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The Neurodiagnostic Journal ›

Volume 59, 2019 - Issue 3

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Collodion Remover Can Degrade Plastic-Containing Medical Devices Commonly Used in the Intensive Care Unit

Mark P. Fitzgerald, M.D., Ph.D. , Maureen Donnelly, R. EEG T., RPSGT , Lisa Vala, RN, BSN, R. EEG T. , Linda Allen-Napoli, MBA, RRT-NPS, RPFT & Nicholas S. Abend, M.D., MSCE

Pages 163-168 | Received 16 May 2019, Accepted 25 Jul 2019, Published online: 14 Aug 2019

Cite this article https://doi.org/10.1080/21646821.2019.1649516 Check for updates

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ABSTRACT

Collodion remover, a solvent blend used to remove collodion glue after long-term video EEG monitoring, was implicated as a potential causative factor in patient safety events at our institution during which damage to plastic components of medical devices was noted in the intensive care unit. We sought to determine experimentally whether collodion remover could lead to degradation of multiple plastic-containing medical

devices commonly used in the intensive care unit to determine whether workflow changes were needed during electrode removal. We exposed devices to collodion remover for brief, intermediate, and prolonged durations. We report that collodion remover is capable of degrading the hard plastic components of multiple medical devices after prolonged exposure; however, intermediate duration exposure was also capable of producing damage to clave connectors used with intravenous and central lines, which could plausibly lead to adverse events given the widespread use of these devices. These data suggest a pathway-based approach to collodion remover use might be beneficial in minimizing the potential impact of this solvent on plastic-containing medical devices.

KEY WORDS:

Collodion remover | ICU EEG monitoring | quality improvement

Disclosure statement

No potential conflict of interest was reported by the authors.

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