

**Illnesses and sleep deprivation**

**Vasilieva Irina<sup>1,4,5,6,7</sup>** Orcid: <https://orcid.org/0000-0001-7019-4443>, **Vasilieva Maria<sup>1,2,3,6,7</sup>** Orcid: <https://orcid.org/0000-0003-4588-2716>, **Vasiliev Ilie<sup>1,7</sup>** Orcid: <https://orcid.org/0000-0002-8962-2927> **Ion Mihaci<sup>1,4,5</sup>**, **Doina Goreenco<sup>1,4,5</sup>**, **Diana Pintea<sup>1,4,5</sup>**, **Tatiana Burcovscaia<sup>1,4,5</sup>**, **Stefania Fachira<sup>1,4,5</sup>**

<sup>1</sup>State University of Medicine and Pharmacy" Nicolae Testemițanu"

<sup>2</sup>"Nicolae Testemițanu" University Clinic of Primary Medical Assistance of State University of Medicine and Pharmacy

<sup>3</sup>Laboratory of Neurology and Medical Genetics Republic of Moldova

<sup>4</sup>Department of Laboratory Medicine. State University of Medicine and Pharmacy" Nicolae Testemițanu"

<sup>5</sup> "Timofei Moșneaga" Republican Clinical Hospital, Republic of Moldova.

<sup>6</sup> Institute of Emergency Medicine. Republic of Moldova.

<sup>7</sup>World Academy of Medical Sciences, Netherlands, Republic of Moldova

**Scientific advisers:**

Professor Dr **Anatolie Visnevschy**, MD, PhD, FWAMS. Fellow of the World Academy of Medical Sciences. Member of the WAMS Faculty (Academy Faculty), Head, Department of Laboratory Medicine. Chairman of the WAMS' International Board of Laboratory Medicine. Member of the WAMS General Council (The World Medical Sciences Council). Member of the WAMS Moldovan Committee (WAMS Moldovan Council).

[https://wams.online/our\\_team/dr-anatolie-visnevschy-md/](https://wams.online/our_team/dr-anatolie-visnevschy-md/)

Professor Dr **Ilie Vasiliev**, MD, Academy Professor World Academy of Medical Sciences. First Superior Executor Vice- President of the World Academy of Medical Sciences. Chairman of the World Council of the Academy WAMS. WAMS' International Medical Research Council (IMREC). The Chairman of the WAMS National Council of Moldova. Netherlands, Republic of Moldova.

<https://wams.online/about-us/>

[https://wams.online/our\\_team/dr-ilie-vasiliev-md/](https://wams.online/our_team/dr-ilie-vasiliev-md/)

**Keywords:** sleep deprivation, illnesses.

**Purpose of the study:** To demonstrate that different kind of diseases lead to poor sleep.

**Introduction:** Sleep is defined on the basis of behavioural and physiological criteria dividing it into two states : non rapid eye movement (NREM) sleep which is subdivided into three stages (N1,N2,N3) abs rapid eye movement (REM) sleep characterized by rapid eye movements, muscle atonia and desynchronized EEG [1]. The most important

step in assessing a patient with a sleep complaint is obtaining a detailed history including family and previous histories.

**Material and Methods:** There were analyzed articles from PubMed database from the last 5 years 2019-2024, mentioned such words as “illnesses”, “sleep deprivation” [2]. As well as scientific works that have not lost their relevance today [3-6].

**Results:** For example, critically ill patients frequently experience poor sleep, characterized by frequent disruptions, loss of circadian rhythms and paucity of time spent in restorative sleep stages. Factors that are associated with sleep stages. One of them is critical condition in the intensive care unit ICU include patient-ventilator dyssynchrony, medications, patient care and interactions environmental noise and light [ 7-24]. Along with ICU patients, also medical human resources ICU suffer from sleep disorders due to psycho-emotional burnout (PEB) [25] and chronic fatigue syndrome [7], sometimes not different from wartime PEB [ 26].

**Conclusion:** Sleep disturbance during intensive care unit admission is common. Sleep disturbance has been observed in survivors of critical illness even after transfer out of the ICU. Sleep disturbance is common in critically ill patients up to 12 months after hospital discharge. Like, and medical human resources ICU, may suffer from sleep problems throughout their lives.

