

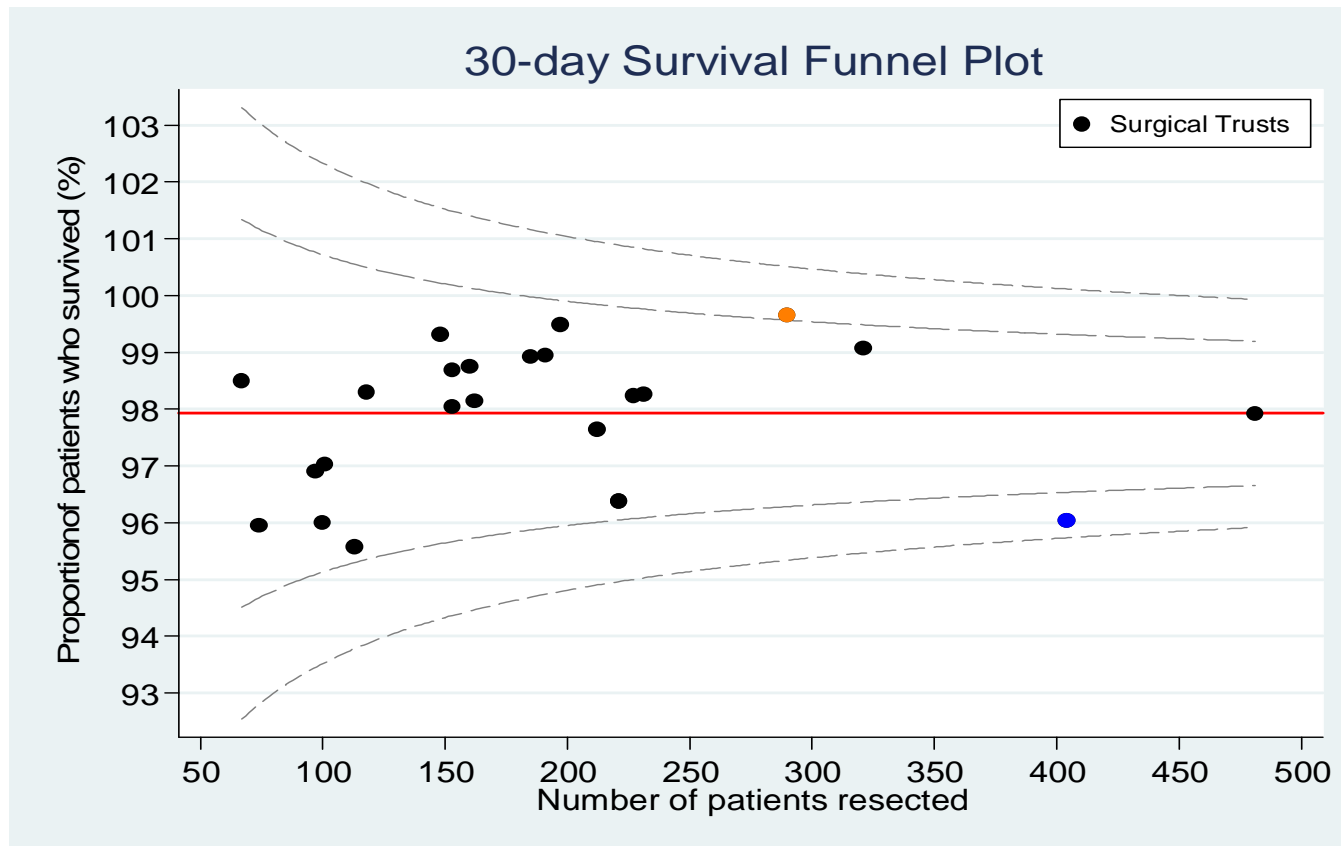
Reflections on outlying

Michael Shackcloth

Consultant Thoracic Surgeon

Liverpool Heart and Chest Hospital

