



Health Science Journal of Indonesia
Volume 12, number 2 December 2021, pages 66-124, ISSN 2087-7021

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Acknowledgment of Reviewers
Volume 12, 2021

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Printed by Badan Penerbit Fakultas Kedokteran Universitas Indonesia.

Subscription: The journal is published bi-annually and should be subscribed for a full year

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E-mail: hsji.indonesia@gmail.com.

Published by: Lembaga Penerbit Balitbangkes, National Institute of Health Research and Development (NIHRD) Ministry of Health Indonesia.

Accrediting number: 1391/E/2016

Editorial Note

Molecular technology is developing very rapidly. It is now possible to use multiplex real-time RT-PCR (rRT-PCR) to detect various types of viral pathogens in parallel in a much shorter time. Multiplex rRT-PCR using a primer set and a probe targeting the RSV-A and RSV-B deep N genes can detect RSV-A and RSV-B in a single PCR reaction.

Laboratory results become very important. The delay in information on critical values of laboratory results is a significant source of danger to patients. Laboratory accreditation can affect the timeliness of reporting critical laboratory values to the doctor in charge. With re-accreditation and a series of proven training to have an impact on the timeliness of reporting critical laboratory values.

In patients with diabetes mellitus (DM), it is known that chronic inflammation is characterized by a decreased concentrate of various types of cytokines. One of the most important cytokines against infection is IFN- γ . Lagman found that there was a two-fold lower decrease in IFN- concentrations in DM patients compared to healthy people. This gives a picture that is not different where there is a decrease in IFN- γ in someone with an increase in fasting blood sugar. The decrease in IFN- γ is associated with a decrease in nitric oxide which can lead to susceptibility to *Mycobacterium tuberculosis* (M. TB).

Tuberculosis is a national health problem. Several factors can explain the differences in TB risk including socioeconomic factors as well as genetic factors. In terms of the environment, climatic factors, such as air temperature, humidity, and duration of sunlight effect take place TB in an area. DKI Jakarta and several provinces in eastern Indonesia have a higher risk of TB

The COVID-19 pandemic is forcing hospitals to exploit their resources. Limited resources make correct priority setting very important to make sure the performance of the hospital's operations and make sure the hospital moves towards the expected goals. The impact of the COVID-19 pandemic is unavoidable for hospitals. The heaviest impact is a decrease in inpatient visits and hospital service operations. Other areas affected are human resources and financial issues

The high prevalence of incomplete immunization and malnutrition in children has implications for the risk of exposure to disease in children under five. Malnutrition as cause inadequate food intake and several other predisposing factors in children is at high risk of child mortality. Incomplete immunization, male gender, and lack of cleanliness in the family room are definitely associated with lower antibody levels of measles in children.

Insufficient nutritional intake reduces the body's immunity and the body's response to make antibodies, especially in newborns and children aged 12-36 months. In addition, improved breastfeeding practices in postpartum and optimal nutrition interventions will prevent child immunity and reduce mortality from infection. The prompt and complete implementation of basic immunization is the main strategy to protect the population, including epidemic prevention.

Nicotine in cigarette smoke stimulates the body to release adrenaline which causes an increase in heart rate and blood pressure. Nicotine in cigarettes can have an appetite suppressant effect thereby reducing appetite and reducing food intake in smokers. Decreased appetite can have an impact on the level of food consumption which causes the need for food intake of smokers to become insufficient.

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QU 550.5.P6

Agustiningsih

Optimization of multiplex real-time RT-PCR for respiratory syncytial viruses detection

Health Science Journal of Indonesia 2021;12; 66-73

Latar belakang: Multiplex real-time RT-PCR (rRT-PCR) merupakan metode yang cepat, sensitif dan spesifik untuk mendeteksi lebih dari satu target patogen dalam satu reaksi PCR. Penelitian ini bertujuan untuk mengembangkan multiplex rRT-PCR virus RSV-A dan RSV-B yang merupakan patogen yang paling sering ditemukan di saluran pernafasan. Optimisasi dari primer dan probe dalam multiplex rRT-PCR diperlukan untuk mendapatkan reaksi yang optimal dalam deteksi virus RSV-A dan RSV-B.

Metode: Primer dan probe untuk multiplex rRT-PCR RSV-A dan RSV-B dipilih dan dioptimasi menggunakan software PerlPrimer dan BLAST untuk menganalisis adanya struktur sekunder serta spesifitas dari primer dan probe. Uji multiplex rRT-PCR dilanjutkan berdasarkan suhu annealing berdasarkan hasil analisis menggunakan PerlPrimer. Uji sensitifitas dilakukan dengan menggunakan DNA sintesis dari RSV-A dan RSV-B dan uji spesifitas dilakukan dengan mengetes primer dan probe terhadap virus-virus lain yang umumnya ditemukan di saluran pernafasan.

