

# Severe burns due to biofuel heater injury: a case series.

Alicia Heald<sup>1</sup>, Michael Muller<sup>2</sup>

1 Resident Medical Officer, The Professor Stuart Pegg Adult Burns Unit, Royal Brisbane and Women's Hospital, Herston, Queensland, Australia, 4029. [alicia.heald@health.qld.gov.au](mailto:alicia.heald@health.qld.gov.au)

2 Associate Professor, Burns and Trauma Surgeon, The Professor Stuart Pegg Adult Burns Unit, Royal Brisbane and Women's Hospital, Herston, Queensland, Australia, 4029. [michael.muller@health.qld.gov.au](mailto:michael.muller@health.qld.gov.au)

**Background.** Biofuel heaters are a new form of flame heating for indoor and outdoor use. Fuelled by methylated spirits, they are simple structures with few safety features, and can be associated with severe burn injury. We report five cases of severe burns in adults that occurred when refilling these heaters.

**Methods.** We undertook a retrospective audit of all adults presenting to the Royal Brisbane and Women's Hospital (RBWH) with a biofuel heater-related burn between 20-30<sup>th</sup> June 2014.

**Results.** Five patients required admission for management of their burns. Three were admitted to ICU for greater than three weeks, and remained inpatients for up to 78 days. Two did not require ICU and were managed in the burns unit. Average total body surface area (TBSA) burned was 24.7%, and patients went to theatre up to seven times for debridement and skin grafting. Average length of stay was 41.8 days.

**Conclusions.** Biofuel heaters are easily accessible yet there is no Australian Standard to ensure they are safe or perform in the way they were intended. As such, people using them are at undue risk of severe burn injury, even when following the operating instructions. These products should be removed from the market to prevent further harm and potential mortality.

## Key Words

Flame, burn, heater, injury, biofuel, ethanol.

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