



# SUSTAINABLE DEVELOPMENT GOALS

**3** GOOD HEALTH  
AND WELL-BEING



# Community Nutrition



During the 2023-1 semester, students from UPC's Nutrition and Dietetics program developed the "Community Nutrition" project at the Divino Jesús and San Miguel de Arcángel Residential Care Centers (CAR) of INABIF, the Barranco nursery: Cristina Carrera de Lértora, and other childcare centers.

The objective of this activity was to conduct a nutritional and situational diagnosis of the target population to provide nutritional care, guidelines, and recommendations for Permanent Care Staff (PAP) regarding the balanced diet that children should receive.



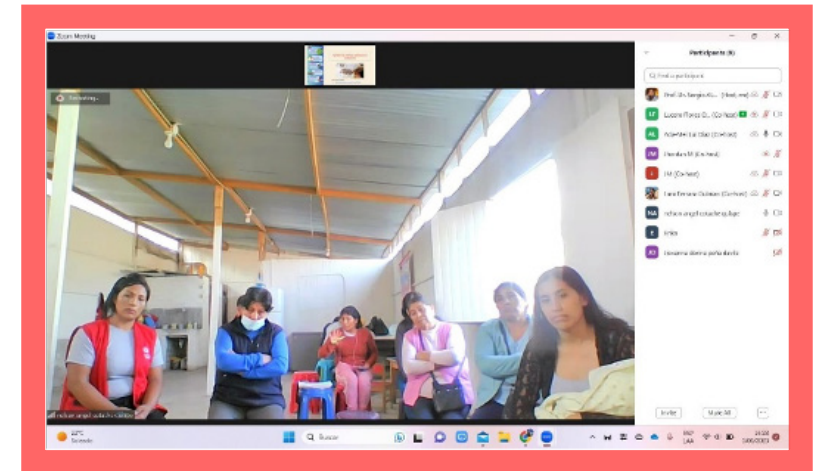
# Campaigns for the prevention and control of childhood anemia



Throughout 2023, students from UPC's Medicine program carried out various activities aimed at combating childhood anemia and malnutrition. These activities took place in AA.HH. La Rinconada and the Educational Institution 7212-627, located in the district of San Juan de Miraflores; as well as the San Genaro Maternal and Child Center, Guardería Solidaria Nursery, PRONOEI No. 9, and the Early Childhood Educational Institution 570 Integración, located in the district of Chorrillos.



Intervention projects were conducted for parents through talks, workshops, and demonstrations on preparing iron-rich foods and proper hand washing. Finally, pre and post-tests were administered to participants to disseminate the causes and reduce the prevalence, promoting proper growth and cognitive development in the children of the intervened communities.



# Campaigns for the Prevention of Overweight and Obesity



Throughout 2023, students from UPC's Medicine program carried out activities aimed at reducing mortality caused by obesity in adults aged 30 to 60 from the communities of AA.HH. Pacifico de Villa and the "Cerro de Pasco" communal kitchen, located in the district of Chorrillos.

Participatory workshops were held to analyze the nutritional value of the menu offered at the "Cerro de Pasco" communal kitchen and AA.HH. Pacifico de Villa. Body mass index, abdominal perimeter, and other risks were calculated for users of communal kitchens.

Once the problem and solution alternatives were analyzed, informative talks on obesity and diabetes prevention were given; demonstrative activities on what the ideal plate should look like were also conducted. Finally, there was an educational talk on healthy eating and a physical activity workshop.



# Reducing the prevalence of complications from acute respiratory infections in children under 5



In 2023, students from UPC's Medicine program developed an initiative aimed at reducing the prevalence of complications from acute respiratory infections in children under five years old in the AA.HH. Pacífico de Villa, located in the Chorrillos district. This initiative was carried out by disseminating knowledge about healthy practices within the community.

Once the problem was identified, the intervention included workshops on breastfeeding, immunizations, demonstrations of nutritious lunchboxes, demonstrative sessions on proper hand washing and appropriate mask usage.



# “Community Nutrition” Campaign



Between March and August 2023, the “Community Nutrition” campaign was conducted at the University Health Center (CUS) on UPC’s Villa campus. The campaign aimed to provide comprehensive nutrition-focused care for the community of Chorrillos and surrounding districts.

Patients received counseling on proper dietary habits, and an evaluation of weight, height and hemoglobin and glucose dosage was performed for all ages.

A promotional poster for a nutrition campaign. It features a woman in a white lab coat holding a green glucometer. The text is in Spanish and includes the title 'EVALUACIÓN Y ORIENTACIÓN NUTRICIONAL GRATUITA\*', the services offered 'Incluye dosaje de hemoglobina y glucosa para todas las edades', the dates 'del 13 al 23 de marzo', and contact information 'Escribenos al 941 060 119'. There are also small icons of a flame and a speech bubble with a phone handset.

**EVALUACIÓN Y ORIENTACIÓN NUTRICIONAL GRATUITA\***

Incluye dosaje de hemoglobina y glucosa para todas las edades

del 13 al 23 de marzo

\*Capacidad limitada  
\*Consultar restricciones  
\*Exámen de glucosa se realizará de 8 a.m. a 9 a.m.

Escribenos al **941 060 119**



# Informative and awareness campaign on violence, gender equality, and prevention for schoolchildren in Chorrillos district



From June to July 2023, UPC Medicine students carried out an informative and awareness campaign on violence, gender equality, and prevention, targeting adolescent students at the Educational Institution Mariano Santos, located in Chorrillos.

The campaign aimed to educate students on recognizing warning signs of sexual violence and how to respond to such situations. The awareness efforts also targeted teachers, helping them develop protective factors such as self-esteem, assertiveness, empathy, conflict resolution, and other relevant topics.



# Workshop on healthy sexuality



Between May and June 2023, UPC Medicine students conducted a participatory workshop on healthy sexuality at the Ollantay Educational Center, located in San Juan de Miraflores.

The workshop aimed to reduce sexual violence against girls aged 10 to 13, improve school coexistence, and address inappropriate behaviors inside and outside the educational institution. Thanks to the workshops, which included participation from a psychologist and social workers from the Ollantay Maternal and Child Center (CMI), a health issue affecting the population was identified.



Based on this, a community intervention project was developed to benefit the population.





# We the gamers fest



The Audiovisual Communication and Interactive Media program at UPC participated in organizing the cultural event We The Gamers Fest, showcasing entrepreneurship, activities, and gaming stations, specifically designed for young women passionate about video games.

The event aimed to create a cultural festival suitable for all audiences but specifically directed at female gamers in Peru, promoting equity, tolerance, and empathy.



# Mujer Esperanza (Woman Hope)



In June 2023, the Office of University Life organized the event “Mujer Esperanza” (Woman Hope), held in the Alcedo Hall of the Segura Theater, featuring the Peruvian singer-songwriter Luz María Carriquiry. The event aimed to give visibility to female singer-songwriters.

Additionally, it provided opportunities for information, reflection, knowledge, art, culture, sports, and entertainment to students and members of the university community.

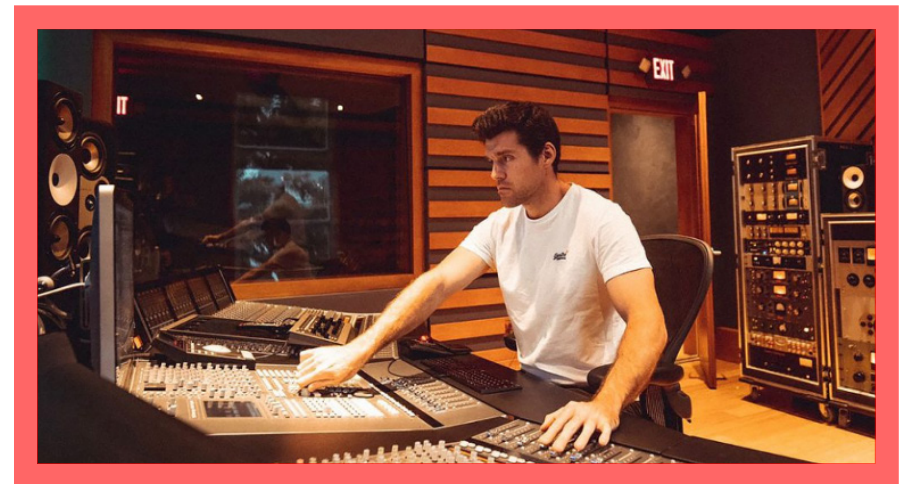
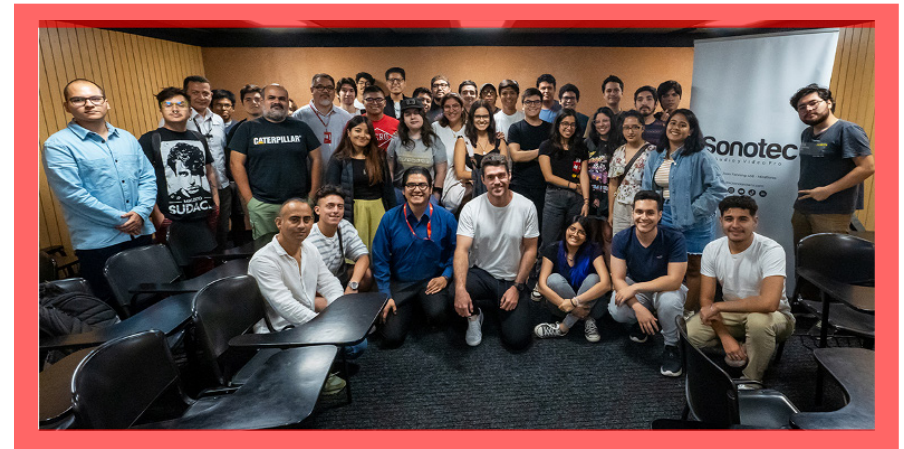


# Workshop and Discussion Panel with Lewis Pickett



The UPC Music program organized a workshop and discussion panel with Lewis Pickett, a mixing engineer, producer, and musician who has won four Grammy awards. The faculty interacted with the international speaker, a global reference in the audio industry, and together they developed topics on the benefits offered by technology in order to develop healthy habits. In this way, the various attendees were trained, who will in turn train others to spread these good practices and create a positive impact.

The goal of the event was to conduct free training workshops with national and international speakers, aimed at improving the quality of what is heard. Additionally, the workshop addressed the health issues related to auditory health, the responsible use of audio-related technology, which has a direct impact on people's auditory health. This workshop was held in partnership with and under an agreement with the company SONOTEC. The workshop was attended by educators from various educational institutions and ninth-cycle students from the Music program.



# Musicotopia



Students from the Audiovisual Communication and Interactive Media program at UPC participated in the Musicotopia Festival, an event aimed at young people aged 18 to 36.

The objective was to create a pleasant space where emerging local music bands could gain recognition. Eight bands of different genres participated.

Additionally, in partnership with the restaurant GastroSurco, university entrepreneurs were invited as vendors.



# Neurodevelopmental evaluation in patients with down syndrome



The University Health Center (CUS), in collaboration with the Physical Therapy program at UPC, conducted an evaluation aimed at children aged 0 to 10 years, assessing areas such as gross motor skills, fine motor skills, visual tracking, and auditory tracking. This, according to the parameters established by the academic part, and subsequently a patient report was provided to the families.

The objective of the activity was to identify the development of motor skills, social development parameters, language skills, coordination, among others. The beneficiary institution was the Sociedad Peruana de Síndrome de Down (Peruvian Down Syndrome Society).



# Exercise program to promote the health of the elderly



During 2023, the Physical Therapy program at UPC conducted virtual and in-person activities aimed at the elderly population to promote fall prevention and physical activity in their daily lives.

An exercise program was provided in-person at the Elderly Center and at the Alberto Park in Jesús María, supervised by a faculty member, with sessions held twice a week for one hour each.

Additionally, the Telerehabilitation Program was conducted virtually in synchronous mode via the Messenger-Facebook platform. This program was accessible to populations from various districts.



# Physiotherapeutic Intervention in CELES and CEBE



In May and December 2023, the UPC's Physical Therapy program conducted physiotherapeutic intervention activities at the Reading, Writing and Recreation Center (CELES) and the Special Basic Education Centers (CEBE), located in the districts of Chorrillos, Barranco, and Pachacámac.

The target population of the interventions were the children and adolescents at these establishments, as well as their teachers and caregivers. An initial clinical assessment was conducted on the children and adolescents.

In addition, the collected information was synthesized into reports to complement the comprehensive patient intervention, and tools and strategies were provided to consolidate knowledge in basic ergonomics in the normal development of the child and their neuro-development levels.



# Recognition Intervention in Aniquem



In February 2023, students from the Physical Therapy program at UPC conducted a recognition intervention in collaboration with the Assistance Association for Burned Children (Aniquem).

The objective of the activity was to promote health promotion, inclusion, and learning opportunities for patients and professionals involved in the care of burn patients.

An intervention project was developed and executed based on the analysis, prevention, and promotion of responsibility in diverse human groups through the use of specific strategies.

**Importancia de La Prevención:**  
El objetivo es impedir o disminuir la probabilidad de que se produzca la quemadura.

No dejar agua o bebidas calientes al alcance de los niños.

Concientizar al menor sobre el peligro de objetos o líquidos calientes.

Identifica los cables y los tomacorrientes.

Ten cuidado con las velas. Oculta los fósforos y los encendedores.

Presta atención a las parrillas y las fogatas.

Evita los fuegos artificiales en la casa, no es un juguete.

Establece zonas prohibidas para el juego.

Enseña día a día a tus hijos sobre los peligros existentes.

Practica un plan de evacuación. Enséñales a los niños a detenerse, tirarse y rodar.

**¿Cómo identificar una cicatriz patológica?**

Cicatriz rígida

Aumento anormal del grosor

Enrojecimiento inesperado

**Cultura de Prevención y Promoción de quemaduras y cicatrices**

Presentado por: **aniquem**  
Asociación de Ayuda al Niño Quemado

en conjunto con: **UPC**  
Universidad Peruana de Ciencias Aplicadas



# Learning to act in crisis and emergency situations



In June 2023, students from UPC's Psychology program conducted prevention workshops aimed at promoting a culture of preparedness among education students at the public education center Escuela de Educación Superior Pedagógica Pública de Monterrico, teachers at the Fantasilandia nursery school, neighbors of Ávila Park, and administrative staff of Mariposa Andina company.

