Curr Opin Crit Care. 2023 Apr 10. doi: 10.1097/MCC.0000000000001038. Online ahead of print.

**Perspectives on peripheral perfusion assessment**

**Abstract**

**Purpose of review:**The ANDROMEDA-SHOCK trial positioned capillary refill time (CRT) assessment as a novel resuscitation target for septic shock.The purpose of this article is to summarize pathophysiological determinants of CRT, review new technical developments on peripheral perfusion assessment, and explore recent evidence on the role of CRT monitoring in septic shock and other critical conditions.

**Recent findings:**A growing body of evidence supports the role of peripheral perfusion assessment as a warning and prognostic signal in a variety of clinical conditions among severely ill patients. Recent physiological studies demonstrated a rapid improvement of CRT after a single fluid bolus or a passive leg raising maneuver, a fact which may have diagnostic and therapeutic implications. Moreover, a couple of posthoc analyses of ANDROMEDA-SHOCK trial, reinforce that a normal CRT at the start of septic shock resuscitation, or its rapid normalization, thereafter may be associated with significant better outcomes.

**Summary:**Recent data confirm the relevance of peripheral perfusion assessment in septic shock and other conditions in critically ill patients. Future studies should confirm these findings, and test the potential contribution of technological devices to assess peripheral perfusion.

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**Microembolism and Other Links Between Migraine and Stroke: Clinical and Pathophysiologic Update**

**Abstract**

Migraine and stroke are highly prevalent diseases with a high effect on quality of life, with multiple epidemiologic, pathophysiologic, clinical, and prognostic areas of overlap. Migraine is a risk factor for stroke. This risk is explained by common risk factors, migraine-specific mechanisms, and non-migraine-specific mechanisms that have a relevant role in patients with migraine with aura (e.g., atrial fibrillation and paradoxical embolism through a patent foramen ovale). Another important link between migraine aura and ischemic stroke is cardiac embolism. Cardioembolism is the most frequent cause of ischemic stroke, and increasing evidence suggests that microembolism, predominantly but not exclusively originating in the heart, is a contributing mechanism to the development of migraine aura. In this review, we discuss epidemiologic aspects of the association between migraine and ischemic stroke, the clinical presentation of ischemic strokes in patients with migraine, and the differentiation between migrainous and nonmigrainous infarctions. After that, we review migraine-specific and non-migraine-specific stroke mechanisms. We then review updated preclinical and clinical data on microembolism as a cause of migraine aura. In the last section, we summarize knowledge gaps and important areas to explore in future research. The review includes a clinical vignette with a discussion of the most relevant topics addressed.

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

[Article in Spanish]

**Abstract**

in [English,](https://pubmed.ncbi.nlm.nih.gov/36809904/#eng-abstract)[Spanish](https://pubmed.ncbi.nlm.nih.gov/36809904/#spa-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.

**Keywords:**Cirrosis hepática. Disfunción muscular. Malnutrición. Sarcopenia.

World J Pediatr. 2023 Apr;19(4):401-405. doi: 10.1007/s12519-022-00649-8. Epub 2022 Dec 15.

**Food allergy among Mexican infants and preschoolers: prevalence and associated factors**

*No abstract available*

Practice Guideline Rev Gastroenterol Mex (Engl Ed). 2023 Apr 29;S2255-534X(23)00036-1. doi: 10.1016/j.rgmxen.2023.04.006. Online ahead of print.

**Current vision on diagnosis and comprehensive care in hepatic encephalopathy**

**Abstract**

The first clinical guidelines on hepatic encephalopathy were published in 2009. Almost 14 years since that first publication, numerous advances in the field of diagnosis, treatment, and special condition care have been made. Therefore, as an initiative of the Asociación Mexicana de Gastroenterología A.C., we present a current view of those aspects. The manuscript described herein was formulated by 24 experts that participated in six working groups, analyzing, discussing, and summarizing the following topics: Definition of hepatic encephalopathy; recommended classifications; epidemiologic panorama, worldwide and in Mexico; diagnostic tools; conditions that merit a differential diagnosis; treatment; and primary and secondary prophylaxis. Likewise, these guidelines emphasize the management of certain special conditions, such as hepatic encephalopathy in acute liver failure and acute-on-chronic liver failure, as well as specific care in patients with hepatic encephalopathy, such as the use of medications and types of sedation, describing those that are permitted or recommended, and those that are not.