- 8th January 2016 – Phone call from Doug West



False discovery rate 0.3

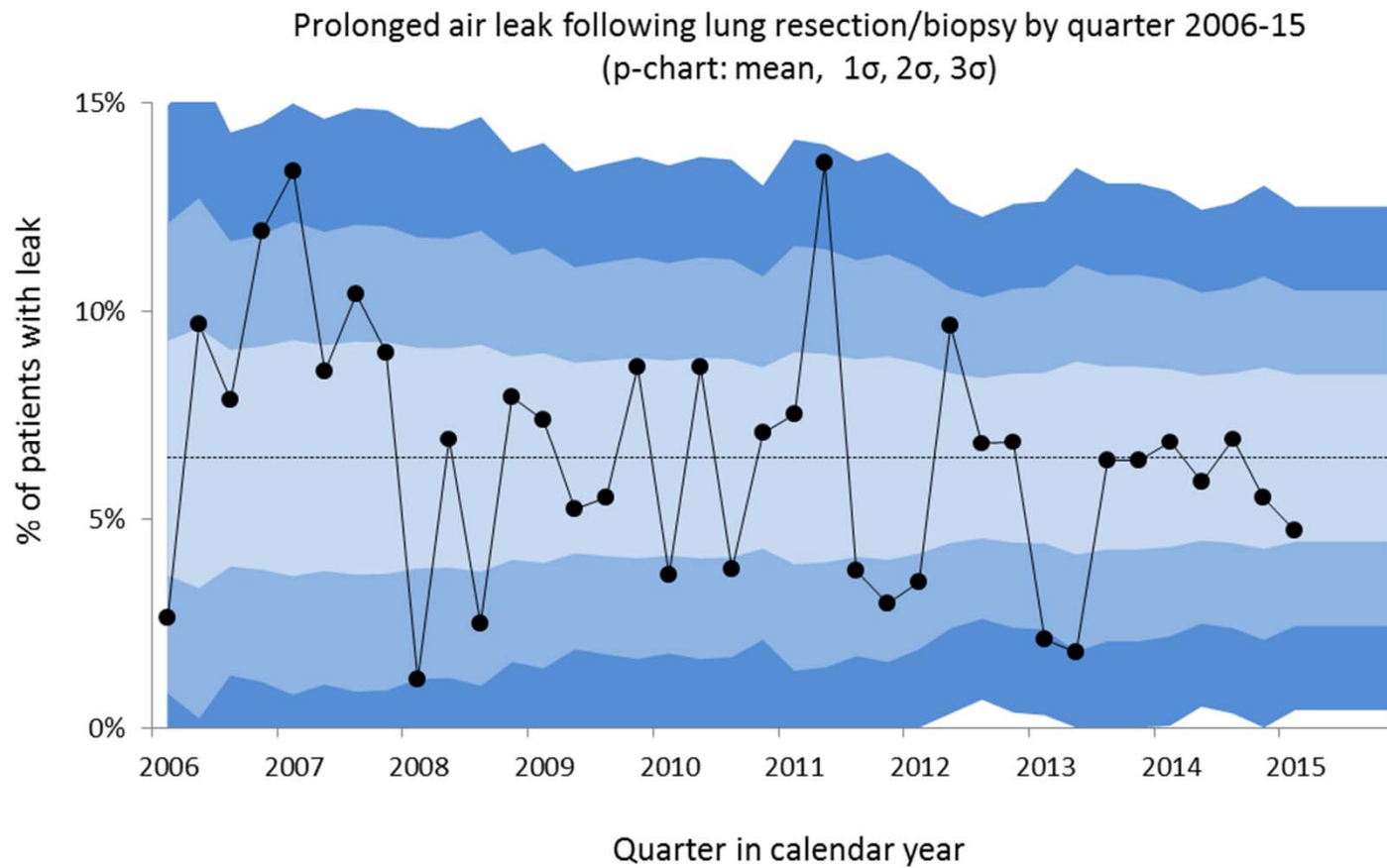


Procedures

(by procedure date)

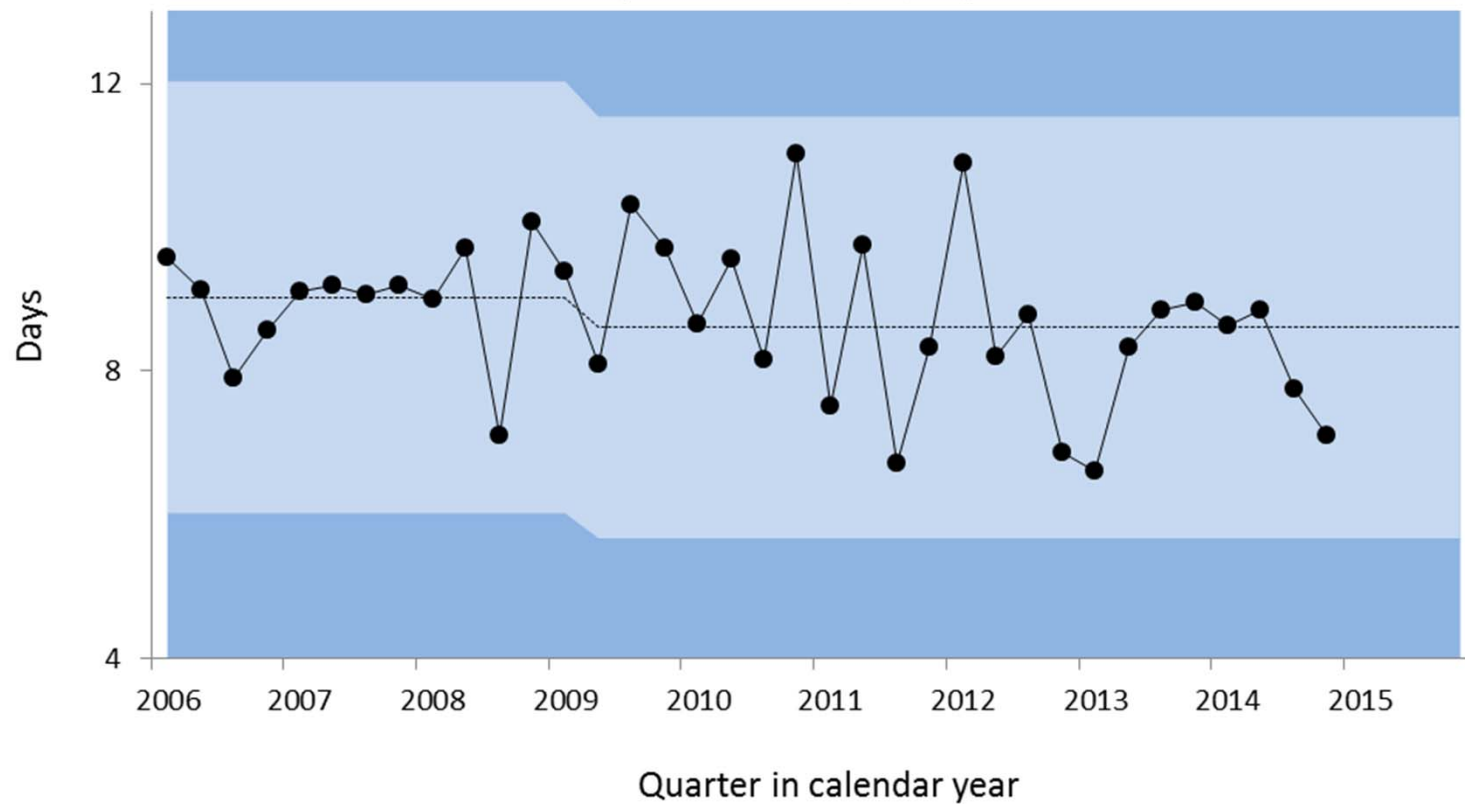
Procedure	Asante-Sjaw	Brett	Gunasekera	Hartley	Howes	Kaul	Mediratta	Page	Poullis	Shackcloth	Woolley	total
open lobectomy	21					3	16	4	6	7		57
vats lobectomy									12	13		25
open bilobectomy	1						1		1	2		5
open pneumonectomy	2								1			3
open wedge	2					2	5	11	1	1		22
vats wedge								2	8	1		11
vats	21					7	6	7	12	21		74
OG		1	1		1	1	3					7
miscellaneous	4	1	1	3			7	6	9	10	4	45
Sum	51	2	2	3	1	1	19	37	33	51	49	249

