National Quality Improvement Conference

Enhancing EEG electrode reprocessing for safety and efficiency

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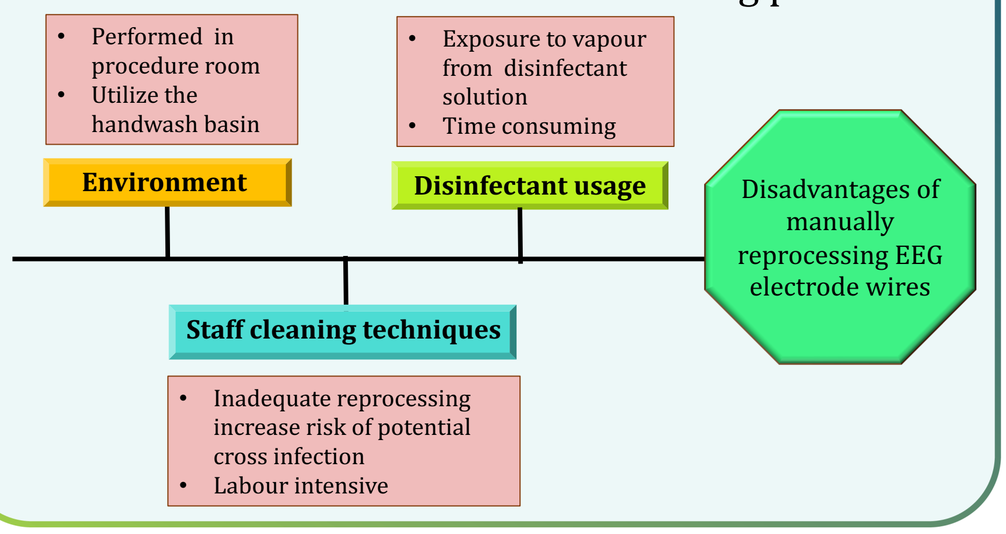
Problem Statement

- Reprocessing and cleaning of electroencephalography (EEG) electrode wires is done manually by Neuro Technologists after each patient and is a labour intensive and time-consuming process.



Project Aim

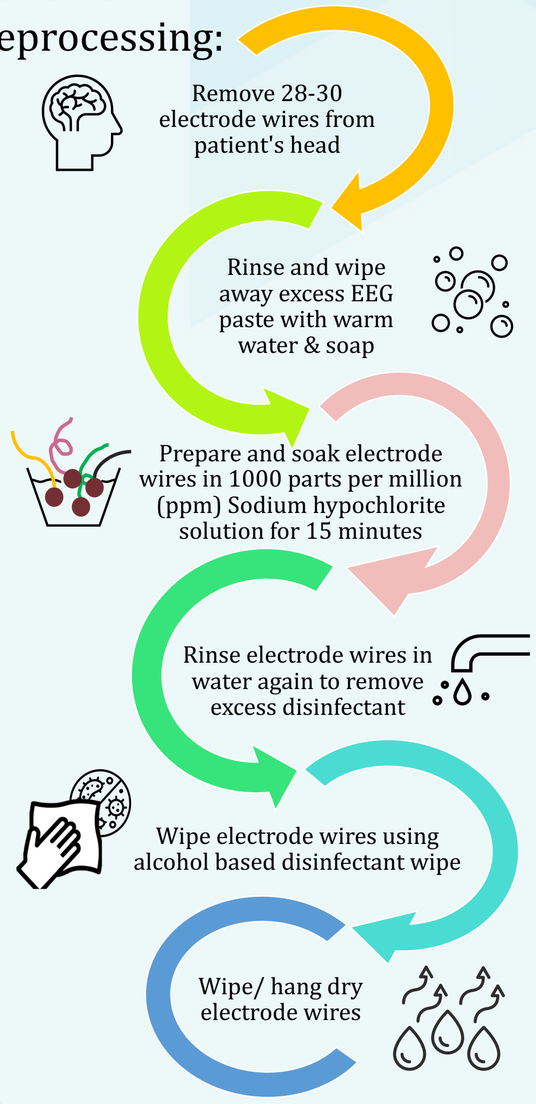
- To improve staff efficiency by reducing the time taken for reprocessing EEG electrode wires.
- To reduce risk of potential cross infection.

Lessons Learnt

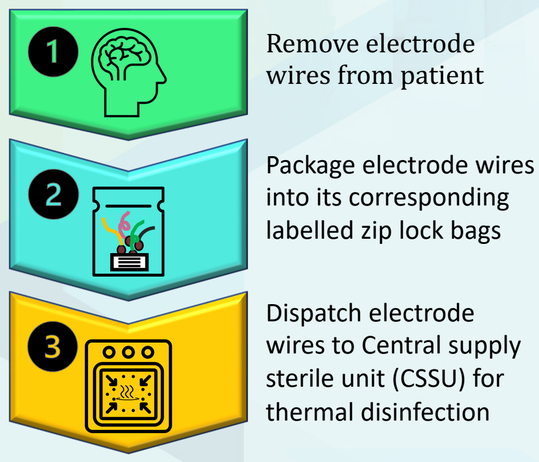
1. Tangled wires received may affect integrity of the electrode wires and poses as a challenge for CSSU colleagues to reprocess the wires
   - Electrode wires should be knotted properly at two ends before dispatching to CSSU. This helps to reduce complications resulting from tangled wires.
2. The reprocessing of electrode wires involves a specific time frame, and any potential delays could result in a situation where these electrode wires become temporarily unavailable for use
   - Schedule was discussed between CMC and CSSU and electrode wires are dispatched to CSSU twice daily to avoid such situations.

Potential Solutions

Manual reprocessing:



After converting EEG electrode wires to thermal-disinfection compatible electrode wires:



Outcomes & Impacts

Time taken for manual reprocessing: 20.0 minutes

Time taken after new implementation: 1.5 minutes

90.2% improvement in efficiency

Time savings achieved: 18.5 minutes per patient

Total time savings over 6 months: 177.29 hours