

Supplementary Materials: complete list of references included in the structured literature review

- Aalto, L.; Lappalainen, S.; Salonen, H.; Reijula, K. Usability evaluation (IEQ survey) in hospital buildings. *Int. J. Work. Heal. Manag.* 2017, 10, 265, doi:10.1108/IJWHM-03-2016-0014/full/html
- Abbasi, F.; Jalili, M.; Samaei, M.R.; Mokhtari, A.M.; Azizi, E. Effect of land use on cultivable bioaerosols in the indoor air of hospital in southeast Iran and its determination of the affected radius around of hospital. *Environ. Sci. Pollut. Res. Int.* 2020, doi:10.1007/s11356-020-10357-3.
- Abbasi, F.; Jalili, M.; Samaei, M.R.; Mokhtari, A.M.; Azizi, E. The Monitoring of Fungal Contamination in Indoor Air of Two Hospitals in Shiraz. *J. Environ. Heal. Sustain. Dev.* 2019, 4, 879–884, doi:10.18502/jehsd.v4i4.2020
- Abbasi, F.; Samaei, M.R. The effect of temperature on airborne filamentous fungi in the indoor and outdoor space of a hospital. *Environ. Sci. Pollut. Res. Int.* 2019, 26, 16868–16876, doi:10.1007/s11356-017-0939-5.
- Abbasi, F.; Samaei, M.R.; Manoochehri, Z.; Jalili, M.; Yazdani, E. The effect of incubation temperature and growth media on index microbial fungi of indoor air in a hospital building in Shiraz, Iran. *J. Build. Eng.* 2020, 31, 101294, doi:10.1016/j.jobe.2020.101294.
- Abbasi, M.; BaseriSalehi, M.; Bahador, N.; Taherikalani, M. Antibiotic Resistance Patterns and Virulence Determinants of Different SCCmec and Pulsotypes of *Staphylococcus Aureus* Isolated from a Major Hospital in Ilam, Iran. *Open Microbiol. J.* 2017, 11, 211–223, doi:10.2174/1874285801711010211.
- Abdel-Rahim, I.R.; Nafady, N.A.; Bagy, M.M.K.; Abd-Alla, M.H.; Abd-Alkader, A.M. Fungi-induced paint deterioration and air contamination in the Assiut University hospital, Egypt. *Indoor Built Environ.* 2019, 28, 384, doi:10.1177/1420326X18765256
- Adhikari, A.; Kurella, S.; Banerjee, P.; Mitra, A. Aerosolized bacteria and microbial activity in dental clinics during cleaning procedures. *J. Aerosol Sci.* 2017, 114, 209–218, doi:10.1016/j.jaerosci.2017.09.019.
- Afra, A.; Mollaei Pardeh, M.; Saki, H.; Farhadi, M.; Geravandi, S.; Mehrabi, P.; Dobaradaran, S.; Momtazan, M.; Dehkordi, Z.; Mohammadi, M.J. Anesthetic toxic isoflurane and health risk assessment in the operation room in Abadan, Iran during 2018. *Clin. Epidemiol. Glob. Heal.* 2020, 8, 251–256, doi:10.1016/j.cegh.2019.08.008.
- Akova, İ.; Kiliç, E.; Sümer, H.; Keklikçi, T. Prevalence of sick building syndrome in hospital staff and its relationship with indoor environmental quality. *Int. J. Environ. Health Res.* 2020, 1–16, doi:10.1080/09603123.2020.1862067.
- Al-Bader, S.M.; Ismael, L.Q.; Ahmood, A.A. Fungal Contamination of Airconditioner Units in Five Hospitals of Erbil Province- Kurdistan Region /Iraq. *Sci. J. Univ. Zakho* 2018, 6, 146–149, doi:10.25271/sjuoz.2018.6.4.545.
- Alfa, M.T.; Öztürk, A. Perceived indoor environmental quality of hospital wards and patients' outcomes: a study of a general hospital, Minna, Nigeria. *Appl. Ecol. Environ. Res.* 2019, 17, 8235, doi:10.15666/aeer/1704_82358259.
- Alotaibi, B.S.; Lo, S. Thermal Environment Perceptions from a Longitudinal Study of Indoor Temperature Profiles in Inpatient Wards. *Build.* 2020, 10, 136, doi:10.3390/buildings10080136.
- Arikan, İ.; Tekin, Ö.F.; Erbas, O. Relationship between sick building syndrome and indoor air quality among hospital staff. *Med. del Lav.* 2018, 109, 435–443, doi:10.23749/mdl.v110i6.7628.