Air leak after resection/biopsy



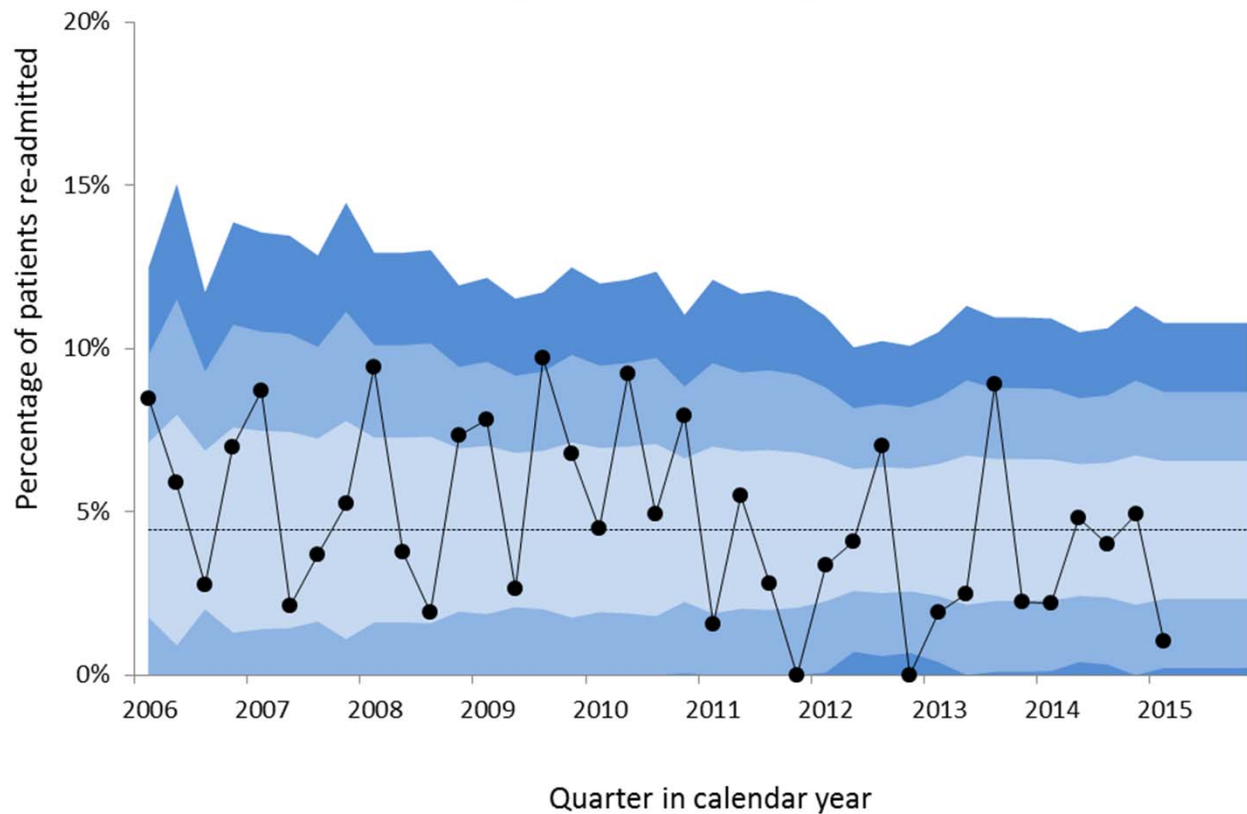
LOS after lobectomy

Mean of length of stay following lobectomy by quarter 2004-14
(c-chart: mean, 1σ , 2σ)

