Data Quality Statement

OHCAR collects data using the internationally agreed Utstein dataset[1]. The Utstein guidelines state that, "organisers of OHCA registries should implement monitoring and remediation for completeness of case capture". OHCAR adheres to the principles of the Utstein guidelines, and this is reflected in the quarterly OHCAR reports to NAS/DFB.

OHCAR is mindful of 'Internal' and 'external' validity. OHCAR staff are aware of the concept of 'bias', which refers to the risk of results being influenced by systematic errors. Internal validity refers to the extent to which results are bias free, and the reported association between exposure and outcome is ''not due to unmeasured or uncontrolled-for variables''. External validity, refers to the ''utility of the inferences for the broader population that the study subjects are intended to represent''[2].

Dimensions of Data Quality

Data quality is vital, to ensure reliability. OHCAR is committed to adhere with the seven principles of good quality data:

1. Accuracy:

   Data is cross checked across different sources for cross-validation e.g. times from the PCR are checked against the control data times, for both arrival at scene and arrival at Hospital (if transported)

2. Completeness:

   OHCAR staff check data for completeness, e.g. missing PCR data fields. A missing case search is also conduct each month, and these results are then reported to NAS

3. Legibility:

   Some sources of data are hand written and a certain degree of interpretation is needed, so OHCAR is careful that there may be an issue with accuracy

4. Relevance:

   Data processed by OHCAR needs to be relevant to the purposes for which its use is intended

5. Reliability:

   The OHCAR dataset follows the Utstein guidelines, which is internationally recognised, using standardised definitions

6. Timeliness:

   OHCAR has a time limit in its data collection objectives. After the publication of the Annual Report, no further retrospective data is collected

7. Validity:

   Data will be recorded and used in compliance with relevant requirements.

Classifications and terminology used by OHCAR

- **B-CPR** Bystander Cardiopulmonary Resuscitation
- **BLS** Basic Life Supporter
- **CFR** Community First Responder
- **CPC** Cerebral Performance Category
- **CPR** Cardiopulmonary Resuscitation
- **CRI** Call Response Interval
- **CSO** Central Statistics Office
- **DAA** Dublin Airport Authority
- **DFB** Dublin Fire Brigade
- **ED** Emergency Department
- **EMS** Emergency Medical Services
- **ERC** European Resuscitation Council
- **EuReCa** European Registry of Cardiac Arrest
- **GP** General Practitioner
- **HRB** Health Research Board
- **HSE** Health Service Executive
- **IQR** Interquartile Range
- **NAS** National Ambulance Service
- **OHCA** Out-of-Hospital Cardiac Arrest
- **OHCAR** Out-of-Hospital Cardiac Arrest Register

- **PCR** Patient Care Records
- **PEA** Pulseless Electrical Activity
- **PHECC** Pre-Hospital Emergency Care Council
- **ROSC** Return of Spontaneous Circulation
- **CPC** Cerebral Performance Category

References

1. Perkins GD, Jacobs IG, Nadkarni VM, et al. Cardiac arrest and cardiopulmonary resuscitation outcome reports: update of the Utstein Resuscitation Registry Templates for Out-of-Hospital Cardiac Arrest: a statement for healthcare professionals from a task force of the International Liaison Committee on Resuscitation (American Heart Association, European Resuscitation Council, Australian and New Zealand Council on Resuscitation, Heart and Stroke Foundation of Canada, InterAmerican Heart Foundation, Resuscitation Council of Southern Africa, Resuscitation Council of Asia); and the American Heart Association Emergency Cardiovascular Care Committee and the Council on Cardiopulmonary, Critical Care, Perioperative and Resuscitation. Circulation 2015;132:1286-300.
2. https://www.ncbi.nlm.nih.gov/books/NBK208616/?report=reader