Hasil: Primer dan probe yang dikembangkan pada penelitian ini tidak membentuk struktur sekunder dan spesifik mengamplifikasi hanya RSV-A dan RSV-B. Berdasarkan kriteria primer dan probe untuk digunakan dalam rRT-PCR yaitu suhu annealing, tidak adanya pembentukan struktur sekunder, % GC content serta detection limit, uji multiplex rRT-PCR yang dikembangkan pada penelitian ini mampu mendeteksi DNA sintesis RSV-A dan RSV-B.

Kesimpulan: Multiplex rRT-PCR dengan menggunakan primer dan probe untuk RSV-A dan RSV-B dapat mendeteksi RSV-A dan RSV-B dalam satu reaksi PCR

Kata kunci: multiplex, real-time RT-PCR, RSV-A, RSV-B

WK 810

Nelly Marissa, Marlinda, Maulidar, Veny Wilya, Nur Ramadhan, Zain Hadifah

Interferon gamma concentration in Diabetes Mellitus and Dyslipidemia patient

Health Science Journal of Indonesia 2021;12; 74-80

Latar belakang: Penderita diabetes mellitus (DM) dan dyslipidemia mengalami inflamasi kronik yang ditandai dengan perubahan konsentrasi berbagai sitokin. Hal ini yang menyebabkan perubahan imunitas tubuh sehingga mudah mengalami infeksi. Salah satu sitokin yang paling berperan terhadap infeksi adalah interferon gamma (IFN- γ). Penelitian ini bertujuan untuk memeriksa konsentrasi IFN- γ pada penderita DM dan dislipidemia.

Metode: Sebanyak 234 orang yang melakukan pengobatan di puskesmas di Kota Banda Aceh pada tahun 2019 diikuti sertakan dalam penelitian ini. Dari setiap responden dilakukan pengambilan darah sebanyak 5 ml untuk dilakukan pemeriksaan kadar gula darah puasa (KGD P), trigliserida, *high density lipoprotein* (HDL), dan inrferon- gamma (IFN- γ). Pemeriksaan KGD, trigliserida, HDL dilakukan dengan metode enzimatik kolorimetrik. Pemeriksaan konsentrasi protein IFN- γ menggunakan teknik sandwich *Enzyme-linked immunosorbent assay* (ELISA).

Hasil: Konsentrasi IFN- γ pada kelompok non-DM lebih tinggi dibandingkan dengan kelompok

DM. Terdapat perbedaan bermakna antara rata-rata konsentrasi IFN- γ pada kelompok non-DM dibandingkan dengan kelompok DM ($p=0,000$). Semua penderita DM mengalami peningkatan KGD P, sebagian besar mengalami hipertrigliserida, namun kadar HDL normal. Pada kelompok KGD P < 126 mg/dl memiliki konsentrasi IFN- γ yang lebih tinggi dibandingkan dengan kelompok dengan KGD P ≥ 126 mg/dl. Terdapat perbedaan bermakna perbedaan konsentrasi IFN- γ antar kedua kelompok tersebut ($p=0,000$). Kelompok dengan kadar trigliserida < 150 mg/dl memiliki kadar IFN- γ lebih rendah dibandingkan dengan kelompok dengan kadar trigliserida ≥ 150 mg/dl. Terdapat perbedaan bermakna antara rata-rata konsentrasi konsentrasi IFN- γ antar kedua kelompok tersebut ($p=0,000$). Pada kelompok KGD P ≥ 126 mg/dl dan trigliserida ≥ 150 mg/dl memiliki kadar IFN- γ yang lebih tinggi dibandingkan dengan kelompok KGD P ≥ 126 mg/dl namun trigliserida < 150 mg/dl. Terdapat perbedaan bermakna antara rata-rata konsentrasi konsentrasi IFN- γ antar kedua kelompok tersebut ($p=0,000$).

Kesimpulan: Terdapat perbedaan konsentrasi IFN- γ pada orang dengan DM, peningkatan KGD P dan dislipidemia dibandingkan dengan orang normal.

Kata kunci: IFN- γ , diabetes mellitus, dislipidemia.

