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HYGIENIC ASSESSMENT OF NOISE SOURCES IN NEONATAL INTENSIVE CARE UNITS

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NICUs now concentrate on treating very small, premature, or congenitally ill babies. Besides prematurity and extreme low birth-weight, common diseases cared for in a NICU include perinatal asphyxia, major birth defects, sepsis, neonatal jaundice, and Infant respiratory distress syndrome due to immaturity of the lungs. Complications of extreme prematurity may include intracranial hemorrhage, chronic bronchopulmonary dysplasia, or retinopathy of prematurity. An infant may spend a day of observation in a NICU or may spend many months there. The NICU environment provides challenges as well as benefits. Stressors for the infants can include continual light, a high level of noise, and separation from their mothers, reduced physical contact, painful procedures, and interference with the opportunity to breastfeed.

Results and their discussion: So, in NISUs with different levels of noise different medical equipment generates noise, particularly resuscitation (from 56 to 75 dBA), Incubators (from 34 dBA do54), injectors doses (from 56 to 63 dB), apparatus for purification the tubes (from 53 to 73 dBA), Artificial Lung Ventilation from 53 to 74 dBA. The highest noise level was set by the compressor, while in the NICU with very high of noise levels at work Artificial Lung Ventilation totaled sound pressure levels by using compressor. In all cases, the noise was broadband. In addition, when the alarm of monitors was switched on the noise was intermittent. Moreover, we know that noise is more harmful, when his levels more different from a normal levels.

Conclusions: We are proposing to make outside of hearing premature infants the Artificial Lung Ventilation, alarm signals of resuscitation. Compressors placed in a separate room equipped with noise isolation. To Use double-walled incubators that do not create a resonance inside. Do not place the monitors on top of incubators. Discuss patients outside the NICU.