- Asif, A.; Zeeshan, M.; Hashmi, I.; Zahid, U.; Bhatti, M.F. Microbial quality assessment of indoor air in a large hospital building during winter and spring seasons. *Build. Environ.* 2018, 135, 68–73, doi:10.1016/j.buildenv.2018.03.010.
- Awad, A.H.; Saeed, Y.; Hassan, Y.; Fawzy, Y.; Osman, M. Air microbial quality in certain public buildings, Egypt: A comparative study. *Atmos. Pollut. Res.* 2018, 9, 617–626, doi:10.1016/j.apr.2017.12.014.
- Ayodele, C.O.; Fakinle, B.S.; Jimoda, L.A.; Sonibare, J.A. Investigation on the ambient air quality in a hospital environment. *Cogent Environ. Sci.* 2016, 2, doi:10.1080/23311843.2016.1215281.
- Azimi, F.; Nabizadeh, R.; Alimohammadi, M.; Naddafi, K. Bacterial bioaerosols in the operating rooms: a case study in Tehran shariati hospital. *J. Air Pollut. Heal.* 2016, 1.
- Aziz, N.A.; Husain, N.R.N.; Abdullah, M.R.; Ismail, N.; Ismail, Z. Indoor Air Quality in a Northeast Coast Malaysian Medical School. *EnvironmentAsia* 2018, 11, 67, doi:10.14456/ea.2018.23.
- Bang, C.S.; Lee, K.; Yang, Y.J.; Baik, G.H. Ambient air pollution in gastrointestinal endoscopy unit. *Surg. Endosc.* 2020, 34, 3795, doi:10.1007/s00464-019-07144-8.
- Baurès, E.; Blanchard, O.; Mercier, F.; Surget, E.; le Cann, P.; Rivier, A.; Gangneux, J.-P.; Florentin, A. Indoor air quality in two French hospitals: Measurement of chemical and microbiological contaminants. *Sci. Total Environ.* 2018, 642, 168–179, doi:10.1016/j.scitotenv.2018.06.047.
- Bjelić, L.S.; Ilić, P.; Farooqi, Z.I.A.U.R.R. Indoor microbiological air pollution in the hospital. *Qual. Life A Multi-Disciplinary J. Food Sci. Environ. Sci. Public Heal.* 2020, 12, 5–10, doi:10.7251/QOL2001005S.
- Bolookat, F.; Hassanvand, M.S.; Faridi, S.; Hadei, M.; Rahmatinia, M.; Alimohammadi, M. Assessment of bioaerosol particle characteristics at different hospital wards and operating theaters: A case study in Tehran. *MethodsX* 2018, 5, 1588–1596, doi:10.1016/j.mex.2018.11.021.
- Boudehane, A.; Lounas, A.; Moussaoui, Y.; Balducci, C.; Cecinato, A. Levels of organic compounds in interiors (school, home, university and hospital) of Ouargla city, Algeria. *Atmos. Environ.* 2016, 144, 266–273, doi:10.1016/j.atmosenv.2016.08.031.
- Bozic, J.; Ilic, P.; Ilic, S. Indoor Air Quality in the Hospital: The Influence of Heating, Ventilating and Conditioning Systems. *BRAZILIAN Arch. Biol. Technol.* 2019, 62, doi:10.1590/1678-4324-2019180295.
- Brudecki, K.; Borkowska, E.; Gorzkiewicz, K.; Kostkiewicz, M.; Mróz, T. ^{99m}Tc activity concentrations in room air and resulting internal contamination of medical personnel during ventilation-perfusion lung scans. *Radiat. Environ. Biophys.* 2019, 58, 469–475, doi:10.1007/s00411-019-00793-2.
- Buonanno, G.; Capuano, R.; Cortellessa, G.; Stabile, L. Airborne particle emission rates and doses received in operating rooms from surgical smoke. *Build. Environ.* 2019, 151, 168–174, doi:10.1016/j.buildenv.2019.01.044.
- Cabo Verde, S.; Almeida, S.M.; Matos, J.; Guerreiro, D.; Meneses, M.; Faria, T.; Botelho, D.; Santos, M.; Viegas, C. Microbiological assessment of indoor air quality at different hospital sites. *Res. Microbiol.* 2015, 166, 557–563, doi:10.1016/j.resmic.2015.03.004.
- Cannistraro, M.; Bernardo, E. Monitoring of the indoor microclimate in hospital environments a case study the Papardo hospital in Messina. *Int. J. HEAT Technol.* 2017, 35, S456–S465, doi:10.18280/ijht.35Sp0162.
- Chaivisit, P.; Fontana, A.; Galindo, S.; Strub, C.; Choosong, T.; Kantachote, D.; Suksaroj, T.T. Airborne Bacteria and Fungi Distribution Characteristics in Natural Ventilation System of a University Hospital in Thailand. *EnvironmentAsia* 2018, 11, 53, doi: 10.14456/ea.2018.22.
- Chaivisit, P.; Suksaroj, T.T.; Romyen, D.; Choosong, T. Bioaerosols Assessment in the Intensive Care Units of a Tertiary Care Hospital. *J. Heal. Sci. Med. Res.* 2016, 34, 11–25.

- Chakrawarti, M.K.; Singh, M.; Yadav, V.P.; Mukhopadhyay, K. Temporal Dynamics of Air Bacterial Communities in a University Health Centre Using Illumina MiSeq Sequencing. *AEROSOL AIR Qual. Res.* 2020, 20, 966–980, doi:10.4209/aaqr.2019.11.0613.
- Chamseddine, A.; Alameddine, I.; Hatzopoulou, M.; El-Fadel, M. Seasonal variation of air quality in hospitals with indoor–outdoor correlations. *Build. Environ.* 2019, 148, 689–700, doi:10.1016/j.buildenv.2018.11.034.
- Chang, C.-J.; Yang, H.-H.; Wang, Y.-F.; Li, M.-S. Prevalence of Sick Building Syndrome-Related Symptoms among Hospital Workers in Confined and Open Working Spaces. *AEROSOL AIR Qual. Res.* 2015, 15, 2378–2384, doi:10.4209/aaqr.2015.01.0040.
- Chien, T.-Y.; Liang, C.-C.; Wu, F.-J.; Chen, C.-T.; Pan, T.-H.; Wan, G.-H. Comparative Analysis of Energy Consumption, Indoor Thermal–Hygrometric Conditions, and Air Quality for HVAC, LDAC, and RDAC Systems Used in Operating Rooms. *Appl. Sci.* 2020, 10, 3721, doi:10.3390/app10113721.
- Cho, S.-Y.; Myong, J.-P.; Kim, W.-B.; Park, C.; Lee, S.J.; Lee, S.H.; Lee, D.-G. Profiles of Environmental Mold: Indoor and Outdoor Air Sampling in a Hematology Hospital in Seoul, South Korea. *Int. J. Environ. Res. Public Health* 2018, 15, doi:10.3390/ijerph15112560.
- Choi, D.H.; Choi, S.H.; Kang, D.H. Influence of Surgical Smoke on Indoor Air Quality in Hospital Operating Rooms. *AEROSOL AIR Qual. Res.* 2017, 17, 821–830, doi:10.4209/aaqr.2016.05.0191.
- Chung, F.-F.; Lin, H.-L.; Liu, H.-E.; Lien, A.S.-Y.; Hsiao, H.-F.; Chou, L.-T.; Wan, G.-H. Aerosol distribution during open suctioning and long-term surveillance of air quality in a respiratory care center within a medical center. *Respir. Care* 2015, 60, 30–37, doi:10.4187/respcare.03310.
- Cipolla, M.; Izzotti, A.; Ansaldi, F.; Durando, P.; Piccardo, M.T. Volatile Organic Compounds in Anatomical Pathology Wards: Comparative and Qualitative Assessment of Indoor Airborne Pollution. *Int. J. Environ. Res. Public Health* 2017, 14, doi:10.3390/ijerph14060609.
- Clementini, M.; Raspini, M.; Barbato, L.; Bernardelli, F.; Braga, G.; Di Gioia, C.; Littarru, C.; Oreglia, F.; Brambilla, E.; Iavicoli, I.; et al. Aerosol transmission for SARS-CoV-2 in the dental practice. A review by SIdP Covid-19 task-force. *Oral Dis.* 2020, doi:10.1111/odi.13649.
- Dananché, C.; Gustin, M.-P.; Cassier, P.; Loeffert, S.T.; Thibaudon, M.; Bénet, T.; Vanhems, P. Evaluation of first-type spore trap to monitor environmental fungal load in hospital. *PLoS One* 2017, 12, e0177263–e0177263, doi:10.1371/journal.pone.0177263.
- Dedesko, S.; Stephens, B.; Gilbert, J.A.; Siegel, J.A. Methods to assess human occupancy and occupant activity in hospital patient rooms. *Build. Environ.* 2015, 90, 136–145, doi:10.1016/j.buildenv.2015.03.029.
- Dehghani, M.; Sorooshian, A.; Nazmara, S.; Baghani, A.N.; Delikhoon, M. Concentration and type of bioaerosols before and after conventional disinfection and sterilization procedures inside hospital operating rooms. *Ecotoxicol. Environ. Saf.* 2018, 164, 277–282, doi:10.1016/j.ecoenv.2018.08.034.
- Demirel, R.; Sen, B.; Kadaifciler, D.; Yoltas, A.; Okten, S.; Ozkale, E.; Berikten, D.; Samson, R.; Haliki Uztan, A.; Yilmaz, N.; et al. Indoor airborne fungal pollution in newborn units in Turkey. *Environ. Monit. Assess.* 2017, 189, 1, doi:10.1007/s10661-017-6051-y.
- Ding, J.; Yu, C.W.; Cao, S.-J. HVAC systems for environmental control to minimize the COVID-19 infection. *Indoor Built Environ.* 2020, 29, 1195, doi:10.1177/1420326X20951968.
- Dixit, M.K.; Singh, S.; Lavy, S.; Yan, W. Floor finish selection in health-care facilities: a systematic literature review. *Facilities* 2019, 37, 897, doi:10.1108/F-03-2018-0042.
- Doğan, T.R. Investigation of Indoor Air Quality in a Hospital: A Case Study from Şanlıurfa, Turkey. *J. Nat. Hazards Environ.* 2019, 5, 101–109, doi:10.21324/dacd.448598.

