10 COIN CELL BATTERY INGESTION HAZARD MITIGATION STRATEGIES

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Serious and fatal injuries to children caused by coin/button cell battery ingestion have dramatically increased in recent years. If a cell lodges in the oesophagus, the electrical current hydrolyses body fluid leading to fatal or debilitating hydroxide burns in as few as 2 h. Injuries include tracheo/aortal-oesophageal fistulas, necrosis, stricture, and vocal cord paralysis. Diagnosis and treatment can be difficult, long-term, and painful.

For this 90-min workshop, the consumer safety regulatory agencies of the USA, Korea, Japan, Australia, and New Zealand will invite medical experts and engineers to describe innovative solutions to eliminate the hazards posed by the ingestion of coin/button cell batteries, aid detection, or enhance treatment options for victims.

Such non-hazardous batteries may not be commercially available. Theoretical cell designs are encouraged with accompanying implementation, impact and feasibility estimates.

Potential speaker topics include the detection and treatment of battery-related injuries and exposure mitigation strategies such as ingestion deterrents, guards on cells that prevent current flow, or cell deactivation designs that eliminate exposure to electrical current if cells are swallowed.