## References

1. Aakash K. Patel, Vamsi Reddy, Karlie R. Shumway, John F. Araujo. (2024). Physiology, Sleep Stage. StatPearls [Internet].  
<https://www.ncbi.nlm.nih.gov/books/NBK526132/>
2. Joseph A. Hanson; Martin R. Huecker. (2023). Sleep Deprivation. StatPearls [Internet]. <https://www.ncbi.nlm.nih.gov/books/NBK547676/>
3. Bekhtereva N.P., Gogolitsyn Yu.L., Kropotov Yu.D., Medvedev S.V. (1985). Book. Neurophysiological mechanisms of thinking. Science. Leningrad.
4. Sudakov K.V. (1983). Book. Fundamentals of physiology of functional systems. Medicine. Moscow.
5. Prior, Pamela, and Douglas E. Maynard. (1979). Monitoring Cerebral Function : Long-Term Recordings of Cerebral Electrical Activity. Elsevier/North-Holland Biomedical Press. Amsterdam. New York. Oxford.  
<https://www.amazon.com/Monitoring-cerebral-function-recordings-electrical/dp/039758251X>
6. Gorizontov P.D. (1981). Book. Homeostasis. Moscow. Medicine.
7. Vasilieva Maria, Vasilieva Irina , Vasiliev I., Malakhova M., Groppa S. et al. (2019). Electro - Ion Membrane Distress Syndrome induces Chronic Fatigue

Syndrome/Myalgic Encephalomyelitis (CFS/ME). Journal of Clinical Research in Anesthesiology, 2: 2

[https://www.researchgate.net/publication/351887239\\_Electro-Ion\\_Membrane\\_Distress\\_Syndrome\\_induces\\_Chronic\\_Fatigue\\_SyndromeMyalgic\\_Encephalomyelitis\\_CFSME](https://www.researchgate.net/publication/351887239_Electro-Ion_Membrane_Distress_Syndrome_induces_Chronic_Fatigue_SyndromeMyalgic_Encephalomyelitis_CFSME)

8. Vasilieva Irina, Vasilieva Maria, Vasiliev Ilie. (2021). Forty Years Success of No Maternal Mortality in Critical Obstetrics on the Operating Table. A decrease in the increased marker of tissue hypoxia  $pCO_2 > (AV\text{-}gap)$  in microcirculatory-mitochondrial distress syndrome in critical obstetrics is achieved by complex methods of recruiting microcirculatory-mitochondrial distress syndrome. Biomedical Research and Clinical Reviews, 4:1: 1-28. Book | DOI: <https://doi.org/10.31579/2692-9406/067>

[https://www.researchgate.net/publication/351945001\\_A\\_masterpiece\\_of\\_the\\_gold\\_international\\_treasury\\_Forty\\_Years\\_Success\\_of\\_No\\_Maternal\\_Mortality\\_in\\_Critical\\_Obstetrics\\_on\\_the\\_Operating\\_Table\\_A\\_Decrease\\_in\\_The\\_Increased\\_Marker\\_of\\_Tissue\\_Hypoxia\\_PCO2\\_Av](https://www.researchgate.net/publication/351945001_A_masterpiece_of_the_gold_international_treasury_Forty_Years_Success_of_No_Maternal_Mortality_in_Critical_Obstetrics_on_the_Operating_Table_A_Decrease_in_The_Increased_Marker_of_Tissue_Hypoxia_PCO2_Av)

9. Vasiliev I, Vasilieva Maria, Vasilieva Irina, Ghicavîi V. et al. (2019). The recruitment of microcirculatory-mitochondrial of critical obstetric situations in the complex multi-organ support therapy reduces  $pCO_2$  (AV gap) and the development of the syndrome of acute multi-organ dysfunction. Biochem Mol biol J, [https://www.researchgate.net/profile/Ilie-Vasiliev/publication/348076731\\_Amsterdam\\_2019\\_EuroSciCon/links/5fee415fa6fdc81e97cd/Amsterdam-2019-EuroSciCon.pdf](https://www.researchgate.net/profile/Ilie-Vasiliev/publication/348076731_Amsterdam_2019_EuroSciCon/links/5fee415fa6fdc81e97cd/Amsterdam-2019-EuroSciCon.pdf)

10. Vasiliev I. Malachi M. Niculita I. (1996). The extracorporeal bio-xeno perfusion (timo-spleen) for the complex treatment of systemic lupus erythematosus. Courr Med., 2:41-43

[https://www.researchgate.net/publication/348370069\\_The\\_extracorporeal\\_bio-xeno\\_perfusion\\_timo-spleen\\_for\\_the\\_complex\\_treatment\\_of\\_systemic\\_lupus\\_erythematosus\\_Courr\\_Med\\_1996\\_241-3](https://www.researchgate.net/publication/348370069_The_extracorporeal_bio-xeno_perfusion_timo-spleen_for_the_complex_treatment_of_systemic_lupus_erythematosus_Courr_Med_1996_241-3)

11. Vasiliev I., Nistor V., Bogdan V., et al. (1993). The extracorporeal bio-xeno perfusion as a complex therapeutic component of the treatment of septicemia on the background of associated injury. Courr Med., 2:56-59.

