

THE LANCET

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

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Web Extra Material

Contents

Supplementary Figures and Tables	1
Tables	1
Figures	7
Contributors	16
Committee Members	16
Contributing sites and consultants	17
Trial Investigators/contributing sites, PIs, and patient numbers	20

Supplementary Figures and Tables

Tables

Supplementary Table 1: Trastuzumab treatment received prior to randomisation

Number of Trastuzumab cycles received prior to randomisation	12-month group (N=2045)	6-month group (N=2043)	Total (N=4088)
0	898 (44%)	888 (43%)	1786 (44%)
1	293 (14%)	289 (14%)	582 (14%)
2	207 (10%)	205 (10%)	412 (10%)
3	171 (9%)	142 (7%)	313 (8%)
4	109 (5%)	119 (6%)	228 (5%)
5	110 (5%)	121 (6%)	231 (6%)
6	95 (5%)	95 (5%)	190 (5%)
7	64 (3%)	76 (4%)	140 (3%)
8	65 (3%)	60 (3%)	125 (3%)
9	33 (2%)	48 (2%)	81 (2%)

Supplementary Table 2: Treatment timing information across chemotherapy types

		Anthracycline based	Taxane based	Anthracycline + Taxane based	No Taxane and no Anthracycline
Chemotherapy timing	Adjuvant	1647 (48%)	389 (11%)	1427 (41%)	5 (<1%)
	Neoadjuvant	53 (9%)	14 (2%)	553 (89%)	0 (0)
Trastuzumab timing	Concurrent	59 (3%)	345 (18%)	1499 (79%)	0 (0)
	Sequential	1641 (75%)	58 (3%)	481 (22%)	5 (<1%)

Supplementary Table 3: Changing characteristics of patients randomised into PERSEPHONE

	%	Year of randomisation									% over 2007-2015
		2007	2008	2009	2010	2011	2012	2013	2014	2015	
Concurrent CT and trastuzumab	0	24	18	32	36	46	57	69	70	47	
Sequential CT and trastuzumab	100	76	82	68	64	54	43	31	30	53	
ER Negative	0	38	37	35	33	30	28	27	26	31	
ER Positive	100	62	63	65	67	70	72	73	74	69	
Anthracycline based CT	50	63	58	48	49	44	35	28	25	42	
Taxane based CT	0	7	6	5	5	10	11	17	18	10	
Anthracycline + Taxane based CT	50	30	36	47	46	46	54	55	57	48	
No taxane and no anthracycline CT	0	0	0	<1	<1	0	0	0	0	<1	
Adjuvant CT	100	90	90	87	87	86	81	81	80	85	
Neoadjuvant CT	0	10	10	13	13	14	19	19	20	15	
Total	N	4	86	356	573	753	759	589	558	410	4088

Supplementary Table 4: Patient Information, split by concurrent/sequential chemotherapy and trastuzumab, N (%)

	Concurrent (n=1903)	Sequential (n=2185)	Total (n=4088)	p
Randomised Treatment				0.98
12 months	951 (50)	1094 (50)	2045 (50)	
6 months	952 (50)	1091 (50)	2043 (50)	
ER status *				0.65
Negative	596 (31)	669 (31)	1265 (31)	
Positive	1307 (69)	1516 (69)	2823 (69)	
Chemotherapy type *				<0.0001
Anthracycline based	59 (3)	1641 (75)	1700 (42)	
Taxane based	345 (18)	58 (3)	403 (10)	
Anthracycline + Taxane based	1499 (79)	481 (22)	1980 (48)	
No taxane and no anthracycline	0 (0)	5 (<1)	5 (<1)	
Chemotherapy timing *				<0.0001
Adjuvant	1412 (74)	2056 (94)	3468 (85)	
Neo-adjuvant	491 (26)	129 (6)	620 (15)	
Age at randomisation				<0.0001
Median (range)	54 (23-82)	57 (23-83)	56 (23-83)	
<35 years old	65 (3)	30 (2)	95 (2)	<0.0001
35 – 49 years old	567 (30)	542 (27)	1109 (27)	
50 – 59 years old	593 (31)	671 (31)	1264 (31)	
60 +	678 (36)	942 (40)	1620 (40)	