QY 70

Wahyu Febrianto, Menis Rahmawati, I Gede Sastrawan, Tita Hariyanti

The importance of hospital re-accreditation: improving the timeliness of laboratory critical value reporting

Health Science Journal of Indonesia 2021;12; 81-7

Latar belakang: Keselamatan pasien merupakan isu utama dalam pelayanan kesehatan. Tertundanya komunikasi hasil nilai kritis laboratorium merupakan sumber bahaya yang signifikan terhadap pasien. Penelitian ini bertujuan untuk membandingkan ketepatan waktu pelaporan nilai kritis laboratorium sebelum dan setelah reakreditasi sebagai salah satu indikator mutu di RS X.

Metode: Penelitian dilakukan dengan cara observasional dengan metode cross sectional di RS X

pada Januari - Februari 2020 dengan total sampling laporan nilai kritis kepada Dokter Penanggung Jawab Pasien (DPJP) yang berasal dari ruang Intensive Care Unit (ICU), Verlos Kamer (VK), dan ruang rawat inap 1 – 6 sejak Januari – Desember 2019. Ketepatan waktu pelaporan dihitung sejak hasil pemeriksaan didapatkan hingga diterima oleh DPJP dalam waktu ≤ 30 menit dan dinyatakan sebagai “Tepat Waktu” atau “Terlambat”.

Hasil: Selama tahun 2019, terdapat 816 pelaporan yang dilakukan sebelum akreditasi (511) dan setelahnya (305) dengan 17 jenis pemeriksaan. Pemeriksaan trombosit menjadi yang paling banyak dilaporkan yaitu 349 (sebelum akreditasi) dan 101 (setelah akreditasi), sedangkan SGOT/SGPT dan albumin menjadi yang paling sedikit. Persentase ketepatan waktu pelaporan paling rendah adalah 76,00% (Februari) sedangkan yang paling tinggi adalah 98,48% (November). Persentase ketepatan waktu pelaporan didapatkan 84,34% (sebelum akreditasi) dan 94,43% (setelah akreditasi). Hasil analisis statistik didapatkan korelasi Pearson Chi-Square 18,535 dengan signifikansi 0,000 dan Odds ratio 3,145 menunjukkan re-akreditasi mampu meningkatkan kemungkinan ketepatan waktu pelaporan nilai kritis sebesar tiga kali lipat.

Kesimpulan: Hal ini menunjukkan bahwa re-akreditasi mampu mempengaruhi ketepatan waktu pelaporan nilai laboratorium kritis kepada DPJP.

Kata kunci: re-akreditasi, nilai kritis, laboratorium, keselamatan pasien, rumah sakit.

WC 506

Aryo Dewanto, Yudi Setyawan, Viera Wardhani

Priority setting in responding crisis: a hospital leaders' perspective at the early stage of COVID-19 pandemic

Health Science Journal of Indonesia 2021;12; 88-96

Latar belakang: Pandemi COVID-19 melanda Indonesia ketika rumah sakit berusaha menyesuaikan diri dengan lingkungan yang berubah setelah penerapan sistem jaminan kesehatan baru sebagai upaya pemerintah untuk mencapai Universal Health Coverage. Akibatnya, pandemi memaksa rumah sakit untuk mengeksploitasi sumber daya mereka.

Sumber daya yang terbatas membuat penetapan prioritas yang akurat menjadi sangat penting untuk menjamin keberlangsungan operasional rumah sakit dan memastikan rumah sakit bergerak menuju tujuan yang diharapkan. Penelitian ini bertujuan untuk mengeksplorasi seberapa dalam dampak krisis ini terhadap rumah sakit dan bagaimana pemimpin rumah sakit di Indonesia menetapkan prioritasnya dalam merespon dampak pandemi ini.

Metode: Penelitian ini menggunakan pendekatan deskriptif dan analitik. Data dikumpulkan melalui survei online dari pimpinan rumah sakit dan beberapa sumber dokumenter.

Hasil: Hasil penelitian menunjukkan bahwa hampir semua direktur rumah sakit menganggap kunjungan pasien dan pembiayaan rumah sakit mendapat dampak paling signifikan dari pandemi COVID-19. Namun, direktur rumah sakit pemerintah menekankan bidang yang berbeda dibandingkan dengan direktur rumah sakit non-pemerintah. Direktur rumah sakit pemerintah menetapkan prioritas mereka pada sumber daya manusia rumah sakit, kualitas layanan, dan operasi, sedangkan direktur rumah sakit non-pemerintah fokus pada dampak kunjungan pasien dan keuangan rumah sakit.

Kesimpulan: Meskipun direktur rumah sakit pemerintah dan non-pemerintah memiliki penekanan yang berbeda, tetapi prioritas mereka sama yaitu menjaga keberlanjutan rumah sakit untuk memberikan pelayanan yang berkualitas kepada masyarakat.