**Keywords:**Ammonia; Amoniaco; Critical flicker frequency; Encefalopatía hepática manifiesta; Encefalopatía hepática mínima; Frecuencia crítica de parpadeo; L-ornithine L-aspartate; L-ornitina L-aspartato; Lactulosa; Lactulose; Minimal hepatic encephalopathy; Overt hepatic encephalopathy; Prueba de interferencia semántica; Psychometric hepatic encephalopathy score; Puntaje psicométrico para encefalopatía hepática; Rifaximin; Rifaximina; Stroop test.

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**Multinational prospective cohort study over 24 years of the risk factors for ventilator-associated pneumonia in 187 ICUs in 12 Latin American countries: Findings of INICC**

*No abstract available*

Infect Control Hosp Epidemiol. 2023 Apr 28;1-11. doi: 10.1017/ice.2023.69. Online ahead of print.

**Multinational prospective study of incidence and risk factors for central-line-associated bloodstream infections in 728 intensive care units of 41 Asian, African, Eastern European, Latin American, and Middle Eastern countries over 24 years**

**Abstract**

**Objective:**To identify central-line (CL)-associated bloodstream infection (CLABSI) incidence and risk factors in low- and middle-income countries (LMICs).

**Design:**From July 1, 1998, to February 12, 2022, we conducted a multinational multicenter prospective cohort study using online standardized surveillance system and unified forms.

**Setting:**The study included 728 ICUs of 286 hospitals in 147 cities in 41 African, Asian, Eastern European, Latin American, and Middle Eastern countries.

**Patients:**In total, 278,241 patients followed during 1,815,043 patient days acquired 3,537 CLABSIs.

**Methods:**For the CLABSI rate, we used CL days as the denominator and the number of CLABSIs as the numerator. Using multiple logistic regression, outcomes are shown as adjusted odds ratios (aORs).

**Results:**The pooled CLABSI rate was 4.82 CLABSIs per 1,000 CL days, which is significantly higher than that reported by the Centers for Disease Control and Prevention National Healthcare Safety Network (CDC NHSN). We analyzed 11 variables, and the following variables were independently and significantly associated with CLABSI: length of stay (LOS), risk increasing 3% daily (aOR, 1.03; 95% CI, 1.03-1.04; P < .0001), number of CL days, risk increasing 4% per CL day (aOR, 1.04; 95% CI, 1.03-1.04; P < .0001), surgical hospitalization (aOR, 1.12; 95% CI, 1.03-1.21; P < .0001), tracheostomy use (aOR, 1.52; 95% CI, 1.23-1.88; P < .0001), hospitalization at a publicly owned facility (aOR, 3.04; 95% CI, 2.31-4.01; P <.0001) or at a teaching hospital (aOR, 2.91; 95% CI, 2.22-3.83; P < .0001), hospitalization in a middle-income country (aOR, 2.41; 95% CI, 2.09-2.77; P < .0001). The ICU type with highest risk was adult oncology (aOR, 4.35; 95% CI, 3.11-6.09; P < .0001), followed by pediatric oncology (aOR, 2.51;95% CI, 1.57-3.99; P < .0001), and pediatric (aOR, 2.34; 95% CI, 1.81-3.01; P < .0001). The CL type with the highest risk was internal-jugular (aOR, 3.01; 95% CI, 2.71-3.33; P < .0001), followed by femoral (aOR, 2.29; 95% CI, 1.96-2.68; P < .0001). Peripherally inserted central catheter (PICC) was the CL with the lowest CLABSI risk (aOR, 1.48; 95% CI, 1.02-2.18; P = .04).

**Conclusions:**The following CLABSI risk factors are unlikely to change: country income level, facility ownership, hospitalization type, and ICU type. These findings suggest a focus on reducing LOS, CL days, and tracheostomy; using PICC instead of internal-jugular or femoral CL; and implementing evidence-based CLABSI prevention recommendations.