These were conducted with a disaster risk management approach, helping to reduce psychological vulnerability behaviors and facilitating self-care during an emergency or natural disaster. The importance of being prepared for a disaster was emphasized through these workshops.



# Workshops for parents



In May and June 2023, students from UPC's Psychology program conducted workshops for parents from AA.HH. Nuevo Milenio, the Asociación Mensajeros de la Paz in Chorrillos, and the Vaso de Leche program in San Borja.

The workshops covered topics such as emotion management, sexuality, assertive communication, parent-child bonding, coexistence, and positive parenting.

The goal was to promote the development of strategies for positive parenting, conduct preventive promotional activities for the mental health benefit of the community, and develop a preventive program for parents with children with different abilities.



# Preventive oral health promotion project



In June and December 2023, UPC's Dentistry program carried out preventive oral health projects in partnership with the José María Arguedas Educational Institution in Chorrillos. The objective was to improve oral and nutritional health practices among the school's students.

Educational sessions and demonstrative workshops were conducted using pre-validated educational materials tailored to a specific population. Additionally, information was reinforced dynamically and recreationally through socialization, videos for parents, and infographics for both students and families to reach the expected competency levels.



# Campaign “Día del Cepillado” (Brushing Day)



In December 2023, UPC’s Dentistry program, in conjunction with the UPC’s University Health Center (CUS), conducted the “Brushing Day” campaign.

The aim was to educate everyone about the importance of oral hygiene and the correct technique for maintaining it. The strategy applied was an educational campaign focused on oral health care.

This campaign was conducted to commemorate “Brushing Day,” celebrated on October 27th, to promote oral health care among patients attending the UPC’s University Health Center.





# Reducing hypertension morbidity and mortality rates in Pacífico de Villa Community

From September to November 2023, UPC's Medicine students conducted a campaign to reduce morbidity and mortality rates due to arterial hypertension (AHT) in the Pacífico de Villa community, located in Chorrillos.

The goal was to contribute to reducing AHT through three key components: promoting a healthy diet, physical activity, and early diagnosis. Once the problem was identified, solution alternatives were explored through the logical framework methodology, which included educational workshops.

**HIPERTENSIÓN EN ACCIÓN, ÚNETE A LA MISIÓN**

**HIPERTENSIÓN ARTERIAL O PRESIÓN ALTA**

**FACTORES DE RIESGO**

- EDAD
- OBESIDAD
- FAMILIARES CON HIPERTENSIÓN
- COMER MUCHA SAL
- ALCOHOL Y TABACO
- NO HACER ACTIVIDAD FÍSICA

**SIGNOS Y SINTOMAS**

CUIDADO! PUEDE SER SILENCIOSA

- DOLORES DE CABEZA
- FATIGA Y MAREOS
- ZUMBIDO EN OÍDOS
- PROBLEMAS DE VISIÓN

**COMPLICACIONES**

- Corazón
- Cerebro
- Riñones

**¿CÓMO ME DIAGNOSTICO?**

- CONTROL DE PRESION ARTERIAL 1 VEZ AL AÑO
- EN MAYORES DE 40 AÑOS!!
- VALORES DE HIPERTENSIÓN: > 130/85

# Dengue outbreak intervention: surveillance and vector control



During March and April 2023, UPC's Medicine students conducted a campaign to help control the dengue outbreak in the AA.HH. La Rinconada and José María Arguedas, located in San Juan de Miraflores.

The activity involved house-to-house vector control, addressing *Aedes aegypti* breeding sites. This activity provided learning about the determinants of a dengue outbreak and the activities for its prevention and control, including fieldwork in the community.



# UPC recognized for outstanding blood donation campaign and receives certificate of appreciation from Rebagliati Hospital



The Universidad Peruana de Ciencias Aplicadas (UPC) was recognized for its outstanding participation in the voluntary blood donation campaign carried out during 2023. In a ceremony, the Edgardo Rebagliati Martins National Hospital of the Social Health Insurance (EsSalud) awarded a certificate of recognition as a token of gratitude for the solidarity of the university community.

Under the motto “Donate Today, Donate Always,” UPC called on students, faculty, administrative staff, and members of the university community in general to participate in this initiative from April 18 to 21. Donation zones were set up across the four university campuses, benefiting more than 700 people.



# Intentions to be Vaccinated Against COVID-19: The Role of Prosociality and Conspiracy Beliefs across 20 Countries



**Authors:** Enea, V.; Eisenbeck, N.; Carreno, D.F.; Douglas, K.M.; Sutton, R.M.; Agostini, M.; Bélanger, J.J.; Gützkow, B.; Kreienkamp, J.; Abakoumkin, G.; Abdul Khaiyom, J.H.; Ahmedi, V.; Akkas, H.; Almenara, C.A.; Atta, M.; Bagci, S.C.; Basel, S.; Berisha Kida, E.; Bernardo, A.B.I.

**Abstract:** Understanding the determinants of COVID-19 vaccine uptake is important to inform policy decisions and plan vaccination campaigns. The aims of this research were to: (1) explore the individual- and country-level determinants of intentions to be vaccinated against SARS-CoV-2, and (2) examine worldwide variation in vaccination intentions. This cross-sectional online survey was conducted during the first wave of the pandemic, involving 6697 respondents across 20 countries. Results showed that 72.9% of participants reported positive intentions to be vaccinated against COVID-19, whereas 16.8% were undecided, and 10.3% reported they would not be vaccinated. At the individual level, prosociality was a significant positive predictor of vaccination intentions, whereas generic beliefs in conspiracy theories and religiosity were negative predictors. Country-level determinants, including cultural dimensions of individualism/collectivism and power distance, were not significant predictors of vaccination intentions. Altogether, this study identifies individual-level predictors that are common across multiple countries, provides further evidence on the importance of combating conspiracy theories, involving religious institutions in vaccination campaigns, and stimulating prosocial motives to encourage vaccine uptake.

**Keywords:** Health Communication, Volume 38, Pages 1530-1539

<https://doi.org/10.1080/10410236.2021.2018179>





# Epidemiologic Situation of HIV and Monkeypox Coinfection: A Systematic Review



**Authors:** Ortiz-Saavedra, B.; Montes-Madariaga, E.S.; Cabanillas-Ramirez, C.; Alva, N.; Ricardo-Martínez, A.; León-Figueroa, D.A.; Barboza, J.J.; Mohanty, A.; Padhi, B.K.; Sah, R.

**Abstract:** The most recent monkeypox (Mpox) outbreak is mostly affecting men who have sex with men (MSM) who participate in high-risk sexual behaviors, which is typically the case among human immunodeficiency virus (HIV) carriers, according to clinical and epidemiological statistics. The objective of this research is to determine the epidemiological situation of HIV and smallpox co-infection. Until 1 October 2022, a thorough evaluation of the literature was conducted utilizing the databases PubMed, Embase, Scopus, and Web of Science. Studies were evaluated based on the criteria for selection. Fifty-three studies met the selection criteria. A total of 6345 confirmed cases of monkeypox were recorded, and 40.32% (n = 2558) of these cases also had HIV co-infection. In addition, 51.36% (n = 3259) of the men (91.44%; n = 5802), whose ages ranged from 18 to 71 years, exhibited MSM-specific sexual behaviors. Co-infection with these two viruses can be especially dangerous because it can exacerbate the symptoms of both diseases and make them more difficult to treat. People with HIV are more vulnerable to certain infections, including monkeypox, because their immune systems are weakened. Therefore, it is important that they take measures to prevent infection, such as avoiding contact with infected animals, risky behaviors, and maintaining good hygiene.

**Keywords:** Monkeypox; HIV; MSM; co-infection; STIs

Vaccines, Volume 11

<https://doi.org/10.3390/vaccines11020246>



# Statin intolerance management: a systematic review



**Authors:** Meza-Contreras, A.; Wenczenovicz, C.; Ruiz-Arellanos, K.; Vesely, E.A.K.; Mogollon, R.; Montori, V.M.

**Abstract:** **Background:** Statin intolerance is a key barrier to the effective prevention of atherosclerotic cardiovascular disease (ASCVD). Experts do not agree on what it is and how to respond to this problem clinically.

**Objective:** To characterize the range of expert recommendations about the care of patients with statin intolerance.

**Methods:** Systematic review registered in PROSPERO that searched on April 1, 2022, in PubMed, EMBASE, Scopus, Cochrane, online textbooks, and specialty textbooks for expert reviews (e.g., review articles and book chapters), systematic reviews, or clinical practice guidelines published in the past 5 years without language restriction. Authors working in duplicate extracted definitions, management recommendations, and supportive evidence cited.

**Results:** We identified 26 eligible articles, none of which described a systematic method to summarize the evidence or to develop and grade recommendations. Of these, 14 (54%) offered a definition of statin intolerance. A sequenced approach to management of statin intolerance was suggested in 24 (92%) articles describing 12 different approaches without supporting evidence of efficacy. Investigating for other causes was the most common first step. All authors suggested re-challenging after a washout period with either the same or other statin. Few considered nonlipid approaches to reducing ASCVD risk and none recommended involving patients in shared decision making.



# Statin intolerance management: a systematic review



**Conclusion:** We found substantial variability in the definition and management of statin intolerance among experts. Few focused on ASCVD risk reduction and none promoted the participation of patients in shared decision making about how to address the threat of ASCVD with or without statins.

**Keywords:** Statin intolerance; Atherosclerotic cardiovascular disease (ASCVD); Expert recommendations; Systematic review; PROSPERO; PubMed, EMBASE, Scopus, Cochrane; Management recommendations; Sequenced approach; Statin rechallenge; Nonlipid approaches; Shared decision making; ASCVD risk reduction

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# Latin American anaphylaxis registry



**Authors:** Jares, E.J.; Cardona, V.; Gómez, R.M.; Bernstein, J.A.; Rosario Filho, N.A.; Cherrez-Ojeda, I.; Ensina, L.F.; De Falco, A.; Díaz, M.C.; Chávez Vereau, P.A.; Rocha Felix, M.M.; Lavrut, J.; Moreno Laflor, O.I.; Latour Staffeld, P.; Piraino, P.; Alacaraz Duarte, P.; Ivancevich, J.C.; Dabove, F.; Giavina-Bianchi, P.; Tinoco Moran, I.O.; Nunes Oliviera, F.A.; Monsell, S.; Souza, M.V.; Cepeda, A.M.; Slullitel, P.D.; Morfin-Maciel, B.M.

**Abstract: Background:** Recent data about clinical features, triggers and management of anaphylaxis in Latin America is lacking.

**Objective:** To provide updated and extended data on anaphylaxis in this region.

**Method:** An online questionnaire was used, with 67 allergy units involved from 12 Latin-American countries and Spain. Among data recorded, demographic information, clinical features, severity, triggering agents, and treatment were received.

**Results:** Eight hundred and seventeen anaphylactic reactions were recorded. No difference in severity, regardless of pre-existing allergy or asthma history was found. Drug induced anaphylaxis (DIA) was most frequent (40.6%), followed by food induced anaphylaxis (FIA) (32.9%) and venom induced anaphylaxis (VIA) (12%). FIA and VIA were more common in children-adolescents. Non-steroidal anti-inflammatory drugs (NSAIDs) and beta-lactam antibiotics (BLA) were the most frequent drugs involved. Milk (61.1% of FIA) and egg (15.4% of FIA) in children, and shellfish (25.5% of FIA), fresh fruits (14.2% of FIA), and fish (11.3% of FIA) in adults were the most common FIA triggers. Fire ants were the most frequent insect trig-

# Latin American anaphylaxis registry



gers, and they induced more severe reactions than triggers of FIA and DIA ( $p < 0.0001$ ). Epinephrine was used in 43.8% of anaphylaxis episodes. After Emergency Department treatment, epinephrine was prescribed to 13% of patients.

**Conclusions:** Drugs (NSAIDs and BLA), foods (milk and egg in children and shellfish, fruits and fish in adults) and fire ants were the most common inducers of anaphylaxis. Epinephrine was used in less than half of the episodes emphasizing the urgent need to improve dissemination and implementation of anaphylaxis guidelines.

**Keywords:** Anaphylaxis; Food hypersensitivity; Insect venom hypersensitivity; Latin America; Medication hypersensitivity.

World Allergy Organization Journal, Volume 16

<https://doi.org/10.1016/j.waojou.2023.100748>



# Association between symptoms of COVID-19 infection and adverse maternal-perinatal outcomes in pregnant women at a referral hospital



**Authors:** Angulo-Fernandez, K.; Olivera-Rojas, A.; Mougnot, B.; Herrera-Añazco, P.

**Abstract:** Objectives: To determine the association between symptoms of COVID-19 infection and adverse maternal-perinatal outcomes in pregnant women from a referral hospital.

Materials and methods.: Analytical cross-sectional study of women in the third trimester of pregnancy hospitalized due to COVID-19 in the gynecology and obstetrics area of a general hospital in Lima during 2020. Clinical and obstetric variables were collected. Fisher's exact test and Chi-square test were used during the descriptive analysis. Poisson regression was used to find the association between the variables of interest, with a 95% confidence interval (95%CI).

**Results:** A total of 272 pregnant women were included, 50.3% of whom had symptoms of infection. Of these, 35.7% of the pregnant women and 16.5% of the newborns had an adverse outcome. Having symptoms of COVID-19 infection increased the risk of maternal complications as a whole (PR= 2.32 95%CI: 1.61-3.34), premature rupture of membranes (PR= 2.73 95%CI: 1.51-4.94) and preeclampsia (PR= 2.73 95%CI: 1.51-4.94). Similarly, symptoms of COVID-19 infection increased the risk of perinatal complications as a whole (PR= 2.51 95%CI: 1.34-4.68) and acute fetal distress (PR= 2.99 95%CI: 1.07-8.38).

**Conclusions:** The presence of symptoms of COVID-19 infection increase the risk of adverse maternal-perinatal outcomes.



# Association between symptoms of covid-19 infection and adverse maternal-perinatal outcomes in pregnant women at a referral hospital



**Keywords:** SARS-CoV-2, Sintomático, Resultado del embarazo, Embarazo, Recién nacido, Symptomatic, Pregnancy outcome, Pregnancy, Newborn

Revista Peruana de Medicina Experimental y Salud Publica, Volume 40, Pages 34-41

<https://doi.org/10.17843/rpmesp.2023.401.11205>



# Factors Associated with Epidemiological, Preventive and Health Care Knowledge of Dentists from North of the Peruvian Capital about COVID-19: A Cross-Sectional Study under a Predictive Model



**Authors:** Aquiles-Barzola, F.; Verástegui-Sandoval, A.; Machco-Pasmiño, H.; Córdova-Limaylla, N.; Ladera-Castañeda, M.; Cervantes-Ganoza, L.; Cayo-Rojas, C.