Kata kunci: pandemi COVID-19, perspektif pemimpin rumah sakit, dampak, Indonesia, penetapan prioritas.

WC 580

Ni Ketut Aryastami, Prisca Petty Arfines, Vivi Setiawaty, Siti Isfandari

Factors associated with measles antibody titers in children aged 12-36 months in Indonesia: an analysis of National Health Research 2013

Health Science Journal of Indonesia 2021;12:97-103

Latar belakang: Program imunisasi di Indonesia telah dilaksanakan sejak tahun 1956 yang dimulai dengan pemberantasan cacar yang diperluas hingga tahun 1980, termasuk campak. Pelaksanaan imunisasi dasar yang tepat waktu dan lengkap merupakan strategi utama untuk perlindungan penduduk, termasuk pencegahan Kejadian Luar Biasa (KLB). Tujuan dari penelitian ini untuk mengetahui tingkatan kekebalan antibodi Campak sebagai hasil dari kelengkapan imunisasi dasar dan faktor yang berkontribusi pada anak usia 12-36 bulan.

Metode: Penelitian ini merupakan analisis data sekunder Riset Kesehatan Dasar Indonesia (RISKESDAS) 2013. Analisis dilakukan pada sampel serologi titer antibodi anak usia 12-36 bulan yang berjumlah 229 sampel. Kriteria inklusi sampel adalah anak yang memiliki data sosiodemografi lengkap, catatan imunisasi dasar dan data titer antibodi Campak. Pemeriksaan campak dilakukan dengan metode Enzyme-Linked Immunosorbent Assay (ELISA).

Hasil: Imunisasi yang tidak lengkap, berjenis kelamin laki-laki, dan kurangnya kebersihan di ruang keluarga berhubungan bermakna dengan rendahnya tingkat antibodi campak pada anak. Setelah masing-masing variabel terkontrol, kelengkapan imunisasi (OR=1,99; p=0,018; 95% CI=1.124-3.544) dan jenis kelamin laki-laki (OR=2.0; p=0.016; 95% CI=1.137-3.515) merupakan variabel yang tetap berhubungan dengan titer antibodi secara signifikan.

Kesimpulan: Kelengkapan imunisasi memiliki hubungan yang bermakna terhadap titer antibodi Campak pada anak. Kelengkapan imunisasi merupakan upaya nyata untuk mencapai herd immunity pada anak dan mencegah wabah campak di masyarakat. Promosi kesehatan yang memadai diperlukan untuk mengubah perilaku masyarakat agar percaya akan keamanan dan pentingnya pelaksanaan imunisasi dasar lengkap bagi anak meskipun dalam kondisi pandemi.

Kata kunci: titer antibodi, imunisasi, anak usia 12-36 bulan, Indonesia, campak

WF 200

Titites Puspita, Anton Suryatma, Oster Suriani Simarmata, Ginoga Veridona, Heny Lestary, Athena Anwar, Imran Pambudi, Sulisty, Tiffany Tiara Pakasi

Spatial variation of tuberculosis risk in Indonesia 2010-2019

Health Science Journal of Indonesia 2021;12; 104-10

Latar belakang: Sebagai negara dengan jumlah kasus tuberkulosis (TB) terbesar kedua di dunia, Indonesia menunjukkan tren peningkatan notification rate di sepuluh tahun terakhir. Akan tetapi, risiko TB di 34 provinsi bisa saja berbeda-beda. Artikel ini bertujuan mengkaji variasi risiko TB di Indonesia pada tahun 2010-2019.

Metode: Data rutin TB tahun 2010-2019 dari Kementerian Kesehatan dianalisis secara deskriptif. Kasus TB didefinisikan sebagai semua tipe pasien TB. Total jumlah kasus, incidence rate (IR), dan standardized morbidity ratio (SMR) dihitung untuk tiap provinsi dan tingkat nasional selama periode tersebut. Sebaran IR dan SMR diplot di atas peta.

Hasil: Selama 2010-2019, terdapat 3.866.447 kasus TB dan IR nasional 1.523 per 100.000 populasi. Proporsi kasus dan IR terbesar ada di Jawa Barat (20,6%, 314 per 100.000) dan terkecil di Kalimantan Utara (0,2%, 3 per 100.000). Risiko TB lebih tinggi di antaranya terjadi di DKI Jakarta (SMR 1,9), Papua (1,7), Sulawesi Utara (1,7), Maluku (1,5) dan Papua Barat (1,5). Standardized Morbidity Ratio terendah ditemukan di Bali dan Yogyakarta (0,5).

