



# BOOK OF ABSTRACTS



**MeURES**  
**2022**

**1<sup>st</sup> Medical Undergraduates' Research Symposium**

Faculty of Medicine  
Sabaragamuwa University of Sri Lanka

28<sup>th</sup> October 2022

## MeUReS - මිහිරුළු

“Collaboration is at the heart of Medical research. ‘Me-U’ signifies this honoured relationship that is translated into in-depth Research (Re) at this Symposium (S). මිහිරුළු in Sinhalese denotes ‘elegant rays’ in our own context of medical research in Ratnapura, a gem-adorned land that radiates the beauty of unity in diversity.”

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# 1<sup>st</sup> MEDICAL UNDERGRADUATES' RESEARCH SYMPOSIUM 2022

Organized by

Department of Community Medicine  
Faculty of Medicine  
Sabaragamuwa University of Sri Lanka

28<sup>th</sup> October 2022



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# Book of Abstracts

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MESSAGE FROM THE VICE-CHANCELLOR  
SABARAGAMUWA UNIVERSITY OF SRI LANKA



On the occasion of inaugurating the 1<sup>st</sup> Undergraduates' Research Symposium (MeUReS) in the Faculty of Medicine, Sabaragamuwa University of Sri Lanka, it is with great pleasure I send this note of congratulations to the Dean, faculty supervisors and the organizing committees and our students for your commendable efforts. This is a historic moment to our university. As an institution of higher learning, it is truly encouraging to know your commitment for showcasing the research findings for the academic community. This will be recorded on our history pages as a remarkable feat achieved by the faculty of medicine.

We have been promoting a culture of research discipline in the university. Academic life annihilated of research cannot sustain itself. When the world is progressing in leaps and bounds, our university education must craft new knowledge in the lecture halls. Only then could our students aspire for higher learning. I am pleased to note that an undergraduate symposium of this nature will not only provide a platform for student talents but also sharpen their awareness of the medical challenges in Sabaragamuwa Province. Most certainly, this will prepare young doctors to device novel remedies and undertake further research beneficial to patients.

This symposium particularly is a memorable event for our final year MBBS students. This experience will lay a strong foundation as you graduate from the university. The guidance you have received, the learning curve of your research experience, the criticisms and the accolades you have received will be your memory for tomorrow. I wish you all the very best in your clinical profession to be the best doctors our land needs.

Senior Professor RMUSK Rathnayake

Vice-Chancellor  
Sabaragamuwa University of Sri Lanka

MESSAGE FROM THE DEAN  
FACULTY OF MEDICINE  
SABARAGAMUWA UNIVERSITY OF SRI LANKA



I am deeply honored to pen a few words when a big dream of ours come true with the inauguration of the 1<sup>st</sup> Undergraduates' Research Symposium (MeUReS) at the Faculty of Medicine, Sabaragamuwa University of Sri Lanka. MeUReS '22 brings together various strands of medical research undertaken by the final year MBBS students. They are beginners' micro-steps of a long journey that will reflect our society's aspiration to build evidence-based medicine in the contemporary world. I am indebted to our academic staff, symposium organizers and well-wishers for making this a reality.

This symposium is a culmination of students' creative efforts, methodological novelties and scientific rigor to resolve medical challenges in the Sabaragamuwa region. Working in teams they have learned the art of developing collaborative medical research. Therefore, I wish to take this opportunity to congratulate them for their untiring labours and to thank their supervisors for guiding them to raise critical questions that lead to innovations.

Needless to state how critical the biomedical research is becoming today. With the emergence of COVID19, medical research was pushed to its limits to save humanity. What we have attempted to encompass in this research form, though small, will become a giant leap for humankind tomorrow. It is my hope that our faculty in Sabaragamuwa will become a trailblazer in collaborative medical research and I am grateful to everyone who has been part of this dream for our country's future.

Professor Nirmali M. Wickramaratne

Dean, Faculty of Medicine  
Sabaragamuwa University of Sri Lanka

MESSAGE FROM THE HEAD  
DEPARTMENT OF COMMUNITY MEDICINE  
SABARAGAMUWA UNIVERSITY OF SRI LANKA



Every advance in modern medicine that has helped millions of people to live longer and healthier lives is a result of decades of investment in medical research. Research is formalized curiosity. A researcher needs to know how to organize his or her curiosity scientifically. Community Medicine students' group research project is a learning process for the medical undergraduates to inculcate this skill. MeUReS 2022 is our first coordinated attempt to achieve this goal.

