occurrence of pandemic and after it, was determined in COVID-19 negative group. T-test, Chi-square and ANOVA statistics were utilized to determine difference between groups with p<0.05 considered significant.

#### Results

Tinnitus was significantly (p=0.000) more bothersome during pandemic compared to before COVID-19 became pandemic, however having COVID-19 infection or not before (p=0.067) and during (p=0.234) pandemic did not reveal significant difference. TSI scores were higher in patients who picked COVID-19 infection compared to living in pandemic though not significant (p=0.375), however there was differences in characteristics of tinnitus.

#### Conclusions

COVID-19 pandemic has produced a significant impact on tinnitus patients with more impact resulting from COVID-19 infection compared to pandemic itself, however this was not significant.

#### Keywords

COVID-19, Bothersome, Mental conditions, Pandemic, Tinnitus.





### S. Rao Spiral Suturing (SRSS) of Lower Uterine Segment: An Innovative Hemostatic Technique in the Management of Placenta Previa and Accreta Spectrum

#### Published in:

Pakistan Journal of Medical Sciences.2023

**Impact factor** 2.2

Journal category X

#### Authors

Shahid Irshad Rao<sup>1</sup>, Uzma Shaheen<sup>2</sup>, Syeda Husna Hasan<sup>3</sup>

#### **Author Institute Details**

<sup>1-3</sup>Nishtar Medical College & Hospital, Multan, Pakistan

#### Objective

The study aimed to demonstrate the efficacy and safety of an innovative hemostatic technique in managing Placenta Previa and Accreta Spectrum by S. Rao Spiral Suturing (SRSS) of a lower uterine segment.

#### Method

In this retrospective study conducted at Department of **Obstetrics & Gynecology Unit-**II of Nishtar Medical University, Multan between December 2018 to January 2021, one hundred and thirty consenting patients' clinical records were reviewed with major degree placenta previa/placenta accrete spectrum, either operated electively or presented in an emergency, with or without a history of previous cesarean section. The enrolled patients underwent SRSS, procedure's efficacy and safety were measured by the number of obstetrical hysterectomies, the time required for the procedure, estimated blood loss. blood transfusion volume, need for any other hemostatic technique, bladder trauma, pelvic infection, scar site hematoma or abscess. sepsis, duration of hospital stay and maternal mortality.

#### Results

Out of 130 patients, 17(12.6%) had Placenta Accreta, 86(66.3%) Increta, and 27(21%) Percreta. The Placenta location was anterior dominant in 102(78.4%) cases and posterior in 17(8.4%). Of the patients who underwent surgery, only two required obstetrical hysterectomy due to uncontrolled bleeding. The procedure took three to five minutes in 127 patients and five to seven minutes in three patients. Regarding intraoperative blood transfusion, 54.6% of patients were transfused 1000-2000 ml blood, and 5.38% required >3000 ml. No blood transfusion was required postoperatively in any patient. Postpartum hemorrhage, infection, fever, and sepsis were not observed in any patient postoperatively. None of the patients suffered bladder injury. All patients were discharged as per routine.

#### Conclusion

SRSS is an innovative, safe, effective, and simple suturing technique for patients with Placenta Previa and Accreta spectrum.

#### Keywords

Placenta Previa Accreta, Spiral Suturing, Lower Uterine Segment.





### PAKistan Study of prEmature coronary atHerosclerosis in young AdulTs (PAK-SEHAT):

a prospective longitudinal study protocol investigating the prevalence, severity and determinants of atherosclerotic cardiovascular disease in the young adult Pakistani population

#### **Published in**

BMC Open. 2023

### Impact factor 2.9

**Journal category** W

#### **Authors**

Bashir Hanif<sup>1</sup>, Sana Sheikh<sup>2</sup>, Ghazal Peerwani<sup>2</sup> ,Miguel Cainzos-Achirica<sup>3,4</sup> ,Wajiha Javed<sup>5</sup>, Jaffer Bin Baqar<sup>5</sup>, Zainab Samad<sup>6</sup>, Faiza Bashir<sup>7</sup>, Salim S Virani<sup>8,9</sup>, Khurram Nasir<sup>10,11</sup>, Saba Aijaz<sup>12</sup>

