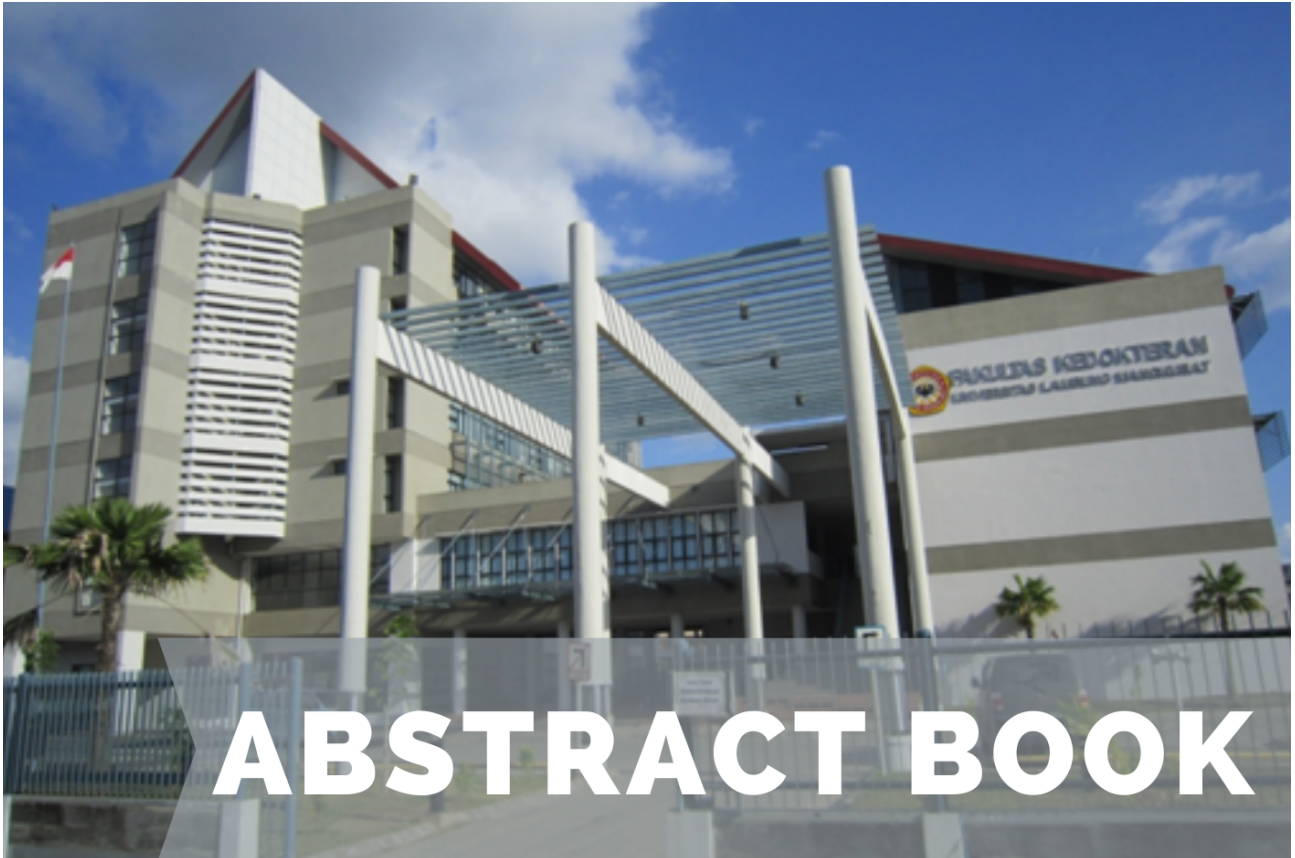




**Research Center Unit
Faculty of Medicine
Universitas Lambung Mangkurat**



ABSTRACT BOOK

The 1st Health Science International Conference *"Covid-19: Natural Resource and Biomolecular Aspect"*

Banjarmasin,
November 10th-11th, 2020

PREFACE

The Hesicon 2020 is an annual scientific meeting organized by Research Centre, Faculty Medicine, Lambung Mangkurat University Indonesia. This meeting aimed to promote mutual exchange between researchers and also experts, to discuss innovative ideas in scientific research. The Hesicon runs for 2 days, 10-11 November 2020, and consists of 4 mini symposia, they are:

- Natural Resource
- Bioinformatic
- Biomolecular
- Biomedicine

The selected papers of the conference will be published in Proceeding and Journal. Around 100 people are attending this conference. They consist of ---- presenting participants, --- non-presenting participants, 2 keynote speakers, and 4 invited guests. The theme of the Hesicon 2020 is “**Covid19: Natural Resource and Biomelocular Aspect**” which covers broad range of research in the topics of natural resources and biomedicine. This particular theme is intended to promote recent advances in the field of natural genetic resources and biotechnology as a transformative trend to address the revolution industry 4.0. This international forum also provides a platform where national and international academia or researchers, policy makers, and other stakeholders to translate technology, exchange ideas, and help stimulate multidisciplinary international collaborations in a convergent-manner for shaping a worldwide sustainable development. The Hesicon 2020 could not become a reality without the help and assistance of many parties. Thus, in this occasion I would like to sincerely thank the Rector of Lambung Mangkurat University, Research Centre of Medical Faculty, all members of the Organizing Committee, and all sponsors, who have provided meaningful help and assistance for the implementation of this conference. And last but not least, I would like to thank all of the conference participants who will contribute to making this the most memorable event of Hesicon 2020. Last but not least, we have tried to do our best to prepare Hesicon 2020. Nevertheless, there is nothing completely perfect in the world, including this conference. Therefore, please accept our deep apologizes for any inconveniences found in this conference.



Dr. Eko Suhartono
Chairman of Conference

Committee

Person in Charge:

- Dean Faculty of Medicine Universitas Lambung Mangkurat
- Chairman of Research Center Unit (Prof. Dr. dr. Nia Kania, Sp. PA)

Director:

- Prof. Dr. Zairin Noor, dr., Sp. OT (K), MM.
- dr. M. Bakhriansyah, M.Kes., M. Med.Ed, PhD
- dr. Istiana, M.Kes
- dr. Edyson, M.Kes

Chairman:

- Dr. Drs. Eko Soehartono, M.Si

Secretary:

- Dr. Isnaini, Apt

Secretariat:

- Windy Yuliana Budianto, Ns., M.Biomed
- dr. Nika Sterina Skripsiana
- Rahmawati, SE

Treasurer:

- Dr. Erida Wydiamala, drh., M.Kes
- Supriyadi, SE
- Nanny Jaryati

Scientific section:

- Dr. Roselina P., S.Si., M.BioMed
- Adinugroho, SKM., M.Kes., Ph.D
- Kurnia Rahmawati, S.Kep., Ns., MNS

Event section:

- Dr. dr. Meitri Syahadatina Noor, M.Kes
- Fauzi rahman, SKM., MPH.
- Dr. dr. Ika Kustiyah, MKes., Sp. PA
- Ihya Hazairin Noor, SKM., MPH
- dr. Pandji Winata Nurikhwan

Publication and Documentation section:

- Dr. Ermina Istiqomah, M.Si., Psikolog
- Rika Vira Zwagery, S.Psi, M.Psi, Psikolog

Fund section:

- Dr. Darwin P, dr., Sp. PD
- Prof. Dr. dr. H. Ari Yunanto, Sp.A(K)., IBCLC., S.H.
- dr. Widya Nursantari

Technician:

- M. Noor

TIME SCHEDULE OF HESICON

Day 1 10th November 2020 (GMT +8/Waktu Indonesia Tengah)		
07.30-08.30	Registration	
08.30-09.35	Opening ceremony	
08.30-08.35	Welcome remark by MC	
08.35-08.45	Sing the National Anthem of Indonesia Raya	
08.45-08.55	Opening remark by the Riset Center	
08.55-09.05	Opening remark by the Dean of Faculty of Medicine, Lambung Mangkurat University	
09.05-09.15	Opening remark by the Rector of Lambung Mangkurat University	
09.15-09.25	South Kalimantan Traditional Dance Performance	
09.25-09.30	Group picture (MC)	
09.30-09.35	Closing remark by MC	
09.35-09.55	Keynote Speaker 1 Prof. Irawan Satriotomo, MD., Ph.D. Neuroscience Insights of COVID-19	
09.55-10.15	Keynote Speaker 2 Prof. Chissy Rachiana Sudjana Prawira, dr., Sp. A (K). Vaccine Development In the COVID-19 Era	
10.15-11.15	Break Out Room	
10.15-10.35	Invited Speaker 1 Prof. Dr. Zairin Noor, dr., Sp. OT (K), MM. Pengaruh Logam Pada Osteoporosis Moderator: dr. Rahmiati, M. Kes., Sp. MK.	Invited Speaker 3 Prof. Dr. Ari Yunanto, dr., Sp. A (K). Patomekanisme Covid 19 Pada Bayi Moderator: Adi Nugroho, SKM., M. Sc., Ph. D
10.35-10.45	Discussion of Invited Speaker 1 Moderator: dr. Rahmiati, M. Kes., Sp. MK.	Discussion of Invited Speaker 3 Moderator: Adi Nugroho, SKM., M. Sc., Ph. D
10.45-11.05	Invited Speaker 2 Prof. Dr. Ir. H. Yudi Firmanul Arifin, M. Sc. Potensi Tumbuhan Lahan Basah Untuk Obat Moderator: dr. Rahmiati, M. Kes., Sp. MK.	Invited Speaker 4 Agianto, S. Kep., Ns., M.N.S., Ph. D. Covid 19 Dalam Keperawatan Moderator: Adi Nugroho, SKM., M. Sc., Ph. D
11.05-11.15	Discussion of Invited Speaker 2 Moderator: A dr. Rahmiati, M. Kes., Sp. MK.	Discussion of Invited Speaker 4 Moderator: Adi Nugroho, SKM., M. Sc., Ph. D
11.15-12.00	Closing Remark by MC	

Day 2 11th November 2020 (GMT +8/Waktu Indonesia Tengah)				
07.30-08.30	Registration			
08.30-08.45	Opening Remarks by MC			
08.45-10.30	Poster Presentation (Main Room)			
08.45-10.30	Breakout Room			
08.45-08.50	Moderator 1 Ratna Setyaningrum , SKM., M. Sc (Biomedicine)	Moderator 2 Dr. Isnaini, S. Si. Apt., M. Si. (Natural Resources)	Moderator 3 Dr. Ika Kustiyah, dr., M. Kes., Sp. PK. (Bioinformatic)	Moderator 4 Kurnia Rachmawati, Ns., MNsc. (Biomolecular)
08.50-10.30	Oral Presentation Presentation 5 minutes, discussion 5 minutes	Oral Presentation Presentation 5 minutes, discussion 5 minutes	Oral Presentation Presentation 5 minutes, discussion 5 minutes	Oral Presentation Presentation 5 minutes, discussion 5 minutes
10.30-11.30	Closing Ceremony by MC The best presenter Closing statement (Chef of Hesicon) Group Picture			

LIST OF ABSTRACT

No.	Name	Title
1.	Haryati, Yulia Octaviany	Malignant Pleural Effusion Profile In Lung Cancer Patients At Ulin General Hospital Banjarmasin January 2016 – July 2019
2.	Meitria Syahadatina Noor , Andini Octaviana Puteri, Fakhriyah	Teenager Peer Educator Using 4.0 Technology To Increase Knowledge, Attitude, And Behaviour Of Community In Covid-19 Transmission Prevention
3.	Anggarda Kristanti Utomo , Haryati,	Cholesterase Level In 22 Covid-19 Patients In Ulin Regional Hospital Banjarmasin Related To Severity And Mortality
4.	Nurul Hidayah , Farida Heriyani, Ruslan Muhyi, Meitria Syahadatina Noor	Risk Factors That Related With The Failure Of Epilepsy Treatment In Children At Peditry Polyclinic Ulin Hospital Banjarmasin
5	Istiana, Widya Nursantari, Edi Hartoyo, Meitria Syahadatina Noor	Malaria Infection Effect To Haemoglobin And Haematocrit In Pregnant Mus Musculus
6.	Harapan Parlindungan Ringoringo , Katherine Richel Tambunan	<i>Stevens-Johnson syndrome</i> due to anticonvulsant: a case report and literature review
7.	Harapan Parlindungan Ringoringo	The role of methylprednisolone in children with immune thrombocytopenic purpura: case reports and literature review
8.	Harapan Parlindungan Ringoringo , Anjas Asmara, Infithaar	Alopecia Totalis In A Five Year Old Boy : Case Reports
9.	Harapan Parlindungan Ringoringo	Typhoid Fever In 3 Months Of Infants: A Case Report And Literature Review

10.	Indah Nur Chomsy , M. Saifur Rohman, Mifetika Lukitasari, Dwi Adi Nugroho, Husnul Khotimah	Cardiac fibrosis attenuation by chlorogenic acid and epigallocatechin-gallate mediated by suppression of galectin-3 gene expression and collagen deposition in rat metabolic syndrome model
11.	Agung Waskito , Laily Khairiyati, Lenie Marlinae, Anugrah Nur Rahmat	Pyramidal Water Desalinator Efficiency to a decrease Total Dissolved Solids (TDS) and River Water Conductivity in Aluh-Aluh, Banjar District
12	Andini Octaviana Putri , Nur Laily ² Fauzie Rahman, Fakhriyah	Implementation of Hypnobreastfeeding Therapy as an Effort to Reduce the Incidence of Underweight on Children Aged 0-6 Months
13.	Aristha Novyra Putri , Revita Saputri, Karunita Ika Astuti, Ika Puspita Sari, Teuku Nanda Saifullah Sulaiman	Determination of Non Specific Standardization Parameters of Kasturi (<i>Mangifera Kasturi</i> Kosterm.) Leaves Extract From South Kalimantan
14.	Atikah Rahayu , Fahrini Yulidasari, Muhammad Irwan Setiawan	Potential Sinbiotic Fermentation Milk (<i>Lactobacillus Plantarum</i> Dad13-Fos) in Reducing Anemia in Adolescents (A case study of anemia in young girls in the Martapura Riverbanks, Banjar Regency)
15.	Ida Yuliana , Triawanti, Didik Dwi Sanyoto, Husnul Khatimah, Asnawati, Rayatul Aminah	Potential of Pasak Bumi as a Food Supplement to Improve Spermatogenesis in Malnutrition Model Rats
16.	Khoviya yuwina Selinada Harm, Dwi Nur Ahsani , Maruni Wiwin Diarti	Effect of Kawista Fruit Ethanol Extract (<i>Feronia Elephantum</i> Correa) on the Liver Rats Threated with High Fat Diet
17.	Kissinger , Rina Muhayan Noor Pitri	Antibacterial Bioactivity Of The Bark Of <i>Shorea Balangeran</i> (Korth.) Burk Tree Species
18.	Rosinta Dewi Achmadiyah , Khatimah H, Isnaini	Antioxidant Activity Of Metanol Fruits And Flowers Extract Of Galam (<i>Melaleuca Cajuputi</i> Subsp. Cumingiana (Turcz.) Barlow) Using DPPH Method

19.	Yunita Armiyanti Anzil , Aziza, Ika Rahmawati Sutejo	In Vitro Activity Of Natural Pediculosides From A Combination Of <i>Illicium Verum</i> Extract And Coconut Oil
20.	Isnaini, Shafa Rahmani Puteri, Khusnan Mustofa Gufron, Ika Kustiyah Oktaviyanti	Comparison Wound Healing Activity Of Gel And Cream Extract Ethanolic Fruits Of <i>Melastoma Malabathricum</i> L.
21.	Triawanti , Didik Dwi Sanyoto, Azma Rosida	The Effect Of Pasak Bumi (<i>Eurycoma Longifolia</i> . Jack) Ethanol Extract On The Lipid Profile Of The Rats Were Induced High Fat Diet
22.	Didik Dwi Sanyoto, Triawanti , Hendra Wana Nur'amin	The Effect Of Seluang Fish Administration On Gaba Serum Level Of Rats Autism Model By Antenatal Endosulfan-Induced
23.	Enrico Hervianto , Hardyan Sauqi, Farida Heriyani, Juhairina	Calsium Supplementation with <i>Rasbora</i> sp. to Prevent Loss of Bone Mineral Density during GnRH Agonis long-term treatment
24.	Manal E.A Halbuda, Husnul Khotimah , Diana Lyrawati, Agwin Fahmi Fahanani	The Protective Effect of Garlic (<i>Allium sativum</i>) Extract on Hyperthyroidism Male Rats Induced By L-Thyroxine
25.	Ayu Riana Sari Azwari , Nur Laily, Fauzie Rahman, Agus M Ridwan, Nita Pujianti, Anggun Wulandari, Lia Anggraini, Hadrianti H.D. Lasari	Analysis Quality of Information, Quality of the System, and Behavior of Seeking Information Toward System User Satisfaction for Information of Covid-19
26.	Fauzie Rahman , Nur Laily, Ayu Riana Sari Azwari, Agus M Ridwan, Nita Pujianti, Anggun Wulandari, Lia Anggraini, Vina Yulia Anhar	Tangguh Village in Dealing with Corona Virus Disease-19 as an Effort to Break the Chain of Transmission and Take Adaptation of New Norms
27.	Hadrianti HD Lasari , Rudi Fakhriadi, Musafaah	Map & Distribution of Ari Events in South Kalimantan (Analysis of Riskesdas Data in 2018)
28.	Ihya Hazairin Noor , Ratna Setyaningrum, Mufatihatul Aziza Nisa, Akbar Maulana, Gusti Firdha Amalia	Risk Analysis on Diamond Rubbing Work