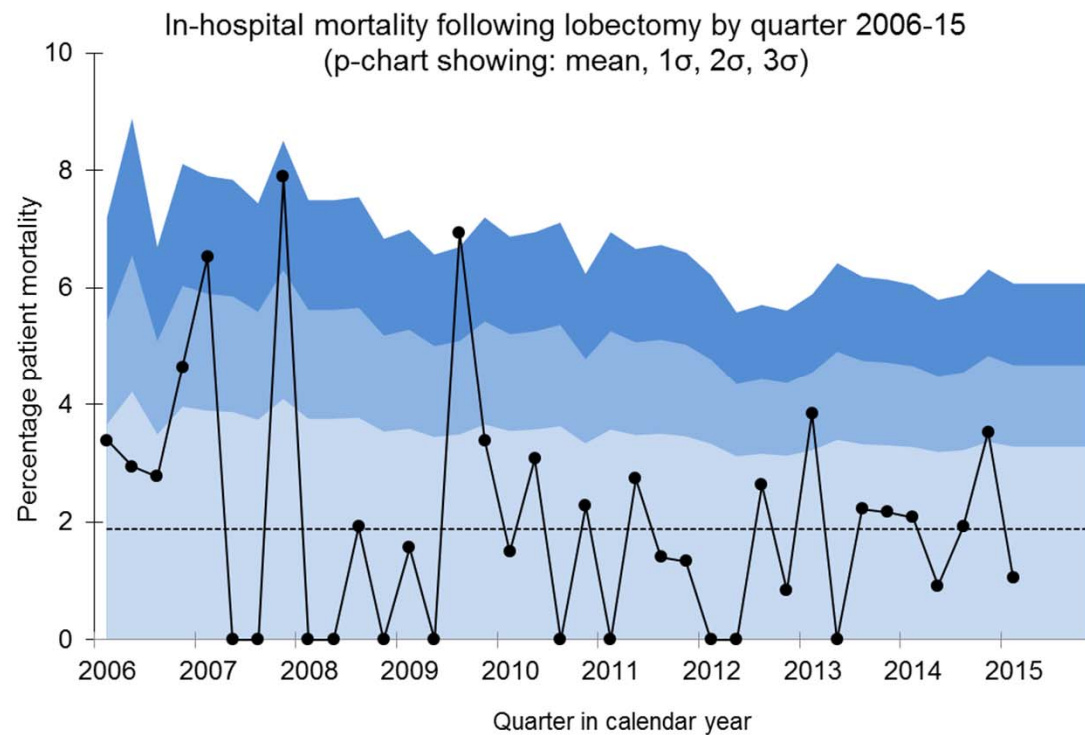


Readmission after lobectomy

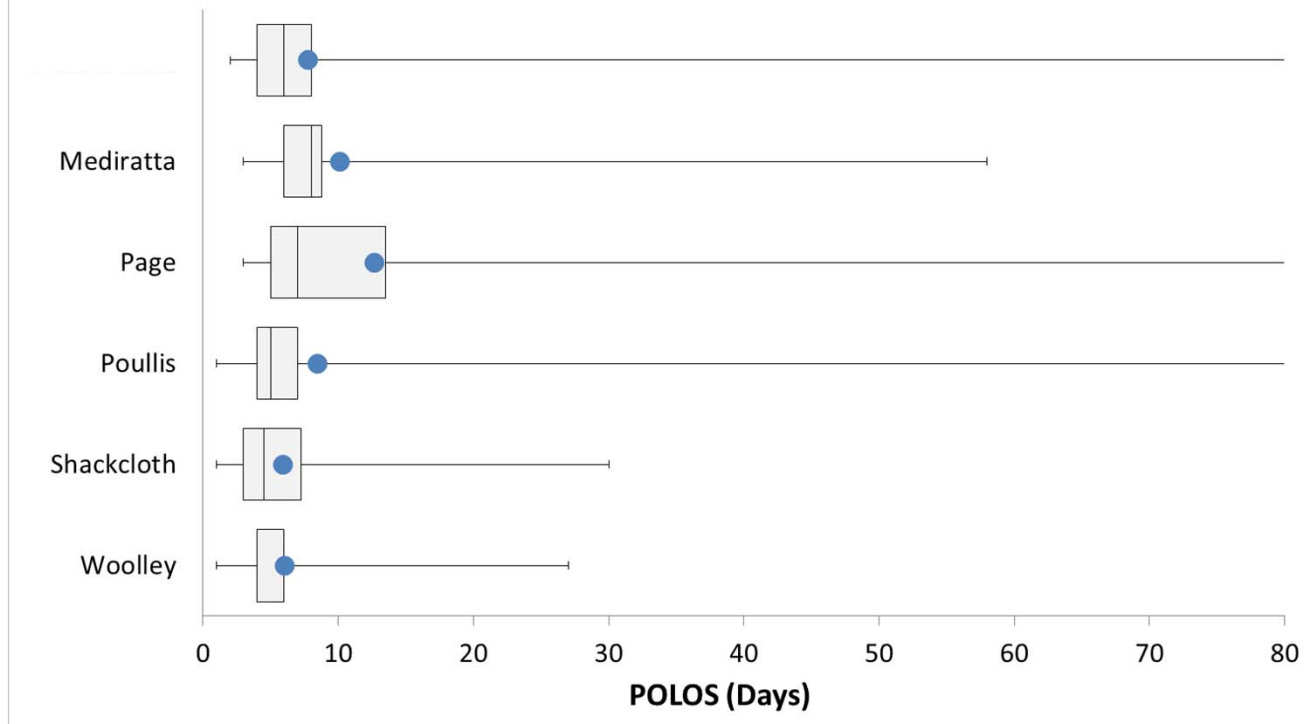
ITU Re-admission following lobectomy by quarter 2006-15
(p-chart: mean, 1 σ , 2 σ , 3 σ)