- Eijkelenboom, A.; Bluysen, P.M. Profiling outpatient staff based on their self-reported comfort and preferences of indoor environmental quality and social comfort in six hospitals. *Build. Environ.* 2020, 184, doi:10.1016/j.buildenv.2020.107220.
- Ereth, M.H.; Hess, D.H.; Driscoll, A.; Hernandez, M.; Stamatatos, F. Particle control reduces fine and ultrafine particles greater than HEPA filtration in live operating rooms and kills biologic warfare surrogate. *Am. J. Infect. Control* 2020, 48, 777–780, doi:10.1016/j.ajic.2019.11.017.
- Eslami, A.; Karimi, F.; Karimi, Z.; Rajabi, Z. A Survey of the quantity and type of biological aerosols in selected wards of a teaching hospital in Ghazvin. *Electron. Physician* 2016, 8, 2281–2285, doi:10.19082/2281.
- Faridi, S.; Niazi, S.; Sadeghi, K.; Naddafi, K.; Yavarian, J.; Shamsipour, M.; Jandaghi, N.Z.S.; Sadeghnia, K.; Nabizadeh, R.; Yunesian, M.; et al. A field indoor air measurement of SARS-CoV-2 in the patient rooms of the largest hospital in Iran. *Sci. Total Environ.* 2020, 725, 138401, doi:10.1016/j.scitotenv.2020.138401.
- Fekadu, S.; Getachewu, B. Microbiological assessment of indoor air of teaching hospital wards: a case of Jimma university specialized hospital. *Ethiop. J. Health Sci.* 2015, 25, 117–122, doi:10.4314/ejhs.v25i2.3.
- Feng, L.; Zhou, B.; Xu, Y.; Xue, K.; Li, Y.; Zhang, R.; Wei, P.; Huang, R. Theoretical investigation and experimental validation on transient variation of particle concentration in a simulated consulting room in hospital. *Build. Environ.* 2017, 117, 1–10, doi:10.1016/j.buildenv.2017.02.017.
- Feng, Y.; Geng, X.; Zhou, F.; Fu, Y. Clinical evaluation of nursing management of laminar flow operating room in controlling hospital infection. *Biomed. Res.* 2017, 28, 7354–7357.
- Fonseca, A.; Abreu, I.; Guerreiro, M.J.; Abreu, C.; Silva, R.; Barros, N. Indoor Air Quality and Sustainability Management—Case Study in Three Portuguese Healthcare Units. *Sustain.* 2019, 11, 101, doi:10.3390/su11010101.
- Fu Shaw, L.; Chen, I.H.; Chen, C.S.; Wu, H.H.; Lai, L.S.; Chen, Y.Y.; Wang, F. Der Factors influencing microbial colonies in the air of operating rooms. *BMC Infect. Dis.* 2018, 18, doi:10.1186/s12879-017-2928-1.
- Fujiyoshi, S.; Tanaka, D.; Maruyama, F. Transmission of Airborne Bacteria across Built Environments and Its Measurement Standards: A Review. *Front. Microbiol.* 2017, 1, doi:10.3389/fmicb.2017.02336.
- Ghasemian, A.; Khodaparast, S.; Moghadam, F.S.; Nojoomi, F.; Vardanjani, H.R. Types and Levels of Bioaerosols in Healthcare and Community Indoor Settings in Iran. *Avicenna J. Clin. Microbiol. Infect.* 2017, 4, 41036, doi:10.17795/ajcmi-41036.
- Gizaw, Z.; Gebrehiwot, M.; Yenew, C. High bacterial load of indoor air in hospital wards: the case of University of Gondar teaching hospital, Northwest Ethiopia. *Multidiscip. Respir. Med.* 2016, 11, 1, doi:10.1186/s40248-016-0061-4.
- Godeau, C.; Reboux, G.; Scherer, E.; Laboissiere, A.; Lechenault-Bergerot, C.; Millon, L.; Rocchi, S. Azole-resistant *Aspergillus fumigatus* in the hospital: Surveillance from flower beds to corridors. *Am. J. Infect. Control* 2020, 48, 702–704, doi:10.1016/j.ajic.2019.10.003.
- Godini, H.; Azimi, F.; Kamarehie, B.; Mohammadin, P.; Mansoury, N.; Norozian, H.; Ghobadian, H. Bio-aerosols concentrations in different wards of Khorramabad Hospital, Iran, 2013. *Int. J. Environ. Health Eng.* 2015, 4, 23, doi:10.4103/2277-9183.163956.
- Gola, M.; Caggiano, G.; De Giglio, O.; Napoli, C.; Diella, G.; Carlucci, M.; Carpagnano, L.F.; D'Alessandro, D.; Joppolo, C.M.; Capolongo, S.; et al. SARS-CoV-2 indoor contamination: considerations on anti-COVID-19 management of ventilation systems, and finishing materials in healthcare facilities. *Ann. Ig.* 2020, doi:10.7416/ai.2020.2396.
- Gola, M.; Settimo, G.; Capolongo, S. Indoor air in healing environments: Monitoring chemical pollution in inpatient rooms. *Facilities* 2019, 37, 600, doi:10.1108/F-01-2018-0008.

