

ECMO at The Alfred

The Alfred is at the forefront of Extra Corporeal Membrane Oxygenation (ECMO) practice in Australia and New Zealand. The ECMO Clinical Service incorporates in-house clinical care, retrievals, research and education.

ECMO as a clinical therapeutic modality at The Alfred commenced more than 20 years ago and was pioneered by A/Prof Bob Salamonsen. The service is now led by Dr Vincent Pellegrino who is an internationally recognised expert in this highly specialised field.

ECMO therapy at The Alfred is an accepted and integral part of ICU practice with the equivalent of more than one ICU bed/year dedicated to ECMO.



ECMO at The Alfred

Since 1990, The Alfred ICU has used ECMO as a supportive intervention in almost 400 adult patients. The indications are varied and include acute cardiac events, pre and post transplant support and respiratory failure.

The program is run by the ICU staff – medical and nursing – with support from the allied health, perfusion, cardiothoracic surgery, cardiology, respiratory and vascular surgery teams.

Over the last 2 years the program has pushed boundaries to develop an ECMO CPR (E-CPR) service for some patients in cardiac arrest refractory to standard advanced life support interventions. This program has achieved early results that are superior to those in several international series.

ECMO at The Alfred

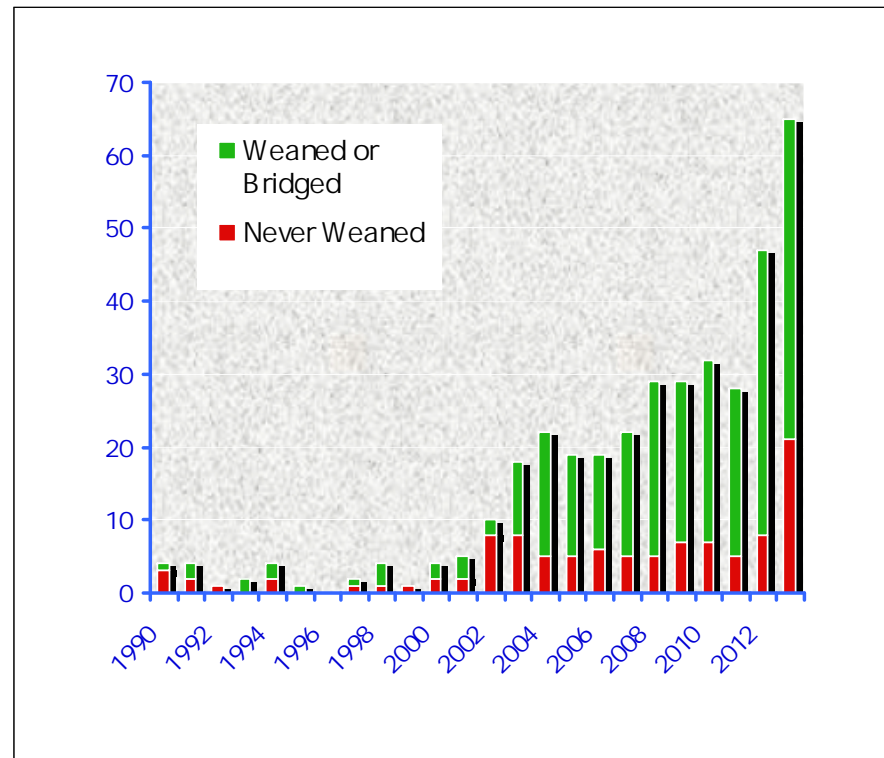
ICU Medical and Nursing staff undergo a structured theoretical and practical education program prior to being accredited for ECMO practice. Further training is required before being accredited to be part of the ECMO Retrieval Team. All ECMO staff participate in an annual credentialing program.

We run regular collaborative simulation scenarios and practice emergency responses.

There are monthly ECMO Special Interest Group meetings where current activity is discussed and minuted. Other centres are invited to join these meetings via video link.

