Infect Dis Model. 2023 Jun;8(2):445-457. doi: 10.1016/j.idm.2023.04.004. Epub 2023 Apr 20.

**SARS-CoV-2: Air pollution highly correlated to the increase in mortality. The case of Guadalajara, Jalisco, México**

**Free PMC article**

**Abstract**

**Objectives:**To determine whether air pollution or changes in SARS-CoV-2 lineages lead to an increase in mortality.

**Methods:**Descriptive statistics were used to calculate rates of infection (2020-2021). RT-PCR was used to compare viral loads from October 2020 to February 2021. Next-generation sequencing (NGS) (n = 92) was used to examine and phylogenetically map SARS-CoV-2 lineages. A correlative "air pollution/temperature" index (I) was developed using regression analysis. PM2.5, PM10, O3, NO2, SO2, and CO concentrations were analyzed and compared to the mortality.

**Results:**The mortality rate during the last year was ∼32%. Relative SARS-CoV-2 viral loads increased in December 2020 and January 2021. NGS revealed that approximately 80% of SARS-CoV-2 linages were B.1.243 (33.7%), B1.1.222 (11.2%), B.1.1 (9%), B.1 (7%), B.1.1.159 (7%), and B.1.2 (7%). Two periods were analyzed, the prehigh- and high-mortality periods and no significant lineage differences or new lineages were found. Positive correlations of air pollution/temperature index values with mortality were found for IPM2.5 and IPM10. INO2. ISO2, and ICO but not for O3. Using ICO, we developed a model to predict mortality with an estimated variation of ∼±5 deaths per day.

**Conclusion:**The mortality rate in the MZG was highly correlated with air pollution indices and not with SARS-CoV-2 lineage.

**Keywords:**Air pollution; COVID-19; Guadalajara; Mexico; SARS-CoV-2; SARS-CoV-2 lineages.

Infect Dis Rep. 2023 Jun 12;15(3):319-326. doi: 10.3390/idr15030032.

**Mpox: Fifty-Nine Consecutive Cases from a Mexican Public Hospital; Just the Tip of the STIs Iceberg**

**Free PMC article**

**Abstract**

Monkeypox (Mpox) is a zoonotic viral infection endemic to Africa, which has caused a global outbreak since April 2022. The global Mpox outbreak is related to Clade IIb. The disease has primarily affected men who have sex with men. Skin lesions are concentrated in the genital area, with lymphadenopathy as well as concurrent sexually transmitted infections (STIs). This is an observational study of adult patients with a recent development of skin lesions and systemic symptoms, which could not be explained by other diseases present. Fifty-nine PCR-positive patients with prominent skin lesions in the genital area (77.9%), inguinal lymphadenopathy (49.1%), and fever (83.0%) were included. Twenty-five (42.3%) were known to be living with human immunodeficiency virus (HIV), and 14 of the HIV-naïve subjects (51.9%) were found to be positive during workup, totaling 39 (66.1%) patients with HIV. Eighteen patients (30.5%) had concurrent syphilis infections. It is worrisome that Mpox is present in large metropolitan areas of Mexico, but the underlying growth of cases of HIV infection and other STIs has not been well studied and should be evaluated in all at-risk adults and their contacts.

**Keywords:**HIV; Mpox; human immunodeficiency virus; monkeypox; sexually transmitted diseases; syphilis.

Case Reports Am J Med Genet A. 2023 Jun 6. doi: 10.1002/ajmg.a.63321. Online ahead of print.

**Aneurysms involving the coronary arteries in a neonate with neurofibromatosis 1**

**Abstract**

Aneurysmal coronary artery disease (ACAD) has been reported rarely in patients with neurofibromatosis type 1 (NF1), mostly in adults. We report on a female newborn affected by NF1 with ACAD disclosed during investigation for an abnormal prenatal ultrasound along with a review of the previously reported cases. The proposita had multiple café-au-lait spots and had no cardiac symptoms. Echocardiography, and cardiac computed tomography angiography confirmed aneurysms on the left coronary artery, left anterior descending coronary artery, and of the sinus of Valsalva. Molecular analysis detected the pathogenic variant NM\_001042492.3(NF1):c.3943C>T (p.Gln1315\*). Literature findings on ACAD in NF1 indicated that this mostly occurs in males, showing predilection for the development of aneurysms at the left anterior descending coronary artery, and manifesting predominantly as acute myocardial infarction, inclusively in teenagers, though it may be also asymptomatic as in our case. This report documents the first case of ACAD in a patient with NF1 diagnosed at birth, emphasizing that its early diagnosis is essential to prevent potential life-threatening events attributable directly to coronary lesions.