Kesimpulan: Dapat disimpulkan bahwa risiko TB beragam di seluruh Indonesia selama 2010-2019, di mana DKI Jakarta dan beberapa provinsi di timur Indonesia memiliki risiko lebih tinggi. Mengingat adanya kurang lapor dalam data rutin, validasi diperlukan jika menggunakan temuan studi ini dalam intervensi di tingkat lokal.

Kata kunci: tuberkulosis, TB, standardized morbidity ratio, variasi spasial, risiko

WM 295

Relawantria Harlianti, Trias Mahmudiono, Dominikus R. Atmaka, Siti Helmyati, Mira Dewi, Cindra Tri Yuniar

The relationship of smoking duration, sleep disorders, and nutritional status of Indonesian adult men: data analysis of the 2014 Indonesian Family Life Survey

Health Science Journal of Indonesia 2021;12;111-6

Latar belakang: Di Indonesia, prevalensi merokok semakin meningkat dari tahun ketahun dan dapat menyebabkan berbagai permasalahan kesehatan, seperti gangguan tidur serta mempengaruhi status gizi seseorang. Sehingga pada penelitian ini akan diteliti hubungan antara durasi merokok, gangguan tidur, dan status gizi pada pria berusia 26–45 tahun menggunakan data sekunder dari Indonesia Family Live Survey (IFLS) tahun 2014.

Metode: Analisis dari data sekunder gelombang kelima IFLS tahun 2014. Semua 5.379 data pria berusia 26–45 tahun yang memiliki kelengkapan data antropometri, kebiasaan merokok, dan gangguan tidur diikuti dalam penelitian. Uji Chi-Square digunakan untuk menguji hubungan antara durasi merokok, gangguan tidur, dan status gizi pada pria berusia 26 – 45 tahun. Selanjutnya uji Regresi Logistik Multinomial dilakukan untuk mengetahui variabel yang memiliki pengaruh paling kuat.

Hasil: Berdasarkan hasil dari uji statistik yang dilakukan, didapatkan bahwa mayoritas responden memiliki durasi merokok selama 11-20 tahun, dimana sebanyak 27.2% esponden tidak mengalam gangguan tidur dan 25.4% mengalami gangguan tidur. Status gizi paling banyak yang dimiliki oleh responden dengan durasi merokok selama 11-20 tahun adalah normal sebanyak 35% responden dan yang paling sedikit sebanyak 0.5%r esponden memiliki status izi underweight dengan durasi merokok <5 tahun. Selanjutnya hasil uji hubungan antara durasi merokok dengan gangguan tidur didapatkan nilai p-value=0.03 dan hubungan antara durasi merokok dengan status gizi didapatkan nilai p-value<0.01.

Kesimpulan: Durasi merokok berhubungan dengan gangguan tidur dan status gizi overweight pada laki-laki usia 26 – 45 tahun

Kata kunci: durasi merokok, gangguan tidur, status gizi, penggunaan tembakau, penyakit tidur

WQ 500

Desta Ayu Cahya Rosyida, Nina Hidayatunnikmah, Khoiriyah Noviasuti

Intake of kidney bean (*phaseolus vulgaris*) extract as postpartum blues management

Health Science Journal of Indonesia 2021;12; 117-124

Latar belakang: Postpartum blues umum terjadi pada ibu postpartum dengan tanda sering menangis, khawatir yang berlebihan, emosional yang tidak stabil. Suplementasi zinc merupakan salah satu metode yang dibutuhkan untuk kondisi postpartum blues. Ekstrak kacang merah (*phaseolus vulgaris*) memiliki sumber nutrisi zinc yang tinggi, Penelitian ini bertujuan untuk menguji efek konsumsi ekstrak kacang merah (*phaseolus vulgaris*) sebagai sumber zinc sebagai manajemen ibu dengan postpartum blues.

Metode: Penelitian kuantitatif dengan design Quasi Experiment pre dan post control grup. Instrumen pengukur mood ibu setelah melahirkan adalah EPDS (Edinburgh Post-Partum Depression Scale). Total Sampel 68 ibu yang mengalami postpartum blues di Puskesmas Ngerandu Ponorogo. Analisis statistik menggunakan Mann-Whitney untuk menemukan perbedaan perubahan mood ibu postpartum blues sebelum dan sesudah dilakukan intervensi pada grup intervensi dan kontrol.

Hasil: Hasil menunjukkan bahwa terdapat perbedaan signifikan tingkat mood ibu dengan postpartum blues sebelum dan sesudah dilakukan intervensi ($p : 0,001$ ($<0,005$)). Hasil mengindikasikan bahwa konsumsi ekstrak kacang merah (*phaseolus vulgaris*) memiliki efek pada tingkat mood ibu yang sedang mengalami postpartum blues.