29.	Indra Maulana Sulaeka , Mohammad Rudiansyah	<i>Covid-19 And Severe Acute Kidney Injury (Aki) In Ulin Hospital Banjarmasin</i>
30.	Juliyatin Putri Utami , Deby Kania Tri Putri, Nia Kurnianingsih	In Silico Study Of Stachytarpheta Jamaecensis Root Interaction As Anti Sars-Cov Agent Via Cathepsin-L Inhibition
31.	Rahmiati , Noormuthmainah, Edi Hartoyo, Yunandar	Management Of Dengue Haemorrhagic Fever In Banjarbaru And Martapura Based On Geographic Information System
32.	Dedi Kurniawan , Galuh Kumalasari	“What Does The Barriers Of Being A Layperson In Community And Mental Health Mean?” A Phenomenological Approach
33.	Wiwit Agung Sri Nur Cahyawati, Roselina Panghiyangani , Muhammad Syauqi Abid Muslim, Novia Belinda Rahman	The Correlation Between The Value Of Short Form-Mini Nutritional Assessment With Frailty And Cognitive Function In The Elderly Patients In Rsud Dr. H. Moch. Ansari Saleh Banjarmasin
34.	Bernadet Maria Sanjaya , Nani Zaitun	Case Of Covid-19 In Patient With Hiv
35.	Farida Heriyani, Lia Yulia Budiarti, Widya Nursantari , Ayu Apriliani	Handsoap Activity Against The Number Of Bacterial Colonies From The Housewife's Hand Swab Samples In A Temporary Landfill Environment In Kelurahan Gadang Banjarmasin
36.	Meitria Syahadatina Noor , Siti Wasilah, Dian Rosadi, Fauzie Rahman, Fahrini Yulidasari, Andini O. Putri, Atikah Rahayu, Nur Laily, Vina Yulia Anhar, Ayu Riana Sari	Effect Of Coal Dust Exposure To Mother's Blood Pressure, Haemoglobin (Hb) Level, And Foetus Heart Beat In Tanah Laut Regency
37.	Titin Andri Wihastuti, Fibe Yulinda Cesa, Reyhan Amiruddin, Meddy Setiawan, Danisa Namira Wijayanti, Teuku Heriansyah	Polysaccharide Peptide (PsP) of <i>Ganoderma lucidum</i> As Vasa Vasorum Anti-Angiogenesis Agent In Dyslipidemic State By Measuring Lp-PLA ₂ and H ₂ O ₂ Levels: <i>In Vivo Study using wistar strain Rattus novergicus</i> Model Of Atherosclerosis With Dyslipidemia
38.	Dian Rosadi , Rudi Fakhriadi, Noor Ahda Fadillah	Relationship of Knowledge and Family Support with Treatment Compliance in Hypertension Patients

39.	Laily Khairiyati , Lenie Marlinae, Nida Ulfah	Waste Management and Sewerage Relationship with Fly Density
40.	Husaini , Anugrah Nur Rahmat, Lenie Marlinae, Laily Khairiyati, Agung Waskito, Noor Ahda Fadillah	The Implementation of Community Environmental Health Principles on on Line Based Clean Water (Whats Apps) in Parents Who have Children have a Risk of Covid 19 in Banjar District (Tuan Ulu River Village)
41.	Ratna Setyaningrum , Ihya Hazairin Noor, Mufatihatul Aziza Nisa	Occupational Health and Safety (OHS) Risk Assessment of Floating Market Traders in the Lok Baintan Village Tourism Area
42.	Musafaah , Hadrianti HD Lasari, Noor Ahda Fadillah	Knowledge, Attitude and Precautions Transmission of Covid-19 in Smp It Ar-Rahman
43.	Harapan Parlindungan Ringoringo	Immune Thrombocytopenia As The Initial Manifestation Of Pediatric Systemic Lupus Erythematosus.: Case Reports And Literature Review
44.	Harapan Parlindungan Ringoringo , Melani Sugiarti Wijaya Kangmartono	The role of ursodeoxycholic acid and Curcuma in children with hepatitis A: case reports and literature review
45.	Adelia Anggraini Utama , Eko Suhartono, Ari Yunanto	Role Of Arachidonic Acid For Early Detection Of Neonatal Sepsis Using Spectroscopy Analysis
46.	Iskandar Thalib , Edi Hartoyo, Khairiyadi, Pudji Andayani, Eko Suhartono	Saliva Anti-Dengue Immunoglobulin M and G Analysis as an Alternative Of Early Detection Of Dengue Virus Infection Through The Spectroscopy Approach
47.	Siti Wasilah , Djoko W. Soeatmadji, Teguh Wahyu Sardjono, Nia Kania, Meitria Syahadatina Noor	The Change Of Uterine Spiralis Artery Remodelling And Natural Killer (NK) Cell After Exposure Of Coal Dust In Pregnant Rattus Novergicus
48.	Rollando , Warsito, Masruri, Widodo	<i>Pterygota Alata</i> (Roxb.) R.Br. Bark Fraction Induced Intrinsic Apoptotic Pathway In 4t1 Cells By Decreasing Bcl-2 Expression and Inducing Bax Expression
49.	Hermin Sabaruddin , Yosef Salan, Enrico, Yohanes Adhitya, Bambang Abimanyu	Lymphocyte Platelet Ratio As Predictor Labour Premature Rupture Of Membranes

50.	Sofy Permana, Reyudzky Putri Fityanti, Eviana Norahmawati, Agustin Iskandar, Erika Desy Anggraini Mulyadi, and Agustina Tri Endharti	Coelomic Fluid of <i>Eisenia fetida</i> Ameliorates Cetuximab to Reduce K-Ras and Vimentin Expression through Promoting RUNX3 in an AOM/DSS-Induced Colitis Associated Colon Cancer
51.	Vina Yulia Anhar , Fauzie Rahman, Nur Laily, Agung Waskito, Anggun Wulandari, Lia Anggraini, Agus Muhammad Ridwan, Farid Ilham Muddin	Online Education of Clean and Healthy Living Behavior in Facing the Era of Adaptation of New Normal in the Covid-19 Pandemic Situation
52.	Ratna Setyaningrum , Musafaah, Ihya Hazairin Noor, Mufatihatul Aziza Nisa	Improvement of Environmental Sanitation Knowledge in East Mandiangin Village
53.	Nita Pujianti , Fajar Kurniawan, Melda Sari, Mena Erliana, Muslimah, Nur Haliza Safira, Nurul Izah, Rizka Rahmadaniah, Thea Lenka Mannuela, Fauzie Rahman, Nur Laily, Ayu Riana Sari, Anggun Wulandari, Lia Anggraini	Media Exposure Relationship with Covid-19 Prevention Behavior
54.	Pricilia Gunawan Halim , Iskandar Thalib, Pudji Andayani, Wulandewi Marhaeni, Ari Yunanto	Elevated Lactate Dehydrogenase in Newborn From Suspected Covid-19 Maternal Case: A Pathologic Process?

55.	Wydiamala E , Mardihusodo S.J, Pramono S, Martono,E	The effectiveness of the chloroform fraction from Ethanol Extract of The <i>Azadirachta indica</i> A. Juss seed as larvicide and insect growth regulator's (IGR's) against <i>Aedes aegypti</i> Linn
56.	Wulandewi Marhaeni , Latifah Andhini, Andreas Budi Wljaya, Dewi Indah Noviana Pratiwi, Pudji Andayani	Bacterial Profile And Antibiogram of Blood Stream Infections in Febrile Neutropenic Pediatric Patients with Hematological Malignancies: A Single Study
57.	Oski Illiandri, Fujiati Dirja	Red Seaweed Euchemaa Cottoni Powder of Teluk Tamiang Kotabaru Decreased Blood Sugar in Fructose Fed Mice

**Malignant Pleural Effusion Profile in Lung Cancer Patients at Ulin
General Hospital Banjarmasin
January 2016 – July 2019**

Haryati¹, Yulia Octaviany H^{1*}

¹Department of Pulmonology and Respiratory Medicine,
Medical Faculty of Lambung Mangkurat University/ Ulin General Hospital,
Indonesia

*Corresponding author: yulia.octaviany@gmail.com

Malignant pleural effusion (MPE) is defined as the presence of neoplastic cells in pleural fluid. In Indonesia, malignancy is the most common cause of pleural effusion after pulmonary tuberculosis. Accurate evaluation of the etiology of pleural effusion in patients with known cancers is important because the prognosis and subsequent treatment of these patients may differ. The research method used was a descriptive analytic. Samples were taken from Pathology Anatomy Laboratory Ulin General Hospital Banjarmasin of lung cancer patients from January 2016 to July 2019. The data were grouped based on gender, age range, and type of lung cancer. Data analysis using SPSS 16.0 software (Statistical Package for the Social Sciences) and Spearman correlation test. Total 204 lung cancer patients (57,3%) has MPE. 55.4% incidence of MPE in male lung cancer patients, values by sex are not much different $p > 0.001$. 10.6% of patients were aged <45 years (-0.8, p -value <0.001), 54.9% were aged 45-60 years (0.452, p -value <0.001), and 34.5% were aged > 60 years (1.713, p -value <0.001). The most common diagnosis was adenocarcinoma with 147 cases (72%), followed by squamous cell carcinoma in 28 cases (13.8%). There is a meaningful relationship of age and the incidence of MPE lung cancer $p < 0.001$, but did not differ significantly by sex $p > 0.001$. The incidence of MPE increases at age 45-60 years. Patients at age > 60 years 3.78x more likely to have MPE in lung cancer than those aged 45-60 years. Diagnosis adenocarcinoma most common in MPE.

Keywords: Malignant Pleural Effusion (MPE), Lung Cancer, Adenocarcinoma

Teenager Peer Educator Using 4.0 Technology to Increase Knowledge, Attitude, and Behaviour of Community in Covid-19 Transmission Prevention

Meitria Syahadatina Noor¹, Andini Octaviana Puteri¹, Fakhriyah¹

¹Maternal and Child Health-Reproductive Health Department, Public Health Study Program, Faculty of Medicine, Lambung Mangkurat University

*Corresponding author: drmeitria@yahoo.com

Indonesia still has increasing of Covid-19 cases. The number of positive cases of Covi-19 untill July 2020 was more than 50.000 people in Indonesia, and more than 3000 in Soutj Kalimantan. One of people who has risk of this disease is teenager. Teenager has high risk to get and transmit Covid-19. Index of teenager behavior in Covid-19 prevention is still low. Behavior changes in teenager need educator in the same group. Peer educator in teenager using 4.0 technology is assumed can change behavior in community. This research's goal was to analyze effect of teenager peer educator using 4.0 technology to knowledge, attitude, and behavior of community in Covid-19 transmission prevention. This research used quasy experimental with pretest and posttest design. The number of respondents were 113 people, they were observed by 10 peer educators. Peer educators was Public Health students who already had training about Covid-19. The method of intervention was peer educators made whats app group and shared Covid-19 information with some pamflets (4 times), and then they hold online education to share Covid-19 information to all respondents. Data analysis used paired T test. The results showed increasing of knowledge (p value=0.000), attitude (p value=0.000), and behavior score (p value=0.000) of community in Covid-19 transmission prevention. The concluccion is teenager peer educator using 4.0 technology can increase knowledge, attitude, and behavior of community in Covid-19 transmission prevention.

Keywords: Teenager peer educator, Covid-19, Knowledge, Attitude, Behavior

Case Series

Cholesterol Level In 22 Covid-19 Patients In Ulin Regional Hospital Banjarmasin Related To Severity And Mortality

Anggarda Kristianti Utomo^{1*}, Haryati

¹Resident of Department of Internal Medicine, Faculty of Medicine, Lambung Mangkurat University, Ulin Regional Hospital, Banjarmasin

²Consultant Pulmonologist, Head of Department of Pulmonology and Respiratory Medicine, Faculty of Medicine, Lambung Mangkurat University, Ulin Regional Hospital, Banjarmasin

*Corresponding author: anggadakristiantiutomo@gmail.com

Coronavirus Disease 2019 (COVID-19) is a communicable disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). December 2019 in Wuhan, China is the time and place where the first pneumonia caused by SARS-CoV-2 was found, and WHO designated COVID-19 as a pandemic by March 2020. There are reported cases of dyslipidemia associated with SARS patients, albeit rare. Several case reports showed lower cholesterol levels compared to healthy subjects. Therefore, some argued that dyslipidemia can occur in COVID-19. Several studies revealed that hypolipidemia is positively correlated to the severity of COVID-19. In Ulin Regional Hospital Banjarmasin, several cases found a higher cholesterol level in confirmed COVID-19 patients without symptoms/mild-moderate degree and survival compared to patients with a severe/critical degree and non-survival. Two patients in the non-survival group showed a significant decrease in cholesterol level compared to baseline and five patients had < 150 mg/dL cholesterol level during the examination. Four patients in the mild-moderate degree COVID-19 survival group showed > 150 mg/dL cholesterol level during the first examination and did not show a reduction of cholesterol level during the evaluation. Cholesterol is thought to play an important role in the pathological development of COVID-19 and is associated with severity and mortality, which requires further studies.

Keywords: COVID-19, SARS-CoV-2, Cholesterol

Risk Factors that Related with the Failure of Epilepsy Treatment in Children at Peditary Polyclinic Ulin Hospital Banjarmasin

Nurul Hidayah¹, Farida Heriyani², Ruslan Muhyi¹, Meitria Syahadatina Noor²

¹Department of Peditary, Faculty of Medicine, Lambung Mangkurat University, Banjarmasin, Indonesia

²Department of Public Health, Faculty of Medicine, Lambung Mangkurat University, Banjarmasin, Indonesia

*Corresponding Author: drmeitria@yahoo.com

Epilepsy is neurological disease. The symptoms are seizure with/without unconscious. There were 50 million people suffered epilepsy in the world and 90% of them came from developing countries. Mostly, epilepsy was found in children. Prevalence of epilepsy in Indonesia was 6-10 people/1000 citizens, and incidence 50 cases/100.000 citizens. In Ulin Hospital, the number of epilepsy patient who routine controlled were 25 cases/month. This research's goal was analysing factors that related with the failure of epilepsy teraphy in children at peditary polyclinic Ulin Hospital Banjarmasin. This research used analytic observational with crossectional design. The population were all of the epilepsy patients in pediatric policlinic Ulin Hospital Banjarmasin. Technical sampling used total sampling. There were 35 patients who became samples. Analyses used chi square with 95% confidence level. The results showed that there were 9 (25.71%) patients who were categorized to become failure in teraphy. From those number, the risk factors that were found in this research among 35 patients were often getting seizure before treatment 37.14% ($p=1.000$), history of epilepticus status before treatment 17.14% ($p=0.162$), never be treated before 51.43% ($p=0.264$), systemic seizure 82,86% ($p=0.162$), first seizure in under 1 year old 37.14% ($p=0.431$), male 65.71% ($p=1.000$), asphyxia history 31,43% ($p=1.000$), consumed medicines irregularly 5.71% ($p=0.061$), growth and development failure 22.86% ($p=0.396$), sleep abnormality 14.29% ($p=1.000$). The conclusion was these factors didn't relate with the failure of epilepsy treatment in children at peditary polyclinic Ulin Hospital Banjarmasin.

Keywords: risk factors, failure of epilepsy treatment, children

Malaria Infection Effect to Haemoglobin and Haematocrit in Pregnant *Mus Musculus*

Istiana¹, Widya Nursantari², Edi Hartoyo³, Meitria Syahadatina Noor^{2*}

¹Department of Parasitology and Microbiology, Faculty of Medicine, Lambung Mangkurat University

²Department of Public Health, Faculty of Medicine, Lambung Mangkurat University

³Department of Pediatric, Faculty of Medicine, Lambung Mangkurat University

*Corresponding Author: drmeitria@yahoo.com

Malaria is a disease that is caused by *Plasmodium Sp.* And infected by Anopheles mosquitos. Kalimantan is one of endemic places for malaria. Kalimantan merupakan salah satu daerah endemis malaria. Malaria can infect pregnant women. Prevalence of malaria is 2-76% depent to the places. Effect of malaria to pregnant women can be anemia, renal failure, cerebral oedema and death. Pevamence of anemia because of malaria in pregnant women is about 3-15%. This research was done by using animal model to show malaria in pregnant. Goal of this research was to analyze malaria infection effect to haemoglobin and haematocrit in pregnant *Mus musculus*. Research design was experimental using posttest only with control group design. It consisted of K0 for control (20 samples) and K1 for infected group (19 samples). Pregnant *Mus musculus* was injected *P. berghei* to infect plasmodium using 0,2 ml infected serum intraperioteal in the first day of pregnant. *Mus musculus* was terminated in 19th day of pregnant and took cardial blood to examine Hb and Ht of pregnant *Mus musculus*. The result was Hb level mean for K0= 12,69 gr/dl and K1=12,832 dr/dl. Mean of Ht for K0=38,070% and K1=38,495%. Statistical anayzes used U-Mann Whitney test, with p value for Hb level was 0,574 and Ht was 0,574. The conclusion was malaria infection could not effect yet to Hb dan Ht level in pregnant *Mus musculus*.