A humble salute to all who made our common dream a success!

Dr. B. M. C. Dassanayake *MBBS, MSc, MPH*

Acting Head  
Department of Community Medicine  
Faculty of Medicine  
Sabaragamuwa University of Sri Lanka

MESSAGE FROM THE GUEST OF HONOUR  
SABARAGAMUWA UNIVERSITY OF SRI LANKA



It is a great privilege and pleasure to share this message with the first Medical Undergraduates' Research Symposium (MeURoS) 2022 of the faculty of medicine, Sabaragamuwa University of Sri Lanka. I congratulate the medical undergraduates for collating their research outputs in a symposium of this nature. Research provides an influential learning environment for students which goes beyond classroom learning.

Global health issues such as epidemics of newly emerging and re-emerging infectious diseases, the globalization of trade, and the increase in noncommunicable chronic illnesses have become more significant than it has ever been before. Research enables students to develop independent critical thinking skills along with communication skills. The exposure will also sharpen not only their academic skills but also their soft skills such as leadership qualities, building team spirit through connectivity, to feel the pulse of the people which are core competencies for a successful medical doctor. I am convinced, events of this nature will enhance the professional skills of the doctors graduating from the faculty of medicine of the Sabaragamuwa University of Sri Lanka.

I also wish to extend my appreciation to the Dean and the academic staff of the faculty of medicine for organizing this timely event. Best wishes for your future endeavors.

Dr Deepika Attygalle

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## ABSTRACT OF THE KEYNOTE ADDRESS

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### **“Safeguarding the capacity of nature to serve as a community health tool”**

Social and economic factors, health behaviors, and environmental conditions combine to significantly shape individual and community health. Conditions in which people grow live, work, and age are greatly influenced by their interactions with and exposure to nature. Boosted immune response acquired through healthy environmental conditions, improved quality of life through harvested ecosystem services, reduced stress through exposure to healing environmental conditions, wellness gains through increased physical activities, and development of social connections through nature are some of the benefits that could be experienced by communities. Nature has been proposed as a tool to reduce deeply entrenched geographic and socioeconomic health disparities and evidence linking nature and health has been reviewed previously in depth by medical professionals. This talk delivered by a conservation biologist discusses how to engage with nature to improve community health through mental healing and improved quality of life. The discussion focuses on how to best use the healing power of the environment, and the role of the general public in conserving much-threatened biodiversity for today and the future, with special reference to the resources in Sri Lanka. The talk highlights the fact that conservation is a people’s function, and our positive actions are critically required to safeguard the healing capacity of nature for the generations yet to come.



## ABSTRACTS

## GROUP 01

### STUDY ON SOCIODEMOGRAPHIC FACTORS AND KNOWLEDGE OF SEXUALLY TRANSMITTED INFECTIONS: A COMPARISON OF PATIENTS ATTENDING STI CLINIC AND OPD OF TEACHING HOSPITAL- RATNAPURA

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**Introduction:** Sexually transmitted infections (STIs) have dramatically increased in recent years causing a large health burden in Sri Lanka. World health organization states that more than 1 million STIs are acquired every day worldwide. The study looked into sociodemographic factors and knowledge attributing to STIs in patients attending STI clinic at Teaching Hospital Ratnapura (THR).

**Methodology:** Data was collected from a questionnaire given to 30 patients each, attending the STI clinic and Outpatients' Department at THR and also from patient files at the clinic. A cross-sectional study design was carried out.

**Results:** Among 60 patients in STI clinic, there were 48.3% infected with genital warts, and 28.3% infected with herpes. 55% of patients were 18-30 years old, and 31.7% of patients were 31-42 years old. 60% of patients were male. 56.6% of patients educated up to Ordinary Level. 40% patients were educated till Advanced Level. 40% of them were unskilled and 23.3% were unemployed. 51.7% of patients' income was less than LKR 30000.00. 73.3% of patients were married. There was no statistically significant association between diagnosis with gender, age, marital status, occupation, or monthly income. The results exhibited, the knowledge on symptoms, transmission and prevention of STIs was higher among the patients attending the STI clinic in comparison to that of patients attending the OPD.