**Abstract:** **Aim:** In dental practice there is a high risk of contact with fluids that may contain SARS-CoV-2. Salivary secretions in the form of droplets are the main route of infection. The present study aimed to evaluate factors associated with epidemiological, preventive and health care knowledge of dentists from the north of the Peruvian capital about COVID-19. **Materials and Methods:** This analytical, observational, cross-sectional and prospective study evaluated 142 dental professionals from the Directorate of Integrated Health Networks (DIRIS) in the north of the Peruvian capital during June to August 2022. A validated questionnaire of 20 closed multiple-choice questions was used to measure the level of epidemiological, preventive and health care knowledge about COVID-19. A logit model was used to evaluate the influence of the following variables: age, sex, marital status, children, origin, university of origin, academic degree, work modality, work status and number of training courses. In addition, a predictive model was constructed with the causal variables considering a significance level of  $p < 0.05$ . **Results:** Epidemiological, preventive and health care knowledge about COVID-19 was fair in 17.6%, 34.5% and 57.7%, respectively. Likewise, all the variables analyzed were influential factors. It was observed







# Factors Associated with Epidemiological, Preventive and Health Care Knowledge of Dentists from North of the Peruvian Capital about COVID-19: A Cross-Sectional Study under a Predictive Model

that being single (OR = 0.05, CI: 0.01–0.26), having studied at a private university (OR = 0.09, CI: 0.023–0.38) and having received four to six trainings on COVID-19 related topics (OR = 0.02, CI: 0.002–0.238) were protective factors against fair knowledge. **Conclusions:** More than half of the dentists surveyed had fair knowledge about COVID-19. The factors that favored a good level of overall knowledge were: being single, having studied at a private university and having received 4 to 6 training courses on COVID-19-related topics. It is advisable that the competent authorities continue to educate dental professionals with training programs about infection control practices in accordance with the health care work they perform in their specialty. It will also be of utmost importance for the professional to be updated with reliable information accredited by the Centers for Disease Control and Prevention as well as the WHO.

**Keywords:** Level of knowledge; dentistry; COVID-19; SARS-CoV-2; health care; prevention; epidemiology

International Journal of Environmental Research and Public Health, Volume 20

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# Multinational prospective cohort study of rates and risk factors for ventilator-associated pneumonia over 24 years in 42 countries of Asia, Africa, Eastern Europe, Latin America, and the Middle East: Findings of the International Nosocomial Infection Control Consortium (INICC)

**Authors:** Rosenthal, V.D.; Jin, Z.; Memish, Z.A.; Rodrigues, C.; Myatra, S.N.; Kharbanda, M.; Valderrama-Beltran, S.L.; Mehta, Y.; Daboor, M.A.; Todi, S.K.; Aguirre-Avalos, G.; Guclu, E.; Gan, C.S.; Jiménez Alvarez, L.F

**Abstract:** Objective: Rates of ventilator-associated pneumonia (VAP) in low- and middle-income countries (LMIC) are several times above those of high-income countries. The objective of this study was to identify risk factors (RFs) for VAP cases in ICUs of LMICs.

**Design:** Prospective cohort study.

**Setting:** This study was conducted across 743 ICUs of 282 hospitals in 144 cities in 42 Asian, African, European, Latin American, and Middle Eastern countries.

**Participants:** The study included patients admitted to ICUs across 24 years.

**Results:** In total, 289,643 patients were followed during 1,951,405 patient days and acquired 8,236 VAPs. We analyzed 10

# **Multinational prospective cohort study of rates and risk factors for ventilator-associated pneumonia over 24 years in 42 countries of Asia, Africa, Eastern Europe, Latin America, and the Middle East: Findings of the International Nosocomial Infection Control Consortium (INICC)**



independent variables. Multiple logistic regression identified the following independent VAP RFs: male sex (adjusted odds ratio [aOR], 1.22; 95% confidence interval [CI], 1.16-1.28;  $P < .0001$ ); longer length of stay (LOS), which increased the risk 7% per day (aOR, 1.07; 95% CI, 1.07-1.08;  $P < .0001$ ); mechanical ventilation (MV) utilization ratio (aOR, 1.27; 95% CI, 1.23-1.31;  $P < .0001$ ); continuous positive airway pressure (CPAP), which was associated with the highest risk (aOR, 13.38; 95% CI, 11.57-15.48;  $P < .0001$ ); tracheostomy connected to a MV, which was associated with the next-highest risk (aOR, 8.31; 95% CI, 7.21-9.58;  $P < .0001$ ); endotracheal tube connected to a MV (aOR, 6.76; 95% CI, 6.34-7.21;  $P < .0001$ ); surgical hospitalization (aOR, 1.23; 95% CI, 1.17-1.29;  $P < .0001$ ); admission to a public hospital (aOR, 1.59; 95% CI, 1.35-1.86;  $P < .0001$ ); middle-income country (aOR, 1.22; 95% CI, 1.15-1.29;  $P < .0001$ ); admission to an adult-oncology ICU, which was associated with the highest risk (aOR, 4.05; 95% CI, 3.22-5.09;  $P < .0001$ ), admission to a neurologic ICU, which was associated with the next-highest risk (aOR, 2.48; 95% CI, 1.78-3.45;  $P < .0001$ ); and admission to a respiratory ICU (aOR, 2.35; 95% CI, 1.79-3.07;  $P < .0001$ ). Admission to a coronary ICU showed the lowest risk (aOR, 0.63; 95% CI, 0.51-0.77;  $P < .0001$ ).



# Multinational prospective cohort study of rates and risk factors for ventilator-associated pneumonia over 24 years in 42 countries of Asia, Africa, Eastern Europe, Latin America, and the Middle East: Findings of the International Nosocomial Infection Control Consortium (INICC)



**Conclusions:** Some identified VAP RFs are unlikely to change: sex, hospitalization type, ICU type, facility ownership, and country income level. Based on our results, we recommend focusing on strategies to reduce LOS, to reduce the MV utilization ratio, to limit CPAP use and implementing a set of evidence-based VAP prevention recommendations.

**Keywords:** Ventilator-associated pneumonia (VAP Low- and middle-income countries (LMIC), Intensive Care Units (ICUs), Risk factors, Prospective cohort study, Male sex, Length of stay (LOS), Mechanical ventilation (MV), Continuous Positive Airway Pressure (CPAP), Multivariate logistic regression

Antimicrobial Stewardship and Healthcare Epidemiology, Volume 3

<https://doi.org/10.1017/ash.2022.339>



# Pandemic grief in El Salvador: factors that predict dysfunctional grief due to a COVID-19 death among Salvadoran adults



**Authors:** Lobos-Rivera, M.E.; Flores-Monterrosa, A.N.; Tejada-Rodríguez, J.C.; Chacón-Andrade, E.R.; Caycho-Rodríguez, T.; Lee, S.A.; Valencia, P.D.; Carbajal-León, C.; Vilca, L.W.; Reyes-Bossio, M.; Gallegos, M.

**Abstract:** Thousands of people have died of COVID-19 in El Salvador. However, little is known about the mental health of those who are mourning the loss of a loved one to COVID-19. Therefore, the objective of this study was to examine the dysfunctional grief associated with COVID-19 death among Salvadoran adults. A sample of 435 Salvadorans (M=29 years; SD=8.75) who lost a family member or loved one to COVID-19 completed a digital survey using the Google Forms platform, during April 2 and 28, 2022. The results revealed that 35.1% reported clinically elevated symptoms of dysfunctional grief and among those mourners, and 25.1% also exhibited clinical levels of coronavirus anxiety. A binary logistic regression revealed that predictor variables such as COVID-19 anxiety ( $p=.003$ ), depression ( $p=.021$ ), and COVID-19 obsession ( $p=.032$ ) were significant ( $\chi^2=84.31$ ; Nagelkerke  $R^2=.242$ ) and predict a 24.2% chance of dysfunctional bereavement.

**Keywords:** Grief, Pandemic, COVID-19, Salvadorans, Anxiety

Psicologia: Reflexao e Critica, Volume 36

<https://doi.org/10.1186/s41155-023-00250-6>



# Efficacy of Liraglutide in Obesity in Children and Adolescents: Systematic Review and Meta-Analysis of Randomized Controlled Trials



**Authors:** Cornejo-Estrada, A.; Nieto-Rodríguez, C.; León-Figueroa, D.A.; Moreno-Ramos, E.; Cabanillas-Ramirez, C.; Barboza, J.J.

**Abstract:** In the past few decades, childhood obesity has become a significant global health issue, impacting around 107.7 million children and adolescents globally. There is currently minimal usage of pharmacological therapies for childhood obesity in the pediatric population. This research assessed the efficacy of liraglutide in treating childhood and adolescent obesity. Until 20 October 2022, a systematic literature review was done utilizing PubMed, Scopus, Web of Science, and Embase databases. The search phrases “liraglutide”, “pediatric obesity”, “children”, and “adolescents” were utilized. Using the search method, a total of 185 articles were found. Three studies demonstrating liraglutide’s effectiveness in treating child and adolescent obesity were included. The selected research was done in the United States. As an intervention, liraglutide was administered to 296 participants at a maximal dosage of 3.0 mg. All examined trials were in phase 3. This comprehensive analysis revealed no clinically significant differences between liraglutide and body weight (kg; MD  $-2.62$ ; 95%CI  $-6.35$  to  $1.12$ ;  $p = 0.17$ ) and body mass index ( $\text{kg}/\text{m}^2$ ; MD  $-0.80$ ; 95%CI  $-2.33$  to  $0.73$ ,  $p = 0.31$ ). There was no evidence that liraglutide increased hypoglycemia episodes (RR 1.08; 95%CI 0.37 to 3.15;  $p = 0.79$ ), or side consequences. However, it was shown that the medicine might help reduce BMI and weight combined with a healthy diet and regular exercise. A lifestyle change may have favorable consequences that will be assessed in the future for adjunctive therapy.

**Keywords:** Liraglutide; obesity; adolescents; children; systematic review

Children, Volume 10

<https://doi.org/10.3390/children10020208>



# Association between multimorbidity with cognitive dysfunction in a Peruvian population



**Authors:** Carrasco-Zavala, J.; Díaz-RG, J.A.; Bernabe-Ortiz, A.; Lazo-Porras, M.

**Abstract:** Background: Previous studies have shown that multimorbidity is a risk factor for cognitive dysfunction (CD). Type 2 diabetes mellitus (T2DM) and hypertension (HT) are very common risk factors. The association between multimorbidity due to both diseases and CD has been understudied in low and middle-income countries, in which the strength of the association might be stronger.

**Aim:** To evaluate the association between multimorbidity due to T2DM and HT with CD among adults  $\geq 50$  years in Tumbes.

**Materials and methods:** A secondary analysis of a population-based cross-sectional study was conducted. The exposure variable was the presence of both T2DM and HT, split into categories: without HT or T2DM, only T2DM, only HT, and with T2DM and HT; whereas CD was the outcome variable, defined as a score  $\leq 26$  in the Leganes Cognitive Test. Crude and adjusted generalized linear models were used to estimate the association of interest, and prevalence ratio (PR) and 95% confidence interval (95%CI) were reported.

**Results:** 688 participants were analyzed. The prevalence of CD was 39.1%. There was a 56.1% of participants without TDM2 nor HT, 8.3% with T2DM, 28.9% with HT and 6.7% with both diseases. A significant association was found be-



# Association between multimorbidity with cognitive dysfunction in a Peruvian population



tween multimorbidity and CD (PR = 1.43, 95%CI 1.04-1.97). Multimorbidity had a statistically significant association with CD in the group of participants with  $\geq 7$  years of education (PR = 2.56, 95%CI 1.55-4.21), but no in the group with  $< 7$  years. Conclusions: There is association between the morbidity of T2DM and HT, and CD among adults  $\geq 50$  years of age in Tumbes. Education was an effect modifier of the association between HT and T2DM on the presence of CD.

**Keywords:** Cognitive dysfunction; Diabetes mellitus; Diabetes mellitus type 2; Hypertension; Multimorbidity.

Journal of the Neurological Sciences, Volume 445

<https://doi.org/10.1016/j.jns.2023.120543>





# Hydroxychloroquine to prevent SARS-CoV-2 infection among healthcare workers: early termination of a phase 3, randomised, open-label, controlled clinical trial



**Authors:** Llanos-Cuentas, A.; Schwalb, A.; Quintana, J.L.; Delfin, B.; Alvarez, F.; Ugarte-Gil, C.; Guerra Gronerth, R.I.; Lucchetti, A.; Grogl, M.; Gotuzzo, E.

**Abstract: Objective:** To assess the effectiveness and safety of hydroxychloroquine (HCQ) prophylaxis for the prevention of SARS-CoV-2 infection in healthcare workers (HCW) on duty during the COVID-19 pandemic.

Results: A total of 68 HCWs met the eligibility criteria were randomly allocated to receive HCQ (n = 36) or not (n = 32). There were no significant differences between groups in respects to age, gender, or medical history. Eight participants met the primary efficacy endpoint of SAR-CoV-2 infection during the study period; there was no difference in incidence of SARS-CoV-2 infections between both study arms (HCQ: 5 vs Control: 3,  $p = 0.538$ ). The relative risk of SARS-CoV-2 infection in the HCQ arm was 1.69 compared to the control group (95%CI 0.41-7.11,  $p = 0.463$ ); due to poor participant accrual, the resulting statistical power of the primary efficacy outcome was 11.54%. No serious adverse events occurred; however, two (2/36, 5.6%) participants no longer wished to participate in the study and withdrew consent due to recurring grade 1 and 2 adverse events.

Trial registration: ClinicalTrials.gov ID: NCT04414241. (Registered on June 4, 2020).