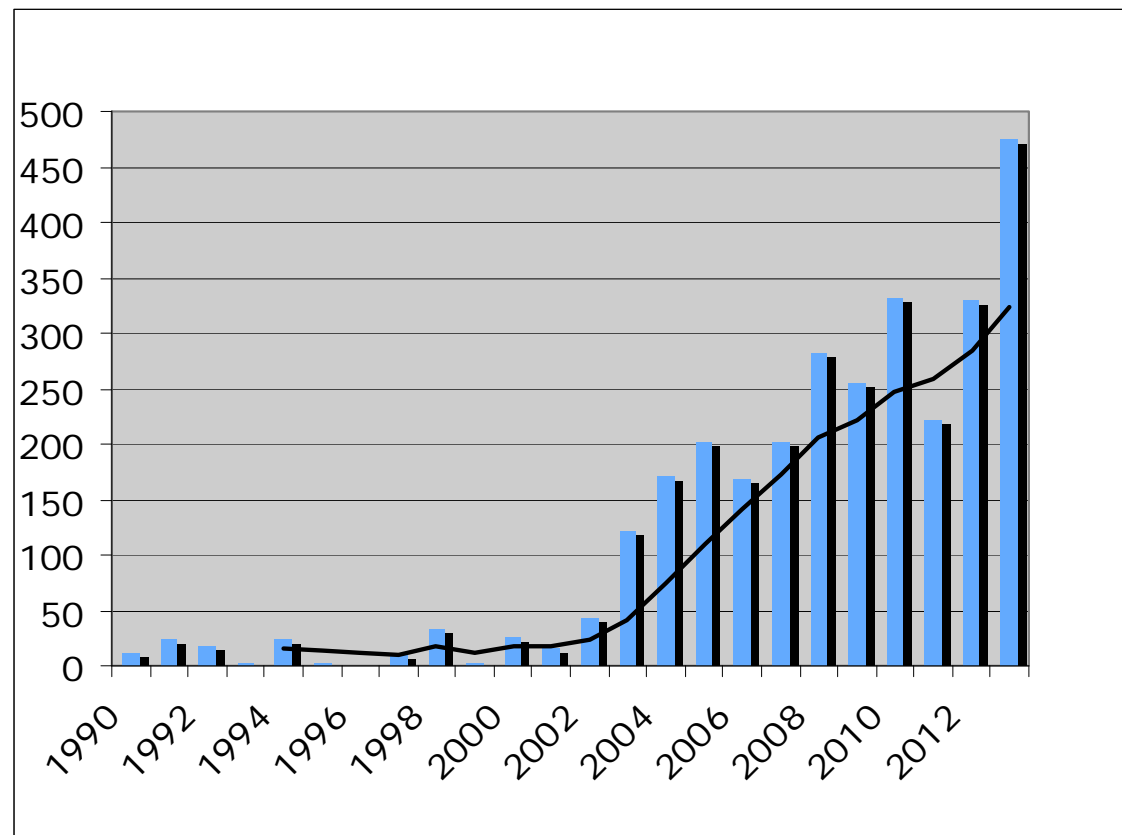
There is a monthly ECMO Research Service meeting.