- Gola, M.; Settimo, G.; Capolongo, S. Chemical Pollution in Healing Spaces: The Decalogue of the Best Practices for Adequate Indoor Air Quality in Inpatient Rooms. *Int. J. Environ. Res. Public Health* 2019, 16, doi:10.3390/ijerph16224388.
- Groulx, N.; Movahhedinia, H.; Edwards, P.; Qureshi, F.; Yip, L.; Katz, K.; Mubareka, S.; Evans, G. Medical air in healthcare institutions: A chemical and biological study. *Atmos. Environ.* 2019, 219, 117031, doi:10.1016/j.atmosenv.2019.117031.
- Guimera, D.; Trzil, J.; Joyner, J.; Hysmith, N.D. Effectiveness of a shielded ultraviolet C air disinfection system in an inpatient pharmacy of a tertiary care children's hospital. *Am. J. Infect. Control* 2018, 46, 223–225, doi:10.1016/j.ajic.2017.07.026.
- Haida, T.; Chunying, L.; Jianhua, D. Field study of indoor environment quality in an open atrium with ETFE membrane in a healthcare facility. *E3S Web Conf.* 2019, 111, 2035, doi:10.1051/e3sconf/201911102035.
- Harris, D. A Material World: A Comparative Study of Flooring Material Influence on Patient Safety, Satisfaction, and Quality of Care. *J. Inter. Des.* 2017, 42, 85, doi:10.1111/joid.12100.
- He, C.; Mackay, I.M.; Ramsay, K.; Liang, Z.; Kidd, T.; Knibbs, L.D.; Johnson, G.; McNeale, D.; Stockwell, R.; Coulthard, M.G.; et al. Particle and bioaerosol characteristics in a paediatric intensive care unit. *Environ. Int.* 2017, 107, 89–99, doi:10.1016/j.envint.2017.06.020.
- Heutte, N.; André, V.; Dubos Arvis, C.; Bouchart, V.; Lemarié, F.; Legendre, P.; Votier, E.; Louis, M.-Y.; Madelaine, S.; Séguin, V.; et al. Assessment of multi-contaminant exposure in a cancer treatment center: a 2-year monitoring of molds, mycotoxins, endotoxins, and glucans in bioaerosols. *Environ. Monit. Assess.* 2017, 189, 1, doi:10.1007/s10661-016-5751-z.
- Holý, O.; Matoušková, I.; Kubátová, A.; Hamal, P.; Svobodová, L.; Jurásková, E.; Raida, L. Monitoring of Microscopic Filamentous Fungi in Indoor Air of Transplant Unit. *Cent. Eur. J. Public Health* 2015, 23, 331–334, doi:10.21101/cejph.a4062.
- Hong, Y.-J.; Huang, Y.-C.; Lee, I.-L.; Chiang, C.-M.; Lin, C.; Jeng, H.A. Assessment of volatile organic compounds and particulate matter in a dental clinic and health risks to clinic personnel. *J. Environ. Sci. Health. A. Tox. Hazard. Subst. Environ. Eng.* 2015, 50, 1205–1214, doi:10.1080/10934529.2015.1055129.
- Horve, P.F.; Dietz, L.G.; Ishaq, S.L.; Kline, J.; Fretz, M.; Van Den Wymelenberg, K.G. Viable bacterial communities on hospital window components in patient rooms. *PeerJ* 2020, 1, doi:10.7717/peerj.9580.
- Hsu, Y.-C.; Chao, H.-R.; Shih, S.-I. Human exposure to airborne aldehydes in Chinese medicine clinics during moxibustion therapy and its impact on risks to health. *J. Environ. Sci. Health. A. Tox. Hazard. Subst. Environ. Eng.* 2015, 50, 260–271, doi:10.1080/10934529.2015.981112.
- Hwang, S.H.; Park, W.M. Indoor air concentrations of carbon dioxide (CO₂), nitrogen dioxide (NO₂), and ozone (O₃) in multiple healthcare facilities. *Environ. Geochemistry Heal.* 2020, 42, 1487, doi:10.1007/s10653-019-00441-0.
- Hwang, S.H.; Roh, J.; Park, W.M. Evaluation of PM₁₀, CO₂, airborne bacteria, TVOCs, and formaldehyde in facilities for susceptible populations in South Korea. *Environ. Pollut.* 2018, 242, 700–708, doi:10.1016/j.envpol.2018.07.013.
- Hyvönen, S.; Lohi, J.; Tuuminen, T. Moist and Mold Exposure is Associated With High Prevalence of Neurological Symptoms and MCS in a Finnish Hospital Workers Cohort. *Saf. Health Work* 2020, 11, 173–177, doi:10.1016/j.shaw.2020.01.003.
- Jafakesh, S.; Mirhadian, L.; Roshan, Z.A.; Hosseini, M.J.G. Sick Building Syndrome in Nurses of Intensive Care Units and Its Associated Factors. *J. Holist. Nurs. Midwifery* 2019, 29, 23–30, doi:10.32598/JHNM.29.3.145.

- Jafari, M.J.; Hajgholami, M.R.; Omid, L.; Jafari, M.; Tabarsi, P.; Salehpour, S.; Amiri, Z. Effect of Ventilation on Occupational Exposure to Airborne Biological Contaminants in an Isolation Room. *Tanaffos* 2015, 14, 141.
- Jung, C.-C.; Wu, P.-C.; Tseng, C.-H.; Chou, C.C.K.; Su, H.-J. Contribution of Indoor- and Outdoor-Generated Fine and Coarse Particles to Indoor Air in Taiwanese Hospitals. *AEROSOL AIR Qual. Res.* 2018, 18, 3234–3242, doi:10.4209/aaqr.2018.01.0006.
- Jung, C.-C.; Wu, P.-C.; Tseng, C.-H.; Su, H.-J. Indoor air quality varies with ventilation types and working areas in hospitals. *Build. Environ.* 2015, 85, 190–195, doi:10.1016/j.buildenv.2014.11.026.
- Kang, Z.; Zhang, Y.; Dong, J.; Cheng, X.; Feng, G. The Status of Research on Clean Air Conditioning System in Hospital Operation Room. *Procedia Eng.* 2017, 205, 4129–4134, doi:10.1016/j.proeng.2017.10.152.
- Karimpour Roshan, S.; Godini, H.; Nikmanesh, B.; Bakhshi, H.; Charsizadeh, A. Study on the relationship between the concentration and type of fungal bio-aerosols at indoor and outdoor air in the Children's Medical Center, Tehran, Iran. *Environ. Monit. Assess.* 2019, 191, 48, doi:10.1007/s10661-018-7183-4.
- Kazemi, K. V.; Mansouri, N.; Moattar, F.; Khezri, S.M. Characterization of indoor/outdoor PM10, PM2.5, PM1 and radon concentrations in Imam Khomeini hospital. *Bulg. Chem. Commun.* 2016, 48, 345–350.
- Kenarkoobi, A.; Noorimotlagh, Z.; Falahi, S.; Amarloei, A.; Mirzaee, S.A.; Pakzad, I.; Bastani, E. Hospital indoor air quality monitoring for the detection of SARS-CoV-2 (COVID-19) virus. *Sci. Total Environ.* 2020, 748, 141324, doi:10.1016/j.scitotenv.2020.141324.
- Keyvani, S.; Mohammadyan, M.; Mohamadi, S.; Etemadinezhad, S. Sick Building Syndrome and Its Associating Factors at a Hospital in Kashan, Iran. *Iran J Heal. Sci.* 2017, 5, 19–24, doi:10.29252/jhs.5.2.19.
- Khan, M.; Thaheem, M.J.; Khan, M.; Maqsoom, A.; Zeeshan, M. Thermal comfort and ventilation conditions in healthcare facilities - part 1: an assessment of indoor environmental quality (IEQ). *Environ. Eng. Manag. J.* 2020, 19, 917–933.
- Kiasat, N.; Fatahinia, M.; Mahmoudabadi, A.Z.; Shokri, H. Qualitative and Quantitative Assessment of Airborne Fungal Spores in the Hospitals Environment of Ahvaz City (2016). *JUNDISHAPUR J. Microbiol.* 2017, 10, doi:10.5812/jjm.14143.
- Kumar, H.; Kaur, A.; Kaur, B.; Gupta, R.K.; Dhanjal, D.S.; Zahoor, U.; Palaha, R. Assessment of Microbial Contamination in Indoor Air of Private Maternity Homes in Moga, Punjab. *J. Clin. Diagnostic Res.* 2018, 12, 1–5, doi: 10.7860/JCDR/2018/34209.11480.
- Kunwar, A.; Tamrakar, S.; Poudel, S.; Sharma, S.; Parajuli, P. Bacteriological Assessment of the Indoor Air of Different Hospitals of Kathmandu District. *Int. J. Microbiol.* 2019, 1–9, doi:10.1155/2019/5320807.
- Lanzerstorfer, A.; Hackl, M.; Schlömer, M.; Rest, B.; Deutsch-Grasl, E.; Lanzerstorfer, C. The influence of air-dispersed essential oils from lemon (*Citrus limon*) and silver fir (*Abies alba*) on airborne bacteria and fungi in hospital rooms. *J. Environ. Sci. Heal. Part A Toxic/Hazardous Subst. Environ. Eng.* 2019, 54, 256, doi:10.1080/10934529.2018.1546498.
- Lasomsri, P.; Yanbuaban, P.; Kerdpoca, O.; Ouypornkochagorn, T. A Development of Low-Cost Devices for Monitoring Indoor Air Quality in a Large-Scale Hospital. 2018 15th Int. Conf. Electr. Eng. Comput. Telecommun. Inf. Technol. (ECTI-CON), Electr. Eng. Comput. Telecommun. Inf. Technol. (ECTI-CON), 2018 15th 2018, 282–285, doi:10.1109/ECTICon.2018.8619934.
- Lawrence, I.D.; Jayabal, S.; Thirumal, P. Indoor air quality investigations in hospital patient room. *Int. J. Biomed. Eng. Technol.* 2018, 27, 124–138, doi:10.1504/IJBET.2018.093091.
- Lee, H.-J.; Lee, K.H.; Kim, D.-K. Evaluation and comparison of the indoor air quality in different areas of the hospital. *Medicine (Baltimore)*. 2020, 99, e23942, doi:10.1097/MD.00000000000023942.

Li, R.; Fu, H.; Hu, Q.; Li, C.; Zhang, L.; Chen, J.; Mellouki, A.W. Physiochemical characteristics of aerosol particles in the typical microenvironment of hospital in Shanghai, China. *Sci. Total Environ.* 2017, 580, 651–659, doi:10.1016/j.scitotenv.2016.12.011.

Li, Y.-C.; Tseng, W.-C.; Hsieh, N.-H.; Chen, S.-C. Assessing the seasonality of occupancy number-associated CO₂ level in a Taiwan hospital. *Environ. Sci. Pollut. Res.* 2019, 26, 16422–16432, doi:10.1007/s11356-019-05084-3.

Li, Y.; Tang, J.; Noakes, C.; Hodgson, M.J. Engineering control of respiratory infection and low-energy design of healthcare facilities. *Sci. Technol. Built Environ.* 2015, 21, 25–34, doi:10.1080/10789669.2014.965557.

Licina, D.; Bhangar, S.; Brooks, B.; Baker, R.; Firek, B.; Tang, X.; Morowitz, M.J.; Banfield, J.F.; Nazaroff, W.W. Concentrations and Sources of Airborne Particles in a Neonatal Intensive Care Unit. *PLoS One* 2016, 11, e0154991–e0154991, doi:10.1371/journal.pone.0154991.

Ling, S.; Hui, L. Evaluation of the complexity of indoor air in hospital wards based on PM_{2.5}, real-time PCR, adenosine triphosphate bioluminescence assay, microbial culture and mass spectrometry. *BMC Infect. Dis.* 2019, 19, 646, doi:10.1186/s12879-019-4249-z.

Liu, M.-H.; Tung, T.-H.; Chung, F.-F.; Chuang, L.-C.; Wan, G.-H. High total volatile organic compounds pollution in a hospital dental department. *Environ. Monit. Assess.* 2017, 189, 571, doi:10.1007/s10661-017-6265-z.

Liu, Y.; Wang, Z.; Zhang, Z.; Hong, J.; Lin, B. Investigation on the Indoor Environment Quality of health care facilities in China. *Build. Environ.* 2018, 141, 273–287, doi:10.1016/j.buildenv.2018.05.054.

Lombay, M.F.T.C.; Quirit, L.L.; Molina, V.B.; Dalmacion, G. V; Schwartz, J.D.; Suh, H.H.; Baja, E.S. Characterization of particulate matter 2.5 in an urban tertiary care hospital in the Philippines. *Build. Environ.* 2015, 92, 432–439, doi:10.1016/j.buildenv.2015.05.018.

Loto, A.O.; Oyapero, A.; Awotile, A.O.; Adenuga-Taiwo, A.O.; Enone, L.L.; Menakaya, I.N. Managing amalgam phase down: An evaluation of mercury vapor levels in a dental center in Lagos, Nigeria. *J. Dent. Res. Rev.* 2017, 4, 4–8, doi:10.4103/jdrr.jdrr_20_17.

Loupa, G.; Zarogianni, A.-M.; Karali, D.; Kosmadakis, I.; Rapsomanikis, S. Indoor/outdoor PM_{2.5} elemental composition and organic fraction medications, in a Greek hospital. *Sci. Total Environ.* 2016, 550, 727–735, doi:10.1016/j.scitotenv.2016.01.070.

Luca, Z.; Giovanni, P.; Andrea, G.; Ardeshir, M. Experimental and numerical analysis of indoor environmental conditions in two physiotherapy facilities in Northern Italy. *E3S Web Conf.* 2019, 111, 2067, doi:10.1051/e3sconf/201911102067.

Marchand, G.; Duchaine, C.; Lavoie, J.; Veillette, M.; Cloutier, Y. Bacteria emitted in ambient air during bronchoscopy—a risk to health care workers? *Am. J. Infect. Control* 2016, 44, 1634–1638, doi:10.1016/j.ajic.2016.04.241.

Masoumbeigi, H.; Ghanizadeh, G.; Yousefi Arfaei, R.; Heydari, S.; Goodarzi, H.; Dorostkar Sari, R.; Tat, M. Investigation of hospital indoor air quality for the presence of SARS-Cov-2. *J. Environ. Heal. Sci. Eng.* 2020, 1–5, doi:10.1007/s40201-020-00543-3.