**Keywords:**aneurysm; café-au-lait spots; coronary artery; neurofibromatosis; sinus of Valsalva.

# [Third National Registry of Cardiac Rehabilitation Programs in Mexico (RENAPREC III-2022)]

## Abstract

## in [English,](https://pubmed.ncbi.nlm.nih.gov/37355985/#eng-abstract)[Spanish](https://pubmed.ncbi.nlm.nih.gov/37355985/#spa-abstract)

**Introduction:**In Mexico, cardiac rehabilitation (CR) as an interdisciplinary intervention with therapeutic impact in patients with heart disease is growing. There is the need to know actual conditions of CR in our country.

**Objectives:**The objective of this National Registry is to follow-up those existing and new CR units in Mexico through the comparison between the two previous registries, RENAPREC-2009 and RENAPREC II-2015 studies. This is a descriptive study focused on diverse CR activities such as assistance training, and certification of health professionals, barriers, reference, population attended, interdisciplinarity, permanence over time, growth prospects, regulations, post-pandemic condition, integrative characteristics, and scientific research.

**Results:**Data were collected from 45 CR centers in the 32 states, 75.5% are private practice units, 67% are new, 33% were part of RENAPREC II-2015, and 17 have continued since 2009. With a better distribution of CR units along the territory, the median reference of candidates for CR programs is 9% with a significant reduction into tiempo of enrollment to Phase II admission (19 ± 11 days). Regarding to previous registries, the coverance of Phases I, II, and III is 71%, 100%, and 93%, respectively; and a coverance increases in evaluation, risk stratification, and prescription, more comprehensive attendance and prevention strategies.

**Conclusions:**CR in Mexico has grown in the past 7 years. Even there is still low reference and heterogeneity in specific processes, there are strengths such as interdisciplinarity, scientific professionalization of specialists, national diversification, and an official society that are consolidated over time.

**Keywords:**Cardiovascular rehabilitation; Mexico; National Registry; RENAPREC 2009; RENAPREC II-2015.

Alcohol. 2023 Jun 9;S0741-8329(23)00233-1. doi: 10.1016/j.alcohol.2023.06.001. Online ahead of print.

**Assessment of alcohol consumption in Mexican pregnant women by hair testing of ethyl glucuronide**

**Abstract**

There are no studies that would have utilized both biomarkers and self-reported data to evaluate maternal alcohol use during pregnancy in Mexico. Therefore, we aimed to describe the prevalence of alcohol consumption in a cohort of 300 Mexican pregnant women. We used a validated ultra-high performance liquid chromatography-tandem mass spectrometry (UHPLC-MS/MS) method to measure hair ethyl glucuronide (EtG) in hair segments that corresponded to the first and the second half of the pregnancy. We compared the hair EtG values to a self-reported questionnaire on maternal drinking habits and evaluated whether the gestational alcohol use was associated with psychotropic drug use. Based on the EtG measurements, 263 women (87.7%) were abstinent the whole pregnancy while 37 (12.3%) had used alcohol at least at some time during the pregnancy. Of these, only two women found to have problematic alcoholic behaviour during whole pregnancy. No significant differences in socio demographic characteristics were observed between abstinent women and women with drinking habits. The self-reporting data and hair EtG gave heterogeneous results: Although, 37 women had self-reported alcohol use during pregnancy, only 54.1% of those tested positive for hair EtG had done so. Of the women positive for hair EtG, 54.1% resulted positive for psychoactive substances. In our cohort, the use of drugs of abuse was independent of gestational drinking. This study provided a first objective evidence of prenatal ethanol consumption in a cohort of Mexican pregnant women.

**Keywords:**Alcohol; Biomarkers; Hair testing; Pregnancy; Prenatal exposure to alcohol.

Clinical TrialMedicina (Kaunas). 2023 Jun 11;59(6):1122. doi: 10.3390/medicina59061122.

**Evaluation of the Effects of Atorvastatin and N-Acetyl Cysteine on Platelet Counts in Patients with Primary Immune Thrombocytopenia: An Exploratory Clinical Trial**

