Introduction:
Targeted temperature management (TTM) and fever avoidance improves mortality and neurological outcome post out of hospital cardiac arrest (OHCA)\(^1\). Patients follow a protocol from admission: TTM for 72 hours (36°C for 24h and then normothermia for 48h). We looked at the rationale for commencing TTM, temperature control devices, if we met temperature guidelines and the reasons for TTM failure.

Methods:
We retrospectively analysed patients who had been coded OHCA on iCLIP (our electronic patient record) between 30/06/2018 to 30/06/19. We analysed ICU charts for recorded temperatures (< 72hrs) for TTM patients. We then accessed notes through iCLIP and assessed rationale for TTM commencement and reasons for failure. We compared our results to our ICU standards, based on current consensus and the TTM\(^1\) results. We also looked at the effectiveness of a clerking proforma (Feb 2019) on documentation.

Results:
95 patients were admitted post OHCA. 76 were initiated on TTM; of the 19 not: 10 patients were critically unstable, while 9 patients had good GCS on ROSC. Of recorded arrest rhythms 57/71 (80%) of TTM patients were shockable while 9/15 (60%) of non TTM patients were shockable. Of the TTM patients: 6 had surface cooling devices and 70 had intravascular cooling devices.

21/73 (29%) of TTM patients failed TTM adherence by either having a mean of >0.5°C OR a spike of >1°C above target temperature. 13/21 (62%) had predictable medical causes of TTM failure: Aspiration pneumonia or myoclonic jerks. The other 8 patients had process-based failures: going for PCI or being warmed early.

The proforma has had a marked improvement on documentation.

Conclusion:
These results highlight that raised temperatures in TTM are predictable. To improve this we will focus on recognition of these risk factors and establish means to minimise their impact. We have also shown the benefit of an established clerking proforma.

References: