

TINJAUAN KANDUNGAN RHODAMIN B DALAM SAUS TOMAT YANG BEREDAR DI KOTA DENPASAR

Cahya Septia Sardiawan., I. G.A. Sri Dhyanaputri., Jannah Sofi Yanty

Abstract

Background Food dyes is a food additives that can improve or give color to food. The addition of food coloring to foods intended to improve the color change, or become pale during processing or to give color to foods that are not colored to make it look more attractive.

Objective The examination of Rhodamin B to determine the content of the Rhodamin B in tomato sauce samples.

Methods Using Thin Layer Chromatography. In Denpasar can be found 10 types of tomato sauce and all kinds of tomato sauce is used as a sample.

Result From Rhodamin B Standard test obtained R_f value of 0.81034 from the ratio between the distance that stain with the distance by the eluent. Sauce sample number 1 to 9 does not show the stain so that the value of R_f sauce sample 1 to sample the sauce 9 can not be calculated. Samples sauce 10 obtained R_f value of 0.7931 from the ratio of the distance of stain by 4.6 cm with the eluent distance by 5.8 cm.

Conclusion One sample from a total of ten samples of sauces or as much as 10% of the total population of tomato sauce in Denpasar positive containing Rhodamin B.

Keywords: *tomato sauce; food color; Rhodamin B.*

ANALISIS HUBUNGAN AKTIFITAS OLAHRAGA AEROBIK DENGAN KOLESTEROL HDL DARAH PADA LANJUT USIA DI PERSATUAN OLAHRAGA PERNAFASAN INDONESIA SUKAWATI GIANYAR

Dewa Agus Krisna Pramana., Ni Made Marwati., I Wayan Merta

Abstract

Background Blood HDL cholesterol is good cholesterol in the body, therefore in order to make the blood levels of HDL cholesterol keeps increasing is by doing aerobic exercise regularly, so it can prevent or reduce the risk of coronary heart disease. The study was conducted to see the relation of the aerobic exercise on blood HDL cholesterol levels in aging community in Persatuan Pernaafasan Indonesia, Sukawati, Gianyar

Objective The type of this study is a cross sectional design, in which the dynamics of correlations between risk factors and the effect were obtained by observation approaches or data collection as many as 31 samples.

Method of blood HDL cholesterol is CHOD PAP.

Result of aging that has done regularly activity is 19 samples (61,3%) with good result, four males (12,9%) and six females (19,4%), two males (6,5%) and 6 females (19,4%) in normal value (3,2%), and one male in low value. The aging that haven't done exercise regularly is 12 samples (38,7%) in normal value are 4 males (12,9%) and 3 females (9,7%), two males (6,5%) and three females (9,7%) in low value. This observation is used Fisher test, the significance exact value sig (2-sided) is 0,001 because P value less than 0,05.

Conclusion Ho reject and Ha accept, there is relation between aerobic exercise with blood HDL cholesterol level towards the aging people.

Keywords: *aerobic activity, HDL cholesterol.*

PERBEDAAN KADAR TOTAL PROTEIN DARAH ANTARA SERUM DAN PLASMA

Dewa Ayu Intan Puspita Dewi., I Wayan Merta., Burhannudin

Abstract

Background Test of laboratory is one of health test that used to uphold a diagnosis of disease. The most laboratory test that usually asked by the doctor for medical check up is clinic chemistry, especially total blood protein rate test.

This test is representation to know liver and renal functions. To get result of accurate test, all process must be done according to standard operational procedure. Pre-analytic is the most cause of mistake in the laboratory test, especially phase of sample preparation.

Objective of this research is to know difference of total blood protein rate between serum and plasma.

Methods Subject of this research are 17 students of Health Analyst, Poltekkes Denpasar who selected by purposive sampling with Intact Group Comparison design. On once venipuncture, the blood sample that obtained will be processed become serum and plasma. So, total of blood samples that used on this research are 34 blood samples that consists of 17 serums and 17 plasmas.

Result By statistic test use Independent Samples T Test, the value of $P = 0,298$ (asymptotic, $sig > 0,05$).

Conclusion of this research is there is no difference of total blood protein rate between serum and plasma.

Keywords: *total blood protein; serum; plasma.*

PERBEDAAN LAMA WAKTU PENUNDAAN URIN TERHADAP HASIL PEMERIKSAAN GLUKOSA URIN

Dewa Ayu Niti Rahayu Putri., I.G.A. Dewi Sarihati., Heri Setiyo Bekti

Abstract

Background The specimen urine usually check is not fresh cause delayed time. The best specimens urine is fresh which is immediately checked. Sample for urine glucose test better by fresh urine.

Objective This study to know the difference delayed time check on the result of glucose in urine.

Methods The design used in this study is The Posttest-Only Control Group Design and the method of sample is purposive sampling. The samples used as 15 samples from 15 different subjects and to do the test as much as three group. The subjects of this study were patients of DM.

Statistical tests used the Friedman test with value of $\alpha = 0,05$.

Result of the urine glucose test by fresh urine and delayed time is difference. The followed by Post Hoc test using Wilcoxon. The result in this study between urine glucose test is soon done and delayed time for one hour is no difference $p = 1,000$ ($p > 0,05$). There is a difference value between urine glucose test delayed done for one hour and delayed urine glucose test for two hour $p = 0,01$ ($p < 0,05$). There is a difference value between urine glucose test is soon done and delayed time urine glucose test for two hour $p = 0,01$ ($p < 0,05$).

Conclusion The delayed time urine glucose test on two hour was could influenced result.

Keywords: *delayed time; urine glucose.*

HUBUNGAN JENIS KEMASAN DENGAN KUALITAS AKTERIOLOGIS SUSU KEDELAI *HOME INDUSTRY* DI KELURAHAN TONJA DENPASAR UTARA

Dewa Ayu Putu Wiarsini., Cok. Dewi Widhya HS., Burhannudin

Abstract

Background Soy milk is one of the processed soybean products are highly nutritious. Along with the increased interest in soy milk, soy milk producer are also increasing, soy milk packaging became more diverse with a more attractive appearance. A lot of packaging used by producer of soy milk in home industry is bottles and plastic. Soy milk is consumed by the public must conform requirements the maximum contaminant limits specified microorganisms.

Objective This study to determine the Correlation type of packaging with soy milk bacteriological quality.

Methods used in this study was quasi experimental test is the soy milk in bottles and plastic containers are stored for three days at 4⁰C (in refrigerator) and a temperature of 25⁰C (room temperature) with 511 MPN test. The number of samples used a total of 36 samples, consisting of 18 bottles of soy milk and soy milk 18 plastic package. To determine the Correlation type of packaging with soy milk bacteriological quality used Fisher's Exact test statistics.

Result showed that different bacterial growth between bottles and plastic packaging. In the examination of bottled soy milk samples showed that all samples are worthy for consumption (50% of the total sample). While the examination of the results obtained samples of plastic packaging for consumption 15 samples (42% of the total sample) and three samples were not worthy of consumption (8% of total packaging). The results of statistical tests using Fisher's Exact test results obtained there is no Correlation type of packaging with soy milk bacteriological quality. It's means that producer can use bottles and plastic for packaging. To keep the quality of soy milk should be stored at 4⁰C(in refrigerator) because the results showed a growth of more bacteria in soy milk bottles and plastic containers are stored at a temperature of 25⁰C.

Conclusion The growth of bacteria in soy milk can cause digestive problems such as poisoning and diarrhea that may harm consumers.

Keyword : *soy milk, type of packaging, bacteriological quality.*

PENGARUH PERBEDAAN WAKTU PEMERIKSAAN TERHADAP KADAR GLUKOSA DARAH PUASA

Dwi Suarthini., Nyoman Mastra., Nur Habibah

Abstract

Background Based on research in Indonesia, the prevalence of Diabetes Mellitus (DM) rises about 5 million people and was ranked in sixth of all DM case in the world. One of clinical chemistry laboratory test is blood glucose check that can early detect the DM.

Objective of this research is to determine difference influence time test effect of fasting blood glucose level. Test of blood glucose in this research is done with method of O-Toluidin.

Methods is glucose will react with O-Toluidin in hot acetate form green chromatic compound. Test of fasting blood glucose level done immediately, delayed in 45 and 90 minute. The mean of blood glucose level test in immediately time with delayed in 45 minute is decrease until 8,47 mg/dl, the mean of fasting blood glucose level delayed in 45 minute with delayed in 90 minute is decrease until 8,67 mg/dl and the mean of fasting blood glucose level test in immediately time with delayed in 90 minute is decrease until 17,46 mg/dl. The decrease of fasting blood glucose level is caused by glycolysis.

Result of obtained test to be tested statistically with Repeated Anova showed the value of $p < 0,05$ which is 0,000.

Conclusion It is indicate that there is the difference influence in time test of fasting blood glucose level.

Keywords : *difference time test, fasting blood glucose fasting level*

ANALISA KUALITATIF FORMALIN PADA IKAN TERI ASIN DI PASAR BADUNG KOTA MADYA DENPASAR PROVINSI BALI

Gede Hardy Surya Cipta., I.G.A. Sri Dhyana Putri., Burhannuddin

Abstract

Background Formalin is hazardous carcinogenic chemical substances that can disturb the digestive when it present in foodstuffs and processed products. Until now formalin still use as a preservative in a food.

Objective This research is a descriptive survey to know current present of formalin in foods, especially an anchovy in Badung's Traditional Market. The formalin test results carried out by BBPOM Denpasar last year in Badung's Traditional Market showed anchovy positive formalin.

Methods The anchovies purchased from a trader, then examined in the Analytics Laboratory of Udayana University using kromatofat acid reagents by a purple discoloration reaction. The kind of an anchovy such as teri kecil, teri sedang, teri besar, teri medan, teri super, teri kayu, teri monar, teri putri ayu, and teri jenggol were used.

Result Nine of anchovies examined, only teri jenggol negative formalin. Finally 88,89 % of anchovies contain formalin. The characteristics of salted anchovy containing formalin are clean white, the texture is hard, no distinctive odor of fish, and shelf life at room temperature for one month.

Conclusion Government has to execute formalin test once every six months and traders are given feedback the results. Also the level of consumer and trader knowledge must be increased about the hazards of formalin present in food.

Keywords: *Formalin, anchovy, qualitative analysis*

PERBEDAAN KADAR BILIRUBIN DIREK DALAM SERUM SEGAR DAN SERUM SIMPAN SELAMA 24 JAM PADA SUHU 2-8°C

Gusti Agung Mas Shinta Paramita., I Wayan Merta., Nur Habibah

Abstract

Background Clinical laboratory tests is one important factor in supporting the diagnosis of a disease. One of the clinical laboratory examination is liver physiology. At this time there a lot of liver physiology test that can be done, one of them checks in the serum bilirubin levels. To get the most accurate examination of bilirubin levels, there are somethings to consider starting from the pre-analytical, analytical to post-analytic. Pre-analytic phase, especially the sample preparation stage is the stage that most often lead to errors on the results of laboratory tests. To check the bilirubin level direct conducted immediately after the shooting because the levels of bilirubin in the serum is not stable in room temperature. One of the direct due to a decrease in serum bilirubin levels, namely exposure to direct sunlight. If the examination of bilirubin can not be done as soon as a case example, there is damage of the equipment or the number of samples so much so that the delay examination the samples should be stored at 2-8 ° C.

Objective of this study to determine differences in serum levels of bilirubin direct in fresh and stored serum for 24 hours at 2-8 ° C.

Methods This type of research is a quasi experimental design with intact Group Comparison. Sampling in this study was conducted using purposive sampling.

Result In the statistical tests using the Independent Samples T Test, the probability (asymptotic or sig) that is obtained is 0.602 (asymptotic, sig \geq 0.05).

Conclusion The means that there is no difference in serum bilirubin levels directors fresh and stored serum for 24 hours at 2-8 ° C.

Keywords: *bilirubin direct; fresh serum; serum stored.*

**PERBEDAAN HASIL PENGUKURAN LAJU ENDAP DARAH METODE
WESTERGREN DENGAN PENGECERAN DAN TANPA
PENGECERAN PADA MAHASISWA
JURUSAN ANALIS KESEHATAN
POLTEKKES DENPASAR**

Gusti Ayu Riska Mastari., Nyoman Mastra., Heri Setiyo Beki

Abstract

Background ESR (Erythrocyte sedimentation rate) measures of erythrocyte precipitation speed.

Objective This research for knowing the difference between ESR result by westergren method with and without dilution of students at Health Analyst Department Polytechnic of Health Denpasar. The research method is Quasi Experiment which has been done in student grade I, II, and III that had been chosen by proportional random system, samples had been taken from 29 students. The analysis of data is T-Independent test.

Methods of ESR observation is westergren method, which is blood vena with anticoagulant EDTA in a westergren tube and the erythrocytes precipitate in certain time. In general ESR observation by westergren method, with dilution of NaCl 0,85% is done in an hour, but without dilution of NaCl 0,85% only in 45 minutes.

Result of this research has indicated the ESR observation by westergren method with and without dilution is obtained 41% increase than normal value, and 59% normal level in normal value. There is no difference result between ESR by westergren method with and without dilution.

Conclusion ESR by westergren method without dilution can be used to get the result of ESR observation which is efficient, quick, and accurate.

Keyword: *ESR; westergren method; dilution.*

ANALISIS HUBUNGAN KEBIASAAN MEROKOK DENGAN KOLESTEROL HDL DALAM DARAH

I Dewa Ayu Intan Prabawati., M. Choirul Hadi., Nyoman Mastra

Abstract

Background One of the factors that influence the risk of cholesterol in the blood are smoking, where the smokers have HDL lower levels, but levels LDL higher when compared with nonsmokers.

Objective of this study to know determine levels of HDL cholesterol and then the respondents will be analyzed with each of the risk factors, especially smoking.

Methods This type of study is the cross sectional analytic survey, data collected will be analyzed using regression analysis. From the analysis note that the only factor affecting the consumption of cholesterol, HDL cholesterol, while other factors are smoking, sport activity, age, occupation, education has no significant relationship (sig <0.05).

Result Formed so that the regression equation is $Y = 33.728 + 0.15 X_1$ with r^2 values of 0.218. HDL cholesterol test results on the respondents ranged between 24-49 mg / dl.

Conclusion Although there was no significant association between smoking and HDL cholesterol but very important to reduce smoking given the risk posed.

Keyword: *HDL cholesterol, cigarette*

**TINJAUAN KUALITAS BAKTERIOLOGIS JAMU BERAS KENCUR
(*Kaemferia galanga L*) DI DESA BATUBULAN KECAMATAN
SUKAWATI KABUPATEN GIANYAR TAHUN 2012**

I Gusti Ayu Made Dwi ., Nyoman Mastra., Jannah Sofi Yanty

Abstract

Background Jamu Beras Kencur is a part of herbal medicine that the main ingredients are rice and kencur. Most of the ingredients of jamu beras kencur are contained a chemical that is a good growth medium for microorganisms. Microorganisms can contaminate jamu beras kencur because it is supported by environmental conditions that allow microorganisms to grow and develop.

Objective To know quality of jamu beras kencur which produced in the Batubulan Village and to determine the MPN value of jamu beras kencur based on regulation of the chief food and drug control agencies of the republic of Indonesia No. Hk.00.06.1.52.4011 about determination the maximum limit of microbial and chemical contaminans in food.

Methods This type of research is descriptive survey, conducted from March to June 2012. The research was conducted in herbal production centre at Banjar Telabah Batubulan Village. Samples used in this study as many as 16 of jamu beras kencur.

Result of MPN 511 test is performed, that three samples of jamu beras kencur is eligible and 13 samples of jamu beras kencur is not eligible based on the regulation of the chief food and drug control agencies No. Hk.00.06.1.52.4011 that the maximum limit of MPN Coliform is <20/mL and for MPN E.coli is <3/mL.

Keywords: *Bacteriology quality, Jamu Beras Kencur*

**TINJAUAN TUBERKULOSIS PARU PADA PASIEN SUSPEK
TUBERKULOSIS PARU DI LABORATORIUM
MIKROBIOLOGI KLINIK DI RSUP SANGLAH**

I Ketut Widnyana., Ida Ayu Made Sri Arjani., I.G.A Sri Dhyana Putri

Abstract

Background TB is the number three cause of death after cardiovascular diseases and respiratory diseases in all age groups, and is one of the largest number in a group of infectious diseases. One of the best test for TB is smear test. Tuberculosis disease in the Bali Province is a public health problem, as indicated by the increase in cases of smear positive.

Objective of this study to determine the number of patients tuberculosis in patients with suspected tuberculosis in Sanglah Hospital.

Methods This study used descriptive of smear performed smear positive results obtained for 16 samples of 69 samples with suspected tuberculosis by percentage of 23.2%.

Result While the negative results obtained with the percentage of 53 samples of 76.8%.

Conclusion Seen from the findings of all patients diagnosed with smear positive TB is lower than the negative TB result.

Keywords: *percentage, diagnosis of disease, TB*

ANALISIS KANDUNGAN FORMALIN DALAM MIE BASAH DI WILAYAH KOTA DENPASAR

I Made Yogi Dharmika., Ni Made Marwati., I Wayan Merta

Abstract

Background Many circulate processed foods on the market with cheap prices, like a noodle. Most of a noodle manufacturers who wish to gain a big profit in the manufacture of noodles so steeled manufacturers of hazardous chemicals such as formalin. The addition of formaldehyde in the production of noodles can make noodle becomes more durable. Actually the use of formalin is not for food, but as generally used to be embalming.

Objective of this study was to determine the formaldehyde content of noodle are sold in the city of Denpasar in 2012.

Method used in this research is descriptive analysis. The samples used were 36 samples from 36 noodle industry in the city of Denpasar. This research using a qualitative method of investigation.

Result of this research a noodle in the city of Denpasar, from 36 samples of noodles that come from domestic industry in the area of East, West, North, and South of Denpasar. Of the 36 samples obtained by noodles as many positive results of two samples (5.56%), while for other samples obtained negative results (94.44%).

Conclusion It is not in accordance with the Health Minister (Menkes) Number 1168/Menkes/PER/X/1999 about utilization of formaldehyde, Rhodamin B and yellow methanyl in food.

Keywords: *noodles; formaldehyde.*

TINJAUAN KUALITAS MIKROBIOLOGI MATA AIR DI KECAMATAN KERAMBITAN KABUPATEN TABANAN

I Putu Wipa Widarsa Putra., I Wayan Jana., Cok. Dewi Widhya HS

Abstract

Background Spring is one of the source of water that can be used as drinking water for the human need. The qualified water to drink has certain conditional standard namely physic, chemistry, microbiology and radioactive and the condition is unity. And there is one of those conditions doesn't fulfill the conditional standard, the water is not qualified to drink, especially on microbiology standard because of water pollution or contamination of coliform and *E. coli* bacterias which belong to the group of coli bacteria. The contamination of the bacteria to the water will influence our health especially diarrhea disease.

Objective is done to know the description of microbiology quality of the springs in twice replication using MPN 555 method and observe the sanitary condition around the springs.

Methods is done in 13 springs by taking the sample of water twice with the interval 15 days. Based on Permenkes no. 492/Menkes/Per/IV/2010 about the regulation and monitoring of microbiology standard of the fresh water to each *coliform* and *E. Coli* bacterias is 0/100 mL.

Result From the twice examination to each springs which can be used as fresh water, there is only one spring has qualified to be fresh water, there is only one spring regulation from the minister of health that is Batu Lampo springs.

Conclusion While the 12 springs have no qualification as fresh water.

Keyword : *spring; drinking water; microbiology standard*

**PENGARUH PERBEDAAN KONSENTRASI AIR PERASAN
RIMPANG KUNYIT (*Curcuma domestica val.*) TERHADAP
PERTUMBUHAN *Staphylococcus aureus*
SECARA *IN VITRO***

Ida Ayu Putu Suseni., I Wayan Jana., Nur Habibah

Abstract

Background The development of medicine is rapidly increasing. The medicines made by pharmaceutical industry has a more dangerous side effects of the cured disease. This fact motivate researchers to develop traditional medicine for generations has been used. One type of traditional medicine is often used is the rhizome of tumeric (*Curcuma domestica val.*). Rhizome of tumeric (*Curcuma domestica val.*) have content antibacterial that is curcumin. One of the bacterial pathogens that cause disease is *Staphylococcus aureus*.

Objective According to this matter the researches of difference concentrations rhizome of tumeric water (*Curcuma domestica val.*) effect on the growth of *Staphylococcus aureus* by in vitro process will be conducted.

Objective used for antibacterial sensitivity test is a disc diffusion method, disc saturated into the rhizome of tumeric water (*Curcuma domestica val.*) with a concentration of 20%, 40%, 60%, 80%, 100%, negative control (sterile distilled water) and positive control (antibiotica ampicillin). Pure bacteria *Staphylococcus aureus* standardized with Mc Farland 0.5%. Bacterial suspension scratched on Muller Hinton media surface. Then the disc that has been saturated in the difference concentrations rhizome of tumeric water (*Curcuma domestica val.*) attached to the surface of Muller Hinton media and included with the antibiotic ampicillin control and sterile distilled water control (0%). Measured inhibition zone formed after incubation 37° C for 24 hours.