Kesimpulan: Konsumsi ekstrak kacang merah (*phaseolus vulgaris*) pada ibu postpartum blues memungkinkan untuk perubahan mood pada grup intervensi setelah diberikan treatment selama 1 bulan.

Kata kunci: ekstrak kacang merah (*phaseolus vulgaris*), postpartum blues, ibu postpartum

Health Science Journal of Indonesia

Volume 12, number 2, December 2021, pages 66-124

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Optimization of multiplex real-time RT-PCR for respiratory syncytial viruses detection

Health Science Journal of Indonesia 2021;12; 66-73

Background: Multiplex real-time RT-PCR (rRT-PCR) is a fast, sensitive and specific test to detect more than one target in single PCR reaction. In this study we developed multiplex rRT-PCR for RSV-A and RSV-B since those viruses are the most common pathogen found in respiratory tract. However, in order to gain optimal reaction for RSV-A and RSV-B detection, the optimization of primers and probes specific for RSV-A and RSV B are needed.

Method: The primers and probes of multiplex rRT-PCR for RSV-A and RSV-B were selected and optimized utilizing PerlPrimer software and BLAST to analyze the secondary structures and specificity, respectively. Further testing of selected primers and probes for rRT-PCR was done using annealing temperature based on in silico analysis as mentioned above. This includes sensitivity testing with the utilization of synthesized DNA of RSV-A and RSV-B and specificity testing targeting the common viruses found in respiratory tract.

Results: The primer set and probes selected for RSV-A and RSV-B detection were specific only for RSV-A and RSV-B and showed no secondary structure. Based on primer and probe criteria for rRT-PCR such as annealing temperature, no secondary structure formed, % GC content and limit of detection, the multiplex rRT-PCR test using selected primers and probes was able to detect synthesized DNA of RSV-A and RSV-B.

Conclusion: Multiplex rRT-PCR that employing primer sets and probes targeted N gene of RSV-A and RSV-B in this study were able to be detect RSV-A and RSV-B in single PCR reaction.

Keyword: Multiplex, real-time RT-PCR, RSV-A, RSV-B

WK 810

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Interferon gamma concentration in Diabetes Mellitus and Dyslipidemia patient

Health Science Journal of Indonesia 2021;12; 74-80

Background: Patient with diabetes mellitus (DM) occurs chronic inflammation by characterized a decrease concentration of various cytokinin types. This causes changes in the body's immunity so that can be easier in having an infection. One of the most important cytokines against infection is IFN- γ . This study aimed to determine IFN- γ concentration in DM and dyslipidemia patients.

Methods: An amount 234 people who received treatment at the health center in Banda Aceh in 2019 were included in this study. From each respondent, 5 ml of blood was taken to check fasting blood glucose, triglycerides, high-density lipoproteins (HDL), and interferon-gamma (IFN- γ). Test of fasting blood glucose, triglycerides, HDL was carried out using the colorimetric enzymatic method. The IFN- γ protein concentration was examined using the sandwich enzyme-linked immunosorbent assay (ELISA) technique.

Result: IFN- γ concentration in the non-DM group was higher than in the DM group. There was a significant difference between the average IFN- γ concentration in the non-DM group compared with the DM group ($p = 0.000$). All DM patients had increased fasting blood glucose, most had hypertriglycerides, but HDL levels were normal. The fasting blood glucose group <126 mg / dl had a higher IFN- γ concentration than the group with fasting blood glucose levels ≥ 126 mg / dl. There was a significant difference in the concentration of IFN- γ between the two groups ($p = 0.000$). The group with triglyceride levels <150 mg / dl had lower IFN- γ levels than the group with triglyceride levels ≥ 150

mg / dl. There was a significant difference between the average IFN- γ concentration between those groups ($p = 0.000$). The fasting blood glucose levels ≥ 126 mg / dl and triglycerides levels ≥ 150 mg / dl had higher IFN- γ concentration than the group who had fasting blood glucose levels ≥ 126 mg / dl and triglycerides levels < 150 mg / dl.

Conclusion: There are differences in IFN- γ concentrations in people with DM, increased fasting blood glucose and dyslipidemia compared to normal people.

Keywords: IFN- γ , diabetes mellitus, dyslipidemia

QY 70

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The importance of hospital re-accreditation: improving the timeliness of laboratory critical value reporting

Health Science Journal of Indonesia 2021;12; 81-7

Background: Patient safety is the main issue in healthcare services nowadays. Delaying to inform the critical value of laboratory results is a significant source of harm for the patient. The aim of this study is to compare the timeliness of laboratory critical value reporting before and after re-accreditation as one of the service quality indicators in Hospital X.