Nodal Status at surgery [of the 3468 adjuvant patients]				<0.0001
Negative	644 (46)	1378 (67)	2022 (58)	
1-3 nodes positive	509 (36)	456 (22)	965 (28)	
4+ nodes positive	240 (17)	215 (10)	455 (13)	
Unknown	19 (1)	7 (1)	26 (1)	
Tumour size ^ [of the 3468 adjuvant patients]				<0.0001
<=2cm	581 (41)	1050 (51)	1631 (47)	
>2 and <=5cm	688 (49)	876 (43)	1564 (45)	
>5cm	89 (6)	81 (4)	170 (5)	
Unknown	54 (4)	49 (2)	103 (3)	
Tumour Grade ^				0.09
I (well diff.)	28 (2)	35 (2)	63 (2)	
II (mod. diff.)	560 (29)	710 (32)	1270 (31)	
III (poor diff.)	1233 (65)	1386 (63)	2619 (64)	
Unknown	82 (4)	54 (3)	136 (3)	
Ethnicity				<0.0001
White	1469 (77)	1837 (84)	3306 (81)	
Asian	70 (4)	39 (2)	109 (3)	
Black	55 (3)	42 (2)	97 (2)	
Other	24 (1)	14 (<1)	38 (1)	
Unknown	285 (15)	253 (12)	538 (13)	
Menopausal status before chemotherapy				0.006
Pre	607 (32)	540 (25)	1147 (28)	
Peri	134 (7)	126 (6)	260 (6)	
Post	971 (51)	1243 (57)	2214 (54)	
Not assessable/Not available	191 (10)	276 (13)	467 (12)	
Reported prior use of cardiac medication				0.93
Yes	47 (2)	52 (2)	99 (2)	
No	1856 (98)	2133 (98)	3989 (98)	
IHC ⁺ -score and FISH [†] positivity				0.003
3+	1401 (74)	1546 (71)	2947 (72)	
2+ and FISH [†] positive	437 (23)	600 (27)	1037 (25)	
Not available	65 (3)	39 (2)	104 (3)	
Median (IQR) Follow-Up (years)	4.5 (3.3-5.9)	5.8 (4.5-7.4)	5.4 (3.6-6.7)	
Number of deaths reported	122 (6%)	213 (10%)	335 (8%)	
Number of DFS events reported	205 (11%)	307 (14%)	512 (13%)	

* Stratification variable

^ of largest invasive tumour at diagnosis

+ IHC = Immunohistochemistry

† FISH = Fluorescence in situ hybridization

IQR = inter-quartile range

DFS events = disease-free survival events (a recorded relapse or death)

Supplementary Table 5: Reporting of trastuzumab treatment delays

Reporting of treatment delays	12-month group		6-month group	
	In months 1-6	In months 7-12	In months 1-6	In months 7-12
Cycles	1323/16687 (8%)	1059/15107 (7%)	1185/17119 (7%)	64/719 (9%)
Patients	860/1894 (45%)	706/1764 (40%)	795/1939 (41%)	46/93 (49%)

Supplementary Table 6: Cardiac Deaths Recorded in Clinical Record Forms

10 Cardiac Deaths recorded without metastatic disease

4 – Ischaemic heart disease – Unrelated / unlikely to be related

1 – LVEF decreased and CHF – Unrelated / unlikely to be related

1 – Acute heart failure / left ventricular hypertrophy and mitral valve disease – Unrelated / unlikely to be related

1 - Cardiac amyloid – Unrelated / unlikely to be related

1 - Cardiac sarcoid – Unrelated / unlikely to be related

1 - RV cardiomyopathy – Unrelated / unlikely to be related

1 – Death after routine CT scan – clinically anaphylaxis – no sign of this at post mortem – no cardiac pathology found.