Result of researches showed rhizome of tumeric water (*Curcuma domestica val.*) All concentrations no inhibitory zone formed. Statistical analysis results of the researches the difference concentrations rhizome of tumeric water (*Curcuma domestica val.*) effect on the growth of *Staphylococcus aureus* by in vitro process using Kruskal wallis test. After tested, the results showed that the rhizome of turmeric water (*Curcuma domestica val.*)

Conclusion Concentration of 20%, 40%, 60%, 80% and 100% there is no difference concentrations rhizome of tumeric water (*Curcuma domestica val.*) effect on the growth of *Staphylococcus aureus* by in vitro process

Keywords: *Rhizome of Tumeric, Staphylococcus aureus, the disk diffusion method*

**PERBEDAAN KADAR GLUKOSA DARAH BERDASARKAN TINGKAT PENGETAHUAN PENDERITA DIABETES MELLITUS PADA PASIEN RAWAT JALAN
(Studi Dilakukan di RSUD Wangaya Denpasar)**

Kadek Ambarawati., I Wayan Merta, Nur Habibah

Abstract

Background Diabetes Mellitus (DM) is one of degenerative and chronic disease that is getting increase in Indonesia. Based on the result survey of Indonesia Health Department 2011 the number of people with DM reached 7,5 %. Based on the report of Wangaya Hospital Denpasar, on the January until December 2010 there were 2810 people with DM. This number is increased by 17,13 %.

Objective The aim of this research is to find out the difference level of blood glucose based on the level knowledge of the DM outpatient at Wangaya Hospital Denpasar.

Methods The research is held in Wangaya Hospital Laboratory on March 2012. This research is an observational research by using cross sectional method. The sample is chosen by using Consecutive Sampling with 51 sample of patient DM. The type of data is primary and secondary data.

Result Based on research, 22 (43,1 %) of DM patients have a high knowledge of DM, 25 patients (49,0 %) have a sufficient knowledge of DM and 4 patients (7,9 %) have a low knowledge of DM. The mean of blood glucose for the patient with high knowledge is 144,27 mg/dL, the patient with sufficient knowledge is 174,08 mg/dL and the patient with low knowledge of DM is less than 149,25 mg/dL. The result of the analysis by using Chi-square value of Exact Sig = 0,556 ($p > 0,05$)

Conclusion there is no relationship between the level of knowledge patient with the blood glucose level of DM patient.

Keywords: *knowledge; DM; blood glucose*

**PENGETAHUAN MASYARAKAT TENTANG TAHU BERFORMALIN
DI BANJAR KAJA SESETAN KECAMATAN
DENPASAR SELATAN TAHUN 2012**

Kadek Dita Descayani Pratiwi., Ida Ayu Made Sri Arjani., I.G.A. Sri Dhyana Putri

Abstract

Background Tofu it was a common food consumed by the public, the other case because the price is affordable and also the factor of natural protein content is high enough. Based on the results of the investigation and laboratory testing conducted and Drug Administration Center for Food (BPOM) in Jakarta in 2011 found a number of food products that use formaldehyde as a preservative in the tofu. Formaldehyde is a solution which not surprisingly colorful and smell the stench was terrible.

Objective Formaldehyde is known as a weed killer ingredient (disinfectant). Minister of health regulation No. 1168 in 1999 about amendments to Minister of Health Regulation No. 722 in 1988, there are some additional materials that are prohibited for use in foodstuffs such as formaldehyde.

The purpose of study was to assess knowledge of the community to know that contain formaldehyde.

Methods The experiment was conducted in Banjar Kaja Sesetan Denpasar in 2012. This study is a type of Descriptive study using Cross Sectional design. The types of data collected are the primary data obtained directly from the subject of research. The data was collected by interviews and questionnaires conducted by interviewer.

Result of research shows that the characteristics of respondents base on the group of age between the age 30 -38 years about 38 people (63%). Level of basic education (Primary and secondary) 32 people (53%). And worker's mostly self-employed about 28 people (46%). The knowledge of respondents about tofu containing sufficient formaldehyde with enough categories such as 55 people (90%), good knowledge of such as 6 people (10%) and respondents who have no knowledge about the formaldehyde was less.

Conclusion that the percentage of respondents knowledge about tofu that containing formaldehyde is to have sufficient criteria (90%).

Keywords : *Knowledge, Tofu, Formaldehyde*

HUBUNGAN KADAR KREATININ DENGAN HEMOGLOBIN PADA PENDERITA GAGAL GINJAL KRONIK DI RSUP SANGLAH

Kadek Mirah Nursiana Dewi Suatra., I.G.A Dewi Sarihati., Jannah Sofi Yanty

Abstract

Background Chronic renal failure is a clinical condition that is irreversible renal damage. Kidney damage is known from the value of LFG decreased, resulting in increased levels of creatinine. In addition the interference is not only with the increase in creatinine, but also affect to secretion of the hormone erythropoietin which is formed by cells in tissue peritubulus interstisium kidneys, resulting in decreased levels of hemoglobin.

Objective of this study to determine the relationship between creatinine levels with hemoglobin levels in patients with chronic renal failure.

Methods descriptive analytical. Secondary data examination creatinine and hemoglobin levels obtained from the medical records of patients with chronic renal failure who are hospitalized during the month of March 2012. The data were statistically analyzed using Pearson Product Moment Correlation to determine the correlation between creatinine levels with hemoglobin levels in patients with chronic renal failure.

Result Data obtained 33 patients with chronic renal failure hospitalizations, including as many as 27 people-sex male and 6 female. The average value of serum creatinine 13.4 mg / dL and the mean hemoglobin level 9.5 g%. The results obtained 0.491 correlation means there is a relationship between creatinine levels with hemoglobin levels in patients with chronic renal failure with a significance of $p = 0.004(p < 0.01)$.

Conclusion that there is a relation between creatinine levels and hemoglobin patients with chronic renal failure in Sanglah Hospital.

Keywords: *Levels of creatinine; Hemoglobin Levels; Chronic Renal Failure*

**PERBEDAAN HASIL PEMERIKSAAN LAJU ENDAP DARAH (LED)
YANG DIPERIKSA SEGERA DENGAN PENUNDAAN
WAKTU SELAMA 2 DAN 3 JAM**

Ni Kadek Juliantari., I.G.A Dewi Sarihati., Nur Habibah

Abstract

Background The delay time is one of the errors on the pre-analytical phase that could lead to misinterpretation of the results of laboratory test. ESR checks the deadline for the examination after blood sampling was performed 2 hours. If the accumulation of samples, the limitations of the equipment and dispatch of samples to laboratories that are not immediately there will be a delay of up to 2 and 3 hours.

Objective to determine the differences in results of the LED were examined immediately by a time delay for 2 and 3 hours.

Methods This type of research is a quasi experimental with posttest only design. Stratified sampling was done in this study. In the statistical tests using a repeated anova, the probability value obtained was 0,000 ($p < 0,05$).

Result showed significant difference from the results of the ESR in the three treatment groups were examined immediately by a delay time for 2 and 3 hours. Paired wise comparison test used to find out the different treatment groups. The test analysis showed significant difference with value of $p = 0,000$ ($p < 0,05$) between groups that were examined immediately with the group that delayed 2 hours and 3 hours, and between delayed group 2 hours and 3 hours.

Conclusion that are differences in the results of the ESR were examined immediately by a time delay for 2 and 3 hours, differences occurred in all three treatment groups.