Methods: This study was done by using observational cross-sectional in Hospital X on January - February 2020 with total sampling method of critical value reporting to the responsible clinician that originated from Intensive Care Unit (ICU), Verlos Kamer (VK), and inpatient ward (IW) 1-6 from January-December 2019. The timeliness of reporting was counted since the laboratory result was obtained until received by the responsible clinician within \square 30 minutes and categorized as "On time" or "Late".

Results: During 2019, there were 816 reporting which has been done before re-accreditation (511) and after re-accreditation (305) with 17 kinds of tests. The most reported test was platelet with 349 (before re-accreditation) and 101 (after re-accreditation), whilst SGOT/SGPT and albumin were the fewest one. The lowest timeliness of reporting percentage was 76,00% (February), whilst the highest was 98,48% (November). The timeliness of reporting's

percentage was 84,34% (before re-accreditation) and 94,43% (after re-accreditation). The statistical analysis result revealed Pearson Chi-Square correlation was 18,535 with significance 0,000 and 3,145 odds ratio which shows that re-accreditation could significantly increase the timeliness of critical value reporting three times.

Conclusion: This result showed that re-accreditation could affect the timeliness of laboratory critical value reporting to the responsible clinicians.

Keywords: re-accreditation, critical value, laboratory, patient safety, hospital

WC 506

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Priority setting in responding crisis: a hospital leaders' perspective at the early stage of COVID-19 pandemic

Health Science Journal of Indonesia 2021;12; 88-96

Background: The COVID-19 pandemic hit Indonesia when hospitals were striving to adjust to a changing environment after a new health insurance system implementation, a government's effort to achieve Universal Health Coverage. As a result, the pandemic forced hospitals to exploit their resources. Due to limited resources, setting accurate priorities is highly important to secure hospital operations and maintain its track towards the expected goals. This study aims to explore how deep the crisis impacts hospitals and how hospital leaders in Indonesia set their priorities in responding to the impact of this pandemic.

Methods: This study used a descriptive and analytical approach. Data were collected through an online survey from hospital leaders and several documentary sources.

Results: The results show that almost all hospital directors consider patient visits and hospital finance the most significant impacts of the COVID-19 pandemic. However, government hospital directors emphasize different areas compared to non-government hospital directors; the former sets their priorities on the hospital's human resources, quality of service, and operations, while the latter focuses on the impact of patient visits and hospital finance..

Conclusion: Although directors of government and non-governmental hospitals have a different emphasis, their priority is the same, maintaining hospital sustainability to provide quality services to people.

Keywords: COVID-19 pandemic, hospital leaders' perspective, impacts, Indonesia, priority setting

WC 580

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Factors associated with measles antibody titers in children aged 12-36 months in Indonesia: an analysis of National Health Research 2013

Health Science Journal of Indonesia 2021;12;97-103

Background: The immunization program in Indonesia has been implemented since 1956 started to eradicate smallpox and expanded until 1980, including Measles. The timely and complete implementation of basic immunization is the main strategy to protect the population, including outbreak prevention. The purpose of this study is to determine the level immunity of Measles antibody as the outcome of completed basic immunization and its contributors in children aged 12-36 months.

Method: This study is a secondary data analysis of the Indonesia Basic Health Survey (RISKESDAS) 2013. The analysis was carried out on a serological sample of the antibody titer of children aged 12-36 months, totaling 229 samples. The sample inclusion criteria were children who had complete sociodemographics data, basic immunization records and Measles antibody titer data. Measles examination was carried out using the Enzyme-Linked Immunosorbent Assay (ELISA) method

Result: Incomplete immunization, being a boy, and lack of cleanliness in the family room were significantly associated with lower measles antibody levels in children. Having each variable controlled, completeness of immunization (OR=1,99; p=0.018; 95% CI=1.124-3.544) and gender of boy (OR=2.0; p=0.016; 95% CI=1.137-3.515) remain as significant variables for antibody's titer.

Conclusion: The completeness of immunization has a significant association towards titer antibody of Measles in children. Immunization completeness is an actual effort to reach herd immunity in children and to

prevent measles outbreak in the community. Adequate health promotion is needed to change people's behavior to believe in the safety and importance of implementing complete basic immunization for children even in pandemic conditions

Keyword: antibody titer, immunization, children aged 12-36 months, Indonesia, measles

WF 200

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Spatial variation of tuberculosis risk in Indonesia 2010-2019

Health Science Journal of Indonesia 2021;12; 104-110

Background: As the second-highest country in tuberculosis (TB) cases globally, Indonesia has experienced an increasing trend of notification rate in the last ten years; however, the 34 provinces may have different risks. This study aims to examine TB risk variation across Indonesia in 2010-2019.