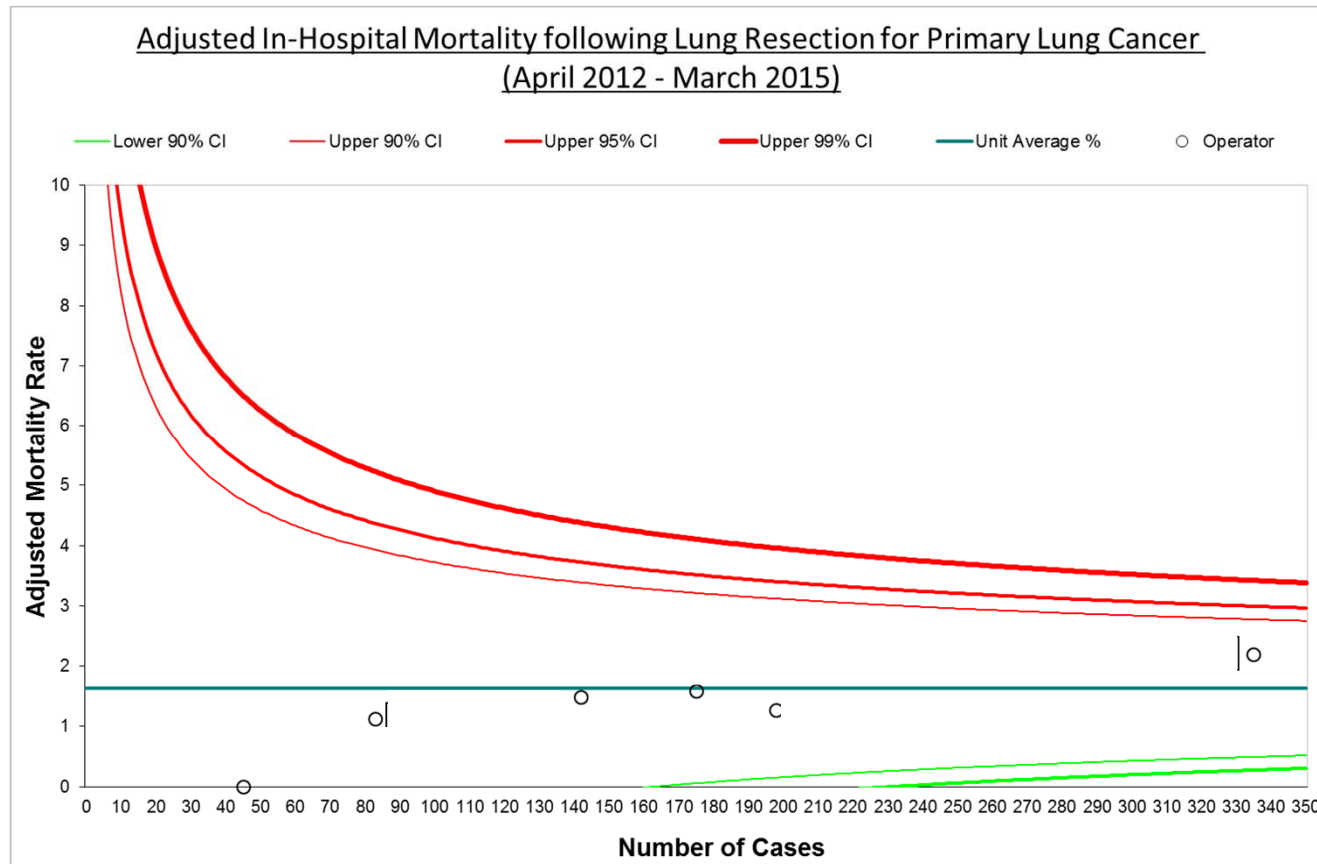


Lobectomy mortality



Post-operative length of stay following lung resection for primary cancer
(April 2014 - March 2015)





What to do?

- Checked data, (Checked my own figures!), checked all data
- Realised main reasons it was missed on our charts was
 - timing was different
 - all lung cancer cases included rather than just lobectomy
 - 30 day not in-hospital
- Also our funnel plots were risk adjusted

SCTS guidance



Society for Cardiothoracic Surgery
in Great Britain and Ireland

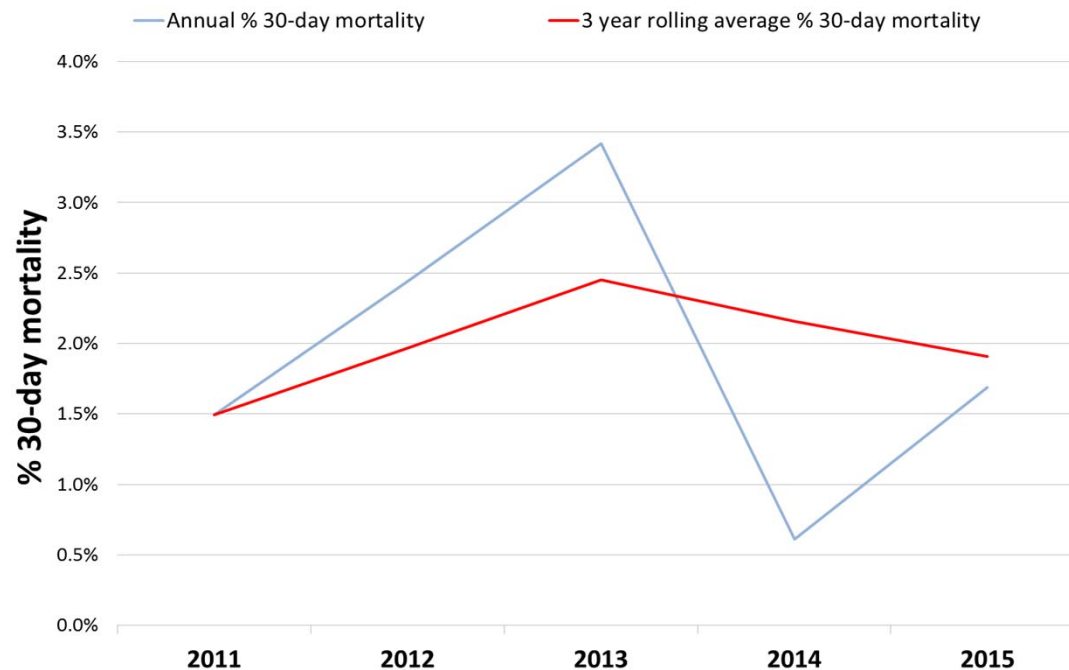
Notes on Divergence in the Lung Cancer Surgery Consultant
Outcomes Publication (LCCOP)