**Discussion:** Our results revealed that the knowledge of STIs among the patients attending the clinic on the prevention methods of STIs was limited. Further, we emphasize the importance of educating young adults at schools on STIs as a preventive measure.

**Conclusion:** Since both the general population and those already attending the STI clinic do not have sufficient knowledge of STIs it is important to carry out awareness programs on STI diseases and transmission, medication, and cure of STIs for the youth from school education to prevent their exposure to STI as young adults. Interventions should be done to promote health education in the community.

**Keywords:** STIs, sociodemographic factors, knowledge

## GROUP 02

### KNOWLEDGE, ATTITUDES AND PRACTICES REGARDING THE USE OF INSULIN IN THE TREATMENTS OF DIABETIC PATIENTS ATTENDING TEACHING HOSPITAL – RATNAPURA

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**Introduction:** Diabetes mellitus (DM) is a syndrome of chronic hyperglycemia due to relative insulin deficiency, resistance or both. It has become a major emerging non-communicable disease worldwide. Exogenous insulin plays a major role in treating DM, especially in DM-1 and DM-2 with poor response to oral hypoglycemic agents. Therefore, good knowledge, favorable attitudes, and good practices regarding insulin are some of the most crucial components of glycemic control.

**Method:** A descriptive cross-sectional study was carried out to assess the knowledge, attitudes, and practices of 90 patients who were admitted to the Teaching Hospital-Rathnapura by using a questionnaire consisting of 22 questions. The frequencies of each were evaluated according to socio-demographic factors. Scores were allocated for each question and were evaluated.

**Results:** Out of 90 patients, the majority of patients were females (64.4%) and 35.6% were males. Most of them were more than 60 years of age (38.9%) and the majority of patients were educated only up to Ordinary Level (57.8%). Only 12 patients were aware about the type of insulin that they were using (13.3%). 25.6% had poor knowledge, 44.4% had average knowledge, and 30% had good knowledge regarding the use of insulin. 48.9% had poor attitudes towards insulin. 51.1% had average practices for using insulin.

**Discussion:** There was no statistical significance between socio-demographic factors and knowledge, attitudes, and practices. Most of the study subjects had an average level of knowledge and of practices, and half of the patients had poor attitudes towards insulin, which can be improved by effective awareness programs to achieve good prognosis and to minimize further complications.

**Conclusion:** Knowledge, attitudes, and practices towards insulin treatment should be further improved for better prognosis.

**Key words:** diabetes, insulin, socio-demographic factors

## GROUP 03

### THE ALVARADO SCORE IN APPENDICITIS: CAN IT ENABLE ANTIBIOTIC THERAPY, REDUCING THE NEED FOR SURGICAL TREATMENT?

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**Introduction:** This study aimed to evaluate the Alvarado Score (AS) in increasing the diagnostic accuracy of appendicitis and assessed the possibility of antibiotic therapy to reduce the need for surgical treatment.

**Method:** A cross sectional study was carried out on all patients between 16 to 60 years of age who underwent appendectomy in the Teaching Hospital-Ratnapura, from 21<sup>st</sup> September to 15<sup>th</sup> October 2022. The AS were calculated and compared with the histopathological diagnoses. The indices used for validating a diagnostic test and the Receiver Operating Characteristics (ROC) curve were obtained.

**Results:** Sixty-one patients had appendicectomies and acute appendicitis and minimal inflammation was reported in 47 and 14 patients respectively (100% accuracy of the clinical diagnosis). Using acute appendicitis as a positive diagnosis and minimal inflammation as a negative diagnosis, the ideal cut off AS for these patients, obtained by a ROC curve was 5.5. Using a cut off of 6, the diagnostic accuracy was 85.2% (95% CI 73.8% to 93.0%). Of the 14 patients who had minimal inflammation, the AS ranged from 3-9 (mean 5.4, SD±1.6), and 10 patients had AS between 3-5. The characteristic clinical feature of tenderness in the right iliac fossa, by itself, showed very good sensitivity but with very low specificity.

**Discussion:** Reducing the cut off of AS to 6 was suitable for the patients studied. Since 10 out of the 14 patients, who had only mild inflammatory changes, had AS between 3-5; they could be offered antibiotic therapy without urgent appendicectomies. However, at a cut off value of 4.5 (as reported to be the best cut off value by a study carried out at Peradeniya), the specificity in the current study was only 22%.