Methods: A descriptive analysis was conducted on TB routine data of 2010-2019 from the Ministry of Health. Cases included all types of TB patients. Total cases, incidence rate (IR), and standardized morbidity ratio (SMR) were calculated for each province and national level during the period. Distributions of IRs and SMRs were displayed on maps.

Results: During 2010-2019, 3,866,447 TB cases occurred in Indonesia, and the national IR was 1,523 per 100,000 populations. The highest proportion of cases and IR were in West Java (20.6%, 314 per 100,000); while the lowest were in North Kalimantan (0.2%, 3 per 100,000). Higher risks of TB occurred in DKI Jakarta (SMR 1.9), Papua (1.7), North Sulawesi (1.7), Maluku (1.5) and West Papua (1.5) among others. The smallest SMRs were found in Bali and Yogyakarta (0.5).

Conclusion: TB risk varied across Indonesia in 2010-2019, with a higher risk in DKI Jakarta and several provinces in eastern Indonesia. Given the underreporting nature of routine data, a validation is required when using the finding of this study in the local-level intervention.

Keywords: tuberculosis, TB, standardized morbidity ratio, spatial variation, risk

WM 295

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The relationship of smoking duration, sleep disorders, and nutritional status of Indonesian adult men: data analysis of the 2014 Indonesian Family Life Survey

Health Science Journal of Indonesia 2021;12;111-6

Background: In Indonesia, the prevalence of smoking is increasing from year to year and can cause various health problems, such as sleep disorders and affect a person's nutritional status. So, in this study, the relationship between smoking duration, sleep disturbances, and nutritional status in men aged 26–45 years will be investigated using secondary data from the 2014 Indonesia Family Live Survey (IFLS).

Methods: The 2014 secondary data from the fifth waves of the IFLS were used for analysis. All 5,379 data of men aged 26–45 years who provided anthropometric, smoking duration, and sleep disorders were included in the study. The Chi-Square test was used to examine the relationship between smoking duration, sleep disorders, and nutritional status in men aged 26 – 45 years. Furthermore, the Multinomial Logistics Regression test is carried out to determine the variables that have the strongest influence

Results: Based on the results of statistical tests conducted, it was found that the majority of respondents had a smoking duration of 11-20 years, of which 27.2% of respondents did not experience sleep disorders and 25.4% had sleep disorders. The nutritional status of respondents with a smoking duration of 11-20 years is normal as many as 35% of respondents and at least 0.5% of respondents have underweight nutritional status with smoking duration <5 years. Furthermore, the test results of the relationship between smoking duration and sleep disturbances obtained p-value = 0.03 and the relationship between smoking duration and nutritional status obtained p-value <0.01.

Conclusion: Smoking duration was associated with

sleep disorder and overweight nutritional status in men aged 26 – 45 years.

Keywords: Keywords: smoking duration, sleep disorder, nutritional status, tobacco use, sleeping sickness

WQ 500

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Intake of kidney bean (*phaseolus vulgaris*) extract as postpartum blues management

Health Science Journal of Indonesia 2021;12;117-124

Background: Postpartum blues is common in postpartum Mother with more prone to crying, more anxious, often unstable and more emotional than usual. Zinc supplementation is one of the methods needed for postpartum blues conditions. Kidney bean (*phaseolus vulgaris*) extract has the highest zinc content. This study aimed to examine the effect of intake kidney bean extract (*phaseolus vulgaris*) as a zinc source as management mother with Postpartum Blues

Methods: Quantitative study with an experimental study design (Quasi Experiment Design) with a Pre and Post-test Control Group Design. The instrument used to measure the mood of a mother after childbirth was EPDS (Edinburgh Post-Partum Depression Scale). The total sample was 68 mothers who experienced postpartum blues in Ngerandu Ponorogo primary health care. The Mann-Whitney was used to analyse and find out the difference in mood improvement before and after the intervention in the experimental group and the control group.

Results: The results showed that there was a statistically significant difference in mood levels of mothers with postpartum blues before and after intervention (p value of 0.001 (<0.005). This result indicated that intake of kidney bean (*Phaseolus vulgaris*) extract had an effect on the mood level of mothers with postpartum blue.

Conclusion: Intake of kidney bean (*phaseolus vulgaris*) extract on the incidence of postpartum blues possibly improvement mood in the experimental group after the treatment for 1 month.

Keywords: kidney bean (*phaseolus vulgaris*) extract, postpartum blues, postpartum mother