Reviewer's report

Title: Extra corporal membrane oxygenation in general thoracic surgery: new canulation

Version: 1 Date: 8 February 2011

Reviewer: Kumud K Dhital

Reviewer's report:

This case report adds to the growing literature on the use of ECMO in managing thoracic procedures which otherwise could not be undertaken on account of inadequate lung reserve with single lung ventilation. In particular, this report by Souilamas et al., describes a major advance in peri-operative ECMO support through the use of a novel single-site, internal jugular, veno-venous ECMO cannula (Avalon Laboratories).

Major Essential revisions - None required

Minor essential revisions -

ECMO technology is not without significant risks and complications. Some of the issues specific to the single-site Avalon cannula have recently been highlighted by Bermudez et al (Ann Thorac Surg 2010; 90: 991-5). The authors are urged to insert a cautionary phrase in their COMMENT section to mention (i) these potential risks and (ii) that the use of ECMO support even in thoracic surgery should be limited to institutions that have multi-disciplinary cardiac and vascular services that are experienced with ECMO technology and in dealing with any complications.

The remainder of the comments relate to spelling, grammar and use of English. The following are suggestions only.

Clinical Summary -

2nd Paragraph, 2nd Sentence - A multidisciplinary decision was made to proceed with pulmonary resection under peri-operative VV-ECMO support with the Avalon cannula.

2nd Paragraph, 3rd Sentence - This strategy made it possible to cease lung ventilation......

3rd Paragraph, 2nd Sentence - ...Calif) was inserted into the right internal.....

Last Paragraph, 1st Sentence - ......was connected to a heparin-coated ECMO circuit......

Last Paragraph, Penultimate and Last Sentence - ......segmentectomy and was extubated at the end of surgery. ECMO support weaned off after achieving satisfactory gas exchange 12 hours post-operatively..........without recurrence of
haemoptysis.

COMMENTS Section
1st Para, 1st Sentence - ECMO support is increasingly being utilised............failure(1), as a bridge to lung transplantation (2) and in managing post-transplant primary....

1st Para 2nd Sentence - .....dual site implantation

1st Para, 3rd Sentence - This new single-site cannulation technique through the internal.................with the postero-lateral thoracotomy

2nd Para, 1st Sentence- Two thoracic surgical cases have been reported using dual-site bilateral femoral VV-ECMO......

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Declaration of competing interests:**

I declare that I have no competing interests.