[https://www.researchgate.net/publication/348369818\\_The\\_extracorporeal\\_bio-xeno\\_perfusion\\_as\\_a\\_complex\\_therapeutic\\_component\\_of\\_the\\_treatment\\_of\\_septicemia\\_on\\_the\\_background\\_of\\_associated\\_injury](https://www.researchgate.net/publication/348369818_The_extracorporeal_bio-xeno_perfusion_as_a_complex_therapeutic_component_of_the_treatment_of_septicemia_on_the_background_of_associated_injury)

12. Vasiliev I. Crăciun A. (1986). Cases of anaphylactic shock and tactics emergency therapy. Court Med., 5: 51-53.

[https://www.researchgate.net/publication/353018042\\_Vasiliev\\_I\\_Creciun\\_A\\_1986\\_Cases\\_of\\_anaphylactic\\_shock\\_and\\_tactics\\_emergency\\_therapy\\_Cour\\_Med\\_1986](https://www.researchgate.net/publication/353018042_Vasiliev_I_Creciun_A_1986_Cases_of_anaphylactic_shock_and_tactics_emergency_therapy_Cour_Med_1986)

13. Vasiliev I. Ceban N. et al. (1989). The lymphotropic therapy with lymph stimulation in complex treatment of exotoxin shock. Health Care, 2:52-53.

# Special journal of the Medical Academy and other Life

## Sciences

Vol. 2 No. 9 (2024)

[https://www.researchgate.net/publication/354533684\\_The\\_lymphotropic\\_therapy\\_with\\_lymph\\_stimulation\\_in\\_complex\\_treatment\\_of\\_exotoxin\\_shock](https://www.researchgate.net/publication/354533684_The_lymphotropic_therapy_with_lymph_stimulation_in_complex_treatment_of_exotoxin_shock)

14. Vasiliev I., Vasilieva Maria, Vasilieva Irina, (2016). The Medico Legal Indications and Contraindications to the use ECMO and ECCO2R at ALI/ARDS. United States: Project Proposed for Discussion and Study WAMS, 6-9

15. Vasilieva Maria, Vasilieva Irina, Vasiliev Ilie, Groppa Stanislav, et al. (2020). Intralipid in the Target Treatment of Lipid Peroxidation Disorder Caused by Oxidative and Nitro-Galogenic Stress in Patients with SARS-CoV2/COVID/19, 22:11: 20-30.

DOI: [10.9734/jamps/2020/v22i1130202](https://doi.org/10.9734/jamps/2020/v22i1130202)

[https://www.researchgate.net/publication/349669080\\_Intralipid\\_in\\_the\\_Target\\_Treatment\\_of\\_Lipid\\_Peroxidation\\_Disorder\\_Caused\\_by\\_Oxidative\\_and\\_Nitro-Galogenic\\_Stress\\_in\\_Patients\\_with\\_SARS-CoV2\\_COVID\\_19\\_Journal\\_of\\_Advances\\_in\\_Medical\\_and\\_Pharmaceutical\\_S/commets](https://www.researchgate.net/publication/349669080_Intralipid_in_the_Target_Treatment_of_Lipid_Peroxidation_Disorder_Caused_by_Oxidative_and_Nitro-Galogenic_Stress_in_Patients_with_SARS-CoV2_COVID_19_Journal_of_Advances_in_Medical_and_Pharmaceutical_S/commets)

16. Vasiliev I., Calalb I., Bujjan A., Cacian M., et al. (2007). Successful treatment of disseminated intravascular coagulation syndrome in obstetrics. Collection of Papers and Theses. Actual Problems Anaesthesiology and Intensive Therapy, 2nd White Sea Symposium. Arkhangelsk, 106-168

17. [https://www.researchgate.net/publication/348369589\\_Successful\\_Treatment\\_of\\_Disseminated\\_Intravascular\\_Cagulation\\_Syndrome\\_in\\_Obstetrics\\_2nd\\_White\\_Sea\\_Symposium\\_of\\_the\\_All-Russian\\_Conference\\_with\\_International\\_Participation\\_Actual\\_problems\\_of\\_Anesthesia](https://www.researchgate.net/publication/348369589_Successful_Treatment_of_Disseminated_Intravascular_Cagulation_Syndrome_in_Obstetrics_2nd_White_Sea_Symposium_of_the_All-Russian_Conference_with_International_Participation_Actual_problems_of_Anesthesia)

<https://anesth.ru/CONTENT/BEL%20SYMPOSIUM/BS-ABSTRACTS.pdf>

18. M.K.Verma Raghavendra Rao. M.V, M M Karindas, Ilie Vasiliev, Mohammed Ismail Nizami et al. (2022). Chronic Obstructive Pulmonary Disease (COPD)--Failing To Prepare Means Preparing To Fail. International Journal of Medical Science and Current Research,5:5:673-681