**Free PMC article**

**Abstract**

*Objective:* We aimed to evaluate the efficacy of the combination of atorvastatin and N-acetyl cysteine in increasing platelet counts in patients with immune thrombocytopenia who were resistant to steroid therapy or had a relapse after treatment. *Material and Methods*: The patients included in this study received oral treatment of atorvastatin at a dose of 40 mg daily and N-acetyl cysteine at a dose of 400 mg every 8 h. The desired treatment duration was 12 months, but we included patients who completed at least 1 month of treatment in the analysis. The platelet counts were measured prior to the administration of the study treatment and in the first, third, sixth, and twelfth months of treatment (if available). A *p* value < 0.05 was considered statistically significant. *Results*: We included 15 patients who met our inclusion criteria. For the total treatment duration, the global response was 60% (nine patients); eight patients (53.3%) had a complete response and one patient (6.7%) had a partial response. Six patients (40%) were considered as having undergone treatment failure. Of the responder group, five patients maintained a complete response after treatment (55.5%), three patients maintained a partial response (33.3%), and one patient (11.1%) lost their response to the treatment. All of the patients in the responder group had significant increases in their platelet counts after treatment (*p* < 0.05). *Conclusion*: This study provides evidence of a possible treatment option for patients with primary immune thrombocytopenia. However, further studies are needed.

**Keywords:**N-acetyl cysteine; atorvastatin; immune thrombocytopenia; steroids.

Biomedicines. 2023 Jun 12;11(6):1696. doi: 10.3390/biomedicines11061696.

**Phase Angle in Head and Neck Cancer: A Sex-Differential Analysis from Biological and Clinical Behavior to Health-Related Quality of Life**

**Free PMC article**

**Abstract**

Head and neck cancer (H&NC) is a diverse category of tumors related to malignancies in the common aerodigestive pathway, with high metabolic rate, poor nutritional and treatment outcomes, and elevated mortality despite the best standard treatment. Herein, we focus on determining how the phase angle (PA) differs across sex as a predictor of poor prognosis, low quality-of-life (QoL) scores, and mortality in patients with head and neck cancer. This follow-up study presents a sex-differential analysis in a prospective cohort of 139 head and neck cancer patients categorized by sex as male (n = 107) and female (n = 32). Patients were compared in terms of nutritional, biochemical, and quality-of-life indicators between low and normal PA in women (<3.9° (n = 14, 43.75%) and ≥3.9°) and men (<4.5° (n = 62, 57.9%) and ≥4.5°). Our results show that most patients were in locally advanced clinical stages (women: n = 21 (65.7%); men: n = 67 (62.6%)) and that patients with low PA had a lower punctuation in parameters such as handgrip strength, four-meter walking speed, albumin, C-reactive protein (CRP), and CRP/albumin ratio (CAR), as well as the worst QoL scores in functional and symptomatic scales in both the male and female groups. A comparison between sexes revealed significant disparities; malnourishment and tumor cachexia related to an inflammatory state was more evident in the women's group.

**Keywords:**C-reactive protein/albumin ratio; bioimpedance analysis; head and neck cancer; malnourishment; phase angle; quality of life; sex.

Review World J Gastrointest Oncol. 2023 Jun 15;15(6):925-942. doi: 10.4251/wjgo.v15.i6.925.

**Pancreatic cancer, autoimmune or chronic pancreatitis, beyond tissue diagnosis: Collateral imaging and clinical characteristics may differentiate them**

**Free PMC article**

**Abstract**

Pancreatic ductal adenocarcinoma (PDAC) is one of the most lethal malignancies and is developing into the 2nd leading cause of cancer-related death. Often, the clinical and radiological presentation of PDAC may be mirrored by other inflammatory pancreatic masses, such as autoimmune pancreatitis (AIP) and mass-forming chronic pancreatitis (MFCP), making its diagnosis challenging. Differentiating AIP and MFCP from PDAC is vital due to significant therapeutic and prognostic implications. Current diagnostic criteria and tools allow the precise differentiation of benign from malignant masses; however, the diagnostic accuracy is imperfect. Major pancreatic resections have been performed in AIP cases under initial suspicion of PDAC after a diagnostic approach failed to provide an accurate diagnosis. It is not unusual that after a thorough diagnostic evaluation, the clinician is confronted with a pancreatic mass with uncertain diagnosis. In those cases, a re-evaluation must be entertained, preferably by an experienced multispecialty team including radiologists, pathologists, gastroenterologists, and surgeons, looking for disease-specific clinical, imaging, and histological hallmarks or collateral evidence that could favor a specific diagnosis. Our aim is to describe current diagnostic limitations that hinder our ability to reach an accurate diagnosis among AIP, PDAC, and MFCP and to highlight those disease-specific clinical, radiological, serological, and histological characteristics that could support the presence of any of these three disorders when facing a pancreatic mass with uncertain diagnosis after an initial diagnostic approach has been unsuccessful.

**Keywords:**Autoimmune pancreatitis; Chronic pancreatitis; Diagnosis; Endoscopic ultrasound; Pancreas cancer; Pancreas mass.