**Conclusion:** Reducing the cut off of the Alvarado Score to 6 and offering antibiotic therapy to patients with AS between 3-5 could be considered.

**Key words:** Alvarado Score, appendicitis, antibiotic therapy, surgical treatment

## GROUP 04

### VACCINE HESITANCY AND CONCERNS REGARDING COVID-19 VACCINES AMONG HEALTH CARE WORKERS IN TEACHING HOSPITAL- RATNAPURA

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**Introduction:** The pandemic of COVID-19 has been a global health disaster. The effectiveness of mass vaccination programs against COVID-19 has been affected by a hesitancy to receive the vaccines in populations. Since healthcare workers (HCWs) have an important advisory and executory role in vaccination programs and can act as nosocomial infection carriers, COVID-19 vaccine acceptance in HCWs is of high importance, and reasons for hesitancy need to be assessed.

**Methodology:** A cross-sectional study was performed involving 400 HCWs in Teaching Hospital-Ratnapura using a questionnaire-based assessment in October 2022. Bivariate analyses were performed using IBM-SPSS version 29.

**Results:** 94.5% responders had taken at least one dose of vaccine. 5.5% participants have completely refused the vaccine. While 275 (68.8%) had completed taking all 3 doses, 100 (25.0%) had only 2 doses and 3 (0.8%) had taken only one dose. Vaccine hesitancy was associated with age (majority >50years), employment status and education level. Gender, ethnicity and religion did not have any association with vaccine hesitancy.

**Discussion:** Getting side effects was the main concern while effects on co-morbidities, causing infertility/ subfertility and lack of knowledge on long term complications were other concerns. Inversely, creating herd immunity and protecting patients and family members were reasons in favor of vaccination. Ill health conditions following the first dose was the main reason behind missing subsequent doses.

**Conclusion:** A high overall vaccine acceptance rate amongst HCWs for COVID-19 vaccination has been observed with majority of the participants having several concerns regarding their health. The reasons for hesitancy and common concerns identified in the study should be addressed in future vaccine campaigns to improve vaccine acceptance.

**Keywords:** health care workers, vaccine hesitancy, COVID-19

## GROUP 05

### A DESCRIPTIVE STUDY ON LEPTOSPIROSIS PATIENTS PRESENTED TO THR

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**Introduction:** Most of the people in Ratnapura District of Sri Lanka experience leptospirosis in each and every year. The purpose of this study was to find out the association between leptospirosis diagnosed patients and their occupation. One major step in control and prevention of leptospirosis is public awareness of disease and preventive methods.

**Methods:** A descriptive cross-sectional study was carried out as a part of research methodology by fourth year medical undergraduates in the faculty of medicine, Sabaragamuwa University of Sri Lanka. Data were collected by giving questionnaire to leptospirosis diagnosed patients who had been admitted into the teaching hospital Ratnapura.

**Results:** Although 91 diagnosed leptospirosis patients participated in the study, of them 94.5% of Sinhalese followed by 4.3% of Tamils and 1% of Muslims got the disease. Among responders 65% had occupations other than gem mining (24.1%), paddy farmers (24.1%), animal farm workers (0.2%). 78.3% of patients who are doing other occupations had at least one time of muddy exposure within two weeks prior to getting illness. Almost all the patients (100%) had fever at the time of hospitalization. 40.6% had kidney involvement, 5.4% had liver involvement, 1% had lung involvement, 2.1% had brain involvement, 5.4% had heart involvement and 4.3% had other complications. Most of the patients (92.3%) among the diseased had not taken any preventive measures prior to exposure.

**Discussion:** According to our findings, any person irrespective of their occupation can get infected after exposure. But there is a significant relationship between leptospirosis and special occupations like paddy farming, gem mining and animal farming that are frequently in contact with muddy water and animal excreta.

**Conclusion:** Leptospirosis was more common with occupations like paddy field farmers, gem miners, animal farm workers and activities that had close contact with contaminated water.

**Keywords:** Leptospirosis, disease exposure

## GROUP 06

### AWARENESS OF THE BENEFITS OF VACCINATION FOR COVID-19 IN A SELECTED POPULATOIN IN SRI LANKA

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**Introduction:** Coronavirus disease (COVID-19) is caused by a virus that afflicted many countries worldwide. With covid-19 vaccination programs scaling up globally, there is growing concern about community-level awareness. The objective of this study was to assess the knowledge and understanding of COVID-19 vaccination among a selected population.

