Nephron. 2023 Feb 17. doi: 10.1159/000529588. Online ahead of print.

# Serum potassium trajectory during AKI and mortality risk

## Abstract

**Background:**The association between potassium (sK) level trajectory and mortality or the need for kidney replacement therapy (KRT) during acute kidney injury (AKI) has not been adequately explored.

**Methods:**In this prospective cohort, AKI patients admitted to the Hospital Civil de Guadalajara were enrolled. Eight groups based on the sK (mEq/L) level trajectories during 10 days of hospitalization were created, (1) normokalemia (normoK), defined as sK between 3.5-5.5; (2) hyperkalemia to normoK; (3) hypokalemia to normoK; (4) fluctuating potassium; (5) persistent hypoK; (6) normoK to hypoK; (7) normoK to hyperK; (8) persistent hyperK. We assessed the association of sK trajectories with mortality and the need for KRT.

**Results:**A total of 311 AKI patients were included. The mean age 52.6 years, and 58.6% were male. AKI stage 3 was present in 63.9%. KRT started in 36% patients, and 21.2% died. After adjusting for confounders, 10-day hospital mortality was significantly higher in group 7 and 8 (OR, 1.35 and 1.61, p = <0.05, for both, respectively), and KRT initiation was higher only in group 8 (OR 1.38, p = < 0.05) compared with group 1. Mortality in different subgroups of patients in group 8 did not change the primary results.

**Conclusion:**In our prospective cohort, most patients with AKI had alterations in sK+. NormoK to hyperK and persistent hyperK were associated with death, while only persistent hyperK was correlated with the need for KRT.

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# [Comparison of different tools for the evaluation of malnutrition and sarcopenia in patients with liver cirrhosis]

## Abstract

**Introduction:**malnutrition and sarcopenia are frequent in the population with liver cirrhosis and have a negative impact on the performance status and life expectancy of these patients. There are multiple assessment tools for malnutrition and sarcopenia in cirrhosis.

**Objective:**to assess malnutrition and sarcopenia in liver cirrhosis and to compare the accuracy of diagnostic tools in this population.

**Method:**a cross-sectional analytical study was conducted with convenience sampling by using continuous inclusion of patients with liver cirrhosis in a tertiary care center during December 2018 to May 2019. The nutritional assessment was carried out with arm anthropometry, body mass index (BMI), and the algorithm of the Royal Free Hospital Subjective Global Assessment (RFH-SGA). For the evaluation of sarcopenia, the hand grip strength test with a hand dynamometer was applied. The results were reported in measures of central tendency expressed in frequency and percentage.

**Results:**a total of 103 patients were included with a predominance of the male gender (79.6 %) and a mean age of 51 years (± 10). The etiology of liver cirrhosis corresponded more frequently to alcohol consumption (68 %) and most of the patients were Child-Pugh C (57.3 %) with a mean MELD of 21.9 (± 8.9). A mean BMI with dry weight of 25.2 kg/m2 was reported, and with respect to the WHO classification by BMI, 7.8 % were underweight and 59.2 % were malnourished by RFH-SGA. Sarcopenia was present in 88.3 % using the hand grip strength test, for which a mean of 18.99 kg was found. A Kendall's Tau-b rank correlation coefficient was performed between BMI and RFH-SGA, which showed no statistically significant association, as well as between mean arm muscle circumference percentiles and hand grip strength.

**Conclusions:**global assessment in liver cirrhosis should include screening for malnutrition and sarcopenia, for which validated, accessible and safe application tools should be used, such as anthropometric assessment, RFH-SGA, and hand grip strength.

Rev Salud Publica (Bogota). 2023 Feb 3;21(5):549-554. doi: 10.15446/rsap.V21n5.76916.

# [Dengue during pregnancy, less incidence of thrombocytopenia than in general population]

[Article in Spanish]

## Abstract

## in [English,](https://pubmed.ncbi.nlm.nih.gov/36753207/#eng-abstract)[Spanish](https://pubmed.ncbi.nlm.nih.gov/36753207/#spa-abstract)

**Objective:**Dengue is a generally self-limited viral disease, considered a public health problem in Mexico. It can be accompanied by laboratory alterations such as neutropenia, lymphopenia and thrombocytopenia. The objective of the study was to evaluate the incidence of hematological alterations in patients with dengue.

**Methods:**We retrospectively included 64 patients, including 14 pregnant women, with a diagnosis of dengue at the Hospital Universitario de Monterrey and Civil Nuevo de Guadalajara from January 2014 to December 2017.

**Results:**The most common clinical symptom in the general group was headache and retro-ocular pain in 53 patients (83%), while in pregnant patients it was fever in 12 patients (86%). The median platelet count in the general group was 51.4x103/ μ!, with thrombocytopenia in 88% of patients, while in pregnant patients it was 141.1 x103/ with thrombocytopenia in 57% of patients (p=0.002). Platelet recovery was achieved in 7 days in the general group and 4.5 days in pregnant patients.

**Conclusions:**Contrary to that reported in the literature, pregnant patients had a lower incidence of thrombocytopenia and a higher platelet count at time of diagnosis without impact on maternal mortality or in the course of pregnancy.

Randomized Controlled Trial

 Eur Respir J. 2023 Feb 2;61(2):2101870. doi: 10.1183/13993003.01870-2021. Print 2023 Feb.