SCTS Guidance

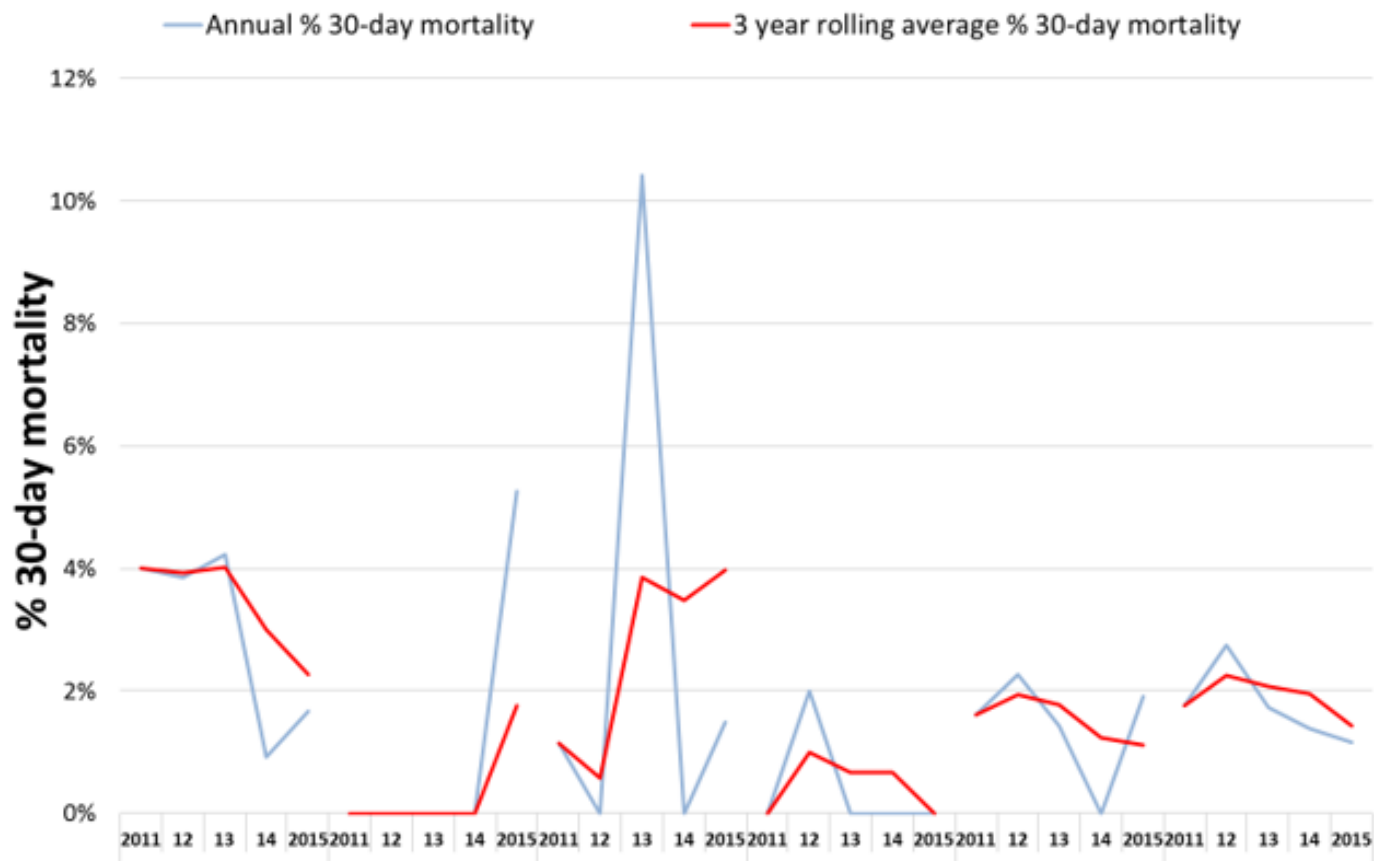
- Inform all Consultants
- Review data for accuracy
- Use a validated risk adjustment tool
- Internal review
- Recovery plan

Consultant	2011		2012		2013		2014		2015	
	Activity	Dead 30	Activity	Dead 30	Activity	Dead 30	Activity	Dead 30	Activity	Dead 30
A	25	1 (4.0)	130	5 (3.8)	142	6 (4.2)	109	1 (0.9)	120	2 (1.7)
B	16	0 (0)	12	0 (0)	20	0 (0)	18	0 (0)	19	1 (5.3)
C	87	1 (1.1)	57	0 (0)	48	5 (10.4)	59	0 (0)	67	1 (1.5)
D	21	0 (0)	50	1 (2.0)	42	0 (0)	7	0 (0)	18	0 (0)
E	62	1 (1.6)	88	2 (2.3)	70	1 (1.4)	62	0 (0)	105	2 (1.9)
F	57	1 (1.8)	73	2 (2.7)	58	1 (1.7)	72	1 (1.4)	86	1 (1.2)