**Keywords:** COVID-19; Global health; Prophylaxis.

BMC Research Notes, Volume 16

<https://doi.org/10.1186/s13104-023-06281-7>





# An Electronic Equipment for Monitoring, Detection and Warning of Pitch Motion of Vehicle Drivers

**Authors:** Alzamora, L.; Espino, J.; Acosta, R.; Márquez, M.; Kemper, G.

**Abstract:** Long and monotonous journeys during the transport of goods can generate tiredness and/or fatigue in the driver, generating a potential vehicle accident where the driver can enter a state of micro-sleep, losing control of the vehicle for a period of time. Within the state of the art, it is observed that most of the solutions have as their fundamental axis the analysis of the ocular muscle, being these vulnerable to the variation of light intensity and facial accessories that the driver can use. On the other hand, other studies analyze EEG signals being intrusive and disturbing the driving skills of the driver. This work presents a driver fatigue monitoring system based on the angular movement of the head, the main characteristic prior to the state of micro-sleep, located in a safety helmet. To do this, an analysis of the angular movement of the driver's head is carried out, thus avoiding the use of cameras, potential lighting problems and intrusive driving disturbances. The device will detect the nodding symptom and will issue an auditory alert with a message via Telegram to a third party to alert the presence of driver fatigue with an error rate of less than 22%, having as auditory alert response time a period of 500 ms equivalent to the distance of 8 m if the vehicle moves at 60 km/h. The validation was carried out by comparing the angles between the device located in the helmet and a reference accelerometer.

**Keywords:** Driver, Fatigue, Helmet, Movement, Pitch, Trajectory, Vehicle, Driver Fatigue, Transport Safety, Micro-sleep, Ocular Muscle Analysis, EEG Signals, Head Angular Movement, Safety Helmet, Auditory Alert, Telegram Messaging, Validation with Accelerometer.

Communications in Computer and Information Science, Volume 1756, Pages 261-273

[https://doi.org/10.1007/978-3-031-24971-6\\_19](https://doi.org/10.1007/978-3-031-24971-6_19)





# An Algorithm for the Reconstruction of 4 ECG Lead Signals Based on the Attention Mechanism

**Authors:** Picón, K.; Rodríguez, J.; Salazar-Gamarra, R.; Márquez, M.; Kemper, G.

**Abstract:** This work proposes an algorithm to reconstruct 4 precordial electrocardiogram (ECG) lead signals. Standard cardiovascular disease (CVD) monitoring and detection uses all 12 available ECG leads. However, this number of leads implies a certain complexity of the equipment in terms of size, weight, and power consumption. Computational algorithms aimed at reducing the number of required leads for CVD detection help lower the time consumption and errors due to needing many signal acquisition cables. In this work, an LSTM sequence-to-sequence (Seq2Seq) neural network model with attention takes only 4 ECG leads (I, II, V2, and V5) and outputs the mentioned precordial leads. This proposal contributes to making ECG signal acquisitions easier and more accessible by requiring fewer cables and thus facilitating its use by people with little training. The model achieved a maximum average Pearson correlation coefficient of 0.9707 for all leads. It was validated using the PTB Diagnostic ECG Database.

**Keywords:** ECG leads, Attention mechanism, LSTM, Reconstruction

Smart Innovation, Systems and Technologies, Volume 353, Pages 154-163

[https://doi.org/10.1007/978-3-031-31007-2\\_15](https://doi.org/10.1007/978-3-031-31007-2_15)



# Association between Overweight/Obesity and multidrug-resistant Tuberculosis



**Authors:** Peinado, J.; Lecca, L.; Jiménez, J.; Calderón, R.; Yataco, R.; Becerra, M.; Murray, M.

**Abstract:** **Purpose:** Globally, transgender women (TGW) experience wide-ranging barriers to health and care, with disproportionately high risks of infectious and chronic diseases. Yet, research on transgender populations' access to care in low- and middle-income countries remains limited, focused on human immunodeficiency virus (HIV) infection, and assesses TGW as a homogenous group. We analyzed morbidity and health service uptake patterns among TGW in Lima, Perú, to understand health outreach and service needs to inform targeting and design of community-level interventions. **Methods:** This cross-sectional study surveyed a convenience sample of 301 TGW in metropolitan Lima during September-October 2020. We report descriptive statistics and bivariable and multivariable regression model results as adjusted prevalence ratios (aPRs). **Results:** Health coverage and access to care were suboptimal. Less education and older age were positively associated with illness and negatively associated with HIV and tuberculosis (TB) testing. In the first study to quantitatively examine health utilization by gender identity subgroup (i.e., woman, trans or transgender, transsexual, "transformista," "travesti," and other) in Perú, TGW who identified as women were more likely to ever test for HIV (aPR = 1.49, 95% confidence interval [CI]: 1.16-1.91) and use pre-exposure prophylaxis (PrEP) (aPR = 2.36, 95% CI: 1.15-4.80). Both awareness and interest regarding PrEP were low, as was usage among those who were interested in taking PrEP. **Conclusion:** Public health efforts should be tailored to meet TGW's diverse needs, expand TB testing, bridge the gap between PrEP interest and use, and increase insurance coverage and access to trans-friendly services for improved health.

**Keywords:** Multidrug Resistance, Obesity, Overweight, Peru, Tuberculosis, Transgender women (TGW), Health barriers, Infectious and chronic diseases, Low- and middle-income countries, Human immunodeficiency virus (HIV), Tuberculosis (TB) testing, Pre-exposure prophylaxis (PrEP), Gender identity subgroup, Trans-friendly services

Revista Peruana de Medicina Experimental y Salud Publica, Volume 40, Pages 59-66

<https://doi.org/10.17843/rpmesp.2023.401.12138>



# Low detection rate of RT-PCR-confirmed COVID-19 using IgM/IgG rapid antibody tests in a large community sample in Lima, Peru



**Authors:** Law, S.; Tovar, M.A.; Franke, M.F.; Calderon, R.; Palomino, S.; Valderrama, G.; Llanos, F.; Velásquez, G.E; Mitnick, C.D.; Lecca, L.

**Abstract:** Background: Rapid IgM/IgG antibody tests were largely used in lieu of RT-PCR tests as part of COVID-19 public health response activities in Lima, Peru. To assess their utility, we explored the relationship between the time since onset of several COVID-19-related symptoms and the sensitivity of a rapid combined IgM/IgG antibody test.

**Methods:** We collected data from a community sample of individuals (n = 492) who received concurrent RT-PCR and rapid IgM/IgG antibody testing between May 2020 and March 2021. We estimated the sensitivity of the antibody test, against the RT-PCR test, by weeks since symptom onset via segmented regression analysis.

**Results:** The overall sensitivity of the rapid IgM/IgG antibody test was 46.7% (95% CI, 42.4-51.2%). Among 372 (75.6%) participants who reported COVID-19-related symptoms, sensitivity increased from 30.4% (95% CI, 24.7-36.6%) in week 1 after symptom onset to 83.3% (95% CI, 41.6-98.4%) in week 4. The test sensitivity increased by 31.9% (95% CI, 24.8-39.0%) per week until week 2 to 3, then decreased by - 6.0% (95% CI, - 25.7-13.7%) per week thereafter.

**Conclusion:** Rapid antibody tests are a poor substitute for RT-PCR testing, regardless of presenting symptoms. This highlights the need for future pandemic planning to include timely and equitable access to gold-standard diagnostics, treatment, and vaccination.

**Keywords:** COVID-19; Peru; SARS-CoV-2 antibody testing.

BMC Infectious Diseases, Volume 23

<https://doi.org/10.1186/s12879-023-08003-7>



# Unmasked immune reconstitution inflammatory syndrome towards B-cell non-Hodgkin lymphoma during treatment of esophageal actinomyces in a patient with advanced HIV: a case report



**Authors:** Vargas-Garcia, E.K.; Fernandez-Aristi, A.R.; Cornejo-Venegas, G.; Montenegro-Idrogo, J.J.; Chirinos-Vega, J.; Chiappe-Gonzalez, A.

**Abstract:** Background: Actinomyces is an unusual chronic bacterial infection, even rarer in people living with HIV. It is not considered an AIDS-defining disease. However, the role in co-presentation or overlap with other opportunistic conditions of advanced HIV is unknown.

**Case presentation:** A 49-year-old Peruvian male presented with a 4-month history of dysphagia, odynophagia, hyporexia and wasting. He underwent an upper digestive endoscopy, in which ulcers with a necrotic center were observed, therefore, the initial diagnostic assumption was esophageal cancer. Subsequent pathology report excluded neoplasms and confirmed the diagnosis of actinomyces. Serology for human immunodeficiency virus was requested, yielding a positive result. Antimicrobial treatment with amoxicillin and antiretroviral therapy were indicated, with slow clinical improvement. After 4 months, epigastric discomfort presented, for which a new upper digestive endoscopy was performed,



# Unmasked immune reconstitution inflammatory syndrome towards B-cell non-Hodgkin lymphoma during treatment of esophageal actinomyces in a patient with advanced HIV: a case report



revealing a deep gastric ulcer, which was compatible with diffuse large B-cell non-Hodgkin lymphoma.

**Conclusion:** Esophageal actinomyces in people living with HIV is very rare. We suggest HIV-associated immunosuppression is not enough to allow for actinomyces to develop, and masked underlying entities should be sought. The existence of such entities in people living with HIV should raise awareness of the possibility of unmasked immune reconstitution inflammatory syndrome once treatment has started.

**Keywords:** Actinomyces; Human immunodeficiency virus; Immune reconstitution inflammatory syndrome; Non-Hodgkin lymphoma.

AIDS Research and Therapy, Volume 20

<https://doi.org/10.1186/s12981-023-00526-y>



# High altitudes, population density, and poverty: Unraveling the complexities of COVID-19 in Peru during the years 2020–2022



**Authors:** Vizcardo, D.A.; R. Aranibar, J.; Munayco Escate, C.V.

## **Abstract:** Background

Several factors related to hospitalizations, morbidity, and mortality from COVID-19 have been identified. However, limited exploration has been done on geographic and socioeconomic factors that could significantly impact these outcomes.

## Objectives

This study aimed to determine whether altitude, population density, and percentage of population in total poverty are associated with COVID-19 incidence per 1000 inhabitants and COVID-19 case-fatality rate in Peru, from 2020 to 2022.

## Methods

This study utilized a multiple group ecological design and relied on secondary databases containing daily records of COVID-19 positive cases and deaths due to COVID-19. An epidemiological analysis was performed, subsequently processed using a random effects model.

## Results

As of August 2022, Peru had recorded a total of 3,838,028 COVID-19 positive cases and 215,023 deaths due to COVID-19. Our analysis revealed a statistically significant negative association between altitude and COVID-19 incidence (aBETA:  $-0.004$ ; Standard Error:  $0.001$ ;  $p < 0.05$ ). Moreover, we observed a positive association between population density and incidence







# High altitudes, population density, and poverty: Unraveling the complexities of COVID-19 in Peru during the years 2020–2022

(aBETA: 0.006; Standard Error: 0.001;  $p < 0.05$ ). However, we found no significant association between the percentage of population in total poverty and COVID-19 incidence.

## Conclusion

Our study found that an increase in altitude was associated with a decrease in COVID-19 incidence, while an increase in population density was associated with an increase in COVID-19 incidence. High altitude, population density and percentage of population in total poverty does not change case-fatality rate due to COVID-19.

**Keywords:** COVID-19, Peru, Altitude, Population density, Poverty, SARS-CoV-2

Preventive Medicine Reports, Volume 36

<https://doi.org/10.1016/j.pmedr.2023.102423>



# Respiratory, Cardiac, and Neuropsychiatric Manifestations of Postacute Sequelae of Coronavirus Disease 2019 in Lima, Peru



**Authors:** Rahman, R.S.; Tovar, M.A.; Peinado, J.; Palomino, J.S.; Ramirez, C.; Llanos-Zavalaga, F.; Peralta, E.; Valderrama, G.; Ramos Cordova, L.B.; Sanchez Cortez, L.I.; Rodriguez, G.; Lahood, A.N.; Franke, M.F.; Mitnick, C.D.; Lecca, L.; Velásquez, G.E.

## **Abstract:**

### Background

Few studies have examined the burden of postacute sequelae of coronavirus disease 2019 (COVID-19) (PASC) in low- and middle-income countries. We sought to characterize PASC with self-reported questionnaires and clinical examinations of end-organ function in Lima, Peru.

### Methods

From January to July 2021, we recruited participants at least 8 weeks after COVID-19 diagnosis from a case registry in Lima, Peru. We evaluated participants for PASC with questionnaires, neuropsychiatric evaluations, chest X-ray, spirometry, electrocardiogram, and echocardiogram. We used multivariable models to identify risk factors for PASC.

### Results

We assessed 989 participants for PASC at a median 4.7 months after diagnosis. Clinically significant respiratory symptoms were reported by 68.3% of participants, particularly those who had been severely ill during acute COVID-19, and



# Respiratory, Cardiac, and Neuropsychiatric Manifestations of Postacute Sequelae of Coronavirus Disease 2019 in Lima, Peru



were associated with cardiac findings of ventricular hypertrophy or dilation on echocardiogram. Neuropsychiatric questionnaires were consistent with depression in 20.7% and cognitive impairment in 8.0%. Female sex and older age were associated with increased risk of respiratory (adjusted odds ratio [aOR], 2.36 [95% confidence interval {CI}, 1.69–3.31] and aOR, 1.01 [95% CI, 1.00–1.03], respectively) and neuropsychiatric sequelae (aOR, 2.99 [95% CI, 2.16–4.18] and aOR, 1.02 [95% CI, 1.01–1.03], respectively).

## Conclusions

COVID-19 survivors in Lima, Peru, experienced frequent postacute respiratory symptoms and depression, particularly among older and female participants. Clinical examinations highlighted the need for cardiopulmonary rehabilitation among persons with severe COVID-19; psychosocial support may be required among all COVID-19 survivors.

**Keywords:** COVID-19, Peru, postacute, SARS-CoV-2, sequelae

Open Forum Infectious Diseases, Volume 10

<https://doi.org/10.1093/ofid/ofad320>



# Gastrointestinal stromal tumor (GIST) as a cause of hemoperitoneum in a patient on peritoneal dialysis



**Authors:** Porta, I.; Palacios, A.; Hernández, E.; Rivero, L.; Chang, M.

**Abstract:** Introduction: Hemoperitoneum (PH) in peritoneal dialysis (PD) is rare, the most described cause is related to menstruation or catheter trauma. Case: A 56-years-old female patient with chronic kidney disease, two years on PD, presented abdominal pain during peritoneal fluid infusion and evidence of bloody drainage, empiric antibiotic therapy was started due to suspected peritonitis; she had surgery for exploratory laparotomy due to unfavorable clinical course. There was evidence of a bleeding tumor dependent on the back of the stomach, which was resected. Biopsy: benign gastrointestinal stromal tumor (GIST) of the stomach, spindle cell subtype. The patient had an unfavorable post-surgical evolution, persistence of bleeding, and deterioration of the clinical state, dying three weeks later. Conclusion: GIST should be considered in the differential diagnosis of hemoperitoneum in patients on peritoneal dialysis.