**Methods:** A Descriptive cross-sectional, community-based study was conducted among (N=450) people visiting the OPD at Teaching Hospital, Ratnapura during October 2022. A structured, closed-ended questionnaire was used to collect quantitative data related to socio-epidemiological, knowledge and attitudes regarding COVID-19 vaccines through random sampling.

**Results:** A total of 450 participated. Among them, 218 (48.4%) were males and 232 (51.66%) were females. The Highest number (206/45.8%) were between 18-30 years. The majority (413/91.8%) were Buddhists. Educational level between grade 6 -11 were seen among 181 (40.2%). More than 90% of the participants had good knowledge about COVID -19 vaccine. The majority (232/96.55%) of females and 206 (94.5%) males had good knowledge about the vaccine. Majority of the Buddhists (400/96.85%) also had good knowledge. When considering their educational level, those in the grade 6-11 (92.27%) category had the highest knowledge about COVID-19 vaccine compared to the other 3 groups. However, when attitudes to COVID-19 vaccination were analyzed, despite good knowledge, attitudes were not comparable with their knowledge. Only 153(74.27%) in the 18 to 30 age group had good attitudes towards the COVID-19 vaccine with varying percentages between 50-64% in the other age groups. Similar results were seen among religious groups too.

**Conclusions:** Vaccination has played a significant role in controlling COVID -19 pandemic globally. This study group had good knowledge regarding the vaccine but their attitudes regarding the vaccination programme, in general, were not satisfactory. Therefore, conducting awareness programmes about the benefits of vaccination will Profit this population to face future epidemics and pandemics.

**Key words** - COVID-19, Vaccination



## GROUP 07

### THE IMPACT OF AN EDUCATIONAL PROGRAM IN CHANGING THE KNOWLEDGE AND ATTITUDES OF FAMILY PLANNING IN WOMEN OF REPRODUCTIVE AGE IN A SELECTED ESTATE GROUP IN RATNAPURA DISTRICT

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**Introduction:** There is still an unmet need of family planning among the women living in the estates. This survey was designed to assess how an educational intervention will affect towards change in their knowledge and attitude towards contraception.

**Methodology:** An interventional quasi-experimental study was conducted targeting the estate women of the reproductive age (18-49 age) in the Kosgalawatte estate. A pre-tested, self-administered questionnaire was used on 100 women chosen by simple random sampling from an eligible family registry. The mean level of knowledge and desirable attitudes towards contraception was calculated by a scoring system. An interventional program was carried out, and the post knowledge and attitudes were assessed after 2 weeks giving the same questionnaire and the scores were calculated

**Results:** In this sample, the average number of children per woman was 2.38 (n=100). After the intervention, there was significant increase in knowledge regarding frequency of depot injections by 38.3%, importance of emergency pills by 36.9%, consequence of missing pills by 33.1% and safe days by 30.7%. Attitudes on having more children was high even after the intervention although other attitudes on various aspects have grown in favour. The mean difference in knowledge pre- and post-intervention was -2.8152 (P<0.05) and the mean difference in attitude was -2.6111 (P<0.05).

**Discussion:** When means were compared using independent T-test, we found that both mean knowledge and attitude on contraception had significantly increased after the intervention programme. Although they had a generalized idea on contraception, they lacked crucial details which might be the reason for the high fertility rate and minimum gap between bearing children. Although attitudes increased, majority of the attitudes were still in the neutral range.

**Conclusion:** We would advocate for additional interventional programmes in marginalized communities to bridge the gap between unmet family planning needs.

**Key words:** Contraception, estate women, Intervention programmes

## GROUP 8

### ASSOCIATION BETWEEN EXTRACURRICULAR ACTIVITIES AND ACADEMIC PERFORMANCE OF PRECLINICAL MEDICAL STUDENTS OF A MEDICAL FACULTY IN SRI LANKA

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**Introduction:** Medical students are required to develop skills other than clinical knowledge to become efficient doctors. Extracurricular activities (EA) are means to develop soft skills including teamwork, communication and time management; relief from mental stress is an added benefit. Our objective was to discover an association between the participation of medical students in EA at university and their academic performance at the preclinical bar exam (2<sup>nd</sup> MBBS).