#### **Author Institute Details**

<sup>1,2,12</sup>Tabba Heart Institute, Karachi, Pakistan <sup>3,4</sup>Hospital del Mar, Barcelona, Spain <sup>5</sup>Department of Public Health, Getz Pharma, Karachi, Pakistan <sup>6,8</sup>The Aga Khan University, Karachi, Pakistan <sup>7</sup>Ziauddin Medical University, Karachi, Pakistan <sup>9</sup>Texas Heart Institute, Houston, Texas, USA <sup>10</sup>Houston Methodist, Houston, Texas, USA <sup>11</sup>Johns Hopkins Medical Institutions Campus, Baltimore, Maryland, USA

#### Introduction

Atherosclerotic cardiovascular disease (ASCVD) is a major cause of morbidity, mortality and health expenditures worldwide. Despite having higher ASCVD in the Pakistani population, data on subclinical coronary atherosclerosis in young Pakistanis remain scarce. The PAKistan Study of prEmature coronary atHerosclerosis in young AdulTs (PAK-SEHAT) aims to assess the prevalence, severity and determinants of subclinical coronary atherosclerosis among Pakistani men (35–60 years) and women (35–65 years) free of clinically symptomatic ASCVD and will assess 5-year rates of ASCVD events.

#### **Methods and Analysis**

PAK-SEHAT is an ongoing prospective cohort study with 2000 participants from all provinces of Pakistan who will be interviewed at the baseline along with phlebotomy, measurement of carotid intimamedia thickness (CIMT) and coronary CT angiography (CCTA). Phlebotomy will be repeated at 2.5 years, whereas CIMT and CCTA will be repeated at 5 years. We will report the frequency of maximal coronary stenosis >50% and >70%. number of coronary vessels with plaque and the number of coronary segments affected per participant on CCTA. We will use Cox proportional hazards regression models to evaluate the association between baseline characteristics and incident ASCVD events during follow-up. These associations will be presented as HRs with 95% CIs.

#### **Ethics and Dissemination**

The study protocol was approved by the Tabba Heart Institute Institutional Review Board (THI/ IRB/FQ/22-09-2021/016). All study procedures are consistent with the principles of the Declaration of Helsinki. Findings of the study will be disseminated via peer-reviewed publications and conference presentations.

#### **Trial registration number**

NCT05156736.

#### Keywords

Cardiac Epidemiology, Coronary heart disease, Myocardial infarction, Adult cardiology.





# Scientific Initiatives by Getz Pharma for Medical Research Application

## CLINICAL RESEARCH SERVICES FOR HEALTHCARE PROFESSIONALS

### **Clinical Research Services**

- Data Analysis

Scan the QR code for The Vault

- Sample Size Calculation
- Synopsis Technical Review
- Manuscript Technical Review
- Scientific Editing & Publication

 $\mathbb{X}$ 

D

Ø

### **SIGMA Workshop Modules**

- Synopsis Writing
- Literature Search
- Research Methodology

GMA

- SPSS Hands-on
- Medical Paper Writing

#### Follow us on: **f** in

www.getzpharma.com

🔀 sigma@getzpharma.com

Getz Pharma is the first and only pharmaceutical company in Pakistan whose manufacturing facility is pre-qualified by the World Health Organization (WHO), Geneva, and approved by member countries of the Pharmaceutical Inspection Co-operation Scheme (PIC/S) and Eurasian Economic Union (EAEU).





29-30/27, Korangi Industrial Area, Karachi 74900, Pakistan UAN: +92 21 111 111 511 - Email Address: info@getzpharma.com



WWW.GETZPHARMA.COM