**Keywords:** C-Gastrointestinal stromal tumor, hemoperitoneum, peritoneal dialysis.

Revista de Nefrología, Diálisis y Trasplante, Volume 43, Pages 52-56

<https://www.scopus.com/record/display.url?eid=2-s2.0-85150797770&origin=resultslist>



# Technological Innovations in the Production of Peruvian Television Newscasts During the Emergence of Covid-19



**Authors:** Karbaum-Padilla, G.

**Abstract:** The outbreak of Covid-19 imposed radical changes in all human activities and television journalism was no exception. This study aims to analyze the innovations that were applied by television journalists in Peru in order to continue practicing their work in one of the countries hardest hit by the pandemic. The applied methodology was qualitative, semi-structured interviews were carried out which allowed knowing the innovations that were applied to overcome the dangers and sanitary restrictions. As a result, it was obtained that the journalists hybridized their teams and production methods with non-television technologies such as video calls, mobile phones, or the implementation of telework to continue producing television news in a context for which they were never prepared.

**Keywords:** Covid-19, Innovation, Technology, Television Journalism, Teleworking, Television journalism, Pandemic, Qualitative methodology, Semi-structured interviews, Sanitary restrictions, Hybridization, Telework

Smart Innovation, Systems and Technologies, Volume 318, Pages 555-565

[https://doi.org/10.1007/978-981-19-6347-6\\_50](https://doi.org/10.1007/978-981-19-6347-6_50)



# Iatrogenic Endometriosis of the Breast Mimicking Fat Necrosis: A Case Report



**Authors:** De La Riva-Morales, I.; Umeres-Francia, G.E.; Novo, J.E.

**Abstract:** A female patient with a history of ductal carcinoma in situ in the left breast, status-post bilateral mastectomy with deep inferior epigastric perforator artery flap reconstructive surgery, presented with a right breast asymmetry concerning for fat necrosis. Histological analysis revealed the presence of benign glands and associated stroma within fibroadipose tissue, confirmed as endometriosis by immunohistochemical analysis. Further investigation revealed that the patient had a previous diagnosis of endometriosis associated with a cesarean section scar that likely seeded the ectopic endometrial glands into a tertiary site by utilizing abdominal tissue that may have harbored endometriosis.

**Keywords:** Fat necrosis, iatrogenic endometriosis, reconstructive surgery, Ductal Carcinoma In Situ, Bilateral Mastectomy, Deep Inferior Epigastric Perforator (DIEP), Flap, Breast Asymmetry, Fat Necrosis, Histological Analysis, Endometriosis, Immunohistochemical Analysis, Cesarean Section Scar, Ectopic Endometrial Glands

International Journal of Surgical Pathology

<https://doi.org/10.1177/10668969231201416>



# Colposcopy in the Primary Health Care: A Scoping Review



**Authors:** Benites-Zapata, V.A.; Hernandez-Bustamante, E.A.; Acuña-Chávez, L.M.; Escudero-Gaytan, C.P.; Ulloque-Badaracco, J.R.; Alarcón-Braga, E.A.; Venegas, G.; Herrera-Añazco, P.

## **Abstract:** Aim:

Low- and middle-income countries represent nearly 85% of all cervical cancer cases worldwide; thereby, it is extremely important to identify methods to improve the screening process. Therefore, this study aimed to summarize the primary characteristics of studies on accessibility, coverage, patient preferences, and factors associated with patient satisfaction or acceptance of colposcopy in primary healthcare.

## **Methods:**

A search strategy, based on MeSH, Emtree, and free terms, was run through 5 databases (PubMed, Scopus, Embase, Ovid/Medline, and Web of Science). EndNote 20.1 © and Rayyan QCRI © were used for screening. A preset datasheet was used for data extraction.

## **Results:**

The systematic search retrieved 1127 references, and after removing duplicates, screening the titles and abstracts, and reviewing the full text, 7 studies were included. The interrater reliability was 77.73% (kappa statistic=0.1842). Most studies estimated the proportion of women that sought for colposcopy after a previous screening test for human papilloma virus.



# Colposcopy in the Primary Health Care: A Scoping Review



One study identifies barriers to colposcopy examination in women at risk of developing cervical cancer. Three studies assessed the decentralization of colposcopy from a tertiary healthcare center to a primary care center. Pap smear was the most common first-line screening test, followed by liquid-based cytology sample and visual inspection with acetic acid.

## Conclusion:

Only a few countries have investigated the use of colposcopy in primary care. Thus, barriers and the care structure for this implementation to be successful in reducing cervical cancer incidence and mortality should be identified.

**Keywords:** colposcopy, primary healthcare, uterine cervical neoplasms, public health (Source: MeSH)

Journal of Primary Care and Community Health, Volume 14

<https://doi.org/10.1177/21501319231198942>





# Impact of the Perceived Risk of COVID-19 on the Quality of Service, Satisfaction and Purchase Intention of delivery applications



**Authors:** Gutiérrez-Sánchez, G.; Asalde-Bustamanre, A.L.; Lodeiros-Zubiria, M.L.

**Abstract:**

**Keywords:**

RISTI - Revista Iberica de Sistemas e Tecnologias de Informacao, Volume 2023, Pages 592-606

<https://www.scopus.com/record/display.url?eid=2-s2.0-85162868366&origin=resultlist>



# Association between complete vaccination and anemia in children under 5 years of age, in Peru, in the years 2019 to 2021



**Authors:** Cabada-Yépez, H.; Blancas-Cabada, S; Aparco, J.P.

## **Abstract:**

The present study consists of observing the relationship between immunizations and anemia in children under 5 years of age. Anemia is a public health problem worldwide and Latin America is no exception. Particularly, for the Peruvian case, approximately one third of children under 5 years of age present this disease. The consequences vary depending on the degree of anemia that occurs; Mild anemia being the most common case among minors. In order to combat anemia, the Peruvian Ministry of Health proposes various actions, including vaccination against rotavirus and pneumococcus as some of them. From this perspective, the question arises if there is a relationship between immunization and anemia. For this, taking information from the Demographic Survey of Family Health (ENDES), estimates are made regarding the possession and level of anemia in children under 5 years of age, taking as the main variable that children are up to date with their vaccinations, according to their age in months. Vaccination is based on Ministerial Resolution No. 719-2018/MINSA and the study period is from 2019 to 2021, considering the year in which the pandemic began. It can be seen that in 2019, the magnitude of complete immunization, both individually and collectively, is greater than in subsequent years. From this premise the main conclusion can be drawn, which indicates that there is an inverse association between complete immunization and the tenure of anemia in children under 5 years of age.

**Keywords:** Anemia, vaccines, children, diarrhea.

Nutrición Clínica y Dietética Hospitalaria, Volume 43, Pages 104-112

<https://doi.org/10.12873/433cabada>



# Case Report: *Cedecea lapagei* Infection: Report of a Case in Peru and Review of the Literature



**Authors:** Al-Kassab-Cordova, A.; Valdiviezo-Polo, P.; Ulloque-Badaracco, J.R.; Honorio-Arroyo, C.L.; Hueda-Zavaleta, M.; Benites-Zapata, V.A.

**Abstract:** *Cedecea lapagei* is a gram-negative, non-encapsulated, facultative anaerobic bacterium that has been reported in only a few cases with varying clinical presentations, drug susceptibility, and treatment since its first isolation in 1981. This study aimed to describe a case report of *C. lapagei* in Peru and systematically review the documented case reports of individuals infected with *C. lapagei*. A 59-year-old man who had become bedridden with Parkinson's disease and had epilepsy presented with a 1-week history of fever and sore throat and was admitted. Physical examination revealed an obtundation state and abolished vesicular murmur in the right hemithorax. During hospitalization, the patient was diagnosed with various infections, including tuberculosis, for which he received broad-spectrum antibiotics. In the absence of clinical improvement, a urine culture was performed showing *C. lapagei* (detected by BD Phoenix M50 system, Vernon Hills, IL). The patient received amoxicillin/clavulanate and was discharged. Case reports of *C. lapagei* were also searched in five databases on January 28, 2023. Twenty cases of *C. lapagei* were reported worldwide between 2006 and 2022, 16 of which involved adults. Fever was the most common manifestation (75%), and pneumonia was the primary form of presentation (45%). Moreover, 90% of the patients had at least one comorbidity, and 15% died. Also,



# Case Report: *Cedecea lapagei* Infection: Report of a Case in Peru and Review of the Literature



most of the isolates were sensitive to ciprofloxacin (81%), meropenem (62%), and amikacin (60%). Overall, *C. lapagei* should be suspected in compromised hosts, particularly those with pneumonia. Although the bacterium can affect various organs and the antibiotic susceptibility pattern is variable, quinolones, tetracyclines, and carbapenems seem to be the first therapeutic option.

**Keywords:** American Journal of Tropical Medicine and Hygiene, Volume 109, Pages 356-367

<https://doi.org/10.4269/ajtmh.23-0168>





# Relationship Between Fear of COVID-19, Conspiracy Beliefs About Vaccines and Intention to Vaccinate Against COVID-19: A Cross-National Indirect Effect Model in 13 Latin American Countries

**Authors:** Caycho-Rodríguez, T.; Tomás, J.M.; Yupanqui-Lorenzo, D.E.; Valencia, P.D.; Carbajal-León, C.; Vilca, L.W.; Ventura-León, J.; Paredes-Angeles, R.; Arias Gallegos, W.L.; Reyes-Bossio, M.; etc.

**Abstract:** The present study explored the predictive capacity of fear of COVID-19 on the intention to be vaccinated against COVID-19 and the influence in this relationship of conspiracy beliefs as a possible mediating psychological variable, in 13 Latin American countries. A total of 5779 people recruited through non-probabilistic convenience sampling participated. To collect information, we used the Fear of COVID-19 Scale, Vaccine conspiracy beliefs Scale-COVID-19 and a single item of intention to vaccinate. A full a priori Structural Equation Model was used; whereas, cross-country invariance was performed from increasingly restricted structural models. The results indicated that, fear of COVID-19 positively predicts intention to vaccinate and the presence of conspiracy beliefs about COVID-19 vaccines. The latter negatively predicted intention to vaccinate against COVID-19. Besides, conspiracy beliefs about COVID-19 vaccines had an indirect effect on the relationship between fear of COVID-19 and intention to vaccinate against COVID-19 in the 13 countries assessed. Finally, the cross-national similarities of the mediational model among the 13 participating countries are strongly supported. The study is the first to test a cross-national mediational model across variables in a large number of Latin American countries. However, further studies with other countries in other regions of the world are needed.

**Keywords:** COVID-19; beliefs; conspiracy; fear; vaccination.

Evaluation and the Health Professions

<https://doi.org/10.1177/01632787231186621>



# Systemic Immune-Inflammation Index and Mortality in Testicular Cancer: A Systematic Review and Meta-Analysis



**Authors:** Salazar-Valdivia, F.E.; Valdez-Cornejo, V.A.; Ulloque-Badaracco, J.R.; Hernandez-Bustamante, E.A.; Alarcón-Braga, E.A.; Mosquera-Rojas, M.D.; Garrido-Matta, D.P.; Herrera-Añazco, P.; Benites-Zapata, V.A.; Hernandez, A.V.

**Abstract:** The systemic immune-inflammation index (SII) is a marker studied in multiple types of urologic cancer. This systematic review evaluates the association between SII values with overall survival (OS) and progression-free survival (PFS) in testicular cancer. We searched observational studies in five databases. The quantitative synthesis was performed using a random-effects model. The risk of bias was assessed using the Newcastle-Ottawa Scale (NOS). The only measure of the effect was the hazard ratio (HR). A sensitivity analysis was performed according to the risk of bias in the studies. There were 833 participants in a total of 6 cohorts. We found that high SII values were associated with worse OS (HR = 3.28; 95% CI 1.3-8.9;  $p < 0.001$ ;  $I^2 = 78$ ) and PFS (HR = 3.9; 95% CI 2.53-6.02;  $p < 0.001$ ;  $I^2 = 0$ ). No indication of small study effects was found in the association between SII values and OS ( $p = 0.5301$ ). High SII values were associated with worse OS and PFS. However, further primary studies are suggested to enhance the effect of this marker in different outcomes of testicular cancer patients.

**Keywords:** Meta-analysis; overall survival; progression free survival; systemic immune-inflammation index; testicular cancer.

Diagnostics, Volume 13

<https://doi.org/10.3390/diagnostics13050843>



# Clinical standards for the diagnosis and management of asthma in low- and middle-income countries



**Authors:** Jayasooriya, S.; Stolbrink, M.; Khoo, E.M.; Sunte, I.T.; Awuru, J.I.; Cohen, M.; Lam, D.C.; Spanevello, A.; Visca, D.; Centis, R.; Migliori, G.B.; Ayuk, A.C.; Buendia, J.A.; Awokola, B.I.; Del-Rio-Navarro, B.E.; etc.