Keywords: malaria, pregnant, Hb, Ht

Stevens-Johnson Syndrome due to Anticonvulsant : a Case Report and Literature Review

Harapan Parlindungan Ringoringo^{1*}, Katherine Richel Tambunan²

¹Department of Child Health, Faculty of Medicine, University of Lambung Mangkurat – RSD Idaman Banjarbaru

²Mayapada Hospital Tangerang

*Corresponding author: parlinringoringo@ulm.ac.id

Stevens-Johnson syndrome (SJS) is a life-threatening disease that can cause long-term complications to the eyes, mouth, and genitalia, based on type IV's hypersensitivity. The primary cause is medicine. A boy aged 7 ½ years came to the hospital with the chief complaint of the appearance of a rash parts of the body, crusted and bleeding lips, bleeding mouth, dry eyes, for one week after taking the anticonvulsant. The patient is no appetite, no complaints about defecating and urinating. The patient is conscious, and vital signs are within normal limits, lack of nutritional status. ENT, heart and lungs, abdomen within normal limits. The patient was diagnosed as SJS. Initial management was given fluid resuscitation Ringer's lactate, ceftazidime, and gentamicin, methylprednisolone, paracetamol. The patient was treated by a pediatrician, a dermatologist, an ophthalmologist, a dentist. After six days of treatment, the patient was discharged in good condition. Stop the suspected drugs and make prompt, precise, comprehensive management in fluid resuscitation, good care of skin, eye, genital wounds, and antibiotics administration, and corticosteroids will provide a good prognosis. As a doctor, we should avoid unnecessary drugs or polypharmacy.

Keywords: *Stevens-Johnson syndrome*, anticonvulsant, child

The role of methylprednisolone in children with immune thrombocytopenic purpura: case reports and literature review

Harapan Parlindungan Ringoringo

Department of Child Health, Faculty of Medicine, University of Lambung Mangkurat –
RSD Idaman Banjarbaru

*Corresponding author: parlinringoringo@ulm.ac.id

ITP is a bleeding disease that is often found by doctors, with an incidence of about 1 in 10,000 children, rarely found in infants <1 year old. Bleeding often occurs when the platelet is <20,000/uL. A girl of 2 months and nine days, weighing 5.6 kg, came to the hospital with complaints of ptekie on the forehead, cheeks, extremities. The patient is not feverish, pale, weak, cannot drink. No history of trauma. Purpura on the elbows and knees. Laboratory: Hb 8.1 g/dL, Leukocytes 12,290/uL, Platelets 1000/uL, Hematocrit 22.2%, Diff Count: Basophils 0%, Eosinophils 3%, Stems 1%, Segments 17%, Lymphocytes 70%, Monocytes 9%. RBC 2.8 million/uL, MCV 82.9fL, MCH 28.9pg, MCHC 34.9%, RDW_CV 16.7%. Peripheral blood features hypochromic, microcytic, lymphocytosis, platelets not found. The diagnosis is ITP with anemia due to bleeding. The patient was treated at HCU, given 2U platelet transfusion, 75 mL PRC transfusion, 1-2 mg/kg BW of methylprednisolone every 12 hours for seven days. The patient went home in good condition. Methylprednisolone in the acute phase can increase the platelet count. Platelet suspension transfusion is only done if thrombocytopenia is accompanied by bleeding that is difficult to resolve.

Keywords: ITP, child, methylprednisolone

Alopecia totalis in a five year old boy: case reports

Harapan Parlindungan Ringoringo,¹ Anjas Asmara,² Infithaar³

¹Department of Child Health, Faculty of Medicine, University of Lambung Mangkurat –
RSD Idaman Banjarbaru, Pediatrician

²RSD Idaman Banjarbaru, Dermatologist

³General Practitioner

*Corresponding author: parlinringoringo@ulm.ac.id

Alopecia totalis (AT) represent the severe form of alopecia areata with worse prognosis. A 5-year-old boy weighing 13.4 kg came to the hospital complaining of hair loss all over his head, bald since two months before. The eyebrows, eyelashes, and nose hairs were also missing. The diagnosis' dermatologist: Alopecia totalis. Prosential therapy for four months. After two months of treatment, hair started to grow slightly, evenly across the head, eyebrows, and eyelashes. After that, the patient was lost contact. 4 months later, the patient returned with hair loss complaints again. The patient's vital signs are normal. Eyes, ENT, heart, lungs, abdomen: normal. Skin: no hair. Laboratorium: Hb 12.1 g/dL, Leukocytes 6,480/uL, Platelets 324,000/uL, Hematocrit 35.5%, Diff Count: Basophils 0%, Eosinophils 22%, Stems 1%, Segments 27%, Lymphocytes 41%, Monocytes 9%. Feces and urine analysis were normal. Glucose 86 mg/dL, total cholesterol 128 mg/dL, Triglycerides 46 mg/dL. Albumin 4.33 g/dL, Globulin 1.41 g/dL. Uric acid 4.64 mg/dL. Kidney and liver function were normal. Thyroid function: FT4: 1.1 ng/dL, TsHs 0.916 uIU/mL. The ANA test was negative. Diagnosis: Idiopathic alopecia totalis with hypereosinophilia. The therapy was Minoxidil 2% and Clobetasol propionate 0.05%. Hair loss is a significant factor affecting the self-esteem of children.

Keywords: Alopecia totalis, Child

Typhoid fever in 3 months of infants: a case report and literature review

Harapan Parlindungan Ringoringo*

Department of Child Health, Faculty of Medicine, University of Lambung Mangkurat –
RSD Idaman Banjarbaru

*Corresponding author: parlinringoringo@ulm.ac.id

Typhoid fever is a bacterial infection caused by *Salmonella typhi*. The transmission is fecal-oral. Typhoid fever rarely occurs under one year of age. A 3-month-old boy, weighing 6.1 kg, came to the hospital with fever complaints about six days fluctuating, not coughing. The patient is conscious, weak, cannot drink, with temperature 39,5°C. Eye and ENT, no abnormalities. Heart, Lungs, and abdomen within normal limits. Laboratory results: Hb 10.9 g/dL, Leukocytes 21,300/uL, Platelets 357,000/uL, Hematocrit 33%, Diff count: Basophils 0%, Eosinophils 0%, Stems 4%, Segments 41%, Lymphocytes 44%, Monocytes 11%. RBC 3.87 million/uL, MCV 85fL, MCH 28.0pg, MCHC 33%, ESR 1 hour 66 mm, 2 hour 84 mm. Non-Reactive Covid-19 IgM & IgG Rapid Test. Peripheral blood picture: normochromic, normocytic, leukocytosis, normal platelets. Widal: *S. typhi* titer O 1/320, Tubex Test +4. The diagnosis is typhoid fever. Patients were given Cefixime 10 mg/kg BW /day in divided doses for seven days. The patient went home in good condition. Fever ≥6 days in infants should consider the possibility of typhoid fever. Cefixime can be a treatment option for typhoid fever in infants. The importance of personal hygiene education for parents and caregivers

Keywords: typhoid fever, infant, cefixime

Cardiac fibrosis attenuation by chlorogenic acid and epigallocatechin-gallate mediated by suppression of galectin-3 gene expression and collagen deposition in rat metabolic syndrome model

Indah Nur Chomsy¹, M. Saifur Rohman², Mifetika Lukitasari³, Dwi Adi Nugroho⁴, Husnul Khotimah⁵

¹Master Program in Biomedical Sciences, Faculty of Medicine, University of Brawijaya, Jl. Veteran, Malang 65145, East Java, Indonesia

²Department of Cardiology and Vascular Medicine, Saiful Anwar General Hospital, Faculty of Medicine, University of Brawijaya, Jl. Veteran, Malang 65145, East Java, Indonesia

³Departement of Nursing, Faculty of Medicine, University of Brawijaya, Jl. Veteran, Malang 65145, Indonesia

⁴Brawijaya Cardiovascular Research Group, Faculty of Medicine, University of Brawijaya, Malang, Indonesia

⁵Laboratory of Pharmacology, Medical Faculty, Brawijaya University, Jl. Veteran, Malang 65145, Indonesia

*Corresponding author: indahncys@gmail.com

Metabolic syndrome (MetS) is a set cluster of risk factors for metabolic abnormalities that can develop cardiovascular disease (CVD), one of that is remodeling or cardiac fibrosis. Cardiac fibrosis identified from the high levels of the profibrotic molecule; one of them is galectin-3. This study intended to determine the effect of combination therapy of green coffee (CGA) and green tea (EGCG) on cardiac fibrosis by raise of the galectin-3 gene expression and collagen deposition in rat cardiac tissue in the rat metabolic syndrome model. Twenty-four male MetS rats (Sprague-Dawley) divided into two control groups and three groups therapy (n=5) administration of the CGA 200mg/kgbw (body weight in kilograms) and EGCG 300mg/kgbw orally. After eight weeks of treatment, rats euthanized, then mRNA expression of galectin-3 was measured. Furthermore, collagen deposition of cardiac tissue carried out in histology slides. Research reveals that the expression of galectin-3 decreased in the metabolic syndrome model group, which given combination therapy compared with metabolic syndrome model mice that did not receive any therapy (P=0.000). Collagen deposition in cardiac tissue also found less than in the therapy group compared with the group not treated with both compounds (P=0.000). The correlation between the two parameters shows a positive association with low strength. This study shows that the combination therapy of CGA and EGCG is an engaging therapeutic candidate. It expected to reduce the progression of cardiac fibrosis in metabolic syndrome.

Keywords: metabolic syndrome, chlorogenic acid, collagen deposition, epigallocatechin-gallate, galectin-3.

Pyramidal Water Desalinator Efficiency to a decrease Total Dissolved Solids (TDS) and River Water Conductivity in Aluh-Aluh, Banjar District

Agung Waskito*, Laily Khairiyati, Ienie Marlinae, Anugrah Nur Rahmat

Department of Environmental Health of Public health program, Faculty of Medicine,
Universitas Lambung Mangkurat, Banjarmasin, South Borneo, Indonesia
Address: Jl A Yani km 36,5 Banjarbaru, South Borneo, Indonesia
*Corresponding author: agungwaskitost@gmail.com

Clean water is one of the basic human needs and an important part of human life. The community often experiences problems with the provision of clean water, especially during the dry season. This problem of clean water supply is of particular concern to both critical areas of clean water, namely regions coastal areas, due to the frequent occurrence of sea water intrusion phenomena. The community's clean water sources have become polluted by sea water so that it tastes salty and bitter so it can no longer be consumed. If used for take a shower so it feels sticky on the body, and the soap does not foam. Therefore we need a way to process salty sea water into fresh water, namely by using the evaporation method using solar power (evaporation) with high temperature that is with an embodiment in a design of sea water treatment systems in the form of a pyramid of glass or what is called a desalinator Pyramidal Water. Then the research was carried out using water samples from the Aluh-Aluh, Banjar Regency. The tool running was carried out in batches for 21 days and the results were obtained. A significant decrease in parameters, namely from the initial sample TDS 4231 ppm and Conductivity 32700 μ / s until it reaches 102 ppm and 288 μ / s . The results of the research show that Pyramidal water desalinator has a very good average reduction efficiency, namely a TDS of 93.20% and 97.66% conductivity.

Keywords: clean water, desalinator, Total Dissolve Solid, Conductivity, water river

Implementation of Hypnobreastfeeding Therapy as an Effort to Reduce the Incidence of Underweight on Children Aged 0-6 Months

Andini Octaviana Putri¹, Nur Laily² Fauzie Rahman², Fakhriyah¹

¹Department of Maternal and Child Health and Reproductive Health, Public Health Study Program, Faculty of Medicine, Lambung Mangkurat University

²Department of Health Policy Administration, Public Health Study Program, Faculty of Medicine, Lambung Mangkurat University

*Corresponding author: andiniocavianaputri@ulm.ac.id

One of the strategic issues of children health is a problem of malnutrition (underweight). One village in Banjar district with underweight prevalence above the national rate (17.7%) is Sungai Alang Village (37.5%). One of the factors that influence the incidence of underweight in children aged 0-6 months due to inadequate breastfeeding mothers psychological aspects less well when breastfeeding. Hypnobreastfeeding therapy for breast-feeding mothers can be one of the efforts to improve the attitude of the mother, the child's weight and decrease the incidence of underweight. This study is a pre-experimental with pre and post test design. Subjects were children aged 0-6 months who are underweight. The intervention was conducted over 2 months. Data were analyzed by univariate analysis using frequency distribution table and bivariate using Mc Nemar test. There are differences in the attitude of the breastfeeding mother ($p= 0,012$) and underweight status of children aged 0-6 months ($p=0.000$) before and after the implementation of hypnobreastfeeding therapy. Required the cooperation of all parties in supporting breastfeeding. Giving education about breastfeeding is from a pregnant mother to during breastfeeding. Required the cooperation of all parties in supporting breastfeeding. Giving education about breastfeeding can do from a pregnant mother to during breastfeeding.

Keywords: Hypnobreastfeeding, Attitude, Underweight

Determination of Non Specific Standardization Parameters of Kasturi (*Mangifera Kasturi* Kosterm.) Leaves Extract From South Kalimantan

Aristha Novyra Putri^{1*}, Revita Saputri¹, Karunita Ika Astuti¹, Ika Puspita Sari²,
Teuku Nanda Saifullah Sulaiman²

¹Department of Pharmacy, Sekolah Tinggi Ilmu Kesehatan Borneo Lestari,, Banjarbaru,
Indonesia

²Faculty of Pharmacy, Gadjah Mada University, Yogyakarta, Indonesia

*Corresponding author: aristhanovyra@gmail.com

Kasturi (*Mangifera Kasturi* Kosterm.) is a plant of genus mangifera, anacardiaceae family and is one of the endemic plants of South Kalimantan. Leaves of Kasturi contain several groups of compounds potential as herbal medicine. This study aims is to standardize the ethanolic 96% extract of Kasturi (*Mangifera Kasturi* Kosterm.) leaves. Standardization of the ethanolic 96% extract of Kasturi (*Mangifera Kasturi* Kosterm.) leaves consist of two parameters, they are specific and non specific parameter, but on this study only determination of non specific parameters standardization. Non specific parameters including the water content, density extract, total ash content, acid insoluble ash content, mold and yeast contamination, total plate number, and metal contamination such as Pb and Cd. The result showed that the water content is 7,55%; density extract 0,823 gr/mL; total ash content 2,07% ± 0,53; acid insoluble ash content 0,35% ± 0,13; mold and yeast contamination <1,0 x 10⁰ colonies/gr, total plate number <1,0 x 10⁰ colonies/gr, and metal contamination such as Pb 0,12 mg/kg ± 0,03 and Cd <0,001 mg/kg. Based on the result that the ethanolic 96% extract of Kasturi (*Mangifera Kasturi* Kosterm.) has met the specified requirements.

Keyword: Kasturi (*Mangifera Kasturi* Kosterm.), Standardization, Non Parameters, ethanolic 96% extract

**Potential Synbiotic Fermentation Milk (*Lactobacillus Plantarum*
Dad13-Fos) in Reducing Anemia in Adolescents**
(A case study of anemia in young girls in the Martapura Riverbanks,
Banjar Regency)

Atikah Rahayu*, Fahrini Yulidasari, Muhammad Irwan Setiawan

Department of Health Nutrition, Public Health Study Program, Medical Faculty, Lambung
Mangkurat University, Banjarmasin, Indonesia

*Corresponding author: nindya.fitria@gmail.com

The banks of the Martapura River have the greatest potential for fish farming compared to other regencies in South Kalimantan, and should be used to improve anemia problems. Adolescence is a transitional period between childhood and adulthood, ages 12 to 21 years. Young women have a higher risk of anemia than men. The survey results in Banjar Regency showed that adolescent girls with anemia were quite large, amounting to 65.21%. The aim of this study was to determine the changes in the incidence of anemia before and after giving synbiotic milk. This study was a double-blind randomized controlled trial. Subjects were 92 anemic girls aged 13-18 years, randomized into the intervention group given synbiotic milk (*Lactobacillus plantarum* Dad13 and FOS) fortified with ferrous sulfate/the control group given synbiotic milk (*Lactobacillus plantarum* Dad13 and FOS) without fortification. The intervention was given as much as 100 mL of milk/day for 3 months. The progression of changes in anemia was measured before and after giving the intervention. The research location is in the Junior High School of the Martapura Riverbanks. The study population was all students who were in junior high school. The sampling technique used proportional random sampling technique in accordance with the inclusion criteria. The determination of the incidence of anemia used WHO 2001 standards. Data were analyzed using univariate frequency distribution, bivariate using Chi Square test and different tests for differences before and after milk feeding. The results show that there is a relationship between protein intake and knowledge with the incidence of anemia in adolescents and there is a difference in the incidence of anemia before and after nutritional intervention. Which means that there is less anemia that occurs in adolescent girls after being given the intervention of fortified synbiotic fermented milk (*lactobacillus plantarum dad13-fos*) iron.