**Methodology:** This descriptive cross-sectional study was conducted at the Faculty of Medicine, Sabaragamuwa University of Sri Lanka. Total of 145 students were selected as the sample size. Independent variables were participation and non-participation in EA at the university, such as gender, type and the English competency level. The classes and highest grades obtained at 2<sup>nd</sup> MBBS exam were dependent variables. Data were collected from students using an online questionnaire and analyzed using SPSS version 26.

**Results:** From 145 students, male to female ratio was 57(39.31%):88 (60.69%). From the total, 53.8% had actively engaged in EA of which 59.64% were females. Total pass percentage of 2<sup>nd</sup> MBBS from the first attempt was 83.4% and 61.15% from them had obtained classes, from which 59.45% had engaged in EA. A statistically significant association was found only between Physiology and EA ( $p=0.046$ ). From 70 students who obtained A grade for English, 61 (87.14%) had done EA.

**Discussion:** Results can be used to promote EA, while developing English, among students in the university as a higher number of participants have obtained more classes at 2<sup>nd</sup> MBBS.

**Conclusion:** Although only Physiology was proven to be associated with EA statistically, medical students who engaged in university EA performed better in their academic performance than those who did not, and a good competency in English was a useful factor for academics.

**Keywords:** medical students, preclinical, extracurricular activities, academic performances.

## GROUP 09

### **AWARENESS AND IMPLEMENTATION OF WORLD HEALTH ORGANIZATION SURGICAL SAFETY CHECKLIST AMONG HEALTH CARE PROFESSIONALS IN THE TEACHING HOSPITAL-RATNAPURA, SRI LANKA.**

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**Introduction:** This study aimed to assess the state of WHO surgical safety check list (WHO-SSC) implementation as well as knowledge, attitude and behaviour of the medical community with regard to SSC implementation in the Teaching Hospital-Ratnapura (THR), Sri Lanka.

**Method:** A descriptive cross-sectional study was carried out among health care professionals of THR in general surgical wards and theatres plus gynaecology and obstetrics wards and theatres. Also 223 bed head tickets (BHT) records were collected related to the surgeries done in the period from August 2021 to September 2022.

**Results:** The results showed that all nurses have heard about the SSC while 95.91% of doctors have heard about it. As high as 94.2% of participants were aware that the SSC was developed by the WHO to be implemented globally. In general, 78% of healthcare workers performed WHO-SSC in all kind of surgeries. As a categorical value, participants who performed WHO-SSC in routine surgeries was 67%. 44.7% of healthcare professionals had experienced complications that may have been avoided if the WHO-SSC had been properly implemented. 99% of healthcare professionals believed that the checklist should have been used in every surgical procedure even in an emergency. The working category of THR had a significant association with their attitude on performing SSC.

**Discussion:** The lack of time, training and knowledge, and overwork were identified as the key challenges to SSC implementation by a considerable percentage of participants highlighting the need for thorough training and proper introduction on the procedure-

**Conclusion :** Even though BHTs audit has shown zero adoption in the studied period, participants had fairly good knowledge and attitude regarding the proper implementation of SSC.

**Key words** – surgical safety checklist, patient safety

## GROUP 10

### KNOWLEDGE ON TYPE II DIABETES MELLITUS RELATED TO THE DISEASE COMPLIANCE AMONG DIABETIC PATIENTS TREATED IN TEACHING HOSPITAL-RATNAPURA, SRI LANKA

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**Introduction:** Type 2 diabetes mellitus (DM-2) has become a major non-communicable disease (NCD) with significant comorbidities and mortalities, worldwide. To address this issue, it requires optimized diagnostic, managerial and preventive aspects. This study aimed to find the gaps behind knowledge on diabetes and correlations between disease compliance, which is important in managerial and preventive strategies

**Methodology:** This descriptive cross-sectional study was conducted in medical clinics, medical and surgical wards of the Teaching Hospital-Ratnapura (THR) on targeted population of laboratory confirmed diabetic patients, both male and females above 18 years of age.