**Abstract:** **C K G R O U N D:** The aim of these clinical standards is to aid the diagnosis and management of asthma in low-resource settings in low- and middle-income countries (LMICs). **M E T H O D S:** A panel of 52 experts in the field of asthma in LMICs participated in a two-stage Delphi process to establish and reach a consensus on the clinical standards. **R E S U L T S:** Eighteen clinical standards were defined: Standard 1, Every individual with symptoms and signs compatible with asthma should undergo a clinical assessment; Standard 2, In individuals (>6 years) with a clinical assessment supportive of a diagnosis of asthma, a hand-held spirometry measurement should be used to confirm variable expiratory airflow limitation by demonstrating an acute response to a bronchodilator; Standard 3, Pre- and post-bronchodilator spirometry should be performed in individuals (>6 years) to support diagnosis before treatment is commenced if there is diagnostic uncertainty; Standard 4, Individuals with an acute exacerbation of asthma and clinical signs of hypoxaemia or increased work of breathing should be given supplementary oxygen to maintain saturation at 94–98%; Standard 5, Inhaled short-acting beta-2 agonists (SABAs) should be used as an emergency reliever in individuals with asthma via an appropriate spacer device for metered-dose inhalers; Standard 6, Short-course oral corticosteroids should be administered in appropriate doses to individuals having moderate to severe acute asthma exacerbations (minimum 3–5 days); Standard 7, Individuals having a severe asthma exacerbation should receive emergency care, including oxygen therapy, systemic corticosteroids, inhaled bronchodilators (e.g., salbutamol with or without ipratropium bromide) and a single dose of intravenous magnesium sulphate should be considered; Standard 8, All individuals with asthma should receive education about asthma and a personalised

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action plan; Standard 9, Inhaled medications (excluding dry-powder devices) should be administered via an appropriate spacer device in both adults and children. Children aged 0–3 years will require the spacer to be coupled to a face mask; Standard 10, Children aged [removed]12 years is not recommended as it is associated with increased risk of morbidity and mortality. It should only be used where there is no access to ICS. The following standards (14–18) are for settings where there is no access to inhaled medicines. Standard 14, Patients without access to corticosteroids should be provided with a single short course of emergency oral prednisolone; Standard 15, Oral SABA for symptomatic relief should be used only if no inhaled SABA is available. Adjust to the individual's lowest beneficial dose to minimise adverse effects; Standard 16, Oral leukotriene receptor antagonists (LTRA) can be used as a preventive medication and is preferable to the use of long-term oral systemic corticosteroids; Standard 17, In exceptional circumstances, when there is a high risk of mortality from exacerbations, low-dose oral prednisolone daily or on alternate days may be considered on a case-by-case basis; Standard 18. Oral theophylline should be restricted for use in situations where it is the only bronchodilator treatment option available. C O N C L U S I O N: These first consensus-based clinical standards for asthma management in LMICs are intended to help clinicians provide the most effective care for people in resource-limited settings.

**Keywords:** asthma, chronic respiratory disease, clinical standards, low-income, middle-income countries, noncommunicable disease, Asthma Management, Low- and Middle-Income Countries , (LMICs), Clinical Standards, Delphi Process, Spirometry, Acute Exacerbation, Inhaled Medications, Corticosteroids, Personalized Action Plan, Resource-Limited Settings

International Journal of Tuberculosis and Lung Disease, Volume 27, Pages 658-667

<https://doi.org/10.5588/ijtld.23.0203>





# Association of apolipoproteins and lipoprotein(a) with metabolic syndrome: a systematic review and meta-analysis



**Authors:** Ulloque-Badaracco, J.R.; Al-kassab-Córdova, A.;Hernandez-Bustamante, E.A.; Alarcon-Braga, E.A.; Huayta-Cortez, M.; Carballo-Tello, X.L.; Seminario-Amez, R.A; Herrera-Añazco, P; Benites-Zapata, V.A.

**Abstract:** Background & aims: Apolipoproteins and lipoprotein(a) are associated with various cardiometabolic diseases, including insulin resistance, diabetes mellitus, hypertension, dyslipidemia, among others. This systematic review and meta-analysis was conducted to evaluate the association of these markers with metabolic syndrome (MetS). Methods: We ran a systematic search through PubMed, Scopus, Embase, Ovid/Medline, and Web of Science on March 15, 2023. No language or date restrictions were applied. The only synthesised effect measure reported was the odds ratio (OR) with its corresponding 95% confidence interval (95% CI). We utilised the random-effects model for the quantitative synthesis. Results: We analysed 50 studies (n = 150 519) with different definitions for MetS. Increased ApoB values were associated with MetS (OR = 2.8; 95% CI: 2.44–3.22; p < 0.01, I<sup>2</sup> = 99%). Decreased ApoA1 values were associated with MetS (OR = 0.42; 95% CI: 0.38–0.47; p < 0.01, I<sup>2</sup> = 99%). Increased values of the ApoB/ApoA1 ratio were associated with MetS (OR = 4.97; 95% CI: 3.83–6.44; p < 0.01, I<sup>2</sup> = 97%). Decreased values of Lp(a) were associated with MetS (OR = 0.89; 95% CI: 0.82–0.96; p < 0.01; I<sup>2</sup> = 92%). Conclusions: Increased values of ApoB and ApoB/ApoA1 ratio are associated with MetS,

# Association of apolipoproteins and lipoprotein(a) with metabolic syndrome: a systematic review and meta-analysis



while decreased values of ApoA1 and Lp(a) are associated with MetS. These findings suggest that these lipid markers may serve as potential indicators for identifying subjects at risk of developing MetS. However, further research is required to elucidate the underlying mechanisms of these associations.

**Keywords:** Metabolic syndrome, Apolipoproteins, Lipoprotein(a)

Lipids in Health and Disease, Volume 22

<https://doi.org/10.1186/s12944-023-01860-w>



# Isolated cardiac valve involvement in smoldering adult T-cell leukemia/lymphoma



**Authors:** Aguilar, C.; Beltran, B.E.; Morales, D.; Gutiérrez-Garibay, M.; Villela, L.; Marques-Piubelli, M.L.; Vega, F.; Miranda, R.N.; Malpica, L.

**Abstract:** Adult T-cell leukemia/lymphoma (ATLL) is an aggressive mature T-cell neoplasm caused by infection with the Human T-cell Lymphotropic Virus Type 1 (HTLV-1). Cardiac involvement in patients with ATLL is infrequent, and when it happens it is usually seen in aggressive ATLL subtypes. However, ATLL presenting as isolated cardiac valve involvement is extremely rare. To date, only three histologically proven cases of ATLL with isolated cardiac valve involvement have been reported. Herein, we describe a 61-year-old Peruvian man who presented heart failure symptoms secondary to progressive cardiac valve infiltration. The patient underwent mitral valve replacement with a mechanical prosthesis. Histopathological evaluation of the resected valve revealed leaflet thickening with a nodular appearance due to fibrous tissue containing atypical T-lymphocytes with Foxp3 expression, infiltrating all layers of the resected valve. Interestingly, tumor cells were distributed around an incidental venous malformation (i.e., cavernous hemangioma). Postoperative evaluation demonstrated positive serology for HTLV-1, and a diagnosis of ATLL was established. Postoperative positron emission tomography/computed tomography did not show lesions outside the heart and cell blood counts were within normal range with low level of circulating CD4+ CD25+ lymphoma cell counts (7%); therefore, patient's disease was considered as smoldering ATLL and a “watch and wait” strategy was pursued. Currently, the patient is alive with no progression of disease after 18 months from diagnosis. Isolated cardiac valve involvement by ATLL should be considered in the differential diagnosis of HTLV-1 carriers with progressive heart failure, even when systemic lymphoma involvement is absent or not apparent.

**Keywords:** Adult T-cell leukemia/lymphoma; HTLV-1; cardiac valve; mitral valve.

Cardiovascular Pathology, Volume 64,

<https://doi.org/10.1016/j.carpath.2022.107513>



# Telomere Length in Patients with Gestational Diabetes Mellitus and Normoglycemic Pregnant Women: a Systematic Review and Meta-analysis



**Authors:** Pérez-López, F.R.; López-Baena, M.T.; Ulloque-Badaracco, J.R.; Benites-Zapata, V.A.

**Abstract:** We performed a systematic review and meta-analysis of studies assessing telomere length in blood leukocytes or mononuclear cells in women with gestational diabetes mellitus (GDM) and normoglycemic pregnant women (NPW) and their infants. The review protocol was registered in PROSPERO (CRD42022300950). Searches were conducted in PubMed, Embase, LILACS, CNKI, and Wang Fang, from inception through November 2022. The primary outcomes were maternal and offspring telomere length. The Newcastle-Ottawa Scale was used to assess the quality of included studies. Random-effect meta-analyses were applied to estimate standardized mean differences (SMDs) and their 95% confidence interval (CI). The meta-analysis of four studies showed no significant maternal telomere length difference (SMD = -0.80, 95% CI: -1.66, 0.05) in women with GDM compared to NPW. In the sensibility analysis omitting one study with a small sample of women, the telomere length becomes significantly reduced in women with GDM (SMD = -1.10, 95% CI: -2.18, -0.02). GDM patients had increased glucose (SMD = 0.28, 95% CI: 0.09, 0.46) and glycosylated hemoglobin than NPW (SMD = 0.62, 95% CI: 0.23, 1.01) while total cholesterol, high-density lipoprotein cholesterol, low-density lipoprotein cholesterol, and triglycerides did not display differences between women with and without GDM.

# Telomere Length in Patients with Gestational Diabetes Mellitus and Normoglycemic Pregnant Women: a Systematic Review and Meta-analysis



There was no significant difference in cord blood telomere length in offspring from women with GDM and NPW (SMD = 0.11, 95% CI: -0.52, 0.30). Cord blood insulin levels (SMD = 0.59, 95% CI: 0.33, 0.85) and birthweight (SMD = 0.59, 95% CI: 0.39, 0.79) were higher in offspring from pregnant women with GDM than in those from NPW. There were no significant differences in maternal and offspring telomere length between pregnancies with and without GDM.

**Keywords:** Birthweight; Gestational diabetes mellitus; Glucose; Glycosylated hemoglobin; Insulin; Telomere length.

Reproductive Sciences

<https://doi.org/10.1007/s43032-023-01306-9>



# Herd immunity in older adults from a middle-income country: A time-series trend analysis of community-acquired pneumonia mortality 2003–2017



**Authors:** Sanchez, C.A.; Rivera-Lozada, O.; Lozada-Urbano, M.; Best-Bandenay, P.

**Abstract:** Background and aims: Community-acquired pneumonia is responsible for substantial mortality, and pneumococcus is commonly accepted as a major cause of pneumonia, regardless of laboratory confirmation. Child immunization programs have reported success in decreasing pneumonia mortality: directly in young children and indirectly (herd immunity) in unvaccinated adult populations in some countries. We assess changes in mortality trends for all-cause pneumonia in older adults associated with the introduction of pneumococcal vaccination for children in Peru.

**Methods:** This is a secondary analysis on administrative data collected periodically by the Peruvian Ministry of Health. An observational retrospective time series analysis was conducted using longitudinal population-based data from death certificates in Peru between 2003 and 2017. The time series includes 6 years before and 9 years after the introduction of the pneumococcal-conjugated vaccines in the national child immunization program in 2009. Monthly frequencies and annual rates for all-cause pneumonia deaths in children under 5 years of age and adults over 65 years of age are presented. Linear and quadratic trends are analyzed.

**Results:** Deaths among older adults accounted for 75.6% of all-cause pneumonia mortality in Peru, with 94.4% of these reporting “pneumonia due to unspecified organism” as the underlying cause of death. Comparing pre- and post-child im-



# Herd immunity in older adults from a middle-income country: A time-series trend analysis of community-acquired pneumonia mortality 2003–2017



munization program periods, annual average mortality rates from unspecified pneumonia decreased by 22.7% in young children but increased by 19.6% in older adults. A linear trend model supports this overall tendency, but a quadratic curve explains the data better.

**Conclusion:** Pneumococcal-conjugated vaccines are developed using serotypes prevalent in selected countries from less common (invasive) pneumococcal disease and expected to prevent mortality worldwide from widespread (noninvasive) pneumonia. Our results do not support the presence of herd immunity from pneumococcal vaccination of children for community-acquired pneumonia in the increasingly ageing population of Peru. This should direct future research and could influence public health policy.

**Keywords:** Peru; aged population; mortality; pneumococcus-conjugated vaccine; pneumonia.

Health Science Reports, Volume 6

<https://doi.org/10.1002/hsr2.1224>



# How Good Is Online Information for Patients on the Treatment for Luminal Gastrointestinal Cancers? A Comprehensive Evaluation in English and Spanish



**Authors:** Beas, R.; Cabanillas-Ramirez, C.; Izquierdo-Veraza, D.; Chapoñan-Lavalle, A.; Norwood, D.; Sato-Espinoza, K.; Riva-Moscoso, A.; Ribaudó, I.; Ramirez-Rojas, M.; Beran, A.; Montalvan-Sanchez, E.E.

**Abstract:** The internet has become a necessary communication platform for health information. The quality of online material for patients varies significantly, and this is not different for material on gastrointestinal cancers. We aimed to assess English and Spanish online patient information addressing esophageal, gastric, and colorectal cancer treatment. Six independent Google searches were conducted using the terms: esophageal cancer treatment, gastric cancer treatment, colorectal cancer treatment, and their translations in Spanish. Websites were included in the top 50 results for each search. Readability was assessed using two validated tests for each language. Understandability/actionability, quality, and cultural sensitivity were assessed using Patient Education Materials Assessment Tool (PEMAT), DISCERN, and Cultural Sensitivity Assessment Tool (CSAT), respectively. Pearson's chi-squared was used for categorical variables and Wilcoxon rank-sum (2 groups) or Kruskal-Wallis (> 2 groups) for continuous. One hundred twelve websites were analyzed. Readability levels were high in both languages (between 11th grade and university level) and significantly higher in English. Mean quality scores for English and Spanish were consistent with good quality. CSAT scores met the cultural





# How Good Is Online Information for Patients on the Treatment for Luminal Gastrointestinal Cancers? A Comprehensive Evaluation in English and Spanish



acceptability with lower CSAT scores for gastric cancer treatment in English. Higher actionability scores were found in English for colorectal cancer. Also, there was a clear trend for higher cultural sensitivity and quality of Spanish material for gastric cancer treatment. Online patient information on esophageal, gastric, and colorectal cancer treatment, in English and Spanish, were at a readability level above the average literacy level and even significantly higher in English. Initiatives to improve online information on gastrointestinal cancer treatments are warranted.

**Keywords:** Colorectal cancer; Esophageal cancer; Gastric cancer; Online health information; Quality; Readability; Understandability.

Journal of Cancer Education

<https://doi.org/10.1007/s13187-023-02335-3>





# Highly active antiretroviral therapy discontinuation time is associated with therapeutic failure among human immunodeficiency virus (HIV)-infected immigrant adults: A cohort study from a Peruvian referral hospital during the Venezuelan exodus

**Authors:** Rebolledo-Ponietsky, K.; Al-kassab-Córdova, A.; Lucchetti-Rodríguez, A.; Cabieses, B.; Rodríguez-Morales, A.J.; Mezones-Holguín, E.