ECMO at The Alfred



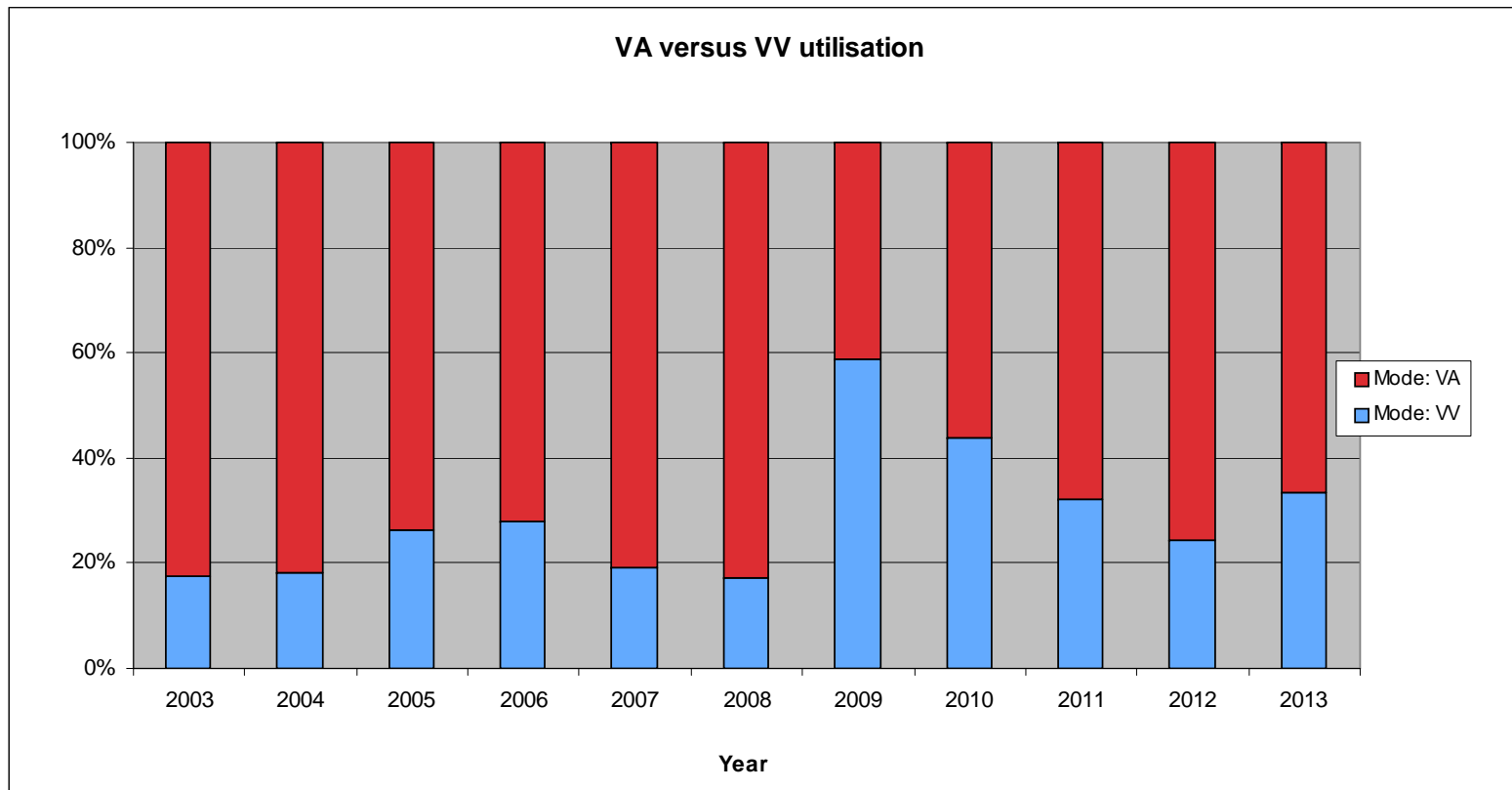
Number of ECMO runs per year (1990-2013) for all forms of ECMO
 Each ECMO run is categorised by outcome - green indicates the number of patients successfully weaned (or bridged to VAD) from ECMO