LHCH resection 30-day mortality rates with 3 year rolling average, 2011 to 2015



LHCH resection 30-day mortality rates with 3 year rolling average by consultant, 2011 to 2015 [data from Thoracic DB]



Review of Individual Cases

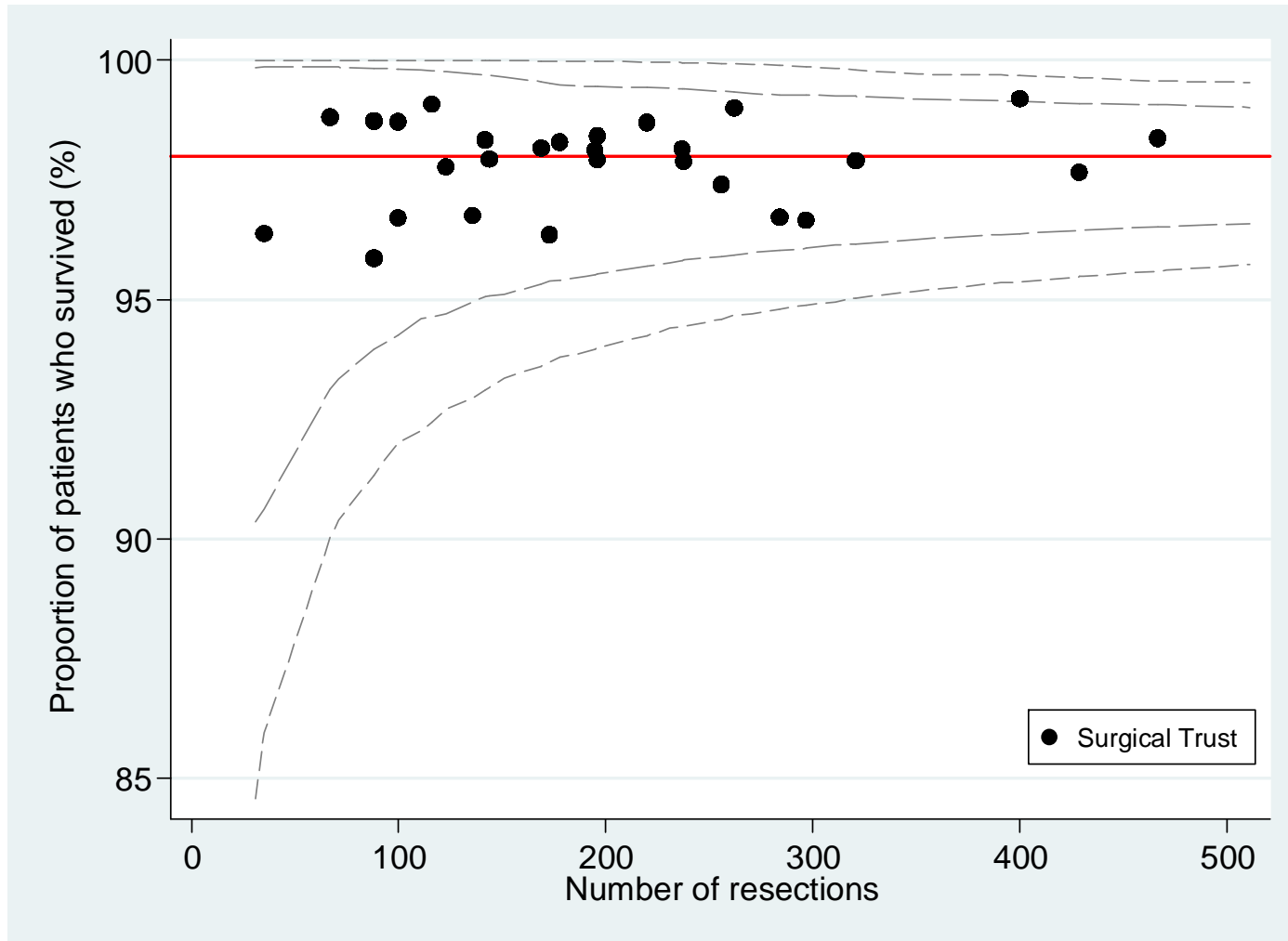
- No pattern or common theme identified
- Was it just bad luck?
 - 3 died after discharge
 - High pneumonectomy death rate

Changes to practice

- Data collection
 - Change to calendar year not financial year
 - All lung resections for primary lung cancer not just lobectomy
- Plans for a new database
 - Thoracoscoper variables
 - Validate Thoracoscoper variables
 - More robust enforcement of incomplete data entry
- Investigating variance
 - Not just wait to see what happens next quarter

Discussions

- Was it just chance?
- Lack of risk adjustment?
- Surgeon specific data
- Will it alter practice?



Conclusions

- Needs to be used as a positive (but time consuming) experience to try and improve your practice