**Abstract:** Objective: To evaluate the association between Highly Active Antiretroviral Therapy (HAART) discontinuation time and therapeutic failure (TF) in Venezuelan immigrants with HIV that restart HAART.

**Methods:** We carried out a retrospective cohort study in a large hospital in Peru. We included Venezuelan immigrants who restarted HAART and were followed over at least 6 months. The primary outcome was TF. Secondary outcomes were immunologic (IF), virologic (VF) and clinical (CF) failures. The exposure variable was HAART discontinuation, categorised as no discontinuation, less than 6 months, and 6 months or more. We applied generalised linear models Poisson family with robust standard errors to calculate crude (cRR) and adjusted (aRR) relative risks by statistical and epidemiological criteria.

**Results:** We included 294 patients, 97.2% were males, and the median age was 32 years. Out of all the patients, 32.7%





# Highly active antiretroviral therapy discontinuation time is associated with therapeutic failure among human immunodeficiency virus (HIV)-infected immigrant adults: A cohort study from a Peruvian referral hospital during the Venezuelan exodus

discontinued HAART for less than 6 months, 15.0% discontinued for more than 6 months and the remaining 52.3% did not discontinue. The cumulative incidence of TF was 27.9%, 24.5% in VF, 6.0% in IF and 6.0% in CF. Compared with non-discontinued HAART patients, the discontinuation for less than 6 months (aRR = 1.98 [95% CI: 1.27-3.09]) and from 6 months to more (aRR = 3.17 [95% CI: 2.02-4.95]) increased the risk of TF. Likewise, treatment discontinuation of up to 6 months (aRR = 2.32 [95% CI: 1.40-3.84]) and from 6 months to more (aRR = 3.93 [95% CI: 2.39-6.45]) increased the risk of VF.

Conclusions: HAART discontinuation increases the probability of TF and VF in Venezuelan immigrants.

**Keywords:** HIV; Peru; emigrants and immigrants; highly active antiretroviral therapy; treatment failure.

Tropical Medicine and International Health, Volume 28, Pages 641-652

<https://doi.org/10.1111/tmi.13909>



# Associated factors to depression diagnosed during incarceration in Peruvian male prisoners: a sub-analysis of the national census of prison population



**Authors:** Al-kassab-Córdova, A.; Silva-Perez, C.; Quevedo-Ramirez, A.; Mendoza Lugo, M.G.; Azcarruz-Asencios, J.; Castañeda-Montenegro, G.; Bravo-Cucci, S.; Maguina, J.L.

**Abstract: Purpose:** Depression has become a major health concern, particularly in developing countries. This disorder is highly prevalent among certain vulnerable populations, such as prisoners. In Peru, prisons are overcrowded, and the health of prisoners is neglected. Thus, this study aims to estimate the prevalence of depression diagnosed during incarceration in male inmates from all Peruvian prisons and assess its associated factors.

**Design/methodology/approach:** A cross-sectional study was conducted based on the secondary data analysis of the National Census of Prison Population 2016 in Peru. This study included records of prisoners who reported whether they were diagnosed with depression by a health-care professional after admission into the prisons. Descriptive, bivariate and multivariable analyses were performed.

**Findings:** Of the 63,312 prisoners included in this study, 1,007 reported an in-prison diagnosis of depression by a health-care professional, which represents a prevalence of 1.59%. Substance use disorder (adjusted prevalence ratio [aPR]





# Associated factors to depression diagnosed during incarceration in Peruvian male prisoners: a sub-analysis of the national census of prison population

3.10; 95% confidence interval [CI]: 1.91-5.03), hypertension (aPR 7.20; 95% CI: 6.28-8.24) and previous discrimination (aPR 1.97; 95% CI: 1.62-2.40) were strongly associated with depression, even when adjusting for multiple confounders. Other directly associated variables were, for example, violence during childhood, infrequent visits in prison and diabetes. Originality/value: The right of prisoners to adequate health care is being neglected in Peru. Mental health is a cornerstone of health quality. Acknowledging which factors are associated with depression in prison is important to implement strategies to improve the mental health of prisoners.

**Keywords:** Correctional health care; Depression; Health in prison; Peru; Prison; Prisoners.

International Journal of Prisoner Health, Volume 19, Pages 474-488

<https://doi.org/10.1108/IJPH-03-2022-0025>



# Narrative, Interactions, and Insights of Youth Participation in Digital Health Communities



**Authors:** Meza-Contreras, M.J.; Espinoza-Robles, L.T.

**Abstract:** This paper has as main objective to analyze the participation of young people in digital communities that provide them with medical information and emotional support. The digital communities of two influencers on Instagram were analyzed: Anahí De Cárdenas (Peru) and Belén Canalejo (Spain). The influencers were selected because they have publicly presented the breast cancer they suffered and used their networks to provide support to users through their treatment's diffusion, in the case of Anahí, and positive messages about mental health, in the case of Belén. A qualitative analysis was used that allowed to collect information from their followers. An ethnographic study was carried out in which the in-depth interview technique was applied to 6 users who belong to said communities. Likewise, the content analysis technique was applied in 3 videos and 3 podcasts published by the influencers with a high interaction of the followers. The results showed that young people participation in digital health communities is sustained by clearly identifiable narratives in each influencer related to trust and support. Likewise, in the interactions it was evidenced that the disease sustains the empathy of the followers, even more so if the follower has or has had the disease. Finally, in the insights of the users, the promotion of values such as generosity and equality is evident, since they see themselves as peers and promote chains of support toward the influencer and among themselves. Illness as a reality or possibility eliminates any difference or situation of inequality. This article contributes to the line of research on digital communities and health, delving into the use of social networks such as Instagram in order to address issues that contribute to the development and well-being of people.

**Keywords:** Digital community, Social media, Health, Ethnography, Content analysis

Smart Innovation, Systems and Technologies, Volume 318, Pages 367-375

[https://doi.org/10.1007/978-981-19-6347-6\\_33](https://doi.org/10.1007/978-981-19-6347-6_33)



# Perforation of the Duodenum by an Inferior Vena Cava Filter: a Potential Long-Term Complication in the Medical Device Era



**Authors:** Bretón, C.; Lozada-Martinez, I.D.; Visconti-Lopez, F.J.; Cabrera-Vargas, L.F.

**Abstract:** The perforation of the duodenum is a rare complication of inferior vena cava (IVC) filter placement. The aim of this report is to highlight the importance of high clinical suspicion in patients with a history of IVC filter placement and non-specific abdominal pain. This report presents a case of a 62-year-old male with 8 years of right upper quadrant abdominal pain, who had a history of multiple deep vein thrombosis with IVC filter placement. Upper gastrointestinal endoscopy and angiotomography were used for diagnosis. An exploratory laparotomy was performed for removal of the IVC filter and repair of the vena cava and duodenum. The patient made satisfactory recovery and was discharged from the hospital a few days later. This case highlights the importance of timely diagnosis and treatment to reduce the risk of morbidity and mortality. It also suggests that patients with this complication may have a favorable outcome if the diagnosis is made early and appropriate surgical management is provided.

**Keywords:** Duodenum, Inferior vena cava, Postoperative complications, Vena cava filters, Perforation of the duodenum, Inferior vena cava (IVC) filter placement, Clinical suspicion, Non-specific abdominal pain, Deep vein thrombosis, Upper gastrointestinal endoscopy, Angiotomography, Exploratory laparotomy, IVC filter removal, Vena cava and duodenum repair, Timely diagnosis and treatment, Surgical management

Indian Journal of Surgery

<https://doi.org/10.1007/s12262-023-03733-z>



# Development of a turbine spirometer prototype and signal digitalization



**Authors:** Chavez, H.; Herrera, C.; Tejada, F.L.; Mayra, J.B.; Moguerza, J.M.; Raymundo, C.

**Abstract:** The present research is part of the project called PHUKUY, which is a low-cost portable digital spirometer prototype designed for remote monitoring of patients with COPD and COVID-19. It also includes additional sensors for improved patient monitoring. This article presents the development of the spirometry module. A turbine spirometer was chosen for its small and lightweight size, easy cleaning and maintenance, and low-cost implementation, which allows for portability. The air-flow was successfully digitized, and its direction was detected using a microcontroller, a pair of IR receivers and emitters. This information was then sent via Bluetooth to be displayed in real-time on a mobile phone. For a 3-liter calibration, a maximum error of  $\pm 0.115$  liters and a standard deviation of 0.051 were achieved.

**Keywords:** Spirometry, Patient monitoring, Prototypes, Receivers, Real-time systems, Sensors, Calibration

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# Therapies for patients with coexisting heart failure with reduced ejection fraction and non-alcoholic fatty liver disease



**Authors:** Arriola-Montenegro, J.; Beas, R.; Cerna-Viacava, R.; Chaponan-Lavalle, A.; Hernandez Randich, K.; Chambergo-Michilot, D.; Flores Sanga, H.; Mutirangura, P.

**Abstract:** Heart failure with reduced ejection fraction (HFrEF) and nonalcoholic fatty liver disease (NAFLD) are two common comorbidities that share similar pathophysiological mechanisms. There is a growing interest in the potential of targeted therapies to improve outcomes in patients with coexisting HFrEF and NAFLD. This manuscript reviews current and potential therapies for patients with coexisting HFrEF and NAFLD. Pharmacological therapies, including angiotensin-converting enzyme inhibitors/angiotensin receptor blockers, mineralocorticoids receptor antagonist, and sodium-glucose cotransporter-2 inhibitors, have been shown to reduce fibrosis and fat deposits in the liver. However, there are currently no data showing the beneficial effects of sacubitril/valsartan, ivabradine, hydralazine, isosorbide nitrates, digoxin, or beta blockers on NAFLD in patients with HFrEF. This study highlights the importance of considering HFrEF and NAFLD when developing treatment plans for patients with these comorbidities. Further research is needed in patients with coexisting HFrEF and NAFLD, with an emphasis on novel therapies and the importance of a multidisciplinary approach for managing these complex comorbidities.

**Keywords:** Non-alcoholic fatty liver disease, Heart Failure, Heart failure reduced ejection fraction, Novel therapies, Cardiovascular disease

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# Infant mortality rates and pneumococcal vaccines: A time-series trend analysis in 194 countries, 1950-2020



**Authors:** Sanchez, C.A.; Rivera-Lozada, O.; Lozada-Urbano, M.; Best, P.

**Abstract:** Pneumonia due to *Streptococcus pneumoniae* (pneumococcus) is a major cause of mortality in infants (children under 1 year of age), and pneumococcal conjugate vaccines (PCVs), delivered during the first year of life, are available since the year 2000. Given those two premises, the conclusion follows logically that favourable impact reported for PCVs in preventing pneumococcal disease should be reflected in the infant mortality rates (IMRs) from all causes. Using publicly available datasets, country-level IMR estimates from UNICEF and PCV introduction status from WHO, country-specific time series analysed the temporal relationship between annual IMRs and the introduction of PCVs, providing a unique context into the long-term secular trends of IMRs in countries that included and countries that did not include PCVs in their national immunisation programmes. PCV status was available for 194 countries during the period 1950–2020: 150 (77.3%) of these countries achieved nationwide PCV coverage at some point after the year 2000, 13 (6.7%) achieved only partial or temporary PCV coverage, and 31 (15.9%) never introduced PCVs to their population. One hundred and thirty-nine (92.7%) of countries that reported a decreasing (negative) trend in IMR, also reported a strong correlation with decreasing maternal mortality rates (MMRs), suggesting an improvement in overall child/mother health-

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care. Conversely, all but one of the countries that never introduced PCVs in their national immunisation programme also reported a decreasing trend in IMR that strongly correlates with MMRs. IMRs have been decreasing for decades all over the world, but this latest decrease may not be related to PCVs.

**Keywords:** Child health, Immunisation, Pneumococcal disease, Vaccines, Pneumonia, Streptococcus pneumoniae, Pneumococcal Conjugate Vaccines (PCVs), Infant Mortality Rates (IMRs), Maternal Mortality Rates (MMRs), Public Health Datasets, UNICEF, World Health Organization (WHO), National Immunisation Programmes, Temporal Analysis

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# Endometrial telomerase activity in women with either endometrial cancer or hyperplasia: A systematic review and meta-analysis



**Authors:** Pérez-López, F.R.; Ulloque-Badaracco, J.R.; López-Baena, M.T.; Yuan, J.; Alarcón-Braga, E.A.; Benites-Zapata, V.A.

**Abstract:** Aim: We performed a systematic review and meta-analysis to assess whether endometrial telomerase activity is associated with endometrial cancer or hyperplasia.

**Methods:** PubMed, Web of Science, Embase, Scielo, LILAC, and CNKI databases were searched to obtain relevant literature for articles published through June 2022, following PRISMA guidelines and a registered PROSPERO protocol. We included observational studies reporting endometrial telomerase activity in patients with either endometrial cancer or hyperplasia compared with benign endometrial tissue (control women). The Newcastle-Ottawa Scale was used to evaluate the quality of studies. Data were expressed as the odds ratios (OR) and 95 % confidence intervals (CI). Random effects and inverse variance methods were used to meta-analyze associations. The I<sup>2</sup> test was used to assess heterogeneity.

**Results:** There were significant associations between endometrial telomerase activity and either endometrial cancer (20 studies, OR = 10.65, 95 % CI 6.39, 17.75,  $p = 0.00001$ , I<sup>2</sup> = 21 %) or endometrial hyperplasia (nine studies, OR = 3.62, 95 % CI 1.61, 8.13,  $p = 0.002$ , I<sup>2</sup> = 36 %) compared to women without endometrial cancer and hyperplasia. There was not a significant difference in telomerase activity in women with endometrial cancer compared to those with endometrial



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hyperplasia (seven studies, OR = 1.03; 95 % CI 0.31, 3.37,  $p = 0.96$ ,  $I^2 = 49\%$ ). In subgroup analyses, there were no significant differences in telomerase activity in patients with endometrial cancer by type of observational studies and by countries of the studies.

**Conclusion:** Endometrial telomerase activity is higher in women with either endometrial cancer or endometrial hyperplasia compared to control women without those lesions.