# A randomised trial of anti-GM-CSF otilimab in severe COVID-19 pneumonia

## Abstract

**Background:**Granulocyte-macrophage colony-stimulating factor (GM-CSF) and dysregulated myeloid cell responses are implicated in the pathophysiology and severity of COVID-19.

**Methods:**In this randomised, sequential, multicentre, placebo-controlled, double-blind study, adults aged 18-79 years (Part 1) or ≥70 years (Part 2) with severe COVID-19, respiratory failure and systemic inflammation (elevated C-reactive protein/ferritin) received a single intravenous infusion of otilimab 90 mg (human anti-GM-CSF monoclonal antibody) plus standard care. The primary outcome was the proportion of patients alive and free of respiratory failure at Day 28.

**Results:**In Part 1 (n=806 randomised 1:1 otilimab:placebo), 71% of otilimab-treated patients were alive and free of respiratory failure at Day 28 *versus* 67% who received placebo; the model-adjusted difference of 5.3% was not statistically significant (95% CI -0.8-11.4%, p=0.09). A nominally significant model-adjusted difference of 19.1% (95% CI 5.2-33.1%, p=0.009) was observed in the predefined 70-79 years subgroup, but this was not confirmed in Part 2 (n=350 randomised) where the model-adjusted difference was 0.9% (95% CI -9.3-11.2%, p=0.86). Compared with placebo, otilimab resulted in lower serum concentrations of key inflammatory markers, including the putative pharmacodynamic biomarker CC chemokine ligand 17, indicative of GM-CSF pathway blockade. Adverse events were comparable between groups and consistent with severe COVID-19.

**Conclusions:**There was no significant difference in the proportion of patients alive and free of respiratory failure at Day 28. However, despite the lack of clinical benefit, a reduction in inflammatory markers was observed with otilimab, in addition to an acceptable safety profile.

Curr Med Res Opin. 2023 Feb 17;1-16. doi: 10.1080/03007995.2023.2177401. Online ahead of print.

# A Latin American consensus meeting on the essentials of mixed pain

## Abstract

**Objectives:**The term "mixed pain" has been established when a mixture of different pain components (e.g. nociceptive, neuropathic, and nociplastic) are present. It has gained more and more acceptance amongst pain experts worldwide, but many questions around the concept of mixed pain are still unsolved. The sensation of pain is very personal. Cultural, social, personal experiences, idiomatic, and taxonomic differences should be taken into account during pain assessment. Therefore, a Latin American consensus committee was formed to further elaborate the essentials of mixed pain, focusing on the specific characteristics of the Latin American population.

**Methods:**The current approach was based on a systematic literature search and review carried out in Medline. Eight topics about the definition, diagnosis, and treatment of mixed pain were discussed and voted for by a Latin American consensus committee and recommendations were expressed.

**Results:**At the end of the meeting a total of 14 voting sheets were collected. The full consensus was obtained for 21 of 25 recommendations (15 strong agreement and 6 unanimous agreement) formulated for the above described 8 topics (7 of the 8 topics had for all questions at least a strong agreement - 1 topic had no agreement for all 4 questions).

**Conclusion:**In a subject as complex as mixed pain, a consensus has been reached among Latin American specialists on points related to the definition and essence of this pain, its diagnosis and treatment. Recommendations for diagnosis and treatment of mixed pain in Latin America were raised.

**Keywords:**Latin America; Mixed pain; consensus meeting; pain assessment; pain diagnosis; pain management.

Genes (Basel). 2023 Feb 19;14(2):524. doi: 10.3390/genes14020524.

# Influence of the Osteogenomic Profile in Response to Alendronate Therapy in Postmenopausal Women with Osteoporosis: A Retrospective Cohort Study

## Abstract

**Background:**Postmenopausal osteoporosis is a multifactorial disease. Genetic factors play an essential role in contributing to bone mineral density (BMD) variability, which ranges from 60 to 85%. Alendronate is used as the first line of pharmacological treatment for osteoporosis; however, some patients do not respond adequately to therapy with alendronate.

**Aim:**The aim of this work was to investigate the influence of combinations of potential risk alleles (genetic profiles) associated with response to anti-osteoporotic treatment in postmenopausal women with primary osteoporosis.

**Methods:**A total of 82 postmenopausal women with primary osteoporosis receiving alendronate (70 mg administered orally per week) for one year were observed. The bone mineral density (BMD; g/cm2) of the femoral neck and lumbar spine was measured. According to BMD change, patients were divided into two groups: responders and non-responders to alendronate therapy. Polymorphic variants in *CYP19*, *ESR1*, *IL-6*, *PTHR1*, *TGFβ*, *OPG* and *RANKL* genes were determined and profiles were generated from the combination of risk alleles.

**Results:**A total of 56 subjects were responders to alendronate and 26 subjects were non-responders. Carriers of the G-C-G-C profile (constructed from rs700518, rs1800795, rs2073618 and rs3102735) were predisposed to response to alendronate treatment (*p* = 0.001).

**Conclusions:**Our findings highlight the importance of the identified profiles for the pharmacogenetics of alendronate therapy in osteoporosis.

**Keywords:**alendronate; bone mineral density; osteogenic profile; osteoporosis; personalized therapy; single nucleotide polymorphism.

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 doi: 10.24875/ACM.21000224.

# Perforación de la valva no coronariana en un paciente con síndrome de Laubry-Pezzi

**Free article**

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