Keywords: synbiotic fermented milk, teenage girls, anemia incidence, riverbanks

The Potential of Pasak Bumi as a Food Supplement to Improve Spermatogenesis in Malnutrition Model Mice

Ida Yuliana¹, Triawanti², Didik Dwi Sanyoto¹, Husnul Khatimah¹, Asnawati¹, Rayatul Aminah³

¹ Department of Biomedic, Faculty of Medicine, Lambung Mangkurat University Banjarmasin

²Department of Biochemistry and Biomolecular of Medical Faculty, Lambung Mangkurat University Banjarmasin

³Medical Faculty, Lambung Mangkurat University Banjarmasin

*Corresponding author: iyuliana@ulm.ac.id

Malnutrition is one of the causes of disruption in the spermatogenesis process in children and toddlers which is a cause of infertility. Pasak Bumi have the potential to improve spermatogenesis due to malnutrition. Therefore, it is felt that it is very important to research the potential of pasak bumi as a food supplement to improve spermatogenesis disorders in malnutrition conditions. The aim of this study was to prove the potential of pegs as a food supplement to improve spermatogenesis due to malnutrition in malnourished mice. The study used a laboratory analytical observational method. The study used histological preparations with HE staining from the testes of malnourished rats, which were obtained from mating male and female rats. The experimental animal group was divided into 5 groups, namely: M: malnutrition without other intervention; P1: malnutrition + standard feed + PB 7.5 mg / kgBW; P2: malnutrition + standard feed + PB 15 mg / kgBW; P3: malnutrition + standard feed + PB 22.5 mg / kgBW; P4: malnutrition + standard feed + PB 30 mg / kgBW. The research variables studied were the number of seminiferous tubules, the number of interstitial cells (Leydig cells) and the number of primary spermatocytes. Data were analyzed using paired T test with a confidence level of 95%. Based on the results of the study, it was found that the number of seminiferous tubules, primary spermatocytes and Leydig cells in the malnutrition group was lower than in the P 1-4 group. This shows that in general the administration of pasak bumi extract at various doses will improve the number of seminiferous tubules, primary spermatocytes and Leydig cells in malnourished mice. However, from various levels of doses of pasak bumi given to malnourished mice, it seems that the doses of pasak bumi are 7.5 mg / kgBW ($p = 0.005$; 0.006) and 15 mg / kgBB ($p = 0.015$; $p = 0.037$) are more significant. its significance is to increase the number of seminiferous tubules and Leydig cells. As for the variable number of primary spermatocytes, the doses of 15 mg / kgBW ($p = 0.002$) and 30 mg / kgBW ($p = 0.026$) significantly increased the number of primary spermatocytes. Based on the level of PB doses given as dietary supplements to malnourished mice, it was found that the dose of 15 mg / kgBW significantly caused improvements in various research variables studied. Pasak bumi as a food supplement has the potential to improve the spermatogenesis process that occurs due to malnutrition. The recommended dose of pasak bumi as a dietary supplement in malnutrition in mice is 15 mg / kgBW because it has more significant potential to improve spermatogenesis conditions.

Keywords: Pasak Bumi, malnutrition, dietary supplements, number of seminiferous tubules, number of seminiferous tubule cells, number of Leydig cells

Effect of Kawista Fruit Ethanol Extract (*Feronia Elephantum Correa*) on The Liver Rats Threated with High Fat Diet

Khoviya yuwina Selinada Harmi¹, Dwi Nur Ahsani^{2*},
Maruni Wiwin Diarti³

¹Faculty of Medicine student, Universitas Islam Indonesia

²Department of Histology, Faculty of Medicine, Universitas Islam Indonesia

³Health analyst, Poltekkes Kemenkes Mataram, Indonesia

*Corresponding author: dwi.nurahsani@uii.ac.id

A high-fat diet can lead to hyperlipidemia that ends with liver damage (functionally and morphologically). Antioxidant therapy can treat liver damage caused by hyperlipidemia. Kawista fruit (*Feronia elephantum Correa*) contains quercetin which has an antioxidant effect. To determine the effect of ethanol extract *Feronia elephantum Correa* (EFEC) fruit extract on liver function (SGOT and SGPT levels) and morphological changes (Grading steatohepatitis). This was an experimental study with a post-test only group design. with randomized control group design. A total of 20 male Wistar rats aged 2-4 months were divided into 5 groups, A=negative control (received regular feed without therapy), B=positive control (high fat diet+simvastatin 10 mg/kgBB), C=high fat diet+EFEC fruit extract 500 mg/kgBW, D=high fat diet+EFEC fruit extract 600 mg/kgBW, E=high fat diet+EFEC fruit extract 700 mg/kgBW). Induction of a high-fat diet was done by feeding quail egg yolks 10 ml/200 g BW for 4 weeks. EFEC fruit extract was given for 4 weeks, after the rats were having hypercholesterolemia. SGOT and SGPT were carried out using rat blood serum. Histopathological examination of the liver was carried out using grading steatohepatitis. Descriptive analysis was performed on steatohepatitis data. Statistical analysis using ANOVA and Tamhan's post-hoc test was performed on SGOT and SGPT levels. All data were analyzed using statistical analysis software with CI 95% and $\alpha = 0.05$. the data was declared significantly different if $p < 0.05$. Administration of EFEC fruit extract was able to improve the liver functional of rats induced with a high-fat diet (respectively data from groups A, B, C, D; SGOT=57.25±3.03, 122.05±9.52, 92.90±4.96, 85.0±3.71, 48.44±6.19; SGPT=159.85±14.8, 221.3±13.2, 158.1±5.85, 120.3±10.6, 77.62±2.09, $p=0.00$ in both parameters). The administration of EFEC fruit extract at 700 mg/KgBW (E) improve hepatic function (SGOT=0.535, SGPT=0.013; p-value of group E against A) and morphological appearance (grading steatohepatitis E = 75% mild VS A = 100% mild). EFEC fruit extract was able to improve the functional and morphological appearance of rats liver induced by a high-fat diet. The potential dose for repairing functional and morphological appearance of rats liver induced by a high-fat diet is 700mg/kgBW

Keywords: ethanol extract, kawista fruit, *feronia elephantum correa*, SGOT, SGPT, grading steatohepatitis, high fat diet, liver

Antibacterial Bioactivity of the Bark of *Shorea balangeran* (Korth.) Burk Tree Species

Kissinger¹, Rina Muhayan Noor Putri¹

¹Faculty of Forestry, Lambung Mangkurat University

*Corresponding author: kissinger@ulm.ac.id

Shorea balangeran (Koth.) Burk is tree species that is commonly found in swamps and needs to be conserved. Important information that must be available in planning and conservation actions is the important benefits of *S.balangeran*, such as its benefits as a natural sources for medicine. This study aims to analyze the bioactivity of *S.balangeran* as an antibacterial. The antibacterial testing approach of *S.balangeran* provides a scientific basis for its use as a medicinal agent. This study used bark of *S.balangeran* in the form of powder, methanol extract and ethanol extract. The antibacterial testing approach was carried out by the total plate count (TPC) method and the micro dilution testing method on the sample extracts of *S.aureus* and *E.coli*. The TPC analysis showed that the powder sample of *S.balangeran* was not contaminated by bacteria (negative). These results indicated that *S.balaangeran* had resistance to bacterial attack. The methanol extract of *S.balaangeran* had MIC and MBC values for *S.aureus*= > 2000 ppm and > 2000 ppm. The methanol extract of *S.balangeran* had MIC and MBC values for *E.coli* = 1000 ppm and 1000 ppm. The ethanol extract of *S.balangeran* had MIC and MBC values for *S.aureus*= 500 ppm and 1000 ppm. The methanol extract of *S.balangeran* had MIC and MBC values for *E.coli*= 500 ppm and 2000 ppm. The ethanol extract of *S.balangeran* was relatively greater in bioactivity than methanol extract, especially in *S.aureus*. The ethanol and methanol extracts of *S.balangeran* had the potential for antibacterial bioactivity

Keyword: antibacterial , bioactivity, swamp forest, medicine, *S.balangeran*

**Antioxidant Activity Of Metanol Fruits And Flowers Extract Of Galam
(*Melaleuca cajuputi* subsp. *Cumingiana* (Turcz.) Barlow)
Using Dpph Method**

Achmadiyah RD^{1*}, Khatimah H², Isnaini²

¹Medical Education Study Program, Faculty of Medicine, Lambung Mangkurat University
Banjarmasin, South Borneo, Indonesia

²Department of Biology, Faculty of Medicine, University of Lambung Mangkurat
Banjarmasin, South Borneo, Indonesia

²Department of Pharmacology, Faculty of Medicine, University of Lambung Mangkurat
Banjarmasin, South Borneo, Indonesia

*Correspondence email: rosintadewi18@gmail.com

Galam (*Melaleuca cajuputi* subsp. *Cumingiana* (Turcz.) Barlow) has antioxidant activity because it contains phenols, flavonoids, saponins, alkaloids and quinones. Each part of the plant has the different content, it is causing the differences in antioxidant activity, including between the flower and fruit parts. The purpose of this study was to determine the antioxidant activity of the fruit and flower parts of galam with the DPPH method which was expressed in IC₅₀ values using a spectrophotometer at a wavelength of 517 nm. The data that obtained will be analyzed using probit analysis. The sample that used in this study was metanol extract from galam fruits and flowers in concentrations of 50, 25, 10, 5, 2.5 and 1 ppm then each was repeated 4 times. The results showed that the IC₅₀ value of the fruit metanol extract was 14.139 ppm (95% CI 8,376 - 28,146) and the flower metanol extract was 6.353 ppm (95% CI 4.050 - 9.844).

Keywords: Antioxidant, IC₅₀, galam fruit and flower, *Melaleuca cajuputi*, DPPH.

In Vitro activity of Natural Pediculicides from a Combination of *Illicium verum* Extract and Coconut oil

Yunita Armiyanti¹, Anzil Aziza², Ika Rahmawati Sutejo³

¹ Department of Parasitolog , Faculty of Medicine University of Jember, Indonesia

²Medical Education Program, Faculty of Medicine University of Jember, Indonesia

³Department of Biochemistry, Faculty of Medicine University of Jember, Indonesia

*Corresponding author: yunita.fk@unej.ac.id

Permethrine is still the main therapy for human head infestation *Pediculosis capitis* in several countries, including Indonesia. However, head lice resistance to chemical pediculocides are increasing. Therefore, alternative pediculocides from herbs are needed for the treatment of head lice against adult stage. The aim of this study was to determine the efficacy of *Illicium verum* extract and vinegar formula against nymphs and adults of head lice. An in vitro immersion test was applied with four treatment group (*Illicium verum* extract and vinegar formula with four different composition) as well as negative control group (distilled water) and positive control group (permethrine 1%) against nymphs and adults of head lice. All of the stages of head lice were immersed for 0.5, 1, or 2 min in 1 ml of each solution. The formula of *Illicium verum* extract and coconut oil with composition 30:70 had the best efficacy with mortality rate of head lice eggs reached 97,62% after immersion for 2 minutes. The combination of *Illicium verum* extract and vinegar could be an alternative pediculocide that was more safety for repeated use against *Pediculus humanus capitis*.

Keywords: head lice, pediculocide, *Illicium verum*, palm oil, efficacy

Comparison Wound Healing Activity of Gel and Cream Extract Ethanolic Fruits of *Melastoma malabathricum* L.

Isnaini¹, Shafa Rahmani Puteri², Khusnan Mustofa Gufron², Ika K. Oktavianti^{3*}

¹Department of Pharmacology and Therapeutics, Faculty of Medicine, Lambung Mangkurat University, South Borneo, Indonesia

²Faculty of Medicine, Lambung Mangkurat University, South Borneo, Indonesia

³Department of Anatomic Pathology, Faculty of Medicine, Lambung Mangkurat University, South Borneo, Indonesia

*Corresponding author : lkaoktavianti@gmail.com

Melastoma malabathricum L. is a native species of South Borneo. This plant grows wild and has not been fully utilized, it is only considered a nuisance plant. Based on research, this plant has antibacterial activities (Sunilson et al., 2008; Choudhury et al., 2011; Isnaini et al., 2018a) and wound healing activity (Simanjuntak, 2008; Sunilson et al., 2008). In the research of Sunilson et al. (2008) *M. malabathricum* L leaves have wound healing activity, but based on the research of Isnaini et al. (2018a) the antibacterial activity of *M. malabathricum* L flowers is greater than *M. malabathricum* L leaves in *Staphylococcus aureus* bacteria, which is one of the wound-infecting bacteria. *M. malabathricum* L flowers themselves have different contents based on the phase of the flower. The most quercetin and kaempferol content in the blooming phase (Isnaini et al., 2018b). In the other hand, fruits have antibacterial activity. Flowers and fruits have the same antibacterial activity, they have MIC 2%. It is not yet known the wound healing activity of *M. malabathricum* L fruit cream and gel. This study aims to analyze the wound healing activity of cream and gel of *M. malabathricum* L. fruits. This research is aims to analyze the wound healing activity of cream and gel of *M. malabathricum* L fruits extract in mice seen in skin histopathology. This extract cream was tested on mice that were initiated with a size of 2 cm diameter, then smeared with cream for 3 and 7 days and examined the histopathology of the skin. The results showed that the wound smeared with *M. malabathricum* L fruits extract ethanolic gel looked drier than the cream. But based on histopathological examination, there was no difference between cream and gel administration after 7 days of treatment

Keywords : *Melastoma malabathricum* L, wound healing, gel, cream

The Effect of Pasak Bumi (*Eurycoma longifolia*. Jack) Ethanol Extract on the Lipid Profile of the Rats were Induced High Fat Diet

¹Triawanti, ²Didik Dwi Sanyoto, ³Azma Rosida

¹Departement of Biochemistry and Biomolecular, Medical Faculty of Lambung Mangkurat University, Indonesia

²Anatomy Division of Biomedic Departement, Medical Faculty of Lambung Mangkurat University, Indonesia

³Departement of Clinical Pathology, Medical Faculty of Lambung Mangkurat University, Indonesia

*Corresponding author: triawanti@ulm.ac.id

Obesity is often followed by hyperlipidemia which can increase morbidity and metabolic syndrome. For this reason, therapy is needed that is able to overcome not only obesity, but also metabolic syndrome that occurs. Pasak Bumi has been known to have the potential to increase testosterone. The saponin content in the pasak bumi is thought to reduce absorption of dietary fat, tannin can inhibit the activity of lipoprotein lipase and glycerolphosphate dehydrogenase so that it can overcome hyperlipidemia. This study aims to prove the effect of ethanol extracts of pasak bumi on the lipid profile of rats induced by a high-fat diet. The research was conducted through experiments. Rats were grouped into 6 groups namely (K0) normal mice + placebo; (K1) Overweight mice + placebo (aquades); (P1) overweight mice + earth extract (EPB) 7.5 mg / kgBW; (P2) overweight mice + EPB 15 mg / kgBW; (P3) overweight mice + EPB 22.5 mg / kgBW; (P4) overweight mice + EPB 30 mg / kgBW. Ethanol extract of 70% pasak bumi is given for 4 weeks. Then the lipid profile is examined. Analysis of data using the Oneway Anova test with a confidence level of 95%. The results showed that there were significant differences in cholesterol, triglyceride and LDL levels in the treatment group. The group given EPB 7.5 mg / kgBB had lower cholesterol and LDL levels compared to other groups, while the lowest triglyceride levels in the group given EPB was 15 mg / kgBB. There were no differences in HDL levels in all treatment groups. Conclusion: ethanol extract pasak bumi 7.5 and 15 mg / kg body weight can reduce cholesterol, LDL and triglyceride levels of rats induced by high-fat diets.

Keywords: Obesity, Hyperlipidemia, Pasak bumi (*Eurycoma longifolia*. Jack)

The Effect of Seluang Fish Administration on Gaba Serum Level of Rats Autism Model by Antenatal Endosulfan-Induced

Didik Dwi Sanyoto¹, Triawanti^{2*}, Hendra Wana Nur'amin³

¹Division of Anatomy Biomedic Department of Medical Faculty, Lambung Mangkurat University Banjarmasin

²Department of Biochemistry and Biomolecular of Medical Faculty, Lambung Mangkurat University Banjarmasin

³Department of Pharmacology and Therapy of Medical Faculty, Lambung Mangkurat University Banjarmasin

*Corresponding author: triawanti@ulm.ac.id

In autism, there is an increase in GABA levels in the blood and brain. There are several compounds in food that are not recommended for consumption by people with autism, such as gluten. However, there has been no research on the effect of fish consumption, especially all the time, on symptoms of autism. The aim of this study was to prove that fish can affect the improvement of the GABA-ergic system. In this study, pregnant rats were divided into 2 groups, namely K0 without endosulfan induction, K1 with endosulfan induction of 1 mg / kgBW until birth. After the pups were weaned, 8 puppies each from K0 and K1 were terminated for blood collection. The other pups were divided into groups P1 and P2, each with 8 tails. Group P1 was given standard feed and P2 was given seluang for 4 weeks. Then terminated and blood drawn to check serum GABA levels. Data were analyzed statistically with the Anova test with a confidence level of 95%. The results showed that the serum GABA levels in each group K0, K1, P1 and P2 were 5.023 vs 6.955 vs 10.377 vs 10.989 ng / mL. Anova test showed a significant difference between treatment groups ($p = 0.002$). LSD further test showed that K0 was different from P1 and P2; K1 is different from P1 and P2 while P1 is not different from P2. Conclusion: fish seluang has not been able to reduce serum GABA levels in rats induced by antenatal endosulfan.

