

Out of Hospital Cardiac Arrest Benchmarking Project

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Background:

The National HEMS Research and Audit Forum was founded in 2020 to establish an inclusive forum within UK HEMS and land-based Pre-Hospital Critical Care Teams (PHCCT) with the aim of improving patient experience through collaborative research and audit. One objective was to host collective data and share aggregated results. This benchmarking project developed performance indicators for medical Out of Hospital Cardiac Arrest (OOHCA).

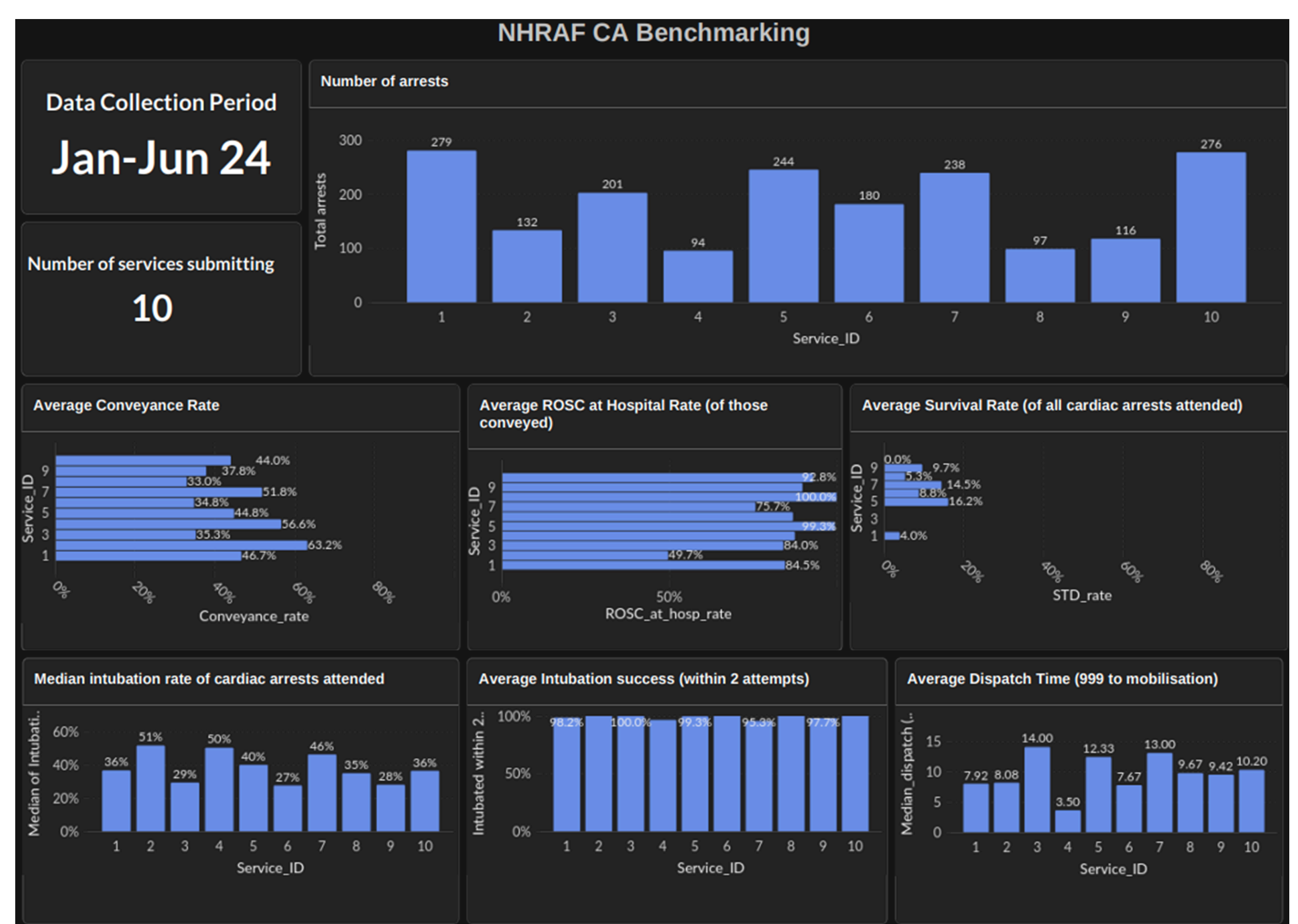
Method:

A working group was established who selected performance indicators that were meaningful and feasible to collect as markers of management of OOHCA.

Metrics selected were:

- Median time 999 call to mobilisation (dispatch time)
- Patients conveyed to hospital (%)
- ROSC at hospital rate:
 - ROSC at hospital/total number of arrests (%)
 - ROSC at hospital/total number of patients conveyed to hospital (%)
- Combined first and second pass success rate for endotracheal intubation (%)
- Survival to discharge (%)

Each service was able to identify their own results against anonymised results of the other participating services and the means and medians.



Results:

10 services participated. The median dispatch time was 10 minutes (range 2-16), median rate of ROSC at hospital was 88% (range 39-100%) and median percentage of arrests where intubation was attempted 36% (range 6%-61%). All institutions had a median success rate of >95% for intubation within 2 attempts (median intubation success within 2 attempts range 95%-100%).

Discussion:

This benchmarking program has allowed individual institutions to reflect on their practice and processes. The greatest variation in results was seen in median time to dispatch; these results will allow services to discuss and compare their dispatch methods. This is the first collaborative benchmarking exercise of its type in UK pre-hospital critical care and allows a unique opportunity for participating services to refine and develop their processes. After the initial pilot period, the benchmarking has been opened to other PHCCTs.

What next?

All services involved in the project have agreed to continue to submit data monthly data to identify areas of best practice and facilitate cross-organisational learning. NHRAF members outside of the pilot sites have been invited to join the benchmarking submissions.