Mayrina, F.; Anindrya, N.; Marlia, S.; Elin, J.; Muhammad, A.; Didit, T. Identification of Antibiotic-Resistant Bacteria in the Primary Health Center in Bandung (Qualitative study in Puskesmas Ibrahim Adjie). *E3S Web Conf.* 2020, 148, 4003, doi:10.1051/e3sconf/202014804003.

Mirhoseini, S.H.; Didehdar, M.; Akbari, M.; Moradzadeh, R.; Jamshidi, R.; Torabi, S. Indoor exposure to airborne bacteria and fungi in sensitive wards of an academic pediatric hospital. *Aerobiologia (Bologna)*. 2020, 36, 225–232, doi:10.1007/s10453-020-09624-0.

- Mohajeri, P.; Soltani, S.; Getso, M.I.; Khatib, M.; Dastranj, M.; Farahani, A. Investigation of bio-air contamination in some hospitals of Kermanshah, Iran. *Adv. Hum. Biol.* 2019, 9, 65–70, doi:10.4103/AIHB.AIHB_49_18.
- Mohammadyan, M.; Keyvani, S.; Bahrami, A.; Yetilmezsoy, K.; Heibati, B.; Godri Pollitt, K.J. Assessment of indoor air pollution exposure in urban hospital microenvironments. *Air Qual. Atmos. Heal.* 2019, 12, 151, doi:10.1007/s11869-018-0637-6.
- Montagna, M.T.; Cristina, M.L.; De Giglio, O.; Spagnolo, A.M.; Napoli, C.; Cannova, L.; Deriu, M.G.; Delia, S.A.; Giuliano, A.; Guida, M.; et al. Serological and molecular identification of *Legionella* spp. isolated from water and surrounding air samples in Italian healthcare facilities. *Environ. Res.* 2016, 146, 47–50, doi:10.1016/j.envres.2015.12.015.
- Montazeri, A.; Zandi, H.; Teymouri, F.; Soltanianzadeh, Z.; Jambarsang, S.; Mokhtari, M. Microbiological analysis of bacterial and fungal bioaerosols from burn hospital of Yazd (Iran) in 2019. *J. Environ. Heal. Sci. Eng.* 2020, 18, 1121–1130, doi:10.1007/s40201-020-00531-7.
- Morawska, L.; Tang, J.W.; Bahnfleth, W.; Bluyssen, P.M.; Boerstra, A.; Buonanno, G.; Cao, J.; Dancer, S.; Floto, A.; Franchimon, F.; et al. How can airborne transmission of COVID-19 indoors be minimised? *Environ. Int.* 2020, 142, 105832, doi:10.1016/j.envint.2020.105832.
- Morgado-Gamero, W.B.; Hernandez, M.M.; Ramirez, M.C.; Medina-Altahona, J.; De La Hoz, S.; Mendoza, H.P.; Parody, A.; Teixeira, E.C.; Agudelo-Castaneda, D.M. Antibiotic Resistance of Airborne Viable Bacteria and Size Distribution in Neonatal Intensive Care Units. *Int. J. Environ. Res. Public Health* 2019, 16, doi:10.3390/ijerph16183340.
- Moslem, A.R.; Rezaei, H.; Yektay, S.; Miri, M. Comparing BTEX concentration related to surgical smoke in different operating rooms. *Ecotoxicol. Environ. Saf.* 2020, 203, 111027, doi:10.1016/j.ecoenv.2020.111027.
- Mousavi, E.S.; Kananizadeh, N.; Martinello, R.A.; Sherman, J.D. COVID-19 Outbreak and Hospital Air Quality: A Systematic Review of Evidence on Air Filtration and Recirculation. *Environ. Sci. Technol.* 2020, doi:10.1021/acs.est.0c03247.
- Mousavi, M.S.; Hadei, M.; Majlesi, M.; Hopke, P.K.; Yarahmadi, M.; Emam, B.; Kermani, M.; Shahsavani, A. Investigating the effect of several factors on concentrations of bioaerosols in a well-ventilated hospital environment. *Environ. Monit. Assess.* 2019, 191, doi:10.1007/s10661-019-7559-0.
- Nastase, I.; Croitoru, C.; Vartires, A.; Tataranu, L. Indoor Environmental Quality in Operating Rooms: An European Standards Review with Regard to Romanian Guidelines. *Energy Procedia* 2016, 85, 375–382, doi:10.1016/j.egypro.2015.12.264.
- Neisi, A.; Albooghobeish, M.; Geravandi, S.; Adeli Behrooz, H.R.; Mahboubi, M.; Omid Khaniabad, Y.; Valipour, A.; Karimyan, A.; Mohammadi, M.J.; Farhadi, M.; et al. Investigation of health risk assessment sevoflurane on indoor air quality in the operation room in Ahvaz city, Iran. *Toxin Rev.* 2019, 38, 151, doi:10.1080/15569543.2018.1434796.
- Nimlyat, P.S. Indoor environmental quality performance and occupants' satisfaction [IEQPOS] as assessment criteria for green healthcare building rating. *Build. Environ.* 2018, 144, 598–610, doi:10.1016/j.buildenv.2018.09.003.
- Nimlyat, P.S.; Kandar, M.Z.; Sediadi, E. Empirical investigation of indoor environmental quality (IEQ) performance in hospital buildings in Nigeria. *J. Teknol.* 2015, 77, 41–50, doi:10.11113/jt.v77.6445.
- Nimra, A.; Ali, Z.; Khan, M.N.; Gulshan, T.; Sidra, S.; Gardezi, J.R.; Tarar, M.R.; Saleem, M.; Nasir, Z.A.; Colbeck, I. Comparative ambient and indoor particulate matter analysis of operation theatres of government and private (trust) hospitals of Lahore, Pakistan. *J. Anim. PLANT Sci.* 2015, 25, 628–635, doi:10.17576/jasm-2021-5006-09.