Keywords: Seluang fish, Rats autism model, Endosulfan, Serum GABA level

Calcium Supplementation with *Rasbora* sp. to Prevent Loss of Bone Mineral Density during GnRH Agonist long-term treatment

Enrico Hervianto, Hardyan Sauqi, Farida Heriyani, Juhairina

Faculty of Medicine, Lambung Mangkurat University - Ulin General Hospital

*Corresponding author: enrico.hervianto@gmail.com

Gonadotropin-releasing hormone (GnRH) *agonist* widely used to induce hypoestrogenic climate overcoming any benign gynecologic abnormalities such as endometriosis, adenomyosis, or various cause of abnormal uterine bleeding. Hypoestrogenic cause some of adverse effect mainly loss of bone mineral density (BMD). Supplementation of calcium improve loss in BMD, hence prevent development of osteoporosis. Certain area of Indonesia show specific biodiversity, for example South Borneo has its wetland biodiversity in swamp and river. Processed food from fishery like *Rasbora* sp. (locally called Seluang fish) is local favourite due to access and economical reason. Studies included 24 reproductive age (15-49 years old) female on agonist GnRH leuprolide acetate 11,25 mcg regimen given subcutaneously. Measurement of bone mineral density was done twice within 3 months apart, before and after first agonist GnRH treatment. During observation, subject was divided to one of three daily supplementation belows, placebo containing saccharum lactis, grinded powder of 500 mg of calcium, or grinded powder of dried *Rasbora* sp containing 500 mg of calcium. Measurement pre- and post- supplementation was count using *bone quality index* with Osteosys of Sonost 3000. Placebo supplementation group in GnRH agonist has bone mineral density loss of -22,7201 greater than 500 mg grinded powder of lactate calcium dan grinded powder of *rasbora* sp, respectively -4,4570 and -3,3634 after 3 months of trial. Homogeneity test shown $p=0.031$ level of significancy and ANOVA resulted a significant difference from three classes. *Post Hoc* resulted calcium lactate supplementation $18,26 \pm 3,20$ greater ($p = 0.001$) and grinded powder of Seluang $19,36 \pm 3,20$ greater ($p = 0.000$). Both form of calcium lactate and fish powder supplementation have no significant differences. Calcium supplementation in both of calcium lactate powder and natural resources help maintaining bone mineral densitu during GnRH agonist treatment. Seluang fish (*Rasbora* sp.), abundantly found along Indonesia people especially in South Borneo, has similar potency with pharmaceutical calcium lactate product in same weight. Fishery product, has beneficial *trace element* for bodies, 84 mg of calcium (Ca), 6,81 % of magnesium (Mg), 13,4 mg of iron (Fe), dan 3.97 % of zinc (Zn).

Keywords: Bone mineral density, Calcium supplementation, Agonist GnRH, *Rasbora* Sp.

The Protective Effect of Garlic (*Allium sativum*) Extract on Hyperthyroidism Male Rats Induced By L-Thyroxine

Manal E.A Halbuda^{1, 2}, Husnul Khotimah^{3*}, Diana Lyrawati⁴, Agwin Fahmi Fahanani⁵

¹Master program in Biomedical Sciences, Faculty of Medicine, Universitas Brawijaya, Malang, Indonesia

²Department of Pathology, Health Center, Tripoli, Libya

³Department of Pharmacology, Faculty of Medicine, Universitas Brawijaya, Malang, Indonesia

⁴Department of Pharmacy, Faculty of Medicine, Universitas Brawijaya, Malang, Indonesia

⁵Departement of Molecular Physiology, Faculty of Medicine, Universitas Brawijaya, Malang, Indonesia

*Corresponding author : husnul_farmako.fk@ub.ac.id

Alterations in the level of thyroid hormones lead to physiological/clinical abnormalities, and many studies show that garlic has protective effects on various body systems. This study aimed to illustrate the protective effect of garlic extract against hyperthyroidism induced by l-thyroxine in male rats. 25 male rats were divided randomly into five groups: healthy rats (Control), rats were subcutaneously injected with l-thyroxine dose 0.3mg/kg BW, rats received oral dose of 100, 150 and 200 mg/kg body weight/day garlic extract. At the end of the experiment blood samples were collected from heart to analysis T3 and T4 by Elisa and behavioral were measured by open field test. The results showed that hyperthyroid rats had significant increase ($p < 0.05$) in serum levels of triiodothyronine (T3), thyroxine (T4) compared to normal group as well as a significant decrease in serum levels of T3 and T4 in hyperthyroid rats receiving garlic extract with doses 100 and 150 mg/kg compared with receiving 200mg/kg were increase in serum level of T3 and T4 compared to control group. Hyperthyroid rats receiving 100g/kg garlic extract was more effective to increase the behavior of hyperthyroid rat than the control group. *Allium sativum* have a protective effect against hyperthyroidism and their behaviors through decreasing of T3 and T4.

Analysis Quality of Information, Quality of the System, and Behavior of Seeking Information Toward System User Satisfaction for Information of Covid-19

¹Ayu Riana Sari Azwari, ¹Nur Laily, ¹Fauzie Rahman, ¹Agus M Ridwan, ²Nita Pujianti, ²Anggun Wulandari, ²Lia Anggraini, ³Hadrianti H.D. Lasari

¹Health Policy Administration Departement, School of Public Health, Faculty of Medicine Universitas Lambung Mangkurat, Banjarbaru

²Health Service Management Departement, School of Public Health, Faculty of Medicine Universitas Lambung Mangkurat, Banjarbaru

³Biostatistics and Population Departement, School of Public Health, Faculty of Medicine Universitas Lambung Mangkurat, Banjarbaru

*Corresponding author: ayurianasari@ulm.ac.id

Indonesia is the country with the highest death toll due to Covid-19 in Southeast Asia as of 27 June 2020, with a total death toll of 2,720 people (5.2%). As a disease that has just emerged, Covid-19 raises a lot of concern, plus the negative stigma of society that causes someone to hide their illness to avoid community discrimination. To provide correct and precise information about Covid-19, an official Covid-19 website and public service announcements were developed. The purpose of this study is to analyze the quality of information, and the quality of the system, and also to explain the behavior of seeking Covid-19 information on satisfaction with the use of the Covid-19 information system based on theory of DeLone McLean and Wilson. The sample in this study was 90 general public aged over 20 or equal to 20 years and who had accessed the Covid-19 information system. The results showed that all variables were in accordance with the satisfaction of users of the Covid-19 information system. This means that the existing Covid-19 information system has met the information needs of the public so that information about Covid-19 can be accessed easily.

Keywords: Covid-19 information system user satisfaction, information quality, system quality, and behavior of seeking information

Tanggung Village in Dealing with Corona Virus Disease-19 as an Effort to Break the Chain of Transmission and Take Adaptation of New Norms

¹Fauzie Rahman, ¹Nur Laily, ¹Ayu Riana Sari Azwari, ¹Agus M Ridwan, ²Nita Pujianti, ²Anggun Wulandari, ²Lia Anggraini, ³Vina Yulia Anhar

¹Health Policy Administration Departement, School of Public Health, Faculty of Medicine, Universitas Lambung Mangkurat, Banjarbaru

²Health Service Management Departement, School of Public Health, Faculty of Medicine, Universitas Lambung Mangkurat, Banjarbaru

³Health Promotion Departement, School of Public Health, Faculty of Medicine, Universitas Lambung Mangkurat, Banjarbaru

*Corresponding author: fauzie21@ulm.ac.id

Desa Tangguh Hadapi Corona (TAHAN) or Tangguh Village in Dealing With Corona is an innovative program that combines health promotion approaches and surveillance in helping the community to be able to get through the Covid-19 disease outbreak in Pajukungan Hulu Village, Hulu Sungai Utara Regency. This program aims to foster and empower the community in making villages that are Resilient to Coronavirus to be able to deal with the corona outbreak by accelerating the process of breaking the chain of transmission and helping prepare for the adaptation of new habits. The health promotion program carried out is to provide education with an innovative approach, while in terms of the epidemiology program, it is to assist health workers in tracing and tracking close contacts by involving cross-sectoral and community leaders. The results of the intervention carried out on 30 people in the Pajukungan Village showed that there was an increase in knowledge with $p\text{-value}=0.0001$, there was a change in attitude in a positive direction with $p\text{-value}=0.0001$, there was a change in intention towards a positive one with $p\text{-value}=0.0001$, and there was a change in behavior for the better significantly with a $p\text{-value}=0.0001$ after the intervention. Efforts to present information in the form of mobile counseling, announcements of violations can be continued by the community and Babirik Public Health Center, assisted by covid-19 volunteers, hopes that it can improve people's knowledge, attitudes, intentions and behavior in a better direction.

Keywords: Education, Covid-19, Adaptation of new norms

Map & Distribution of Ari Events in South Kalimantan (Analysis of Riskesdas Data in 2018)

Hadrianti HD Lasari*, Rudi Fakhriadi, Musafaah

Public Health Program, Medical Faculty, Lambung Mangkurat University

*Corresponding author: hadriantilasari@gmail.com

The upper ARI is generally caused by viruses, while the lower ARI can be caused by bacteria, viruses and mycoplasma. Lower ARI caused by bacteria generally has severe clinical manifestations, causing several problems in its handling. Based on Riskesdas data in 2018, South Kalimantan has a prevalence of ARI, namely 2.3% with a weighted N of 16,043 people. This research method is descriptive research with a spatial approach utilizing secondary data from Regional Health Research in 2018 using Quantum GIS Application. The result is the distribution of ARI incidence using color gradients and prevalence categories in South Kalimantan, the highest incidence in district Barito Kuala (Prevalence 5.49%), followed by district Tanah Laut (Prevalence 4.55%), then district Hulu Sungai Utara (Prevalence 3.18%). The highest distribution of ISPA among toddlers in the district Tanah Laut (8.75% prevalence) and followed by district Balangan (Prevalence 8.29). The conclusion is that there is a need for handling and prevention of ARI incidence using an environmental health approach by screening and early detection of ARI incidence in areas with high prevalence of ARI.

Keywords: ARI, Spatial, Riskesdas, South Kalimantan

Risk Analysis on Diamond Rubbing Work

Ihya Hazairin Noor*, Ratna Setyaningrum, Mufatihatul Aziza Nisa,
Akbar Maulana, Gusti Firdha Amalia

Pubic Health Study Program
Faculty of Medicine, Lambung Mangkurat University
*Corresponding author: ihyazairin@ulm.ac.id

According to International Labor Organization (ILO) on 2013, at least 1 worker in the world died every 15 seconds because of occupational accident and 160 workers experienced work related illness. One of the work sector that has hazard risk in its work is diamond scrubbing in Martapura. This research was conducted to find out the work risk of Martapura Diamond Scrubbing by Job Safety Analysis (JSA) method. This research is a qualitative research. This research was conducted on February 2020. The used instruments are Job Safety Analysis (JSA) sheets, field observation, camera, interview, hazard risk assessment sheets, recording device and stationary. The collected data are primary and secondary data. The research result shows that there is an device incompatibility or ergonomic such as hand injury, hand fatigue and back hurt also physique hazards such as hand scratched, tools fall, eye fatigue, injury, hearing and respiratory disorder, and COVID-19 infection hazard. It can be concluded that the hazards in Martapura Diamond Scrubbing are different, depending on the work process.

Keywords: Job Safety Analysis, Diamond scrubbing

Case Report

COVID-19 And Severe Acute Kidney Injury (AKI) in Ulin Hospital Banjarmasin

Indra Maulana Sulaeka^{1*}, Mohammad Rudiansyah²

¹ Resident of Internal Medicine Residency Program, Universitas Lambung Mangkurat/Ulin Hospital Banjarmasin, Indonesia

² Division of Nephrology & Hypertension, Department of Internal Medicine, Universitas Lambung Mangkurat/Ulin Hospital Banjarmasin, Indonesia

*Corresponding author: indvincible@gmail.com

In December 2019, a coronavirus disease 2019 (COVID-19) outbreak was occurred in Wuhan, China, and on 11 March 2020, the World Health Organization declared COVID-19 to be a global pandemic. Although it is a respiratory disease and acute kidney injury (AKI) is rare; however, if a patient develops severe AKI, renal replacement therapy (RRT) should be considered. We report a case of COVID-19 in a 44 years old man who developed severe AKI and needed RRT. He came to hospital with symptoms of pneumonia with the X-ray finding of bilateral lung infiltrate. COVID-19 infection was confirmed by reverse real-time polymerase chain reaction (PCR) in nasal swab. Lopinavir/ritonavir, azithromycin, meropenem and moxifloxacin was administered from the first day of admission on hospital. High-flow nasal cannula oxygen therapy was required on days 3-43 of hospitalization. Tocilizumab was administered on day 4. His ureum and creatinine level on the first day of admission was 41 and 1.3 mg/dL, respectively. The ureum and creatinine levels had a sudden deterioration on day 28. It peaked on day 31 where the creatinine reached 11.9 mg/dL. He underwent hemodialysis on day 31. After 6 times hemodialysis treatments, the level of ureum and creatinine returned to normal level. Convalescents plasma were administered on day 43 and 44. He was discharged on day 57 with his PCR still showed positive COVID-19. The cause of kidney involvement in COVID-19 is likely to be multifactorial, with cardiovascular comorbidity and predisposing factors (eg, sepsis, hypovolaemia, and nephrotoxins) as important contributors. SARS-CoV-2 can directly infect the renal tubular epithelium and podocytes through an angiotensin converting enzyme 2 (ACE2)-dependent pathway. RRT in setting of COVID-19 with severe AKI gave good outcome. Further research is needed to improve understanding of AKI secondary to COVID-19.

Keywords: COVID-19, Acute Kidney Injury, Hemodialysis

In Silico Study Of Stachytarpheta Jamaecensis Root Interaction As Anti Sars-Cov Agent Via Cathepsin-L Inhibition

Juliyatin Putri Utami¹, Deby Kania Tri Putri¹, Nia Kurnianingsih²

¹Department of Biomedic, Faculty of dentistry, Lambung Mangkurat University, Indonesia

²Department of Anatomi and Phisiology, Medical Faculty, Brawijaya University, Indonesia

*Corresponding author: juliyatin.utami@ulm.ac.id

SARS-CoV has three steps in carrying out fusion on the membrane of the host cell, which involves binding to receptors, induced conformational changes in S glycoproteins followed by proteolysis of cathepsin L (CTSL) and activation of membrane fusion in endosomes. Camostat mesylate is a protease inhibitor that can prevent the fusion of the SARS-CoV virus via Cathepsin L. *S.jamaecensis* root contains active compounds which has potency as anti-SARS-CoV agents, namely ipolamiide and acteoside. This study aims to analyze in Silico the potential of *S.jamaecensis* root as an anti-SARS-CoV by molecular docking. The steps taken were ligand- protein preparation, docking, visualization, and result analysis. The result obtained was the bond affinity between the Ipolamiide compound and Cathepsin L (5I4H) which had a binding affinity value of -9.29 kcal / mol. The active compound Acteoside has a binding affinity of -9.43 kcal / mol. Meanwhile, Chatepsin L docking and camostate mesylate ligands have a binding affinity of -9.44 kcal / mol. The active compound Acteoside has a binding affinity that is almost equivalent to camostate mesylate.

Keywords: active compound, ipolamiide, acteoside, cathepsin L, SARS-CoV.

Management of Dengue Haemorrhagic Fever in Banjarbaru and Martapura Based on Geographic Information System

Rahmiati^{1,2*}, Noormuthmainah¹, Edi Hartoyo³, Yunandar⁴

¹Division of Microbiology, Department of Microbiology and Parasitology, Medical Education Study Program, Faculty of Medicine, Lambung Mangkurat University, Banjarmasin

²KSM Clinical Microbiology, RSUD Ulin Banjarmasin

³Department of Paediatric, Medical Education Study Program, Faculty of Medicine, Lambung Mangkurat University / SMF Anak RSUD Ulin Banjarmasin

⁴Study Program of Aquatic Resources Management, Faculty of Fisheries and Marine, Lambung Mangkurat University, Banjarbaru

*Corresponding author, email: dr.rahmiati@ulm.ac.id

Dengue haemorrhagic fever is often occurring in Indonesia. Geographical Information System is a tool to analyse condition of the affected area to determine what actions should be taken as an early warning. This system provides a spatial description of the spread of DHF in Banjarbaru and Martapura. This research was a combination of spatial analysis and descriptive survey results to analyse the distribution of dengue cases in Martapura and Banjarbaru in 2017-2019. The distribution of DHF was classified into high, medium and low. Spatial data was based on population size, settlement density, distance of settlements from rivers and roads, and rainfall. The results shown that the number of cases in Banjarbaru from 2017 to 2019 continues to increase, while in the Martapura Kota, Martapura Timur and Martapura Barat fluctuated. The number of DHF cases in Banjarbaru was higher than in Martapura. In both regions, distribution of DHF cases according to age was mostly in the 6-18 years old, and the lowest age group is 25-53 years. Gender of patient was predominantly female. Areas with high DHF case category were in densely populated urban areas; Banjarbaru Utara, Banjarbaru Selatan, Landasan Ulin and Martapura Kota, while the lowest is in Cempaka Regency.