**Results:** Out of 250 total participants, majority was females (56.4%). The highest incidence of the disease occurred in the 60-69 age group (32.4%). More than half of the participants were not well educated: 57.2% less than Ordinary Level(O/L), 27.2% with O/L, 14.8% had completed Advanced Level (A/L), only 0.8% had higher education. Majority of them had an average income (58.4%). Of the study group, 34.8% and 6.8% had low- and good-income respectively. Regarding the disease state, 41.2% was recognized as glycemic controlled, while 58.8% was glycemic uncontrolled. Only 6% had diabetic complications. Although majority had either good (56.4%) or average (41.6%) knowledge about diabetes, only 14% showed good compliance, whereas 83.6% was average and 2.4% with bad compliance. According to the study, there was no significant correlation between the knowledge level and the disease compliance ( $p=0.070$ ).

**Discussion:** Although more than half of the participants had good level of knowledge (56.4%), majority (86%) had not reached good compliance. It suggested, knowledge had not contributed considerably towards the disease compliance.

**Conclusion:** Building awareness-centered-management and preventive strategies for the general public in Ratnapura must be considered.

**Key words:** Diabetes Mellitus, non-communicable disease, comorbidities, disease compliance

## GROUP 11

### CLINICAL AND EPIDEMIOLOGICAL FEATURES OF SNAKEBITE PATIENTS ADMITTED TO TEACHING HOSPITAL-RATNAPURA

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**Introduction:** Snakebite is a neglected tropical disease. It has a higher burden in Sri Lanka because of agricultural activities in the rural areas. Out of 108 snake species in Sri Lanka, only 7 are highly medically important. The objectives of this study were to describe epidemiological and clinical features of snakebites in the Ratnapura District.

**Methods:** A cross-sectional retrospective study was conducted on patients admitted to Teaching Hospital-Ratnapura following snakebites from June to September 2022. Data were collected from bed head tickets and analyzed using SPSS, version 22.

**Results:** There were 63 patients with snakebites from which males were 50 (79%). 32 (50.8%) were known snakebites of which majority were hump-nosed viper bites (n=24;75%). The mean age was 49.5 year. Most patients were gem miners (n=18;28.6%) and the majority were educated up to grade 5-11 (n=31;49.2%). Most bites (n=44;69.8%) occurred during night (6PM-6AM), on upper limbs (n=49;77.8%) in estates (n=18;28.6%). A total of 60 (94%) patients presented with local effects including pain (n=51;79.7%), swelling (n=52;81.3%), blistering (n=3;4.7%), necrosis (n=5;7.8%). Systemic manifestations were haemotoxicity (n=17;26.6%), neurotoxicity (n=10;15.6%), nephrotoxicity (n= 8;12.5%), coagulopathy (n=4;6.3%) and acute kidney injury (n=3;4.7%). Out of hematological laboratory findings, 16 (25.6%) had leukocytosis and neutrophilia was observed in 24 (44.6%). Antivenom was administered to 11 (17.5%) from which 2 (3.2%) developed allergic reactions.

**Discussion:** Current study found that Ratnapura has a high snakebite rate of which hump-nosed viper bites were predominant. Out of the administrative divisions, more snakebites had been reported from Ratnapura, Kalawana and Kuruvita. Therefore, snakes and snakebites awareness programs should be carried out in these regions.

**Conclusion:** Hump-nosed vipers are the commonest snakebites in Ratnapura District. Local effects are frequently caused by them, while systemic effects are commonly caused by Russell's Vipers.

**Keywords:** snakebites, hump-nosed viper bites, retrospective study, gem miners

## GROUP 12

### A DESCRIPTIVE STUDY ON PATIENTS WITH ORAL CARCINOMA IN THE RATNAPURA DISTRICT

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**Introduction:** In the Ratnapura District, many advanced oral carcinoma cases are present with poor prognosis. This study aims to describe socio-demographic factors, the association of known risk factors and the effectiveness of awareness methods of oral cancer patients in the Ratnapura district.

**Methodology:** Fifty patients were recruited and information on sociodemographic data, risk behaviors, and awareness level were obtained through a questionnaire. Descriptive analysis was done to evaluate the association between socioeconomic status and risk behaviors.

**Results:** The majority (97.0%) of patients were males. 70.0% of patients were labourers, 88.0% were educated below ordinary level, 58.0% were earning less than LKR 30000.00/month and 78.0% lived in rural areas. A majority (98.0%) of patients were chewing betel as a habit and 84.0% were consuming alcohol. 42.0% were not aware of oral cancers.