[https://www.researchgate.net/profile/Ilie-Vasiliev/publication/364950637\\_673\\_Chronic\\_Obstructive\\_Pulmonary\\_Disease\\_CO-PD--Failing\\_To\\_Prepare\\_Means\\_Preparing\\_To\\_Fail](https://www.researchgate.net/profile/Ilie-Vasiliev/publication/364950637_673_Chronic_Obstructive_Pulmonary_Disease_CO-PD--Failing_To_Prepare_Means_Preparing_To_Fail)

[International Journal of Medical Science and Current Research Raghavendra Rao MV M M Karindas Ilie Vasiliev M/links/636037d78d4484154a4f3a90/673-Chronic-Obstructive-Pulmonary-Disease-COPD--Failing-To-Prepare-Means-Preparing-To-Fail-International-Journal-of-Medical-Science-and-Current-Research-Raghavendra-Rao-MV-M-M-Karindas-Ilie-Vasiliev.pdf](https://www.researchgate.net/publication/364950637_673_Chronic_Obstructive_Pulmonary_Disease_CO-PD--Failing_To_Prepare_Means_Preparing_To_Fail)

19. Ilie Vasiliev, Maria Vasilieva, Irina Vasilieva. (2024). Neuro SARS-CoV-2 (COVID-19). Book. LAP. Germany. Berlin.

[https://www.researchgate.net/publication/381201875\\_Neuro\\_SARS-CoV-2\\_COVID-19\\_Ilie\\_Vasiliev\\_Maria\\_Vasilieva\\_Irina\\_Vasilieva\\_Book\\_Germany\\_httpswwwwhugen-dubeldeleteschenbuchilie\\_vasiliev\\_maria\\_vasilieva\\_irina\\_vasilieva-](https://www.researchgate.net/publication/381201875_Neuro_SARS-CoV-2_COVID-19_Ilie_Vasiliev_Maria_Vasilieva_Irina_Vasilieva_Book_Germany_httpswwwwhugen-dubeldeleteschenbuchilie_vasiliev_maria_vasilieva_irina_vasilieva-)

neuro sars cov 2 covid 19 -48341418-

20. Ilie Vasiliev. Maria Vasilieva. Irina Vasilieva. (2023). Molecular pathological biology of Coronavirus infection SARS-CoV-2. Book. LAP. United Kingdom. London.

<https://www.researchgate.net/publication/376886306> Ilie Vasiliev Maria Vasilieva Irina Vasilieva Molecular pathological biology of Coronavirus infection SARS-CoV-2/citations

<https://www.researchgate.net/publication/383231717> EuroBuch Vasiliev Ilie Vasilieva Maria Vasilieva Irina Molekularpathologische Biologie der Coronavirus-Infektion SARS-CoV-2

21. Vasilieva Irina, Vasilieva Maria, Vasiliev I., Ghicavii V. et al. (2019). Triphosphoric acid, donated, restores heart rhythm disturbances caused by energetically deficient, mitochondrial hypercalcaemia to Ca++ mpt pore lesion. J Clin Res Anesthesiol., 1:1-3.  
<https://asclepiusopen.com/journal-of-clinical-research-in-anesthesiology/volume-1-issue-2/6.pdf>

22. Vasilieva Maria, Vasilieva Irina, Vasiliev I. Groppa S. et al. (2018). Neurovegetative correction of diencephalic-hyperkinetic, catabolic adrenergic syndrome. Journal of Clinical Research in Anesthesiology, 1 : 2

<https://www.researchgate.net/publication/348198142> Neurovegetative Correction of Diencephalic - Hyperkinetic Catabolic Adrenergic Syndrome under a Creative Commons Attribution CC-BY 40 license

23. Klimov P.K. (1986). Book. Physiological significance of brain peptides for the activity of the digestive system. Leningrad. Science.

24. Emanuel N.M., Zhdanov R.I. (1986). Method of spin labels and probes. Problems and prospects. Moscow. Science.

25. Ramírez-Elvira S, Romero-Béjar JL, Suleiman-Martos N, Gómez-Urquiza JL, et al. (2021). Prevalence, Risk Factors and Burnout Levels in Intensive Care Unit Nurses: A Systematic Review and Meta-Analysis. Int J Environ Res Public Health. 2021 Oct 30;18(21):11432. doi: [10.3390/ijerph182111432](https://doi.org/10.3390/ijerph182111432) . PMID: 34769948; PMCID: PMC8583312.

<https://pmc.ncbi.nlm.nih.gov/articles/PMC8583312/>

26. Prib H. A., Beheza L. E., Markova, M. V., Raievska Y. M. et al. (2023). Psycho-Emotional Burnout of the Personality in the Conditions of War. Journal of Intellectual Disability - Diagnosis and Treatment, 11(1), 36–46. <https://doi.org/10.6000/2292-2598.2023.11.01.5>

<https://www.lifescienceglobalca.com/index.php/jidt/article/view/901>