Additional File 1
Expert panel details and research recommendations

Name	Role	Institution
Professor Peter Watkinson	Associate professor of intensive care medicine	University of Oxford
Dr Jonathan Bedford	Clinical Research Fellow	University of Oxford
Dr Andrew Walden	Consultant in intensive care medicine	Intensive care unit, Royal Berkshire Hospital
Professor Ben O'Brien	Professor of Perioperative Medicine	St Bartholomew's Hospital & Barts Heart Centre
Kim Rajappan	Consultant in cardiology	Oxford University Hospitals NHS Foundation Trust
Ian Taylor	Lay representative	N/A
Cathy Taylor	Lay representative	N/A

Treatments and confounding variables

The following lists were drawn initially from the scoping review, then refined and ratified by the expert panel.

1 Treatments of interest

1.1 Treatments to be included in the analysis

- **Amiodarone IV**
- **Beta blockers IV**
  - o Labetalol
  - o Esmolol
  - o Metoprolol
- **Calcium channel blockers IV**
  - o Diltiazem
  - o Verapamil
- **Digoxin IV**
- **Electrical cardioversion**

Treatments of interest but not possible with our data

Propafenone and ibutilide: identified as candidate therapies in scoping review, however these were not available in our datasets.

2 Confounding / matching variables

2.1 Demographic / Comorbid factors

- Age
- Sex
- Congestive cardiac failure
- COPD (previous or current diagnosis)
- Liver disease (previous or current diagnosis)
- Chronic renal failure
- Thyroid disorders (previous or current diagnosis, or taking relevant medications)
- Pre-admission beta blockers
- Pre-admission antipsychotic medication

2.2 Admission factors

- Illness severity in first 3h (therefore not influenced by NOAF (as we are excluding pts in AF in first 3h)).

2.3 Factors at the time of NOAF onset

- Heart rate[o]
- Blood pressure[o]
- Body temperature[o]
- Presence of vasopressor / inotrope[o]
- Dose of noradrenaline[o]
- Dose of vasopressin[o]
- White cell count[L]
- Plasma electrolyte (K, Mg, Na, Ca) concentrations[L]
- Plasma urea and creatinine concentrations[L]
- Platelet count[L]
- Prothrombin time[L]
- Presence of therapeutic dose anticoagulation*
- Presence of bronchodilator therapy*
- Mechanical ventilation[%]
- Haemofiltration[$]
- Presence of central venous access[%]

[o]First recording after AF onset

[L]Most recent value in ICU prior to AF onset

*On the calendar day of, or the day preceding NOAF onset

[%]At the time of NOAF onset