Keywords: Spatial analysis, Geographical Information System, DHF, Banjarbaru, Martapura

“What Does The Barriers Of Being A Layperson In Community And Mental Health Mean?” A Phenomenological Approach

Dedi Kurniawan¹, Galuh Kumalasari¹

Sekolah Tinggi Ilmu Kesehatan Kepanjen

*Corresponding author: dediiikurniawan@gmail.com

The treatment of mental health problems has changed over from hospital-based to community-based psychiatric services. They focused not only on medication but emphasized more on prevention and promotion. This strategy was carried out not only by health workers but also by laypersons from community empowerment. Laypersons have experienced difficult conditions and problems, such as the possibility of experiencing role conflict, fatigue, physic, and verbal abuse. Those a challenge and pressure that often affects laypersons as a pioneer of the mental health community. The purpose of this study was to explore the barriers of laypersons in the mental health community in Malang, Indonesia. The research design used was qualitative with an interpretive phenomenological approach. The data collecting using in-depth interviews with semi-structured interview guides involving twelve laypersons who participated in this study. Laypersons were interviewed individually and asked this single question: What does the barriers experience of being a layperson of community mental health empowerment mean? Participant's descriptions were analyzed using Interpretive Phenomenology Analysis (IPA). Six categories emerged from data analysis: (i) moral and material community support; (ii) limited facilities and infrastructure; (iii) sense of belonging; (iv) feel exploited; (v) sense of purpose and (vi) tough. The findings suggest that each individual has unique barriers' experiences of being laypersons in the community. In conclusion, the layperson's lack of motivation and sense of responsibility was a big barrier to improving mental health services in the community, it's tougher when they have less support from all community sectors.

Keywords: Barrier, Layperson, Community empowerment, Mental health

**The Correlation Between the Value of Short Form-Mini Nutritional
Assessment with Frailty and Cognitive Function
in the Elderly Patients
In Rsud Dr. H. Moch. Ansari Saleh Banjarmasin**

Wiwit Agung Sri Nur Cahyawati¹, Roselina Panghiyangani^{2*},
Muhammad Syauqi Abid Muslim³, Novia Belinda Rahman³

¹Department of Internal Medicine-Faculty of Medicine, Lambung Mangkurat University

²Biomedical Department-Faculty of Medicine, Lambung Mangkurat University

³Faculty of Medicine Students, Lambung Mangkurat University

*Corresponding author: rpanghiyangani@ulm.ac.id

The elderly often have problems in terms of lack of nutritional status (undernutrition). The risk of malnutrition can affect the frailty condition and decrease cognitive function in the elderly. The purpose of this study was to analyze the correlation between nutritional status with frailty and cognitive function in the elderly at RSUD Dr. H. Moch. Ansari Saleh Banjarmasin. This research is analytic observational using cross-sectional method. Samples of 93 elderly were obtained using total sampling techniques according to inclusion and exclusion criteria. The results showed the average nutritional status value was $12,00 \pm 2,126$, the average frailty value was $4,41 \pm 1,872$, and the average cognitive function value was $25,98 \pm 2,923$. Data analysis used Spearman's non-parametric correlation test with a confidence level of 0.05. Correlation test results of the relationship between nutritional status with frailty obtained $p = 0,000$ and $r = -0,490$. Correlation test results of the relationship between nutritional status with cognitive function obtained $p = 0,000$ and $r = 0.595$. Therefore it can be concluded that there is a relationship between nutritional status with frailty and cognitive function in the elderly patients at RSUD Dr. H. Moch. Ansari Saleh Banjarmasin.

Keywords: elderly, alteration of nutritional status, frailty, cognitive function.

Case Report

Case of Covid-19 in Patient with HIV

Bernadet Maria Sanjaya^{1*}, Nani Zaitun²

¹Resident of Department of Internal Medicine, Faculty of Medicine, Lambung Mangkurat University, Ulin Regional Hospital, Banjarmasin

²Division of Tropic Infection, Department of Internal Medicine, Universitas Lambung Mangkurat/Ulin Hospital Banjarmasin, Indonesia

*Corresponding author: b3rnad3t@gmail.com

COVID-19 is pneumonia caused by Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2). There is still unknown how the HIV infection might affect patients co-infected with SARS CoV-2. Immunosuppressed patient condition and low CD4 counts can protect HIV-infected patients from developing cytokine storms in COVID-19 cases. A 40 year old man with HIV, presents with shortness of breath. From the chest x-ray, the picture shows bilateral infiltrates suggest to pneumonia with non-reactive result of rapid test serology test. The patient was done swab and got a positive result. During treatment, patients receive antivirals, antibiotics, anticoagulants, corticosteroids, and beta adrenergics. The patient was died after 14 days of treatment. The cause of the patient's death was respiratory failure. ARDS can directly cause respiratory failure, which is the cause of death in 70% of COVID-19 cases. The presence of bacterial co-infection can be a risk factor with a potentially worse prognosis. Accurate and fast diagnostic tests are essential for controlling the COVID-19 disease. Serologic results cannot confirm or exclude infection status. Molecular diagnostics is needed to increase infection in individuals with high risk factors. The factors that influence disease progression and disease severity reflect the different types of resistance. Even if HIV infection is well controlled by ARV drugs, patients with uncontrolled viral loads or low CD4 cell counts are at a higher risk of developing severe COVID-19 infections. This pandemic is a challenge for clinicians. Further, interdisciplinary research in patient HIV with COVID-19 is needed for prevention and treatment benefits.

Keywords: COVID-19, HIV, ARDS

Hand Soap Activity Against the Number of Bacterial Colonies From the Housewife's Hand Swab Samples in a Temporary Landfill Environment in Kelurahan Gadang Banjarmasin

Farida Heriyani¹, Lia Yulia Budiarti², Widya Nursantari^{1*}, Ayu Apriliani³

¹Public Health Department, Faculty of Medicine Lambung Mangkurat University Banjarmasin

²Microbiology Departement, Faculty of Medicine Lambung Mangkurat University Banjarmasin

³Student at the Faculty of Medicine Lambung Mangkurat University Banjarmasin

*Corresponding author: widyanursantari@gmail.com

Unhygienic waste handling in a temporary landfill environment, can make the surrounding environment a source of transmission of pathogenic bacteria and colonization of bacterial growth in the hands. The study aims to identify the type of bacteria on the hands and test the activity of hand wash soap in lowering the number of colonies of hand bacteria. The identification of bacteria against 30 hand swab samples derived from the hands of housewives in temporary landfill environment (TPS) in Kelurahan Gadang Banjarmasin, was carried out in conventional media. Test the activity of hand wash soap in lowering the number of colonies of hand bacteria using 2 different brands. Bacterial identification is carried out by descriptive method and experimental testing of hand wash soap activity use pretest-posttest design with control group design. The data was analyzed using shapiro wilk test and wilcoxon test at a 95% confidence level. Identification of hand swab bacterial isolates obtained *Staphylococcus aureus* (66.6%), *Staphylococcus epidermidis* (10%) and *Escherichia coli* (23.33%). Statistical analysis showed significant differences between the two brands of hand wash soap tested (sig. 0.000 >0.05). The conclusion of the type of gram-positive bacteria is more widely found in the hands of housewives; Type B hand soap has a higher effectiveness in reducing the number of bacterial colonies on the hands than brand A.

Keywords: hand wash soap, housewife hand swab, number of colonies of hand bacteria.

Effect of Coal Dust Exposure to Mother's Blood Pressure, Haemoglobin (Hb) Level, and Foetus Heart Beat in Tanah Laut Regency

Meitria Syahadatina Noor, Siti Wasilah, Dian Rosadi, Fauzie Rahman, Fahrini Yulidasari, Andini O. Putri, Atikah Rahayu, Nur Laily, Vina Yulia Anhar, Ayu Riana Sari

Faculty of Medicine, Lambung Mangkurat University, Banjarmasin, Indonesia
*Corresponding Author: drmeitria@yahoo.com

Tanah Laut Regency is one of regencies in South Kalimantan that has coal mine companies. Effects of coaldust exposure can cause oxidative stress and inflammation process that influence endothelial function. Endothelial function is important to mother-foetus circulation. This research's goal was to analyze the effect of coaldust exposure to mother's blood pressure, haemoglobine level, and foetus' heartbeat. The method used observational analyzes with crossectional design. Respondents were at least 30 pregnant women from area with coaldust exposure and without coaldust exposure. Respondents were examined by doctor and midwive to check their bloodpressure, Hb level and foetus heartbeat. Data were analyzed by comparative test. The results were 118.85 mmHg for sistolic bloodpressure from coaldust exposure area and 120.93 mmHg for not-coaldust exposure area ($p=0.522$); 73.67 mmHg for diastolic bloodpressure from coaldust exposure area and 76.43 mmHg from not-coaldust exposure area ($p=0.823$); 11.533 gr/dL for Hb level from coaldust exposure area and 11.89 gr/dL from not-coaldust exposure area ($p=0.028$); 143.21 x/minute for foetus heartbeat from coaldust exposure area and 139.53 x/minute from not-coaldust exposure area ($p=0.013$). the conclusion was coaldust exposure could effect mother's Hb level dan foetus' heartbeat, but could not effect mother's bloodpressure yet in Tanah Laut Regecy.

Keywords: Coaldust exposure, Blood pressure, Haemoglobin level, Foetus heart beat

Polysaccharide Peptide (PsP) of *Ganoderma lucidum* As Vasa Vasorum Anti-Angiogenesis Agent In Dyslipidemic State By Measuring Lp-PLA₂ and H₂O₂ Levels: *In Vivo* Study using wistar strain *Rattus novergicus* Model Of Atherosclerosis With Dyslipidemia

¹Titin Andri Wihastuti, ²Fibe Yulinda Cesa, ²Reyhan Amiruddin, ³Meddy Setiawan, ²Danisa Namira Wijayanti, ⁴Teuku Heriansyah*

¹Departement of Biomedicine Nursing, Faculty of Medicine, University of Brawijaya, Malang, Indonesia

²Master Program of Biomedical Science, Faculty of Medicine, University of Brawijaya, Malang, Indonesia

³Faculty of Medicine, University of Muhammadiyah Malang.

⁴Departement Cardiology, Faculty of Medicine, University of Syiah Kuala, Aceh, Indonesia

*Corresponding author: teuku_hery@unsyiah.ac.id

Dyslipidemia is one of risk factors for atherosclerosis induced by high fat diet. In atherosclerosis, an angiogenesis of immature and fragile vasa vasorum leads to atherosclerotic plaque destabilization. Angiogenesis of vasa vasorum is influence by oxidative stress and inflammation. Polysaccharide peptide (PsP) from *Ganoderma lucidum* (GL) contains bioactive compounds that possess antioxidant and anti-inflammatory properties which might become anti-angiogenesis agent in atherosclerosis. The aim of this study is to determine whether administration of PsP GL is able to decrease the number of vasa vasorum, H₂O₂ and Lp-PLA₂ in atherosclerosis mouse model with dyslipidemia. True Experimental research design was conducted with *Randomized Post Test Only Controlled Group Design*. Twenty five Wistar strain *Rattus novergicus* were divided into 5 groups (n=5). Negative control group was administered with normal diet, positive control group was given high fat diet (HFD), and 3 treatment groups received HFD and PsP administration of 50 mg/kgBW, 150 mg/kgBW, and 300 mg/kgBW. Vasa vasorum measurement was performed using histopathological section of mouse aorta and measured using *Scan Dot Slide Olyvia* with 400x magnification. Serum Lp-PLA₂ and H₂O₂ were measured using ELISA method. *One way ANOVA* analysis demonstrates that PsP GL significantly reduced vasa vasorum count (p<0,05) in mouse model of atherosclerosis with dyslipidemia. *Duncan Post Hoc* analysis indicates a significant difference in vasa vasorum count in 50 mg/kgBW PsP treated group compared to other doses. The conclusions of this study is *Polysaccharid peptide G. lucidum* extract significantly reduces vasa vasorum count in Wistar strain *Rattus novergicus* with HFD administration.

Keywords: Atherosclerosis, *High Fat Diet*, Oxidative stress, *Polysaccharid peptide* (PsP) extract, Vasa vasorum

Relationship of Knowledge and Family Support with Treatment Compliance in Hypertension Patients

Dian Rosadi^{1*}, Rudi Fakhriadi¹, Noor Ahda Fadillah¹

¹Department of Epidemiology, Public Health Study Program, Faculty of Medicine,
Lambung Mangkurat University

*Corresponding author: dianrosadi@ulm.ac.id

The results of the National Basic Health Research (Riskesmas) in 2018 recorded the prevalence of hypertension in Indonesia, which was obtained through measurements at ≥ 18 years of age at 34.1%, with the highest prevalence in South Kalimantan at 44.1%. The question in this study is how the knowledge of hypertension sufferers and family support with hypertension treatment.. Hypertension or high blood pressure is often referred to as the silent killer (silent killer). Current antihypertensive drugs have been shown to control blood pressure in hypertensive patients, and also play a major role in reducing the risk of developing cardiovascular complications. The research design used is a systematic literature review (SLR) or what in Indonesian is called a systematic literature review, which is a literature review method that identifies, assesses, and interprets all findings on a research topic, to answer research questions. The method used in assessing the quality of the literature uses the Duffy's Research Appraisal Checklist Approach method. It is known that in the knowledge variable, 20% articles, motivation variables, 40% articles, and family support variables, 20% of journals or research articles that examine these variables and are used as samples state that there is a relationship between family support and medication adherence to hypertension sufferers. However, there were also journals or research articles that stated there was no relationship between family support and medication adherence to hypertension sufferers. In the knowledge variable, 20% of the journals or research articles sampled stated that there was a relationship between knowledge and medication adherence in hypertensive patients and there were no journals or research articles stating that there was no relationship between knowledge and medication adherence in hypertensive patients. In the family support variable, 20% of the journals or research articles sampled stated that there was a relationship between family support and medication adherence to hypertension sufferers and there were 2 journals or research articles which stated that there was no relationship between knowledge and medication adherence in hypertensive patients.

Keywords: Hypertension, Knowledge, Family Support

Waste Management and Sewerage Relationship with Fly Density

Laily Khairiyati¹, Lenie Marlinae², Nida Ulfah³

^{1,2} Department of Environmental Health, Public Health Study Program, Faculty of Medicine, Lambung Mangkurat University

³ Section for Disease Prevention and Prevention Sungai Ulin Community Health Center Banjarbaru

*Corresponding author: lailykhairiyati@ulm.ac.id

The spread of fly breeding can have an impact on the emergence of various environmental-based diseases such as diarrhea, cholera and other digestive disorders. This is because flies can carry pathogenic microorganisms through their legs and body parts. The purpose of this study is to explain the relationship between waste management and sewerage with fly density at the canteen in Banjarbaru City. This research is an analytic observational study with cross sectional design. A total of 50 canteens were used as samples in this study. The sampling technique uses non probability sampling. The research was conducted in August-September 2018. The instruments used included fly grills, questionnaires, observation sheets and Lutron. Data analysis used chi square test. The results showed that the fly density in the medium category was 21 units (42%) and 29 units (58%) low. Waste management with good and less categories, namely 25 units (50%) respectively, and sewerage with good categories, there are 28 units (56%) and less than 22 units (44%). Chi square analysis at a significance level of 95% shows that the p-value for waste management and sewerage is 0.022 and 0.030 (OR = 4.750 and OR = 3.611). Thus, waste management and sewerage are significantly related to fly density at the canteen in Banjarbaru. City. It is expected that each food provider should pay attention to the aspects of proper sanitation management for trash bins and sewage drains that are maintained and meet health requirements.

Keywords: Fly density, waste management, sewerage

**The Implementation of Community Environmental Health Principles
on on Line Based Clean Water (Whats Apps) in Parents Who have
Children have a Risk of Covid 19
in Banjar District (Tuan Ulu River Village)**

Husaini*, Anugrah Nur Rahmat, Lenie Marlinae, Laily Khairiyati, Agung Waskito,
Noor Ahda Fadillah

School of Public Health, Faculty of Medicine, Universitas Lambung Mangkurat,
Banjarbaru

*Corresponding author: husainifawaz@yahoo.com

Clean water is one of the basic human needs and an important part of human life. Water is currently felt to have great economic value and many parties are competing to control its sources. Currently, the problem of clean water supply is of particular concern for both developed and developing countries. Indonesia, as a relationship with other developing countries, does not escape the problems of providing clean water for its people. One of the main related problems is the lack of clean water sources. This service aims to form a community group that cares about Covid19, especially for parents of students at school in applying the principles of environmental health in the use of clean water through the Whats Up media and increasing the knowledge and abilities of Covid19, especially for parents at school in applying the principles of environmental health in the use of clean water through Whats Up media. The strategy used in this program is the ABG community approach (Advocacy, Community Development, and Community Movement). First of all, advocacy is carried out to local, local school agencies to support this program so that it can run according to goals, objectives and plans. Development is carried out by involving women's groups, namely the parents of environmental students with support from teachers and health centers to encourage the community to participate in community service activities in preventing Covid 19. In conclusion, the minimum value, the mean value has increased, which means the information received by the village community Sungai Tuan Ulu has been conveyed well. In the pre-test value, there is a wider standard deviation which indicates that the respondent's knowledge of the Application of Public Environmental Health Principles in Clean Water for Parents Who Have Children at Risk of Covid 19 is still very diverse, while the post test scores show a lower standard deviation which means the knowledge has started to be the same. Statistically, there is no effect of extension on the increase in knowledge and attitudes after the respondents were given counseling.