**Keywords:** Endometrial cancer; Endometrial hyperplasia; Telomerase activity; meta-analysis.

Maturitas, Volume 174, Pages 57-66

<https://doi.org/10.1016/j.maturitas.2023.05.003>



# Impact of COVID-19 on quality of life in Peruvian older adults: construct validity, reliability and invariance of the COV19-Impact on Quality of Life (COV19-QoL) measurement



**Authors:** Caycho-Rodríguez, T.; Carbajal-León, C.; Vilca, L.W.; Reyes-Bossio, M.; Gallegos, M.; Esteban, R.C.; Noe-Grijalva, M.; Gallegos, W.L.A.; Delgado-Campusano, M.; Muñoz-del-Carpio-Toia, Á.

**Abstract:** The aim of the present study was to translate into Spanish and evaluate the psychometric evidence of the Impact on Quality of Life (COV19-QoL) applied to a sample of Peruvian older adults (N = 298; 58.1% women, 41.9% men, mean age 65.34 years [SD = 11.33]). The study used techniques from the Classical Test Theory (CTT) and Item Response Theory (IRT). The findings confirmed the single factor structure of the COV19-QoL, high internal consistency reliability, measurement invariance by gender, and all items demonstrated adequate discrimination and difficulty indices. In this sense, the items allow adequate discrimination between low, medium and high levels of the impact of the COVID-19 pandemic on quality of life. In addition, a greater perceived impact of the pandemic on quality of life is necessary to answer the higher response options of the COV19-QoL. In conclusion, the COV19-QoL is a valid measurement scale of the impact of the COVID-19 pandemic on the quality of life of Peruvian older adults.

**Keywords:** COV19-QoL; Older adults; Quality of life; Validity.

Psicología: Reflexao e Critica, Volume 36

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# Evaluating the Depression Level Based on Facial Image Analyzing and Patient Voice



**Authors:** Ramos-Cuadros, A.; Santillan, L.P.,Ugarte, W.

**Abstract:** Depression is regarded as a widespread mental condition that affects people of all ages. It has a negative impact on a variety of aspects of life, including mood, vigor, and interests in enjoying activities. In the most severe cases, depression can also result in suicide. creating the chance for collaboration between mental health professionals and the use of technical tools to enhance the assessment of the severity of depression to offer the patient with an ideal clinical diagnosis and an appropriate referral to begin treatment. The COVID-19 epidemic in Peru has decreased face-to-face interaction and quick access to medical professionals, making it more difficult for patients' mental health to be identified or treated effectively, which results in the disease becoming chronic, psychological suffering, and high costs associated with specialized care. The implementation of a technology model that assesses degrees of recurrent depression by examining facial photos and voice to identify the chronicity of depressive symptoms in young Peruvians is thus one of the research's problems. Our findings demonstrate that, based on the functions of the mobile application, adolescent patients were predisposed to complete a self-administered depression questionnaire in a simulated setting with an optimal feeling of satisfaction and usefulness.

**Keywords:** Depression, Facial detection, Audio analysis

Communications in Computer and Information Science , Volume 1856, Pages 35-55

[https://doi.org/10.1007/978-3-031-37496-8\\_3](https://doi.org/10.1007/978-3-031-37496-8_3)



# A new surgical technique for left atrial reduction in giant left atrium



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## **Abstract:** Objective

The study objective was to evaluate the safety and clinical and echocardiographic outcomes of a new surgical technique in adult patients diagnosed with a giant left atrium.

## **Methods**

We analyzed a cohort of patients who underwent left atrium reduction surgery between January 2016 and June 2020 performed by a specialized surgical team in 2 national reference centers in Lima, Peru. We assessed the major adverse valvular-related events and the New York Heart Association functional class as primary clinical outcomes. Also, our primary echocardiographic endings were the diameter, area, and volume of the left atrium. We assessed these variables at 3 time periods: baseline (t0), perioperative period (t1), and extended follow-up (t2:  $12 \pm 3.4$  months). We carried out descriptive and bivariate exploratory statistical analysis for dependent measures.

## **Results**





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We included 17 patients, 70.6% of whom were women. Rheumatic mitral valve disease (76.5%) was the main etiology. We performed 14 (82.4%) mitral valve replacements and 3 repairs. Major adverse valvular-related events occurred in 1 patient (5.9%) (hemorrhagic stroke) at t1. A significant reduction in the size of the left atrium was observed: diameter (77 mm vs 48 mm,  $P < .001$ ), area (75 cm<sup>2</sup> vs 31 cm<sup>2</sup>,  $P < .001$ ), and volume (332 cm<sup>3</sup> vs 90 cm<sup>3</sup>,  $P < .001$ ). Compared with t0 and t1, these echocardiographic findings remained without significant changes during t2.

## Conclusions

Our surgical left atrium reduction technique was associated with improved clinical functionality and reduced left atrium measures in patients with a giant left atrium undergoing mitral valve surgery.

**Keywords:** Atrial fibrillation, developing countries, giant left atrium, left atrial reduction surgery, mitral valve disease

JTCVS Techniques, Volume 17, Pages 56-64

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# Genomic characterization of *Staphylococcus aureus* from Canastra Minas Artisanal Cheeses



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**Abstract:** Canastra Minas Artisanal Cheese is produced in the Brazilian State of Minas Gerais using raw milk, rennet, and pingo, a natural endogenous starter culture (fermented whey) collected from the previous day's production. Due to the use of raw milk, the product can carry microorganisms that may cause foodborne diseases (FBD), including *Staphylococcus aureus*. Genomic characterization of *S. aureus* is an important tool to assess diversity, virulence, antimicrobial resistance, and the potential for causing food poisoning due to enterotoxin production. This study is aimed at exploring the genomic features of *S. aureus* strains isolated from Canastra Minas Artisanal Cheeses. Multilocus sequence typing (MLST) classified these strains as ST1, ST5, and a new profile ST7849 (assigned to the clonal complex CC97). These strains belonged to four *spa* types: t008, t127, t359, and t992. We identified antimicrobial resistance genes with phenotypic correlation against methicillin (MRSA) and tetracycline. Virulome analysis revealed genes associated with iron uptake, immune evasion, and potential capacity for adherence and biofilm formation. The toxigenic potential included cyto- and exotoxins genes, and all strains presented the genes that encode for Pantone-Valentine toxin and hemolysin, and two strains encoded 4 and 8 Staphylococcal enterotoxin (SE) genes. The results revealed the pathogenic potential of the evaluated *S. aureus* strains circulating in the Canastra region, representing a potential risk to public health. This study also provides useful information to monitor and guide the application of control measures to the artisanal dairy food production chain.

**Keywords:** Enterotoxins; MLST; Mobilome; Molecular typing; Resistome; Virulome.

Brazilian Journal of Microbiology, Volume 54, Pages 2103-2116

<https://doi.org/10.1007/s42770-023-01099-8>



# Reasons for the use of masks in open areas after the Peruvian government announced that it will no longer be mandatory in the context of COVID-19 in 2022



**Authors:** Caycho-Rodríguez, T.; Oré-Kovacs, N.; Carbajal-León, C.; Llerena-Espezúa, X.; Yupanqui-Lorenzo, D.E.; Torales, J.

**Abstract:** Introduction: In Peru, a high proportion of fully immunized people against COVID-19 has been achieved, which has mitigated the severity of the disease. Thus, under the recommendation of experts, the Peruvian government issued Supreme Decree 118-2022-PCM, which indicated that the use of masks is optional in open and ventilated enclosed spaces as of October 1, 2022. Objective: The aim of the present study was to find out the reasons why people continued to wear masks even though it was not mandatory in outdoor environments. Methods: A total of 335 people participated, with an average age of 26.11 years (73.1% women). A data collection form was prepared where sociodemographic and health information was requested; in addition, the question “Why do you continue to wear mask despite it being optional in open and closed ventilated spaces?” was included. The data obtained from the last open question of the instrument was analyzed by means of a discursive textual analysis (DTA) and an exploratory analysis through IRAMUTEQ. Results: Results indicate that people continue to wear masks, despite the lifting of the restrictions, to avoid contagion of COVID-19 and other respiratory diseases. In addition, the prevention of possible infection and transmission of the virus also focused



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on the family and vulnerable people. Discussion: It is concluded that the practice of wearing masks may be influenced by individual perceptions of risk and interpretations of responsibility and solidarity towards others.

**Keywords:** COVID-19, mask, reasons, risk

Medicina Clinica y Social, Volume 7, Pages 61-69

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# Clinical standards for drug-susceptible TB in children and adolescents



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**Abstract:** BACKGROUND: These clinical standards aim to provide guidance for diagnosis, treatment, and management of drug-susceptible TB in children and adolescents. METHODS: Fifty-two global experts in paediatric TB participated in a Delphi consensus process. After eight rounds of revisions, 51/52 (98%) participants endorsed the final document. RESULTS: Eight standards were identified: Standard 1, Age and developmental stage are critical considerations in the assessment and management of TB; Standard 2, Children and adolescents with symptoms and signs of TB disease should undergo prompt evaluation, and diagnosis and treatment initiation should not depend on microbiological confirmation; Standard 3, Treatment initiation is particularly urgent in children and adolescents with presumptive TB meningitis and disseminated (miliary) TB; Standard 4, Children and adolescents should be treated with an appropriate weight-based regimen; Standard 5, Treating TB infection (TBI) is important to prevent disease; Standard 6, Children and adolescents should receive home-based/community-based treatment support whenever possible; Standard 7, Children, adolescents, and their families should be provided age-appropriate support to optimise engagement in care and clinical outcomes; and Standard 8, Case reporting and contact tracing should be conducted for each child and adolescent. CONCLUSION: These consensus-based clinical standards, which should be adapted to local contexts, will improve the care of children and adolescents affected by TB.

**Keywords:** HIV; diagnosis; meningeal tuberculosis; miliary tuberculosis; treatment; tuberculosis infection

International Journal of Tuberculosis and Lung Disease, Volume 27, Pages 584-598

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# Anxiety in teachers in the COVID-19 context of two universities in the Ica region



**Authors:** Jurado-Enríquez, E.; Vargas-Prado, K.; Jurado-Retamoso, P.

**Abstract:** University teachers are a fundamental part of the process of academic and personal training of future professionals. The methodology is quantitative, basic at a comparative level where the difference between the levels of anxiety in the teachers of both universities is analysed. It has a comparative descriptive design, and its method was hypothetical deductive. The sample consisted of 57 teachers from two private universities in the Ica region in Peru, chosen by non-probabilistic sampling. The instrument was the Beck Anxiety Inventory (BAI) composed of 21 items applied through a virtual, anonymous, confidential, and voluntary form. The results showed that 73.7% of teachers have no presence of anxiety, 21.1% have a mild level and 5.3% have a moderate level. It was found that there are no significant differences in anxiety between the teachers of these two universities; having obtained a p-value of 0.275. The conclusion the highest percentage of teachers at both universities do not show symptoms related to anxiety. Finally, future research is pending to continue comparing anxiety levels.

**Keywords:** Anxiety, Teachers, Context, COVID-19, Pandemic

Human Review. International Humanities Review / Revista Internacional de Humanidades, Volume 18

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# Characteristics of theses for physician graduation: a cross-sectional study in Peru



**Authors:** Angulo-Fernandez, K.J.; Herrera-Añazco, P.; Soto-Ordoñez, S.; Bendezu-Quispe, G.

**Abstract:** Introduction: Research in Peru presents several barriers that impede its development and that also affects the theses to graduate as physician. Our objective was to characterize the theses for obtaining a medical degree in Peru. Methods: An observational and descriptive study evaluating the theses for obtaining a medical degree of 2019, evaluated in January 2022 from 22 universities that are full members of the Peruvian Association of Faculties of Medicine. Characteristics of the universities and theses were evaluated, including the evaluation of a institutional research ethics committee, the alignment with a national research priority, and publication status in a scientific journal. The absolute and relative frequencies of the study variables were described.

**Results:** A total of 1838 theses were evaluated. Most of the theses were written by a single student (66.16%). The most common study design was the descriptive cross-sectional type (42.33%). We found that 53.86% of the theses responded to a national research priority, the most common being “maternal, perinatal and neonatal health” (26.01%). Of the total, 56.75% did not indicate whether they had the approval of an institutional research ethics committee. Only 40 theses (2.19%) were published in a scientific journal (14 in indexed journals).

**Conclusion:** Two-thirds of the theses conducted by medical students in Peru are descriptive studies. Half respond to national research priorities. Four out of ten theses were approved by an institutional research ethics committee. The num-



# Characteristics of theses for physician graduation: a cross-sectional study in Peru



ber of published theses is low. The results show shortcomings in university institutional policies that encourage ethical compliance and research development.

**Keywords:** Education, Medical, Health Services Research, Academic Dissertation as topic, Students, Peru

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# Percentage of excess body mass index loss and cardiometabolic risk reduction in Peruvian adults undergoing sleeve gastrectomy



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## **Abstract:** Objective

To assess the association between the percentage of excess body mass index loss (%EBMIL) and cardiometabolic risk reduction in Peruvian adults undergoing laparoscopic sleeve gastrectomy (LSG).

## Methods

Retrospective cohort study conducted with adult patients who underwent LSG in a bariatric clinic during 2016–2020. The outcome variable was cardiometabolic risk change (expressed in  $\Delta$ ) 1 year after LSG. To that effect, the variables total cholesterol, high-density lipoprotein cholesterol, low-density lipoprotein (LDL) cholesterol, very LDL (VLDL) cholesterol, triglycerides, glucose, insulin, and HOMA-IR at baseline and after 12 months were considered. The exposure variable was %EBMIL. Crude and adjusted  $\beta$  coefficients were estimated with linear regression models.



# Percentage of excess body mass index loss and cardiometabolic risk reduction in Peruvian adults undergoing sleeve gastrectomy



## Results

Of the 110 patients analyzed, 68.2% were women, and the median patient age was 34.5 years. In the model adjusted for sex, age, and baseline BMI, we noted that each 25% increase in %EBMIL resulted in a decrease in the values for total cholesterol, LDL, triglycerides, and insulin by 10.36 mg/dL ( $p < 0.001$ ), 7.98 mg/dL ( $p = 0.001$ ), 13.35 mg/dL ( $p = 0.033$ ), and 3.63 uU/mL ( $p = 0.040$ ), respectively.

## Conclusion

%EBMIL was associated with a decrease in total cholesterol, LDL, triglycerides, and insulin levels, which could suggest a favorable cardiometabolic evolution during the first 12 months following LSG.

**Keywords:** Bariatric surgery Body mass index, Cardiovascular diseases, Metabolic syndrome, Peru

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