- Ogawa, M.; Kabe, I.; Terauchi, Y.; Tanaka, S. A strategy for the reduction of formaldehyde concentration in a hospital pathology laboratory. *J. Occup. Health* 2019, 61, 135–142, doi:10.1002/1348-9585.12018.
- Onmek, N.; Kongcharoen, J.; Singtong, A.; Penjumrus, A.; Junnoo, S. Environmental Factors and Ventilation Affect Concentrations of Microorganisms in Hospital Wards of Southern Thailand. *J. Environ. Public Health* 2020, 2020, doi:10.1155/2020/7292198.
- Osman, M.E.; Ibrahim, H.Y.; Yousef, F.A.; Elnasr, A.A.A.; Saeed, Y.; Hameed, A.A.A. A study on microbiological contamination on air quality in hospitals in Egypt. *Indoor Built Environ.* 2018, 27, 953, doi:10.1177/1420326X17698193.
- Parham, H.F.; Ishak, N.H.; Hassan, Z.F.A. Mold Growth Risk in a Newly Built Hospital Building in Malaysia - Problems and Solutions. *J. Des. Built Environ.* 2018, 16, doi:10.22452/jdbe.sp2018no1.2.
- Quoc, C.H.; Huong, G.V.; Duc, H.N. Working Conditions and Sick Building Syndrome among Health Care Workers in Vietnam. *Int. J. Environ. Res. Public Health* 2020, 17, 3635, doi:10.3390/ijerph17103635.
- Rahayu, E.P.; Saam, Z.; Sukendi, S.; Afandi, D. The Factors of Affect Indoor Air Quality Inpatient at Private Hospital, Pekanbaru, Indonesia. *Open Access Maced. J. Med. Sci.* 2019, 7, doi:10.3889/oamjms.2019.605.
- Ramos, T.; Dedesko, S.; Siegel, J.A.; Gilbert, J.A.; Stephens, B. Spatial and Temporal Variations in Indoor Environmental Conditions, Human Occupancy, and Operational Characteristics in a New Hospital Building. *PLoS One* 2015, 10, 1–24, doi:10.1371/journal.pone.0118207.
- Rasmey, A.-H.M.; Aboseidah, A.A.; El-Bealy, E.M. Occurrence and Frequency of Outdoor and Indoor Airborne Fungi of Suez General Hospital, Suez, Egypt. *CATRINA-THE Int. J. Environ. Sci.* 2018, 17, 15–23, doi:10.21608/cat.2018.14296.
- Rautiainen, P.; Hyttinen, M.; Ruokolainen, J.; Saarinen, P.; Timonen, J.; Pasanen, P. Indoor air-related symptoms and volatile organic compounds in materials and air in the hospital environment. *Int. J. Environ. Health Res.* 2019, 29, 479; doi:10.1080/09603123.2018.1550194.
- Razzini, K.; Castrica, M.; Menchetti, L.; Maggi, L.; Negroni, L.; Orfeo, N. V; Pizzoccheri, A.; Stocco, M.; Muttini, S.; Balzaretti, C.M. SARS-CoV-2 RNA detection in the air and on surfaces in the COVID-19 ward of a hospital in Milan, Italy. *Sci. Total Environ.* 2020, 742, 140540, doi:10.1016/j.scitotenv.2020.140540.
- Rodrigo, M.N.N.; Kosala, Y.; Perera, B.A.K.S.; Dalugoda, C. Mitigation of Hospital Acquired Infections in Developing Countries through the Provision of a Better IAQ. *Eng. Inst. Eng. SRI LANKA* 2018, 51, 39–48, doi:10.4038/engineer.v51i1.7286.
- Rollins, S.M.; Su, F.-C.; Liang, X.; Humann, M.J.; Stefaniak, A.B.; LeBouf, R.F.; Stanton, M.L.; Virji, M.A.; Henneberger, P.K. Workplace indoor environmental quality and asthma-related outcomes in healthcare workers. *Am. J. Ind. Med.* 2020, 63, 417–428, doi:10.1002/ajim.23101.
- Roshan, S.K.; Godini, H.; Nikmanesh, B.; Bakhshi, H.; Charsizadeh, A. Study on the relationship between the concentration and type of fungal bio-aerosols at indoor and outdoor air in the Children's Medical Center, Tehran, Iran. *Environ. Monit. Assess.* 2019, 191, doi:10.1007/s10661-018-7183-4.
- Rostami, N.; Alidadi, H.; Zarrinfar, H.; Salehi, P. Assessment of indoor and outdoor airborne fungi in an Educational, Research and Treatment Center. *Ital. J. Med.* 2017, 11, 52–56, doi:10.4081/ijtm.2016.663.
- Sajjadi, S.A.; Ketabi, D.; Joulaei, F. Fungal Assessment of Indoor Air Quality in Wards and Operating Theatres in an Organ Transplantation Hospital. *Heal. SCOPE* 2018, 7, doi:10.5812/jhealthscope.60208.
- Scheepers, P.; Van Wel, L.; Beckmann, G.; Anzion, R. Chemical Characterization of the Indoor Air Quality of a University Hospital: Penetration of Outdoor Air Pollutants. *Int. J. Environ. Res. Public Health* 2017, 14, 497, doi:10.3390/ijerph14050497.

Seo, J.H.; Jeon, H.W.; Choi, J.S.; Sohn, J.-R. Prediction Model for Airborne Microorganisms Using Particle Number Concentration as Surrogate Markers in Hospital Environment. *Int. J. Environ. Res. Public Health* 2020, 17, doi:10.3390/ijerph17197237.

Sepahvand, A.; Azimi, F.; Hashemi, S.Y.; Rashidi, R.; Safari, M.; Zeidali, S. General hospitals indoor air quality in Lorestan, Iran. *J. Air Pollut. Heal.* 2017, 2.

Settimo, G.; Gola, M.; Capolongo, S. The Relevance of Indoor Air Quality in Hospital Settings: From an Exclusively Biological Issue to a Global Approach in the Italian Context. *Atmosphere (Basel)*. 2020, 11, 361, doi:10.3390/atmos11040361.

Shaw, L.F.; Chen, I.H.; Chen, C.S.; Wu, H.H.; Lai, L.S.; Chen, Y.Y.; Wang, F. Der Factors influencing microbial colonies in the air of operating rooms. *BMC Infect. Dis.* 2018, 18, 1–8, doi:10.1186/s12879-017-2928-1.

Shi, Z.; Qian, H.; Zheng, X.; Lv, Z.; Li, Y.; Liu, L.; Nielsen, P. V Seasonal variation of window opening behaviors in two naturally ventilated hospital wards. *Build. Environ.* 2018, 130, 85–93, doi:10.1016/j.buildenv.2017.12.019.

Shokri, S.; Nikpey, A.; Varyani, A.S. Evaluation of hospital wards indoor air quality: the particles concentration. *J. Air Pollut. Heal.* 2016, 1.

Śmiełowska, M.; Marć, M.; Zabiegała, B. Indoor air quality in public utility environments-a review. *Environ. Sci. Pollut. Res.* 2017, 24, 11166, doi:10.1007/s11356-017-8567-7.

Solomon, F.B.; Wadilo, F.W.; Arota, A.A.; Abraham, Y.L. Antibiotic resistant airborne bacteria and their multidrug resistance pattern at University teaching referral Hospital in South Ethiopia. *Ann. Clin. Microbiol. Antimicrob.* 2017, 16, 1–7, doi:10.1186/s12941-017-0204-2.

Solomon, F.B.; Wadilo, F.; Tufa, E.G.; Mitiku, M. Extended spectrum and metallo beta-lactamase producing airborne *Pseudomonas aeruginosa* and *Acinetobacter baumannii* in restricted settings of a referral hospital: a neglected condition. *Antimicrob. Resist. Infect. Control* 2017, 6, 1, doi:10.1186/s13756-017-0266-0.

Sornboot, J.; Aekplakorn, W.; Ramasoota, P.; Bualert, S.; Tumwasorn, S.; Jiamjarasrangsri, W. Assessment of bioaerosols in tuberculosis high-risk areas of health care facilities in central Thailand. *ASIAN Biomed.* 2018, 12, 55–63, doi:10.1515/abm-2019-0002.