Case Reports Mol Syndromol. 2023 Apr;14(2):143-151. doi: 10.1159/000526975. Epub 2022 Dec 16.

**First Report of Mexican Patients with *PACS1*-Related Neurodevelopmental Disorder and Review of the *PACS1*-, *PACS2*-, and *WDR37*-Related Ophthalmological Manifestations**

**Abstract**

**Introduction:***PACS1*-related neurodevelopmental disorder (*PACS1-*related NDD) is caused by pathogenic variants in the *PACS1* gene and is characterized by a distinctive facial appearance, intellectual disability, speech delay, seizures, feeding difficulties, cryptorchidism, hernias, and structural anomalies of the brain, heart, eye, and kidney. There is a marked facial resemblance and a common multisystem affectation with patients carrying pathogenic variants in the *WDR37* and *PACS2* genes, although they vary in terms of severity and eye involvement.

**Case presentation:**Here, we describe 4 individuals with *PACS1*-related NDD from Mexico, all of them carrying a de novo *PACS1* variant c.607C>T; p.(Arg203Trp) identified by exome sequencing. In addition to eye colobomata, this report identified corneal leukoma, cataracts, and tortuosity of retinal vessels as ophthalmic manifestations not previously reported in patients with *PACS1*-related NDD.

**Discussion:**We reviewed the ocular phenotypes reported in 74 individuals with *PACS1*-related NDD and the overlaps with *WDR37-* and *PACS2*-related syndromes. We found that the 3 syndromes have in common the presence of colobomata, ptosis, nystagmus, strabismus, and refractive errors, whereas microphthalmia, microcornea, and Peters anomaly are found only among individuals with *PACS1*-related NDD and *WDR37* syndrome, being more severe in the latter. This supports the previous statement that the so-called *WDR37*-*PACS1*-*PACS2* axis might have an important role in ocular development and also that the specific ocular findings could be useful in the clinical differentiation between these related syndromes.

**Keywords:**Coloboma; PACS1; PACS2; Peters anomaly; WDR37.

Microorganisms. 2023 Apr 6;11(4):951. doi: 10.3390/microorganisms11040951.

**Gut Bacterial Communities in HIV-Infected Individuals with Metabolic Syndrome: Effects of the Therapy with Integrase Strand Transfer Inhibitor-Based and Protease Inhibitor-Based Regimens**

**Abstract**

Antiretroviral therapies (ART) are strongly associated with weight gain and metabolic syndrome (MetS) development in HIV-infected patients. Few studies have evaluated the association between gut microbiota and integrase strand transfer inhibitor (INSTI)-based and protease inhibitor (PI)-based regimens in HIV-infected patients with MetS. To assess this, fecal samples were obtained from HIV-infected patients treated with different regimens (16 PI + MetS or 30 INSTI + MetS) and 18 healthy controls (HCs). The microbial composition was characterized using 16S rRNA amplicon sequencing. The INSTI-based and PI-based regimens were associated with a significant decrease in α-diversity compared to HCs. The INSTI + MetS group showed the lowest α-diversity between both regimens. A significant increase in the abundance of short-chain fatty acid (SCFA)-producing genera (*Roseburia*, *Dorea*, *Ruminococcus torques*, and *Coprococcus*) was observed in the PI + MetS group, while *Prevotella*, *Fusobacterium*, and *Succinivibrio* were significantly increased in the INSTI + MetS group. Moreover, the Proteobacteria/Firmicutes ratio was overrepresented, and functional pathways related to the biosynthesis of LPS components were increased in the INSTI + MetS group. The gut microbiota of patients receiving INSTIs showed a more pronounced dysbiosis orchestrated by decreased bacterial richness and diversity, with an almost complete absence of SCFA-producing bacteria and alterations in gut microbiota functional pathways. These findings have not been previously observed.

**Keywords:**HIV infection; antiretroviral therapy; gut dysbiosis; gut microbiota; inflammation; metabolic syndrome.