OPERATING ROOM NOISE: WHAT’S CRITICAL ABOUT IT?

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BACKGROUND

- Research indicates noise negatively affects individuals and patient safety
- Operating room (OR) can be one of the noisiest clinical areas due to complex multi-information sharing among a multidisciplinary team simultaneously working with various rich technology devices
- Research shows trauma OR averages 85 dB nearly twice Environmental Protection Agency’s (EPA) 45 dB safe range
- Orthopedic & Neurosurgery noise > other specialties’ noise
- Currently, increased noise level, staff unaware of noise producing behaviors and unsafe effect of noise, concerned staff, noise unmonitored, unregulated, no policy to address issue

RESULTS

- Literature indicates decreasing OR noise during critical times improves patient safety
- Noise has physical & psychological affect on people
- Noise can lead to adverse events compromising patient care and safety
- Multidisciplinary approach decreases noise
- Noise reduction education slated for June 2018
- Post education survey and measurement of noise slated for July 2018

CONCLUSIONS

- Evidence-based practice increases quality of patient care
- Nurse-driven practice initiatives empower staff to seek answers to clinical questions

IMPLEMENTATION

- On the Individual
  - Physical: Noise-induced hearing loss (NIHL), Hypertension, Cardiovascular disease, Sleep disorder, Fatigue, Accident risk, Isolation
  - Psychological: Stress, Burnout, Anxiety & Irritability, Emotional exhaustion, Job dissatisfaction, Increased perceived workload

- On Patient Safety
  - Impact of Noise Distraction: Distraction, Miscommunication, Impaired Speech discrimination, Decreased work performance, surgical site infection (SSI)

REFERENCES

Available upon request