Keywords: Covid-19, Clean Water, Principles of environmental health

Occupational Health and Safety (OHS) Risk Assessment of Floating Market Traders in the Lok Baintan Village Tourism Area

Ratna Setyaningrum*, Ihya Hazairin Noor, Mufatihatul Aziza Nisa

Department of Occupational Health and Safety, Public Health Study Program, Lambung Mangkurat University

*Corresponding author: ratnasetyaningrum@ulm.ac.id

One of the Floating Market's peculiarities is the buying and selling activity, which is carried out by approaching buyers by boat to offer their wares by small or large boats. In the Banjar language, the boat used is usually called a jukung. However, this uniqueness and uniqueness are not in line with applying OHS principles in its activities. This study aims to assess and identify the risk of OHS hazards at the traders' work stage in the tourist area of the Lok Baintan Floating Market. This research is a quantitative research with an observational approach and the *task analysis* method through the *Job Safety Analysis* sheet. The research object is the activity carried out by the alley of the floating market in Lok Baintan Village. Informants consist of 3 (three) parties: a village official; manages the wharf; and the Lok Baintan Floating Market trader. The research results were compiled through the reduction and verification stages. The results showed that the activity flow chart included four stages, namely 1) preparation of traders; 2) departing to the location of the floating market; 3) buying and selling transactions using jukung, and 4) the merchant's return process. Hazards and potential hazards in stage 1) include ergonomic hazards (*Musculoskeletal Disorders/MSDs*) and physical hazards (injury and reverse support), at stage 2) include physical hazards (injury, collision, reverse support), at stage 3) include physical hazards (upside down, crash, fall into a river), ergonomic hazards (MSDs) and biological hazards (virus transmission), in stage 4 include physical hazards (reverse support, collisions, falling into rivers) and ergonomic hazards (MSDs). The OHS condition in the floating market is still not optimal in terms of traders and infrastructure awareness. It is necessary to make efforts to develop OHS regularly and provide supporting facilities.

Keywords: risk, assessment, OHS, traders, floating market

Knowledge, Attitude and Precautions Transmission of Covid-19 in Smp It Ar-Rahman

Musafaah^{1*}, Hadrianti HD Lasari¹, Noor Ahda Fadillah²

¹Department of Biostatistics and Population, Public Health Study Program,
Lambung Mangkurat University

²Epidemiological Surveillance Department, Public Health Study Program, Lambung
Mangkurat University

*Corresponding author: musafaah81@gmail.com

The Covid-19 case in South Kalimantan Province continues to rise until now with a high Case Fatality Rate (CFR). The research objective was to describe the knowledge, attitudes and actions at SMP IT Ar-Rahman regarding New Normal Life, Covid-19 Hoax, and Covid-19 Epidemiology. This study used a quasi-experimental study. The sample consisted of 14 students of SMP IT Ar-Rahman. The variables studied were knowledge, attitudes and actions regarding New Normal Life, Covid-19 Hoax, and Covid-19 Epidemiology. The analysis was performed using descriptive statistical analysis. The results of the study found that there was an increase in knowledge before participating in the virtual atmosphere development, namely 71% to 93% after getting a nurturing atmosphere with the average score of Ar-Rahman IT Middle School students experiencing an increase from 75 to 87.14 then the median value of 75 to 87.5. Then the increase in action before giving atmosphere development, from a good score of 57%, still with a value of 57% after going through the atmosphere building activity. Meanwhile, in the attitude aspect, there was a decline, initially a positive attitude of 71% decreased to 57%. Ar Rahman IT Middle School students' understanding of the epidemiology of Covid-19 can be improved by conducting education / building an atmosphere with the Islamic Public Health approach.

Keywords: Covid 19, New Normal Life, Anti Hoax, Islamic, Public Health

Immune Thrombocytopenia as the initial manifestation of pediatric systemic lupus erythematosus.: case reports and literature review

Harapan Parlindungan Ringoringo

Department of Child Health, Faculty of Medicine, University of Lambung Mangkurat –
RSD Idaman Banjarbaru

*Corresponding author: parlinringoringo@ulm.ac.id

Immune thrombocytopenia (ITP) can precede the onset of systemic lupus erythematosus (SLE) by months to years. A 12-year-old girl weighing 46 kg came to the hospital with the complaint of 12 days-menstrual bleeding. The patient is weak, pale. Eyes, ENT, heart, lungs, abdomen: within normal limits, no ptekie. Laboratorium: Hb 4,6 g/dL, Leukocytes 12,930/uL, Platelets 11.000/uL, Hematocrit 15%, Diff Count: normal. RBC 1,59 million/uL, MCV 94,3fL, MCH 28.9pg, MCHC 30,7%, RDW-CV 14,6%. Corrected-reticulocytes 5,16%, Ret-He 22,6, IPF 54,17%. Peripheral blood smears: normochromic, normocytic, blast not found, platelets are rare. The diagnosis is menometrorrhagia with anemia due to bleeding caused by ITP. The patient was given PRC and platelet transfusion, methylprednisolone. Three months later, the patient had another prolonged menstruation, hair loss, no ptekie, or purpura. Laboratorium: Hb 8,2 g/dL, Leukocytes 7800/uL, Platelets 6.000/uL, RBC 1,59 million/uL, MCV 94,3fL, MCH 28.9pg, corrected reticulocytes 5,08%, Ret-He 24,6, IPF 54,5%. ANA test positive, Anti dsDNA-NcX 190.2 IU/ml. The diagnosis is SLE. During the last 16 months, the patient took 10 mg prednisone with a platelet count > 150,000. In every case of ITP in a child, consider the possibility of SLE.

Keywords: ITP, SLE, ANA, child

The role of Ursodeoxycholic Acid and Curcuma in children with hepatitis A: case reports and literature review

Harapan Parlindungan Ringoringo^{1*}, Melani Sugiarti Wijaya Kangmartono²

¹Department of Child Health, Faculty of Medicine, University of Lambung Mangkurat – RSD Idaman Banjarbaru

²General Practitioner

*Corresponding author: parlinringoringo@ulm.ac.id

Hepatitis A is a liver disease caused by the hepatitis A virus (HAV), a self-limiting disease, providing lifelong immunity. The transmission of HAV is fecal-oral. Liver cell damage occurs due to T-lymphocytes-associated immune system. A 9-year-old girl came to the hospital with complaints three days earlier complaining of fever, fluctuation, not chills. The body feels weak, nauseous, have no appetite, eyes look yellow, urine is like tea, normal stool color. The patient has never received hepatitis A immunization. The patient's sclera is jaundice, right upper abdominal pain, no hepatomegaly. Complete blood count within normal limits, AST: 1523 U/L, ALT: 1254 U/L, total bilirubin: 4.33 mg/dl, direct bilirubin: 1.18 mg/dl, indirect bilirubin: 2.15 mg/dl, Anti-HAV IgM reactive. Diagnosis is acute hepatitis A. Treatment is bed rest, low-fat diet, ursodeoxycholic acid therapy, and Curcuma. The patient went home after seven days of treatment in good condition. Ursodeoxycholic acid and Curcuma play a role in the patient's clinical and laboratory improvement. Counseling on personal and environmental hygiene must be frequently communicated to the public and emphasize prevention with active hepatitis A immunization.

Keywords: Hepatitis A, ursodeoxycholic acid, Curcuma, HAV immunization

Role of Arachidonic Acid for Early Detection of Neonatal Sepsis Using Spectroscopy Analysis

Adelia Anggraini Utama¹, Eko Suhartono^{2*}, Ari Yunanto¹

¹Department of Child Health, Faculty of Medicine, Universitas Lambung Mangkurat, Banjarmasin, Indonesia

²Department of Medical Chemistry/Biochemistry, Faculty of Medicine, Universitas Lambung Mangkurat, Banjarbaru, Indonesia

*Corresponding author: esuhartono@ulm.ac.id

Neonatal sepsis (NS) is one of the most common causes of neonatal mortality and morbidity. Blood culture as gold standard in diagnosing NS has several shortcomings such as expensive, taking a long time, and low sensitivity. Thus, there have been many biomolecular studies to find markers used for diagnosis of NS. The invasion of microorganisms in NS will activate the inflammatory process, causing cellular injury, phospholipid membrane damage and release of arachidonic acid. Accordingly, arachidonic acid is thought to have diagnostic potential in NS. Arachidonic acid can be measured by various methods such as Enzyme-Linked Immunosorbent Assay (ELISA) and liquid chromatography. This method has high sensitivity and specificity but expensive and the sample processing is complex. Spectroscopy is a quantitative and qualitative method of analysis and measurement to determine the composition of a sample, which is based on the interaction between molecular compounds and light at certain wavelengths. This method can be an alternative method of measuring arachidonic acid with several advantages, such as fast, inexpensive, and can use saliva as a sample which is non-invasive, doesn't require trained personnel and special equipment.

Keywords: Neonatal sepsis, Spectroscopy, FTIR, Arachidonic acid

Review Article

Saliva Anti-Dengue Immunoglobulin M And G Analysis as an Alternative of Early Detection of Dengue Virus Infection Through the Spectroscopy Approach

Iskandar Thalib^{1*}, Edi Hartoyo¹, Khairiyadi¹, Pudji Andayani¹, Eko Suhartono²

¹Department of Child Health, Ulin General Hospital/Faculty of Medicine Lambung Mangkurat University, Banjarmasin, Indonesia

²Department of Medical Chemistry/Biochemistry, Faculty of Medicine Lambung Mangkurat University, Banjarbaru, Indonesia

*Corresponding author: iskandarthalib@gmail.com

The mainland area of South Kalimantan is mostly wetlands. This makes this area a very good habitat for microorganisms. Furthermore, infectious diseases are still a major problem in this area. One of the infectious diseases with high morbidity and mortality rates is dengue virus infection. Dengue virus infection is an infectious disease caused by the dengue virus which is transmitted through the bite of the *Aedes aegypti* mosquito. Dengue virus infection is a disease that is a public health problem and is endemic in almost all cities/districts throughout Indonesia, including South Kalimantan. The high rate of morbidity and mortality of this disease is partly due to problems in diagnosis. This is due to the diagnosis of this disease which is determined by atypical clinical manifestations and serological examinations that can be carried out on days 4-7 of illness. This examination has several shortcomings, including the overall process were not simple, traumatic, and cause psychological problems compared to other biological fluids, especially in children. This has prompted some researchers to find alternatives to examinations that are more simple, less invasive, inexpensive, and do not require skilled personnel. Saliva is a body component that can be used for the purpose of diagnosing diseases, including dengue virus infection. Saliva sampling is relatively easy, can be done non-invasively and does not require skilled personnel. Fourier transformation infrared spectroscopy (FTIR) is a spectroscopic technique and used to analyze various organic compounds in human biological systems, such as nucleic acids, proteins, and lipids in cell membranes. Therefore, FTIR can be used as a diagnostic support, for example dengue virus infection. Based on this, this article will review the potential of saliva for supporting the diagnosis of dengue virus infection through the analysis of anti-dengue immunoglobulin M and G of saliva.

Keywords: Dengue Virus Infection, Saliva, Spectroscopy FTIR

The Change of Uterine Spiralis Artery Remodelling and Natural Killer (Nk) Cell After Exposure of Coal Dust in Pregnant Rattus Novergicus

Siti Wasilah^{1,2}, Djoko W. Soeatmadji³, Teguh Wahyu Sardjono⁴, Nia Kania⁵,
Meitria S. Noor⁶

¹Department of Biomedical, Faculty of Medicine, Lambung Mangkurat University

²Student of Doctoral Program, Faculty of Medicine, Brawijaya University

³Geriatric Division, Department of Internal Medicine, Faculty of Medicine, Brawijaya University

⁴Department of Parasitology, Faculty of Medicine, Brawijaya University

⁵Department of Anatomy Pathology, Faculty of Medicine, Lambung Mangkurat University

⁶Department of Public Health, Faculty of Medicine, Lambung Mangkurat University

*Corresponding author: drmeitria@yahoo.com

Indonesia had potential coal resources, mostly in Kalimantan and Sumatera. Data of South Kalimantan Regional Environmental Institution showed that there were 49 coal industries in 13 regencies. Coal dust with $<10\ \mu\text{m}$ could enter to lung and blood vessel. It could cause oxidative stress and inflammation. Natural Killer cell is one of factors that can influence the balance of oxidant-anti oxidant and inflammation-anti inflammation. Imbalance of it in pregnant would cause spiralis artery remodelling abnormality. Spiralis artery remodelling could be observed by diameter and wall thickness. The goal of this research was to analyse effect of coal dust exposure to uterine spiralis artery remodelling and NK cell. This research used experimental method using post test only with control group design. The subjects were pregnant Rattus novergicus, 5 pergroup. Number of groups were 7: control group (K0) without exposure; exposure group with $6,25\ \text{mg}/\text{m}^3$ dose for 1 hour (K1-1); exposure group with $12,5\ \text{mg}/\text{m}^3$ dose for 1 hour (K1-2); exposure group with $25\ \text{mg}/\text{m}^3$ dose for 1 hour (K1-3); exposure group with $6,25\ \text{mg}/\text{m}^3$ dose for 2 hour (K2-1); exposure group with $12,5\ \text{mg}/\text{m}^3$ dose for 2 hour (K2-2); exposure group with $25\ \text{mg}/\text{m}^3$ dose for 2 hour (K2-3). Result showed that there were significant differences of uterine artery diameter between all groups ($p=0,003$); there were significant differences of uterine artery wall thickness between all groups ($p=0,003$); there were significant differences of uterine NK cell between all groups ($p=0.009$). The conclusion was coal dust exposure could effect uterine spiralis artery remodelling and NK cell in pregnant Rattus novergicus.

Keywords: coal dust, uterine spiralis artery remodeling, uterine NK cell

Pterygota alata (Roxb.) R.Br. Bark Fraction Induced Intrinsic Apoptotic Pathway in 4T1 Cells by Decreasing Bcl-2 Expression and Inducing Bax Expression

Rollando Rollando^{1,2*}, Warsito Warsito³, Masruri Masruri³, Widodo Widodo⁴

¹Pharmacy Department, Faculty of Science and Technology, Ma Chung University, Malang 65151, Indonesia

²Doctoral Student, Chemistry Department, Faculty of Mathematics and Natural Sciences, Brawijaya University, Malang 65145, Indonesia

³Chemistry Department, Faculty of Mathematics and Natural Sciences, Brawijaya University, Malang 65145, Indonesia

⁴Biology Department, Faculty of Mathematics and Natural Sciences, Brawijaya University, Malang 65145, Indonesia

*Corresponding author: ro.llando@machung.ac.id

The fraction of *Pterygota alata* (Roxb.) R.Br. bark has been studied to have cytotoxic activity on 4T1 cells. This study was conducted to determine the cytotoxic activity of several fractions of *Pterygota alata* (Roxb.) R.Br. bark against 4T1 breast cancer cells and to investigate the most active fractions on Bcl-2 and Bax expressions. The bark of *Pterygota alata* (Roxb.) R.Br. was extracted using 80% methanol and was fractionated into fractions of n-hexane, chloroform, ethyl acetate, n-butanol, and insoluble n-butanol with liquid-liquid partition. Cytotoxic tests were performed using the MTT method and expressions of Bax and Bcl-2 on 4T1 breast cancer cells were detected with immunocytochemical staining after treatment of active fraction with concentrations of $\frac{1}{4}IC_{50}$, $\frac{1}{2}IC_{50}$ and IC_{50} . The results showed that the most active fraction was the insoluble fraction of n-butanol (IFB) with an IC_{50} of 15,14 $\mu\text{g/mL}$. However, this active fraction decreases the expression of Bcl-2 and increases the expression of Bax.

Keyword: *Pterygota alata* (Roxb.) R. Br., 4T1, Bcl-2, Bax.