ECMO at The Alfred

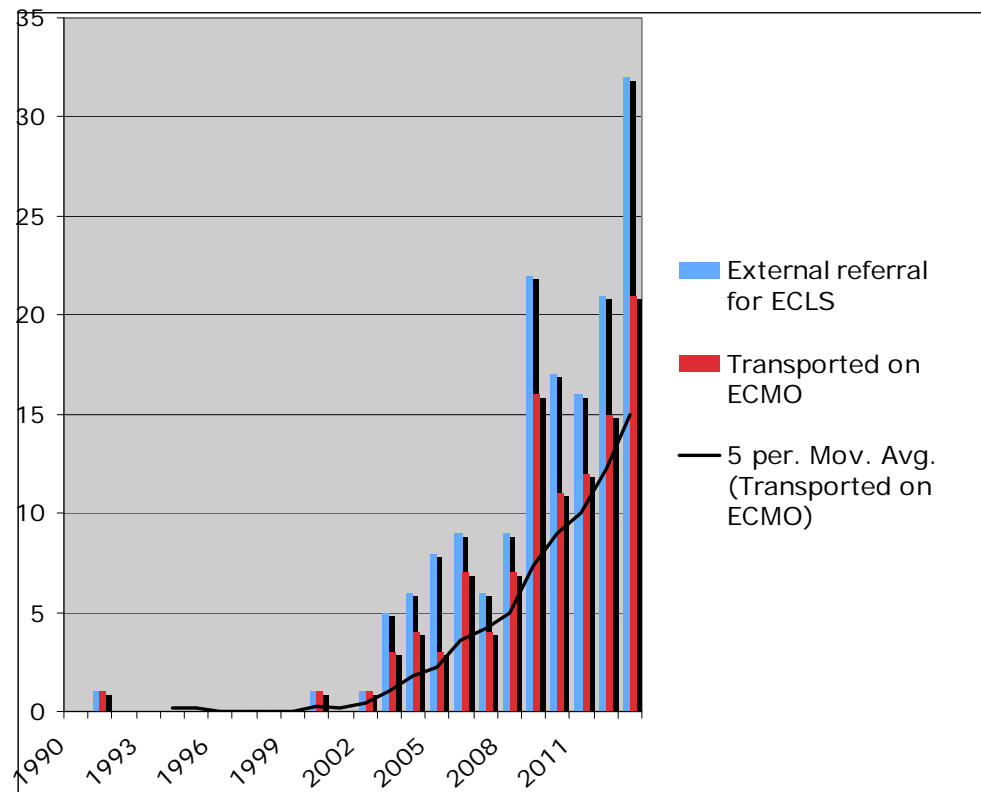


Number of ECMO days per year in The Alfred ICU (1990-2013) for all forms of ECMO

ECMO at The Alfred

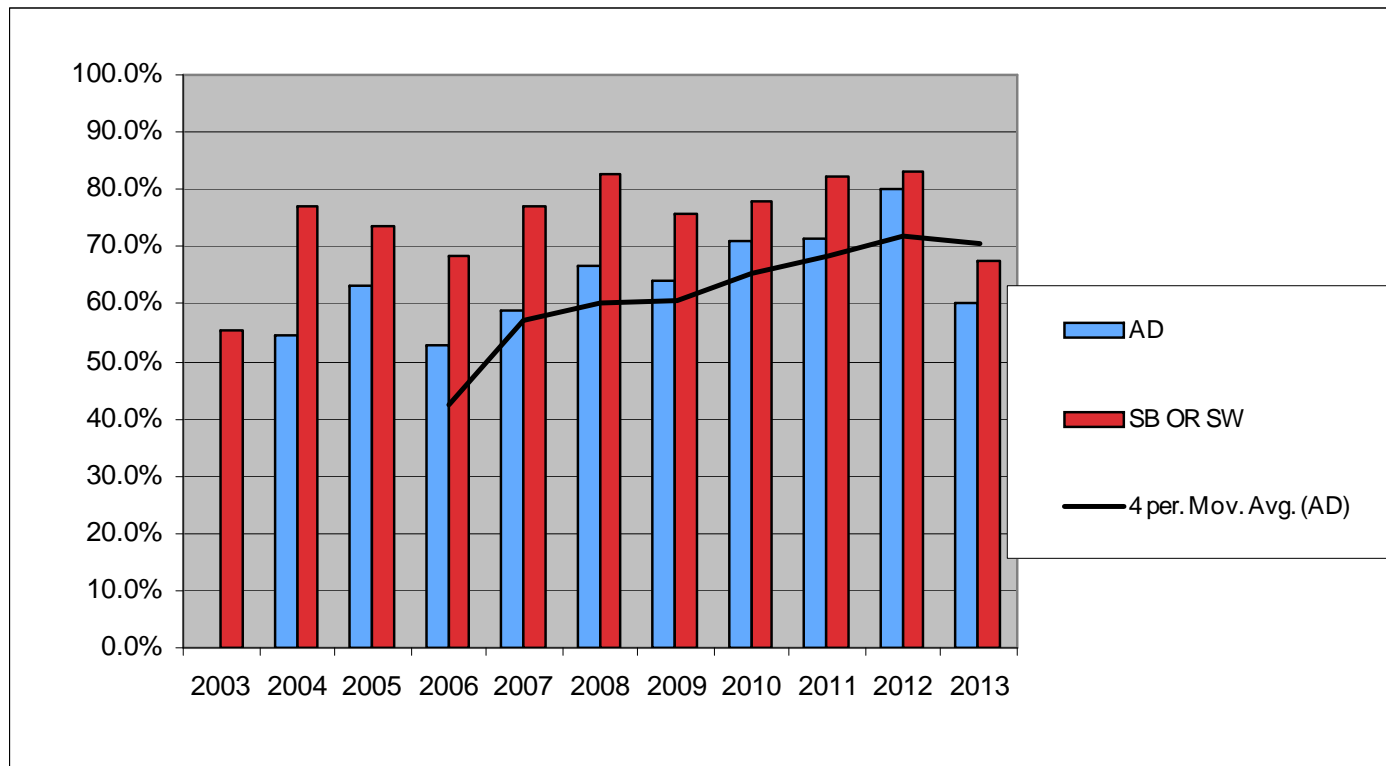


ECMO at The Alfred



Number of referrals from other hospitals per year (1990-2013) – only those accepted and treated with ECMO are included

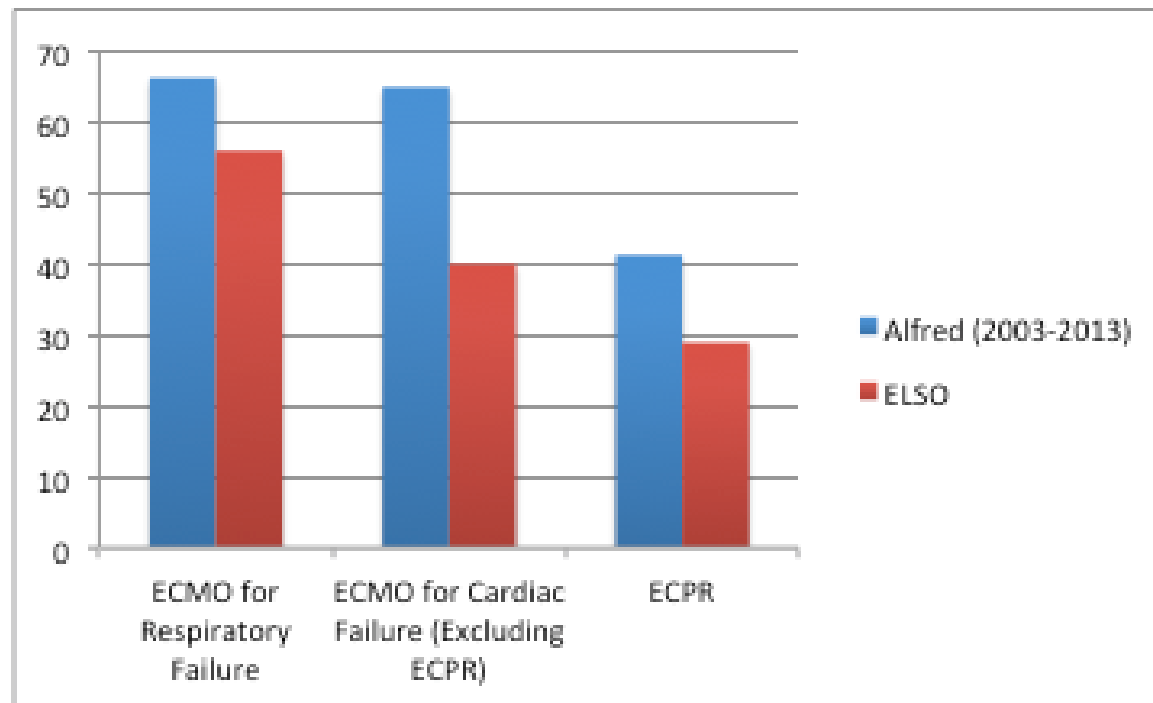
ECMO at The Alfred



The red bars indicate the rate of successful ECMO weaning for all forms of ECMO
 The blue bars indicate the hospital discharge rate following ECMO.

- in 2012, 80% of patients receiving some form of ECMO were later discharged from hospital alive
- 2013 survival reflects increasing application of E-CPR (36%)

ECMO at The Alfred



The blue bars indicate the survival rate to hospital discharge for ECMO patients at The Alfred until the end of 2013

The red bars indicate the survival rate to hospital discharge for patients included in the largest worldwide database to the end of 2013