Keywords : *delay time ; erythrocyte sedimentation rate (ESR)*

**TINJAUAN KADAR GLUKOSA DARAH SEWAKTU PADA
MAHASISWA JURUSAN ANALIS KESEHATAN
POLTEKKES DENPASAR**

Ni Ketut Nik Lestari., I.G.A Dewi sarihati., Burhannuddin

Abstract

Background Random blood sugar levels test is one of the examinations of blood glucose levels which are most often used to detect diabetes early.

Objective to determine the random blood sugar level on student in Health Analyst Department at the Poltekkes Denpasar.

Methods Research methods are used descriptive study in which random blood sugar levels were examined to students in health analyst department Poltekkes Denpasar. The research from February to June 2012 with a sample of research 57 people represent 50% of the population of students in Health Analyst in Poltekkes Denpasar.

Result showed that the samples were examined from 57 samples of students who has random blood sugar ranges from 75 mg/d-190 mg/dl by the number of samples that include the category is not DM 20 (35.09%) and including the uncertain category DM 37 people (64.91%) with an average of 106.79 mg / dl. Descriptive statistics and results of blood sugar content in the samples nuchter's range is 115 mg / dl, mean 106.79 mg / dl, mode 90 mg / dl, median 100 mg / dl, with a deviation standard of 27.19.

Conclusion random blood sugar level on Student in Health Analyst at Poltekkes Denpasar still classified in the category are not DM and uncertain DM.

Keyword: *random blood sugar content, students*

**HUBUNGAN KADAR HEMOGLOBIN DENGAN PRESTASI BELAJAR
SISWA SDN 2 RENDANG KARANGASEM
(Studi Kasus Tahun 2011/2012)**

Ni Komang Ayu Fitri Prathiwi., I.G.A Sri Dhyana Putri., Heri Setiyo Bekti

Abstract

Background Hemoglobin content less than normal is called anemia. Problem of iron deficiency anemia is closely related to the level of concentration therefore contributes to a child's intelligence and academic achievement in school.

Objective of this study is to determine whether there is a correlation between hemoglobin content with student learning achievement at elementary school 2 Rendang Karangasem.

Methods of research conducted was survey research using Cross Sectional design in which data relating to the dependent and independent variables will be collected in a common and directly. At the same time sample is class V and VI students the amount was to 41 people. Tested using the test statistic with fisher exact test. Students who have normal hemoglobin content as many 61%, while students who have low hemoglobin content as much 39%.

Result of collecting and recording the average value of report card known that students who have an average value of as much as 29% report card good, enough as much as 44%, minus as much as 27%.

Conclusion are known to exist the correlation of hemoglobin content with student achievement Junior High School 2 Rendang Karangasem Students who have normal hemoglobin content are likely to have better student learning achievement than of the students who have low hemoglobin content (anemia).

Keyword: *hemoglobin, learning achievement*

**TINJAUAN TENTANG PERBEDAAN WAKTU SAMPLING DAN
KUALITAS BAKTERIOLOGIS AIR ISI ULANG
DI KECAMATAN DENPASAR SELATAN
KOTA DENPASAR TAHUN 2012**

Ni Komang Juniawati., Nyoman Mastra., Heri Setiyo Bakti

Abstract

Background There is not enough source of water that can be used in Denpasar City especially in South Denpasar District forces the development of refreshment stand drinking water. By refreshment stand drinking water, the people can get drinking water quickly. However, most of them do not know the quality of their drinking water. The quality of the refill drinking water that is being sold effects on the people health who drink it. They must realize it to avoid diseases caused by water such as gastroenteritis (diarrheic, cholera, typhus). The laboratory observation to the refill drinking water that was done by the local government clinic in South Denpasar District in 2011 due to; in local government clinic I Denpasar Selatan found about 5 samples contain positive coliform from 10 samples being observed, local government clinic II South Denpasar found about 1 sample contain positive coliform from 10 samples being observed, local government clinic III South Denpasar found about 3 samples contain positive coliform from 10 samples being observed, and local government clinic IV South Denpasar found about 4 samples contain positive *coliform* and *E. coli* from 10 samples being observed.

Objective This research discuss about the bacteriology quality of the refill drinking water based on time sampling where the time sampling is determined by the row materials changing process.

Methods Time sampling is determined because the writer wants to know about the difference bacteriology quality among the first and the second time sampling as long as 14 days. The research is descriptive one where the writer did observation to the refill drinking water samples in bacteriology side.

Result This research was done for 2 weeks by the water samples were taken twice in every seven days. The first observation, there were 17 water samples contained 41.2% coliform that is not obey the Indonesian Health Minister Policy No. 492/MENKES/PER/IV/2010, and the second observation, there were 17 water samples samples contained 30% coliform that is not obey the Indonesian Health Minister Policy No. 492/MENKES/PER/IV/2010.

Conclusion By knowing the result of the research, the writer suggests to the people to be able to choose refill drinking water properly and safety.

Keywords: *time sampling, bacteriology quality, the refill drinking water*

**PENGARUH BERBAGAI KONSENTRASI AIR PERASAN DAUN SIRIH
(*Piper Betle Linn*) TERHADAP PERTUMBUHAN *Staphylococcus aureus*
SECARA IN VITRO**

Ni Luh Sugiari., Nyoman Mastra., Burhannuddin

Abstract

Background Disease effect of infection represent one of the health area internal issue which continue to expand. Most disease of infection in Indonesia because of bacterium. *Staphylococcus aureus* (*S. aureus*) representing one of bacterium cause of infection.

Objective of this research is to know influence various concentration irrigate extract of betle leaf (*Piper Betle Linn*) in pursuing growth of *Staphylococcus aureus*.

Methods which is used in this research is method of dilusi. Usage of concentration irrigate extract of betle leaf made differ to give influence storey;level which is berada also to growth of bacterium of *Staphylococcus aureus*. Concentration which is used in this research is 40%, 60% and 80%.

Result of from this research indicate that at all of used concentration in comparison with negative control show the amount of colony spanned the amount of very far from masing - used concentration masing. Growth of real correct bacterium - correctness pursued by at concentration 80%. From result of this research indicate that concentration excelsior irrigate extract of betle leaf hence growth of bacterium of *Staphylococcus aureus* is progressively pursued because more and more active materials in condensation test with concentration 80%. If this result is tested by using statistical test of anova way one got by value of sig equal to 0,000 if this result is compared to signifikan (α 0,05) hence this result show the existence of influence various concentration to growth of bacterium of *Staphylococcus aureus* because result of sig < 0,05.

Conclusion in this research is that concentration 80% correctness - real correct can pursue bacterium plant.

Keywords: *concentration; leaf of betle; Staphylococcus aureus*

**PERBEDAAN BERBAGAI KONSENTRASI EKSTRAK BAWANG PUTIH
(*Allium sativum linn*) TERHADAP ZONE HAMBATAN
PERTUMBUHAN *Escherichia coli***

Ni Made Dwijayanti., I Wayan Merta., Nyoman Mastra

Abstract

Background *Allium sativum linn* is a well know advantageous herbal . Previous studies show that *Allium sativum linn* had antibacterial effect to *Escherichia coli*.

Objective of this research was to know the differentiation of mully concentrate garlic extract (*Allium sativum linn*) against zone inhibition germination to *Escherichia coli*. This research was an experimental study with posttest only control group design with difusi disk method .