Stockwell, R.E.; Ballard, E.L.; O'Rourke, P.; Knibbs, L.D.; Morawska, L.; Bell, S.C. Indoor hospital air and the impact of ventilation on bioaerosols: a systematic review. *J. Hosp. Infect.* 2019, 103, 175–184, doi:10.1016/j.jhin.2019.06.016.

Sudharsanam, S.; Mathias, S.; Ethiraj, M.; Sarangan, G.; Barani, R.; Swaminathan, S.; Annamalai, R.; Srikanth, P. Airborne *Pseudomonas* species in Healthcare Facilities in a Tropical Setting. *Curr. Heal. Sci. J.* 2015, 41, 95–103, doi:10.12865/CHSJ.41.02.02.

Sung, M.; Jo, S.; Lee, S.-E.; Ki, M.; Choi, B.Y.; Hong, J. Airflow as a Possible Transmission Route of Middle East Respiratory Syndrome at an Initial Outbreak Hospital in Korea. *Int. J. Environ. Res. Public Health* 2018, 15, doi:10.3390/ijerph15122757.

Tacutu, L.; Nastase, I.; Catalina, T. A Critical Regard on Romanian Regulations Related to Indoor Environment Quality in Operating Rooms and a Technical Case Study. *Energy Procedia* 2016, 85, 511–520, doi:10.1016/j.egypro.2015.12.237.

Tähtinen, K.; Remes, J.; Karvala, K.; Salmi, K.; Lahtinen, M.; Reijula, K. Perceived indoor air quality and psychosocial work environment in office, school and health care environments in Finland. *Int. J. Occup. Med. Environ. Heal.* 2020, 33, 479–495, doi:10.13075/ijomeh.1896.01565.

Tang, H.; Ding, J.; Li, C.; Li, J. A field study on indoor environment quality of Chinese inpatient buildings in a hot and humid region. *Build. Environ.* 2019, 151, 156–167, doi:10.1016/j.buildenv.2019.01.046.

- Tang, H.; Ding, J.; Lin, Z. On-site measurement of indoor environment quality in a Chinese healthcare facility with a semi-closed hospital street. *Build. Environ.* 2020, 173, 106637, doi:10.1016/j.buildenv.2019.106637.
- Tolabi, Z.; Alimohammadi, M.; Hassanvand, M.S.; Nabizadeh, R.; Soleimani, H.; Zarei, A. The investigation of type and concentration of bio-aerosols in the air of surgical rooms: A case study in Shariati hospital, Karaj. *MethodsX* 2019, 6, 641–650, doi:10.1016/j.mex.2019.03.016.
- Tsay, M.-D.; Tseng, C.-C.; Wu, N.-X.; Lai, C.-Y. Size distribution and antibiotic-resistant characteristics of bacterial bioaerosol in intensive care unit before and during visits to patients. *Environ. Int.* 2020, 144, 106024, doi:10.1016/j.envint.2020.106024.
- Tungjai, A.; Kubaha, K. Indoor Air Quality Evaluation of Isolation Room for Hospital in Thailand. *Energy Procedia* 2017, 138, 858–863, doi:10.1016/j.egypro.2017.10.100.
- Valentina, Y.; Umadevi, S. Phenotypic Detection and Quality Assessment of Indoor Air-Borne Microorganisms Using Passive Air Sampling Technique (Settle Plate) at A Tertiary Care Teaching Hospital in Puducherry. *J. Pure Appl. Microbiol.* 2019, 13, 241–245, doi:10.22207/JPAM.13.1.25.
- Vergeire-Dalmacion, G.R.; Itable, J.R.; Baja, E.S. Hospital-acquired infection in public hospital buildings in the Philippines: Is the type of ventilation increasing the risk? *J. Infect. Dev. Ctries.* 2016, 10, 1236–1242; doi:10.3855/jidc.8295.
- Veysi, R.; Heibati, B.; Jahangiri, M.; Kumar, P.; Latif, M.T.; Karimi, A. Indoor air quality-induced respiratory symptoms of a hospital staff in Iran. *Environ. Monit. Assess.* 2019, 191, 50, doi:10.1007/s10661-018-7182-5.
- Viegas, C.; Almeida, B.; Monteiro, A.; Caetano, L.A.; Carolino, E.; Gomes, A.Q.; Twarużek, M.; Kosicki, R.; Marchand, G.; Viegas, S. Bioburden in health care centers: Is the compliance with Portuguese legislation enough to prevent and control infection? *Build. Environ.* 2019, 160, doi:10.1016/j.buildenv.2019.106226.
- Viegas, C.; Almeida, B.; Monteiro, A.; Paciência, I.; Rufo, J.C.; Carolino, E.; Quintal-Gomes, A.; Twarużek, M.; Kosicki, R.; Marchand, G.; et al. Settled dust assessment in clinical environment: useful for the evaluation of a wider bioburden spectrum. *Int. J. Environ. Health Res.* 2019, 1–19, doi:10.1080/09603123.2019.1634799.
- Viegas, C.; Almeida, B.; Monteiro, A.; Paciência, I.; Rufo, J.; Aguiar, L.; Lage, B.; Diogo Gonçalves, L.M.; Caetano, L.A.; Carolino, E.; et al. Exposure assessment in one central hospital: A multi-approach protocol to achieve an accurate risk characterization. *Environ. Res.* 2020, 181, 108947, doi:10.1016/j.envres.2019.108947.
- Vieira, E.M. de A.; Silva, L.B. da; Souza, E.L. de The influence of the workplace indoor environmental quality on the incidence of psychological and physical symptoms in intensive care units. *Build. Environ.* 2016, 109, 12–24, doi:10.1016/j.buildenv.2016.09.007.
- Wang, X.; Song, M.; Guo, M.; Chi, C.; Mo, F.; Shen, X. Pollution levels and characteristics of phthalate esters in indoor air in hospitals. *J. Environ. Sci.* 2015, 37, 67–74, doi:10.1016/j.jes.2015.02.016.
- Wang, Z.; Kowal, S.F.; Carslaw, N.; Kahan, T.F. Photolysis-driven indoor air chemistry following cleaning of hospital wards. *Indoor Air* 2020, 30, 1241, doi:10.1111/ina.12702.
- Yu, L.; Chen, S.; Jia, J.; Ding, R.; Wang, S. A Maternity Hospital in Shenyang Indoor Environment Performance Influence Factor Analysis. *Procedia Eng.* 2016, 146, 190–195, doi:10.1016/j.proeng.2016.06.371.
- Zhou, Q.; Lyu, Z.; Qian, H.; Song, J.; Möbs, V.C. Field-Measurement of CO₂ Level in General Hospital Wards in Nanjing. *Procedia Eng.* 2015, 121, 52–58, doi:10.1016/j.proeng.2015.08.1018.
- Ziaee, A.; Zia, M.; Goli, M. Identification of saprophytic and allergenic fungi in indoor and outdoor environments. *Environ. Monit. Assess.* 2018, 190, 574, doi:10.1007/s10661-018-6952-4.