

## NHS BLOOD AND TRANSPLANT

## CARDIOTHORACIC ADVISORY GROUP

## SUMMARY OF CUSUM MONITORING OF OUTCOMES FOLLOWING LUNG TRANSPLANTATION

## INTRODUCTION

- 1 NHSBT monitors short-term patient outcomes following organ transplantation through centre specific cumulative sum (CUSUM) analyses. These are undertaken monthly for cardiothoracic transplantation. These 'within centre' analyses enable prompt detection of any changes in mortality rates, providing external assurance and enabling centres to compare current outcomes with their own past performance to assist in internal auditing.
- 2 The methods used in the analysis are based on CUSUM monitoring and compare current outcome rates with an expected rate.
- 3 Each month, CUSUM monitoring reports on 90-day mortality following lung transplantation are produced and sent to each centre. This paper summarises the results of these reports for the six month period since the last Cardiothoracic Advisory Group meeting. Where signals have occurred, actions that were taken and lessons learnt are noted.
- 4 In October 2014, it was decided that heart-lung block transplants would be excluded from the lung transplant CUSUM monitoring reports.

## RESULTS

- 5 **Table 1** shows that over the six month period since the last Cardiothoracic Advisory Group meeting there has been one signal in lung transplantation CUSUM reporting.

<b>Table 1 Summary of CUSUM analysis results</b>				
<b>Month CUSUM report issued</b>	<b>No. reports issued</b>	<b>No. signals</b>	<b>No. signals requiring investigation</b>	<b>No. investigations outstanding</b>
October 2017	5	0	0	0
November 2017	5	0	0	0
December 2017	5	0	0	0
January 2018	5	1	1	1
February 2018	5	0	0	0
March 2018	5	0	0	0
<b>Total</b>	<b>30</b>	<b>1</b>	<b>1</b>	<b>1</b>

- 6 A signal in the CUSUM monitoring of 90 day mortality following lung transplantation was identified at Birmingham Queen Elizabeth hospital following a transplant performed in August 2017. An investigation is currently in progress.

## CONCLUSION

- 7 Over the six month period since the last Cardiothoracic Advisory Group meeting there has been one signal in lung transplantation CUSUM reporting. Outcomes of signal investigation have not yet been confirmed but are in progress.