BAETS Outlier Policy

1. Principles.

1.1   Statistical methods allow for identification of individuals with event rates which are unlikely to occur by chance alone. Where possible, these should incorporate risk-stratification and/or risk-adjustment methodologies, to take account of any known variation in case-mix which could account for variation in outcomes.

1.2   There is a balance to be drawn between setting the confidence limits too narrowly, resulting in a higher chance of incorrectly identifying as outliers those, whose performance is no worse than average; and setting the limits too widely, with the risk that sub-standard performance may be missed.

1.3   Identification of a surgeon as an 'outlier' is not in itself evidence of poor practice, rather a cause to investigate the potential reasons for the observed event rate in more detail.

1.4   Any such investigation should be undertaken in a supportive and collaborative manner, so that best practice is ensured, and be fully documented.

1.5   Issues of data quality are frequently the cause of outlying event rates.

1.6   For the BAETS, most adverse outcomes impinge on quality of life, but are not usually life-threatening. Mortality is so low that definition of outlier status for this end-point is statistically very difficult. Moreover, most post-operative deaths are due to unexpected medical events, rather than surgical complications, and may therefore be less influenced by the individual operating surgeon than in other specialties.

2. Methodology.

2.1   Collection and up-loading of data for the BAETS National Audit will remain the responsibility of the individual surgeon/member.

2.2   There will be annual publication of outcomes, currently on the open access website operated by Dendrite Clinical Systems. In preparation for this, the BAETS Executive will consider the outcomes relevant for publication, bearing in mind information provided by the Audit Lead on data quality and the development of any methods of risk-adjustment.
The output from the annual publication will form the basis for ascertainment of any 'outlier' status for these outcomes.

2.3   Most analyses will be presented in the form of funnel plots, with 99% alert and 99.9% alarm lines.

2.4   The definition of an outlying event rate will be one falling above the 99.9% confidence interval.

2.5   Responsibility for identifying outliers will rest with the Audit Lead, working in conjunction with Dendrite.

3. Action to be taken once an outlier is identified.

Stage 1. Re-checking of Data

The Audit Lead will work with Dendrite to re-check the data, to:

Confirm or refute the status as a statistical outlier
Identify any potential issues of data quality which may influence this status (e.g. high rates of missing data, peculiarities of case-mix).

> If no longer a statistical outlier, no further action required.
> If statistical outlier status is confirmed:

Stage 2. Data Review by 'Outlier Committee'.

The committee will comprise: BAETS President, Secretary, Audit Lead, and DGH Representative.

The committee will review the information provided by the Audit Lead, and the member concerned will be approached by the President, initially by phone, followed up by a letter, detailing the following:

> An explanation of the outlier status for the relevant outcome measure.
> A summary of the relevant statistics e.g. funnel plot.
> Any potential issues of data quality already identified.
> An offer of support in helping to understand potential causes of the observed event rate.

A request should be made for a written response, within three months, either to validate the results or to identify any data errors or justifiable explanations. If no response is received, further action/sanctions should be discussed by the Outliers Committee.

Stage 3. Review of Response.

Member's response is reviewed by the Outlier Committee, to determine:

A). 'No further action required'.
For instance:
Data errors in the original analysis. Secondary analysis of corrected data no longer indicate outlier performance.
Peculiarities of case-mix, bearing in mind any existing models for risk-adjustment.

President will inform member by letter of the modified status, and an official record made. Data errors will be corrected in the central database.

B). 'Further action required'.
For instance:
Original data are validated, or secondary analysis of corrected data still indicate outlier performance.

President will inform member by letter of the persistent outlier status. This letter will be copied to Trust/Hospital Clinical and Medical Director, whose responsibility it will be to take any further action.