Lymphocyte Platelet Ratio as Predictor Labour Premature Rupture of Membranes

Hermin Sabaruddin^{1*}, Yosef Salan¹, Enrico¹, Yohanes Adhitya¹, Bambang Abimanyu²

¹Obstetrics and Gynecology Specialist Education Program

²Division of Fetomaternal Department of Obstetrics and Gynecology

Faculty of Medicine, Universitas Lambung Mangkurat/

Ulin Banjarmasin General Hospital

*Corresponding author: hermin.obsgyn.ulm17@gmail.com

Premature rupture of membranes is an obstetric condition associated with the morbidity and mortality rates of newborns. PROM occurs in 3% to 10% of all births and complicates more than 3% of pregnancies. The platelet-lymphocyte ratio (PLR) could serve as a marker of the inflammatory process and can be used as a predictor of PROM incidence in pregnant women. The Platelet-Lymphocyte Ratio can be worked out easily, cheaply, and effectively. This research is an observational analytic study with a cross-sectional retrospective method. The nonprobability sampling technique method was used, followed by the purposive sampling method from 165 samples of inpatient medical records of the delivery room at Ulin Hospital, Banjarmasin. The results showed that there was a correlation between PROM and hemoglobin and leukocyte count. However, there was no relationship between the BMI, platelets, hematocrit, and lymphocytes to PROM. PLR has a significant correlation with leukocytes, platelets, and lymphocytes, without a significant correlation to hemoglobin and hematocrit. PLR has a significant correlation to leukocytes with PLR p 0.014. PLR ratio to platelets has also shown a significant relationship p 0.000. The PLR ratio to lymphocyte levels was p 0,000. This data was analyzed using the chi-square and Spearman test.

Keywords: Platelet Lymphocyte Ratio, Inflammation, Childbirth, Premature Rupture of the membranes

Coelomic Fluid of *Eisenia fetida* Ameliorates Cetuximab to Reduce K-Ras and Vimentin Expression through Promoting RUNX3 in an AOM/DSS-Induced Colitis Associated Colon Cancer

Sofy Permana,¹ Reyudzky Putri Fityanti,² Eviana Norahmawati,³ Agustin Iskandar,⁴ Erika Desy Anggraini Mulyadi,⁵ and Agustina Tri Endharti^{4,6}

¹Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Brawijaya, Malang, Indonesia

²Master Program in Biomedical Sciences, Faculty of Medicine, Universitas Brawijaya, Malang, Indonesia

³Department of Pathology Anatomy, Faculty of Medicine, Universitas Brawijaya, Malang, Indonesia

⁴Department of Parasitology, Faculty of Medicine, Universitas Brawijaya, Malang, Indonesia

⁵Undergraduate Program of Biology, Faculty of Mathematics and Natural Sciences, Universitas Brawijaya, Malang, Indonesia

⁶Biomedical Central Laboratory, Faculty of Medicine, Universitas Brawijaya, Malang, Indonesia

*Corresponding author:

Ulcerative colitis is a major risk factor that increases the occurrence of colorectal cancer. In colorectal cancer due to colitis, Intestinal inflammation plays an important role which causes DNA damage. The aim of this study is to investigate the anticancer effect of coelomic fluid of *Eisenia fetida* (CFEF) and cetuximab combinations. Colitis associated colon cancer was induced in BALB/c mice by DSS/AOM. The mice were randomly divided into seven groups: group 1 received vehicle (control), groups 2–7 received DSS / AOM, groups 4–6 received Cetuximab + CFEF (30, 60, or 120 mg / kg BW), and group 7 received CFEF only. After the 12th week of treatments, the colon tissues were removed for histological examination and immune-fluorescence. Intestinal Epithelial Cells (CECs) were analyzed by flow cytometer. Administration of CFEF significantly decreased the severity of DSS/ AOM-induced CAC in a dose-dependent manner. The combinations of CFEF-cetuximab were revealed by histological change. The CFEF significantly reduced the severity scores ($P < 0.05$). The combinations of CFEF-cetuximab significantly inhibited K-Ras and vimentin expressions, whereas the percentage of RUNX3 significantly increased in CECs. The increasing of RUNX3 could prevent EMT, so that it can decrease K-Ras and vimentin to suppressed cell invasion and migration by CFEF. Our results suggest that CFEF has the therapeutic potential to CAC.

Online Education of Clean and Healthy Living Behavior in Facing the Era of Adaptation of New Normal in the Covid-19 Pandemic Situation

Vina Yulia Anhar^{1*}, Fauzie Rahman², Nur Laily², Agung Waskito³, Anggun Wulandari², Lia Anggraini⁴, Agus Muhammad Ridwan⁴, Farid Ilham Muddin⁴

- ¹Health Promotion and Behavior Department, Public Health Study Program, Faculty of Medicine, Lambung Mangkurat University
²Health Administration and Policy Department, Public Health Study Program, Faculty of Medicine, Lambung Mangkurat University
³Health Environment Department, Public Health Study Program, Faculty of Medicine, Lambung Mangkurat University
⁴Master of Public Health Student, Master of Public Health Study Program, Faculty of Medicine, Lambung Mangkurat University
*Correspondence author: vinayuliaanhar@ulm.ac.id

Corona Virus Disease (COVID-19) is a new health problem on a global scale. COVID-19 is a disease caused by the corona virus. The virus can pass directly by coughing or sneezing droplets and the breath of an infected person then inhales by a healthy person. Viruses can also spread indirectly through objects contaminated with the virus due to splashes or touches of infected hands. Various responses and reactions were shown by the community in dealing with this pandemic situation. This disease has no cure / vaccine and has caused many deaths in the world and in Indonesia. Until now, the cases are still increasing. Aluh-Aluh Besar is a village in Aluh Aluh District, Banjar Regency, South Kalimantan Province. On July 4, 2020, positive cases in Banjar Regency had reached 361 cases, Patients Under Supervision as many as 42 cases, and People Under Supervision as many as 66 cases. Various problems that still occur include a lack of understanding and public awareness of COVID-19. During a pandemic, people are required to live with the adaptation of new habits (new normal), which can "make peace" with COVID-19. For this reason, it is necessary to provide education on clean and healthy living habits (PHBS) as an effort to prevent the transmission of COVID-19 in the community. Education is provided through online methods so that this activity can still be carried out by implementing physical distancing. The results of educational activities show that there are differences of knowledge level before and after the intervention was given. It is hoped that through this education provision it can be a form of triggering the community to implement PHBS so that it helps minimize the incidence of the spread of COVID-19.

Keywords: COVID-19, new normal, education, PHBS

Improvement of Environmental Sanitation Knowledge in East Mandiangin Village

Ratna Setyaningrum^{1*}, Musafaah², Ihya Hazairin Noor³, Mufatihatul Aziza Nisa⁴

Public Health Program, Medical Faculty
Lambung Mangkurat University

*Corresponding author: ratnasetyaningrum@ulm.ac.id

Community diagnosis in Mandiangin Timur Village through survey method showed the main problem was low awareness of environmental management. Public knowledge and awareness regarding waste disposal and management were still lacking. It found 66% of respondents immediately dispose of waste without sorting it, 40% of respondents who managed waste by burning it, 80% of respondents stated that there was no waste management program for households in the village, and 84% of organizational respondents never received any environmental sanitation socialization. Based on the results of community service activities in Mandiangin Timur Village, it is known that there was an increase in knowledge of 66.7% of the participants after community service activities. The Paired T-test with normally distributed data showed a sig value of 0.0001 < 0.05, which means that there was a difference in the mean between before and after the waste management extension activities and fertilizer manufacturing training.

Keywords: village, knowledge, environmental sanitation

Media Exposure Relationship with Covid-19 Prevention Behavior

Nita Pujianti¹, Fajar Kurniawan¹, Melda Sari¹, Mena Erliana¹, Muslimah¹, Nur Haliza Safira¹, Nurul Izah¹, Rizka Rahmadaniah¹, Thea Lenka Mannuela¹, Fauzie Rahman¹, Nur Laily¹, Ayu Riana Sari¹, Anggun Wulandari¹, Lia Anggraini¹

Public Health Study Program, Faculty of Medicine, Lambung Mangkurat University
*Corresponding author: nitapujianti@ulm.ac.id, fajarkury@gmail.com

The purpose of this study is to explain how the exposure of the media in the community to COVID-19 prevention behaviour. The research design used is quantitative research with cross sectional approach, which is to analyze the relationship of an effect and variables or characteristics that are found in the community at a certain time with a sampling method in the form of Simple Random Sampling. The population and sample in this study are communities consisting of adults and adolescents in several areas using instruments in the form of a Google Form questionnaire. The results showed that the p-value = 0.002, then Ho's decision was rejected ($p < 0.05$) meaning there was a relationship between media exposure and Covid-19 preventive behavior. The presence of the media will greatly assist the community in increasing their knowledge about Covid-19 prevention. Study lasted for 3 months. The results of this research can be useful for Indonesian people in general

Keywords: media type, frequency of exposure, Covid-19, prevention behavior

Research Article

Elevated Lactate Dehydrogenase in Newborn From Suspected Covid-19 Maternal Case: A Pathologic Process?

Pricilia Gunawan Halim^{1*}, Iskandar Thalib¹, Pudji Andayani¹, Wulandewi Marhaeni¹, Ari Yunanto¹

¹Department of Child Health, Ulin General Hospital/Faculty of Medicine Lambung Mangkurat University, Banjarmasin, Indonesia
Corresponding author: iskandarthalib@gmail.com

The coronavirus disease 2019 (COVID-19) outbreak started in December 2019 in Wuhan, China and rapidly swept through the whole country in the following month. Almost all of the population from newborns to adults is affected by covid-19 infection. Populations such as pregnant women are also very susceptible to this infection. This creates an increased risk of maternal transmission from mother to baby. However, the data of effect Covid-19 infection to newborns was very limited. Furthermore, Covid-19 infection known to induce hypoxia and abnormalities on hematological system. To investigate whether newborn who were born from mother with probable/confirmed case of Covid-19 are increased risk for acquiring hypoxia and abnormalities in the hematological system, a retrospective study was carried out at Ulin General Hospital, Banjarmasin, Indonesia, during the period of the greatest epidemic spread. The hemoglobin, leukocyte, thrombocyte, and LDH levels of the newborn patients who were born from mother probable/confirmed for Covid-19, were investigated retrospectively during March-September 2020. Overall, a total of 42 newborns were studied. The results show that the mean hemoglobin, leukocyte, and thrombocyte level are 17.15 g/dl, 20,100 /ul, 306,700 /ul, respectively. Also, the mean LDH level was 1331 IU/l. The results show that the hemoglobin, leukocyte, and thrombocyte level were in normal limit. Also, this result study shows that the LDH level was increased. In conclusion, newborn who were born from probable/confirmed Covid-19 mother seems do not have an abnormality in hematological system but may have the risk of hypoxia which is characterized by an increase in LDH levels.

Keywords: Covid-19, Hypoxia, Lactate Dehydrogenase, Newborn

The effectiveness of the chloroform fraction from Ethanol Extract of The *Azadirachta indica* A. Juss seed as larvicide and insect growth regulator's (IGR's) against *Aedes aegypti* Linn

Wydiamala,E^{1*}, Mardihusodo,S.J², Pramono,S³.,Martono,E⁴,

¹ Parasitology Departement, Faculty of Medicine, Lambung Mangkurat University,,Banjarmasin

² Parasitology Departement, Faculty of Medicine, Gadjah Mada University, Yogyakarta

³Biology Departement, Faculty of Farmacy, Gadjah Mada University, Yogyakarta

⁴ Entomology Department, Faculty of Agriculture, Gadjah Mada University, Yogyakarta.

*Telp:+6281328549209,Email add : ewydiamala@ulm.ac.id

Botanical insecticides offer environmentally safer and more efficient to synthetic chemical insecticide. Neem (*Azadirachta indica* A. Juss) as the alternative to chemical insecticides. its to be able to biodegradability, relatively low toxicity and botanical nature. Its property as antifeedants, repellent and growth regulator on several insect species has been introduced. The aim of this study was to observe the effectiveness of the chloroform fraction from Ethanol Extract of the *Azadirachta indica* A. Juss seed as larvicide and insect growth regulator's against *Aedes aegypti* Linn., *Method*:In this study, the The effectiveness as larvicide, several series concentration of the chloroform fraction of the *A. indica* seed (CFAIS) were exposed to test larvae of *Ae. aegypti* for 48 hours, percent mortality rate was counted larvae and analyses with lethal concentration (LC_{50}) with probit analysis. The effectiveness as *Insect Growth Regulator (IGR)* LC_{50} of the CFAIS against larvae of *Ae. aegypti*, percent total number was counted of larvae growing to pupae and adult. The deformities larval, pupal and adult *Aedes aegypti* was counted analyses with categories of morphogenetic abnormalities of larvae, pupae and adult respectively. The results, as larvicide, LC_{50} and LC_{90} of the CFAIS show: 200 ppm and 400 ppm against *Ae. Aegypti*. As IGR LC_{50} of the CFAIS show influence inhibitory on development larvae-pupae, and pupae-adult stages of the test *Ae. aegypti* . The CFAIS show leg deformities. *Conclusions*: The results indicated that the CFAIS effective and potentially as both larvicide and insect growth regulator (inhibitor) could be a promising candidate for the use in *Aedes aegypti* control.

Keywords: *Aedes aegypti* - chloroform fraction *Azadirachta indica* - IGR-I arvicide

Bacterial Profile And Antibiogram of Blood Stream Infections in Febrile Neutropenic Pediatric Patients with Hematological Malignancies: A Single Study

Wulandewi Marhaeni¹, Latifah Andhini², Andreas Budi Wljaya², Dewi Indah Noviana Pratiwi³, Pudji Andayani²

¹Hematology-Oncology Division, Department of Pediatrics of Ulin General Hospital, Faculty of Medicine, Lambung Mangkurat University, Banjarmasin, South Kalimantan, Indonesia

²Department of Pediatrics of Ulin General Hospital, Faculty of Medicine, Lambung Mangkurat University, Banjarmasin, South Kalimantan, Indonesia

³Department of Clinical Pathology of Ulin General Hospital, Faculty of Medicine, Lambung Mangkurat University, Banjarmasin, South Kalimantan, Indonesia

*Corresponding author: wdmrhaeni@yahoo.com

Febrile neutropenia is common problem in pediatric patients with hematological malignancies. Previous studies have shown that gram-negative infections still become great concern and need further surveillance, in association with febrile neutropenia. On the other hand, antibiotic resistance was also still reported among this population. Therefore, information about locally prevalent bacteria and their resistance is important to guide empirical therapy. This study aimed to characterize bacterial spectrum and antibiotic resistance pattern of bacteremia in pediatric neutropenic patients with hematological malignancies. In this retrospective study, patients admitted to Pediatric Hematology and Oncology ward over a period of 2 years with laboratory-confirmed positive blood cultures were enrolled. Information regarding microbiological profile was recorded. Standard procedures were applied to identify the isolates and their resistance patterns. 19 isolates from 31 patients were isolated of which the majority were gram-positive bacilli (n = 19 or 61.3%). *Staphylococcus hominis* (25.8%, n = 8) was the most frequently isolated bacteria, followed by *Staphylococcus hemolyticus* (22.6%, n = 7), and *Staphylococcus aureus* (12.9%, n = 4). All isolates were mostly susceptible to Amikacin and Vancomycin. Susceptibility to Amikacin, Vancomycin, Meropenem, and Ciprofloxacin were 87%, 87%, 74.2% and 64,5% respectively. Resistance to Ceftriaxone was reached 38.7%. The study documented an alarming rise in the prevalence of gram-positive bacilli which showed resistance against 3rd generation of cephalosporine. The most common bloodstream infection in febrile neutropenic pediatric patients with hematological malignancies was associated with *Staphylococcus hominis*. The most suitable and sensitive antibiotic therapy febrile neutropenia in this study was Amikacin and Vancomycin.

Keywords: Bloodstream Infection, *Staphylococcus hominis*, Pediatric, Febrile Neutropenia, Hematological Malignancy

Red Seaweed *Euchemaa Cottoni* Powder of Teluk Tamiang Kotabaru Decreased Blood Sugar in Fructose Fed Mice

Oski Illiandri¹, Fujiati Dirja²

¹Department of Biomedicine School of Medicine Lambung Mangkurat University of Banjarmasin South Kalimantan Indonesia

² Department of Biochemistry School of Medicine Lambung Mangkurat University of Banjarmasin South Kalimantan Indonesia

In recent years, marine resources have attracted attention as a source of bioactive compounds for the development of new medicines and healthy foods. In South Kalimantan, in Tamiang Bay, the red seaweed *Eucheuma cottonii* (*Kappaphycus alvarezii*) is widely cultivated but not many have researched its potential as a superior product for health. *E. cottonii* contains high amounts of dietary fiber, minerals, vitamins, antioxidants, polyphenols, phytochemicals, protein, and polyunsaturated fatty acids and has medicinal uses. This plant is very rich in antioxidants and several preliminary studies have shown a protective effect in experimental animals with metabolic disorders. However, there are no preliminary studies that provide information regarding the effect on blood sugar levels. The study used 20 mice weighing 20-25 grams divided into 4 groups divided into a control group with daily food pellet, the treatment group was given a high-fructose diet, a high-fructose diet with food pellet mix with 100 mg of *E.cottonii* seaweed flour and a high-fructose diet with food pellet mix with 200 mg of seaweed flour *E .Cottonii*. The results showed that giving *E cottonii* seaweed flour could reduce blood sugar levels of mice at a dose of 200 mg.

Keywords: *Euchemaa cottoni*, Blood sugar, Fructose fed, Kotabaru