Introduction:
Our 2017 audit of targeted temperature management (TTM) in patients admitted to ICU after an out of hospital cardiac arrest (OOHCA) found that patient temperatures were above those recommended by the Resuscitation Council (RC). Previous data showed that cooling was best achieved in 2013; the year with the highest use of invasive cooling. Following the audit, additional education was given to ICU staff on TTM. We repeated this audit to assess the effect of that intervention.

Methods:
Patients admitted following OOHCA between 01/04/2017 and 31/06/2019 were identified, excluding patients aged under 18. Baseline data included gender, age, total ‘downtime’, presenting rhythm, and survival to discharge. Data was also collected on cooling method, whether TTM was documented in the medical plan, and temperature at 0, 12, 24, 48 and 72 hours after ICU admission. Cerebral performance category (CPC) was gaged using clinic letters.

Results:
96 patients were admitted to ICU following OOHCA between 01/04/2017 and 31/06/2019. Of these, 71.9% were male, the mean age was 63, and 38.5% of patients admitted survived to hospital discharge. TTM was documented in the medical plan for 58.3% of patients. The percentage of patients receiving invasive cooling in 2017-19 was 22.6%, 25.0% and 29.4% respectively. Across all years, the mean temperatures at 0, 12, 24, 48 and 72 hours following ICU admission were 34.9°C, 36.4°C, 36.5°C, 36.6°C and 36.9°C. Comparison between patients with a CPC of 1 and CPC of 5 showed no significant difference in temperature during ICU stay.

Conclusion:
The results of this audit are similar to those obtained in 2017, implying additional education has not resulted in better adherence to RC guidelines of TTM below 36°C for 24 hours. However, average temperatures in the first 72 hours are below the recommended 37.6°C. In the future, it would be interesting to compare incidences of pyrexia in those cooled passively compared to those given invasive cooling and to assess for differences in outcomes.