**Discussion:** Due to their low monthly income, people are more prone to be mentally stressed, and the physical exhaustion caused by the occupation drives them into risk factors like alcohol intake and betel chewing. Among the teetotalers, 87.5% were betel chewers and among the nonsmokers, 96.3% chewed betel. The study identified betel chewing as a major risk factor. Although tobacco is a well-known carcinogen, the current study did not show any significant relationship between tobacco smoking and oral carcinoma.

**Conclusion:** The present study demonstrated that betel chewing and alcohol intake were major risk factors for developing oral carcinoma. It suggests that different risk behaviors such as smoking, alcohol consumption and betel chewing would be more prevalent among people with poor living and working conditions.

**Keywords:** Oral carcinoma, betel chewing, socio-demographic factors

## GROUP 13

### EPIDEMIOLOGICAL STUDY ON PATIENTS WITH CIRRHOSIS ADMITTED TO TEACHING HOSPITAL-RATNAPURA (THR)

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**Introduction:** Study aimed at determining epidemiological parameters of patients admitted with cirrhosis to THR, including demographic parameters, common etiologies, alcohol consumption behaviors, and severity of disease at the time of presentation.

**Methodology:** This study was a descriptive cross-sectional analysis of adult patients with cirrhosis admitted to the gastroenterology medical and surgical wards and clinics of THR. The interviewer administered the questionnaire together with the Alcohol Use Disorders Identification Test (AUDIT) to collect data which was analyzed with SPSS.

**Results:** The average age range was 61-70 years, and most were males, and the majority were Sinhalese. Most were from Ratnapura MOH area and from the low-income category. Alcohol consumption was the most identified cause for cirrhosis. Diabetes was the commonest metabolic comorbidity, and the majority presented with ascites. There was a statistically significant correlation between alcohol consumption and male gender.

**Discussion:** The highest age range of cirrhosis was 61-70 years which is higher than the country average of 53. Least number of patients were presented from high income category as they may go to private sector and distant hospitals. Aetiologies identified were limited to alcohol and hepatitis. Other numerous aetiologies, especially the non-alcoholic fatty liver disease (NAFLD) was not known to them and was not identified. However, association to diabetes may explain the relationship to NAFLD. Alcohol consumption behavior from AUDIT was categorized as low risk because as patients changed their behaviour patterns after diagnosis of cirrhosis.

**Conclusion:** Alcohol was the commonest cause identified and its association with metabolic diseases may represent the common association to NAFLD. Alcohol consumption after diagnosis of cirrhosis became a low-risk category.

**Keywords:** epidemiological study, cirrhosis, alcohol consumption



## GROUP 14

### ASSOCIATION BETWEEN ALCOHOL CONSUMPTION AND TRAUMA INCIDENTS AMONG PATIENTS ADMITTED TO GENERAL SURGICAL AND ORTHOPEDIC WARDS IN THE TEACHING HOSPITAL-RATNAPURA.

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**Introduction:** Alcohol related injuries are a leading cause of hospital admissions. The objective of this study was to determine the association between alcohol use and trauma among patients admitted to general surgical wards and orthopedic wards in the Teaching Hospital-Ratnapura.

**Methodology:** A descriptive cross-sectional study was done, among 150 trauma patients over 18 years of age admitted to Surgical and Orthopaedic wards from 29th of September to 15th of October using interviewer administered questionnaire, Alcohol Use Disorders Identification Test (AUDIT), Injury severity score (ISS) and National Statistics Socio-economic Classification (NS-SEC). Data were analyzed using SPSS software.

**Results:** A positive association between alcohol use and prevalence of trauma injuries were noted among 58% and no possible association was observed between ISS scores and AUDIT scores. Highest amount of alcohol consumption was noted in the age group between 26-35 years (40.7%) and among social class 7 in NS-SEC (52.7%). Commonest type of injury among individuals under the influence of alcohol at the time of incident was falls from height (44.4%). The commonest time of the day for such incidents to occur was recorded between 6:00 PM to 6:00 AM (66.66%). No alcohol use was noted among the female subjects.

**Discussion:** Alcohol use is prominently associated with trauma in this sample especially among young males. Interventions to reduce alcohol consumption among young males could potentially reduce trauma incidents and save health care expenditure. Further studies involving larger sample size, longer time frames and more reliable measures of alcohol could advance knowledge for this association.

**Conclusion:** Alcohol consumption has a significant association with patients hospitalized due to trauma incidents in the Ratnapura area.

**Key words:** alcohol, trauma, AUDIT, ISS

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