Methods The sample of this experimental study was extract of *Allium sativum linn* with mully concentrate. The antibacterial activity test uses difusi disk method , these were divided into five test group with concentration 20% , 40% , 60% , 80% , 100% , positive control , and negative control . Minimum Inhibition Consentration was determined by ability to prevent *Escherichia coli* from growing on Mueller Hinton Agar .

Result Statistic analysis was done by using One Way Anova test and LSD (Least Significant Different) . Concentration of effective or sensitive is concentration 20% significantly inhibited bacterial growth and had a sensitive compared to positive control.

Conclusion All concentration did show different ability in bactericidal activity . Minimum Inhibition Concentration to *Escherichia coli* is concentration 20% .

Keywords : *concentrate, garlic, Escherichia coli*

HUBUNGAN ANTARA KARAKTERISTIK DENGAN KADAR ASAM URAT PADA LANSIA DI BANJAR SANGGING, DESA KAMASAN, KECAMATAN KLUNGKUNG

Ni Made Enny Santiari., Cok Dewi Widhya Hana Sundari., Jannah Sofi Yanty

Abstract

Background The number of elderly currently based on Central Statistics Agency (in Indonesia called Biro Pusat Statistik or BPS) are 14,439,967 people. One of disease that often experienced by the elderly is on the joint disease. Almost 8% of 23 million persons aged 50 and over have a complaint to the ligaments. In Banjar Sangging most elderly painter aged 50 or over is often complain about tingling and pain in the knee joints or toes.

Objective to determine the relationship between the characteristics of the uric acid levels in the elderly in Banjar Sangging, Kamasan village, subdistrict of Klungkung.

Methods The study type of a deskriptif research, approach to the cross sectional. The results of the characteristics of the age category of uric acid in the elderly in the test statistic using Chi Square test results obtained $P=0.825$, the characteristics of the Body Mass Index results obtained $P=0.128$, the results of gender characteristics results obtained $P=0.710$, The results of the education levels results obtained $P=0.551$. For the results of research job with results obtained $P=0.467$ and the results of the favorite foods uric acid levels in the elderly results obtained $P=0.000$.

Result Characteristics of the elderly in Banjar Sangging: age, gender, body mass index (BMI), education level, occupation and favorite foods. Uric acid levels in women ranged from 3.3 to 12.2 mg / dL while males ranged from 4.4 to 11.5 mg / dL. The analysis of the characteristics of elderly people with high levels of uric acid there is no significant relationship between the characteristics of age, body mass index (BMI), gender, education level, work with uric acid levels in the elderly in Banjar Sangging, Kamasan village, subdistrict of Klungkung.

Conclusion favorite food there is a significant relationship between favorite foods with uric acid levels in the elderly in Banjar Sangging, Kamasan village, subdistrict of Klungkung.

Keywords : *elderly people characteristic, elderly, level of uric acid*

PERBEDAAN KADAR VITAMIN C MINUMAN BUBUK INSTAN PADA BERBAGAI SUHU PELARUT

Ni Made Sri Dwijastuti., I Gede Sudarmanto., I.G.A Sri Dhyana Putri

Abstract

Background Heat can increase the oxidation rate of vitamin C. Ascorbic acid and dehydroascorbic acid are easily oxidized in a reversible reaction which retains their activity as an antioxidant. When dehydroascorbic acid is oxidized to diketogulonic acid, they no longer have biological activity. Therefore, dissolving instant beverage with hot water can damage and reduce the amount of vitamin C in the beverage.

Objective This research aims to determine the differences of vitamin C levels at the instant beverage which diluted with various solvent temperatures.

Methods The type of this research is experimental with posttest-only with control design. The treatment is diluted with hot, warm and cold water. As a control the instant beverage diluted with normal temperature water.

Result obtained the average levels of vitamin C in hot temperature is 0.47% w / w to the weight of instant beverage powder, in warm 0.48%, in cold 0.51% and 0.50% at control.

Conclusion There was no significant difference between the levels of vitamin C in the group that was dissolved in hot water and vitamin C levels in the control group. Similarly, the levels of vitamin C in the group that was dissolved in warm water and the group dissolved in cold water also no significant difference in levels of vitamin C in the control group.

Keywords: *vitamin C; instant beverage; temperature.*

**PENGARUH BERBAGAI KONSENTRASI AIR PERASAN KUNYIT
(*Curcuma domestica Val*) TERHADAP PERTUMBUHAN
BAKTERI *Salmonella typhi***

Ni Made Yanti Astini., I Gede Sudarmanto., I.G.A Dewi Sarihati

Abstract

Background Infection still become the problem of health in Indonesia, one of them is typhoid fever because of bacterium *Salmonella typhi*. In general, infection can be healed by using antibiotic. But usage of antibiotic inappropriate study therapy give a dangerous side effect. Therefore, require to be developed to find medication alternative like using turmeric plant owning compound of antibacterial.

Objective to know the effect of various concentration turmeric water (*Curcuma domestica Val*) that is ; 20%, 40%, 60%, 80%, and 100% to growth of bacterium *Salmonella typhi*.

Methods in use is research experimental with Complete Randomized Design where this device is often used for experiment in laboratory. Sample in research are bacterium *Salmonella typhi*, bacterium given by treatment and then in change research that happened by see the bacterium resistance zone in MHA (Muller Hinton Agar) medium.

Result there is no bacterium resistance zone (bacterium resistance zone is 0 mm). That result given an abnormal distribution data according Kolmogorov Smirnov Test, and then data tested with Kruskal Wallis test and produce value of signification or probability (p) is $1,000 > 0,05$.

Conclusion that there is no effect of various concentration turmeric water (*Curcuma domestica Val.*) to growth of bacterium *Salmonella typhi*

Keywords : *Turmeric Water (Curcuma domestica Val), Bacterium Salmonella typhi, The disk diffusion method*

**TINJAUAN PEMERIKSAAN DARAH SAMAR PADA PENDERITA
DENGAN DUGAAN PERDARAHAN SALURAN CERNA
DI RSUP SANGLAH TAHUN 2012**

Ni Putu Eva Wiyatni., I.G.A Dewi Sarihati., Jannah Sofi Yanty

Abstract

Background Gastrointestinal bleeding can result from several diseases. Preliminary studies in Sanglah Hospital is obtained patient samples gastrointestinal disorders reach 5-8 samples per day and the sample suspected gastrointestinal bleeding of at least one sample per day.

To detect the presence of gastrointestinal bleeding occult blood examination.

Objective to determine the outcome of the examination and diagnosis of occult blood in order to carry disease prevention for at risk result.

Methods of this study is descriptive method. Test results were analyzed and expressed in percentage.

Result Diagnosis of disease with the greatest number is the number of suspected ALL is 4 samples from a total of 20 positive samples with a percentage result is 20% and the percentage of diagnosis of pneumonia by 15%. Both diagnoses were examined because of suspected occult blood bleeding. This results suggest that ALL diseases and pneumonia acquired symptoms of gastrointestinal bleeding.

Conclusion For the community should be vigilant to prevent the occurrence of gastrointestinal bleeding.

Keywords: *percentage, diagnosis of disease, occult blood*

**PERBEDAAN KADAR ALKOHOL HASIL FERMENTASI UBI KAYU
(*manihot esculenta crantz*) BERDASARKAN WADAH DAUN PISANG
DAN PLASTIK**

Ni Putu Lilik Fitriani., Ni Ketut Rusminingsih., I.G.A. Sri Dhyana Putri

Abstract

Background Alcohol is one result of fermentation of carbohydrate-containing foods including cassava.

Objective to detect levels of alcohol difference from cassava fermentation product using banana leaf and plastic containers.

Methods In this research cassava fermentation using yeast during 3 days with difference container, before it is cooked by steaming. After that alcohol in tapai determined by gas chromatography method.

Result show that alcohol product from cassava fermentation using banana leaf container is 1.47% ; 0.66% ; 3.30% ; 1.31% ; 2.33% ; 0.72% ; 2.61% ; 1.48% ; 3.54% ; 4.16% and alcohol product from cassava fermentation using plastic container is 3.03% ; 4.33% ; 4.81% ; 4.17% ; 4.99% ; 5.97% ; 4.28% ; 3.72% ; 4.31% ; 5.33%.

Conclusion For people who want to make tapai with a lower levels of alcohol should use banana leaf as the fermentation container.

Keywords : *Alcohol, fermentation, cassava*

**ANALISIS KADAR GULA REDUKSI BUAH PISANG KEPOK KUNING
(*Musa x paradisiacal*) DENGAN PEMERAMAN KALSIUM KARBIDA
DAN DAUN GAMAL**

Ni Putu Pina Martini., I.G.A Sri Dhyana Putri., Nur Habibah

Abstract

Background Kepok banana's including klimateric fruit. The maturation process does not wait ripen on the tree. Ripe on the tree will be quickly attacked by insects or rot, quality of banana that ripen on the tree is lower than the fruit that ripen after picking. So necessary to ripening.

Objective to determine the reduction sugar content kepok banana's ripening of calcium carbide and glyricidia leaves.

Methods This type of study is experimental research with complete randomized block design. This study uses three treatments and two replications. In this research, conducted laboratory test by the titration of Luff Schoorl method. The data analysis using Kolmogorov Smirnov (KS) obtained all these results have a number $p > 0,05$ which can be stated that the data are normally distributed. Then the data processed using One Way ANOVA test to determine differences between reduction sugar content ripening of calcium carbide and glyricidia leaves with three duration of ripening (0, 3, and 6 days).

Result obtained that acquired all of Sig 0,000 ($\text{sig} < 0,05$) so that H_0 is rejected. These results indicated difference between the reduction sugar content without ripening, ripening of calcium carbide and glyricidia leaves.

Conclusion that the real effect from different of ripening to reduction sugar content on kepok banana's.

Keywords: *kepok banana's, ripening, calcium carbide, glyricidia leaves*

PERBEDAAN HASIL PEMERIKSAAN KADAR ETANOL PADA ARAK DENGAN METODE KROMATOGRAFI GAS DAN METODE BERAT JENIS

Putu Agus Arya Pradipta., Ni Ketut Rusminingsih., Nyoman Mastra

Abstract

Background Drinking habits had been there all along. Arak is one type of liquor and arak is balinese liquor. Manufacture of arak could be produced by cottage industries. The cottage industry that produces arak usually uses a simple gauge to measure the levels of ethanol contained in arak. Commonly used measure is alcoholmeter. Alcoholmeter using the principle of measuring the of ethanol in arak. However, in the laboratory there is a special tool for measuring the content of pure ethanol in arak that is using gas chromatography method.

Objective to determine differences in the results of ethanol content in arak using gas chromatography method and the method of specific gravity.

Methods cross sectional design. Arak samples used were home-based arak production, amounting to seven samples. Seven arak samples were examined using gas chromatography method and the method of specific gravity, get 14 results of ethanol. Statistical test used Mann Whitney U with the significance level $\alpha = 0.05$. The average results of the ethanol content in arak using the method of specific gravity is 25.14% and the average results of the ethanol content in arak using gas chromatography method is 42.22%.

Result showed no significant difference in the results of the ethanol content in arak using gas chromatography method and the method of density, $p = 0.018$ ($p < 0.05$). From seven samples, two samples include groups B and five samples include groups C. The samples belong to this class arak classification based on levels of ethanol contained in arak is expressed in percent (%).

Conclusion no significant difference in the results of the ethanol content

Keywords: *ethanol content; arak; gas chromatography; specific gravity*

HUBUNGAN ANTARA HIGIENE PERORANGAN DENGAN TINGKAT KECACINGAN ANAK SISWA SDN 2 TEGALLINGGAH, KECAMATAN KARANGASEM, KABUPATEN KARANGASEM

Putu Agus Gradian Wijaya., Cok. Dewi Widhya H.S., Heri Setiyo Bekti

Abstract

Background Based on Health Departement of Karangasem city, prevalence of helminthic level in Karangasem district is 0,1% from the population in Karangasem district. In Puskesmas Tegallinggah village, Karangasem district, Karangasem city, in 2011, found helminthic infections case in 20 child.

Objective to know the correlation between personal hygiene and helminthic level at students SDN 2 tegallinggah, Karangasem district, Karangasem city.

Methods of research uses analytical survey, with approach cross sectional. Samples research is students class I, II, and III that amounts to 39 students. The result of research is correlation between personal hygiene and helminthic level at students SDN 2 tegallinggah, the statistic test with fisher's excat test with probilitas 0,037. Personal hygiene students good (89,7%) and personal hygiene students bad (10,3%).

Result The result of research helminthes egg, students suspect helminthic infections (46,2%), and students not suspect helminthic infections (53,8%).

Conclusion Personal hygiene students good tend not suspect helminthic level than personal hygiene bad.

Keywords : *correlation, personal hygiene, helminthic level*

PERBEDAAN HASIL LAJU ENDAP DARAH MENGGUNAKAN CARA MANUAL TEGAK DAN DIMIRINGKAN

Putu Ayu Suryaningsih., Cok. Dewi Widhya Hana Sundari., I.G.A Dewi Sarihati

Abstract

Background Hematology test is one of the laboratory test that can be used to support a diagnostic such as Erythrocyte sedimentation rate (ESR). ESR test is a non specific test that can be useful to determine inflammatory. ESR is determined by using vertical manual method and oblique manual method. Based on ICSH (International Commitee for Standarization in Hematology,) vertical manual method is standart procedure for ESR test. To shorten time of the test, the vertical manual method changes becoming oblique manual method in the some of regency hospital laboratory. Because, the vertical manual method needs one hour to find out the result but the oblique manual method only needs seven minutes.

Objective to find out difference between the results of vertical manual method and oblique manual method.

Methods Quasi experimental study was carried out among 23 students of Health Analyst Department Poltekkes Denpasar from February to June 2012. The data were analyzed using independent samples T test.

Conclusion There is no difference result ($P>0,05$) between vertical manual method and oblique manual method.

Keywords: *ESR test; vertical manual method; oblique manual method*

HUBUNGAN ANTARA KADAR KOLESTEROL TOTAL DAN DERAJAT HIPERTENSI PADA LANJUT USIA DI PANTI WREDHA WANA SERAYA DENPASAR

Putu Cintia Marjayanti., Ida Ayu Made Sri Arjani., I.G.A Dewi Sarihati

Abstract

Background Elderly have a higher risk for hypertension. A risk factor for hypertension is the total cholesterol rate in the blood are high. The study was conducted to look at the relationship of total cholesterol rate and hypertension level in the elderly at nursing homes Wana Seraya.

Objective to analyze the correlation between total cholesterol rate and hypertension level.

Methods a descriptive correlational study method. The sampling method is purposive sampling is based on a specific consideration by criteria inclusion and exclusion on the population at nursing homes Wana Seraya Denpasar. The collecting data is using primary data through interviews and measurements of blood pressure and total cholesterol rate.

Result

Of the 30 samples, obtained the highest case in grade I hypertension with high total cholesterol rate are 10 samples or 56%. From the results of Chi Square test showed that there was no association between total cholesterol rate and hypertension level with Sig value > 0.05 .

Conclusion was no association between total cholesterol rate and hypertension level in the elderly at nursing homes Wana Seraya Denpasar.

Keywords: *elderly, total cholesterol, hypertension level*

HUBUNGAN ANTARA KARAKTERISTIK DENGAN KADAR GLUKOSA DARAH PADA LANSIA DI PANTI TRESNA WERDHA WANA SERAYA

Putu Diyan Candrasaraswati., Cok. Dewi Widhya HS., Burhannuddin

Abstract

Background The increasing of elderly population causes various health problems. One of the diseases that accompany the elderly is Diabetes Mellitus. Monitoring of DM can be done by checking the content of Blood Glucose. Panti Tresna Werdha Wana Seraya is one of the nursing homes that accept the elderly from poor families, therefore the regular health check up needs to be done.

Objective to knowing the relation between the characteristics and content of Blood Glucose of the elderly in Panti Tresna Werdha Wana Seraya.

Methods It is a survey research which uses a Cross Sectional design in which the data of dependent and independent variables will be collected at the same time. The total of study population is 50 persons and the sample is 44 persons. The checking of blood glucose is done by stick method.

Result The normal content of blood glucose of the elderly is 45.5% meanwhile the abnormal is 54.5%. Based on the Chi-Square test with 95% confident level ($\alpha=0,05$), it shows that there is a relationship between age characteristic, BMI and the family history of DM with the content of blood glucose of the elderly in Panti Tresna Werdha Wana Seraya.

Conclusion there is no relationship gender characteristic and education with the content of the blood glucose of the elderly in Panti Tresna Werdha Wana Seraya.

Keywords: *Characteristics; Blood Glucose; Panti Tresna.*

PENGARUH PROSES PEREBUSAN TERHADAP KANDUNGAN FORMALIN PADA TAHU

Putu Novi Kharisma Dewi., M. Choirul Hadi., I Wayan Merta

Abstract

Background Tofu is one of the foodstuff which in demand by society in Indonesia. As the product of food from the processed soybean, tofu has the nature of does not last long and easy to spoil or musty, so that some of the producers use the additive material to preserve the food that they produced.

The lack of the knowledge by the society and control from the related institutions, often become the dominant factors of the escape of formalin use as the food preservative in Indonesia. The society that lack of information and lack of understanding regarding the danger of formalin often did not notice in the purchasing of processed foodstuff for consumption.

Objective of this research is to find out the impact of boiling process to the formalin content of tofu.

Methods used in this research is the True Experimental Design that is by using the Design control group pre-test – post-test. The research's planning is to measure the result before the test being conducted (pre-test) and after the test being conducted (post-test). The research was conducted at UPT Analytic Laboratory of Udayana University on April 23rd until May 04th, 2012.

Result The statistic test being used in the research is the t-Test Paired test that is the average of the result of formalin examination prior to boiling of 0.4992 with deviation standard of 0.40902 and the average of the result of formalin examination after boiling of 0.1831 with deviation standard of 0.19414. From the correlation outcome (the relation of formalin content before and after the boiling process) of 0.708, then $\alpha = 0.05 > \text{sig.} = 0.000$.

Conclusion thus it is indicated that the formalin examination outcome by the boiling prior and after the process are not the same, that there is the impact of the boiling prior and after the process to the formalin content of tofu, with the degradation reaching 50.2%.

Keywords: *Tofu; Formalin; the Boiling Process.*

STUDY TENTANG KUALITAS MIKROBIOLOGIS AIR MINUM ISI ULANG DI KECAMATAN DENPASAR BARAT

Siti Hamidah Diyah., I Wayan Merta., Cok.Dewi Widhya H.S

Abstract

Background Water is an essential in life, especially human being. Community is dependent on availability of cleaning water, especially drinking water. Due to the busthe of human activities, so people tend to use drinking water refill that is ready to drink.

Objective of this study of determined the microbiological quality of drinking water refill in West Denpasar District.

Methods This research is descriptive, cross sectional approach and field work. Test is done using the MPN series 5-5-5 and 5-1-1. Primary and secondary data are obtained will be processed and analyzed with descriptive.

Result showed that 10 samples of raw water refill the obtained results of six samples are not eligible for the value MPN of 13, 63, 70, 140, 220 and 240 and four samples are eligible. For 10 samples of drinking water refills the obtained results of four samples are not eligible for value MPN of 10, 16, 27 and 38 and six samples are eligible.

Conclusion This research proves that raw water refill before treatment as much as 60% are not eligible and 40% are eligible of quality as cleaning water. While drinking water refill after treatment as much as 40% are not eligible and 60% are eligible as drinking water.

Keywords: *drinking water refill; microbiological quality.*

PENGARUH SUHU PENYIMPANAN TERHADAP NILAI *MOST PROBABLE NUMBER* (MPN) KOLIFORM SUSU SAPI PASTEURISASI

Wayan Gigih Niaga Pratama., I Gede Sudarmanto., Cok. Dewi Widhya HS

Abstract

Background Milk is a special food to humans because it delicious tastes and content balanced nutrition. However, during the process of milking and processing, can occur contamination by microorganisms. One of the bacteria as indicators of food safety sanitation is *Escherichia coli* included in Coliform bacteria that can cause damage to the milk. Pasteurization aims to reduce contamination of the milk but can not protect it permanently, so its quality is affected by the sanitation of processing, storage temperature, and storage time.

Objective to determine the effect of various cooling temperatures of Coliform MPN value of pasteurized cow's milk produced by PT. Puri Purnama.

Methods used in this research to test the value of Coliform MPN pasteurized cow's milk is stored at freezer temperature (-10°C), refrigerator temperature (2°C), and the temperature of ice cubes ($5-10^{\circ}\text{C}$). Measuring used the MPN presumptive test with Lactose Broth media were then compared with the 7388 National Standard of Indonesia in 2009.

Result showed that no effect of storage temperature on the value of Coliform MPN. After testing of 15 samples, there's no found Coliform MPN value of pasteurized cow's milk (0 colonies / 100 ml). But examination of the controls, indicated the presence of Coliform in fresh cow's milk, although still in the category for consumption based on the 7388 National Standard of Indonesia on 2009. Based on statistic measuring with Kruskal Wallis formula, probability value on this research is 1,000 ($p>0,05$).

Conclusion Non-significant results in this study, caused MPN Coliform was measuring just 24 hours after cooling storage and pasteurization done with accurate procedure that caused Coliform bacteria were killed.

Keywords: *cooling temperature, Coliform MPN, pasteurized cow milk*