3 deaths with metastatic disease were recorded as contributed to by cardiac problems

1 had controlled NYHA Type II CHF – Unrelated / unlikely to be related

1 had cardiomyopathy – Unrelated / unlikely to be related

1 had brain metastases and died during a seizure – Unrelated / unlikely to be related

TNO	Metastatic Y/N	Treatment Group	Trastuzumab doses	Time from diagnosis to death (months)	Cardiac causes	Comment
144	N	12m	18	44	Ischaemic heart disease	Unrelated/Unlikely. Death due to acute MI 44 months after diagnosis. No plausible association between trastuzumab and coronary artery disease
938	N	12m	8	21	Ischaemic heart disease	Unrelated/Unlikely. Death due to acute MI 21 months after diagnosis. No plausible association between trastuzumab and coronary artery disease
1754	N	12m	18	51	Cardiac amyloid	Unrelated - No plausible association between trastuzumab and amyloidosis
2003	N	12m	14	29	Cardiac sarcoid	Unrelated - No plausible association between trastuzumab and sarcoidosis
3021	N	12m	18	46	Right Ventricular arrhythmic cardiomyopathy	Unlikely - Arrhythmic cardiomyopathy (ARVC in old terminology) has a known genetic basis (mostly desmosomal genes) with physiological triggers (e.g. extreme endurance sports). It is plausible that cardiac dysfunction caused by trastuzumab could have been a trigger but unlikely in this case as heart function had recovered long before the ARVC developed.
3463	N	6m	9	53	Acute heart failure / Left ventricular hypertrophy / mitral valve disease	Unrelated/unlikely - there is no known association with left ventricular hypertrophy or mitral valve disease and it's difficult to think of a mechanism for any effect months after the discontinuation of trastuzumab.
35	N	6m	9	111	Ischaemic heart disease	Unrelated/Unlikely. Death due to acute MI 111(!) months after diagnosis. No plausible association between trastuzumab and coronary artery disease
1051	N	6m	4	78	CHF and type II respiratory failure	Unrelated/unlikely - Very unlikely to be related to trastuzumab - received only 4 doses, recovery of LV function >3 months after cessation, diagnosis of COPD, died 78 months after diagnosis
1086	N	6m	9	43	Not cardiac	N/A
2654	N	6m	9	41	Myocardial infarction – pulmonary embolism – atrial myxoma	Unrelated – no effect of trastuzumab during treatment, no association between trastuzumab and atrial myxoma or myocardial infarction
104	Y	12m	18	39	No cardiac problems – brain metastases – died during a seizure	N/A
625	Y	12m	3	35	Controlled NYHA II CHF	Death due to metastatic disease. LVEF recorded as 48% and trastuzumab stopped but no details of pre- LVEF or recovery of function so difficult to comment. An otherwise healthy woman unlikely to be symptomatic from an LVEF of 48% - was there something else going on? If she had symptomatic LV dysfunction this could have been caused by cancer treatment but an anthracycline effect is much more likely >1y after completion of trastuzumab

1279	Y	12m	4	75	Cardiomyopathy	Clear effect of trastuzumab causing reduced LVEF during treatment but death 6 years later not plausibly related to trastuzumab. No supportive information for cardiomyopathy - no histology. Possibly related to anthracycline.
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Supplementary Table 7: Adverse Events and Cardiac Monitoring, over the two 6-month periods, for the 44% patients randomised prior to starting Trastuzumab

Number of patients reporting at least one incidence of -	12-month group			6-month group		
	Overall	In months 1-6	In months 7-12	Overall	In months 1-6	In months 7-12
Adverse event with severe ^{&} CTCAE grade SAR to trastuzumab [§]	231/855 (27%) 34/897 (4%)	185/855 (22%) 22/897 (2%)	121/791 (15%) 12/884 [^] (1%)	195/852 (23%) 18/886 (2%)	194/852 (23%) 17/886 (2%)	2/44 (5%) 2/870 [^] (0.2%)
Clinical cardiac dysfunction [#] Stopped trastuzumab permanently due to cardiac toxicity	103/872 (12%) 75/855 (9%)	73/872 (8%) 33/855 (4%)	76/857 (9%) 42/791 (5%)	65/870 (7%) 32/852 (4%)	51/870 (6%) 31/852 (4%)	42/833 (5%) 1/44 (2%)
Cardiac death † Cardiac death related to trastuzumab †	4/897 0/897	0/897 0/897	0/884 [^] 0/884 [^]	3/886 0/886	0/886 0/886	0/870 [^] 0/870 [^]
Low LVEF * Significant falls in LVEF	114/895 (13%)	69/895 (8%)	80/857 (9%)	86/888 (10%)	73/888 (8%)	39/776 (5%)
Absolute decrease of ≥10% from baseline to <50% LVEF<50% after a baseline of ≥59%	84/869 (10%) 58/869 (7%)	48/865 (6%) 30/865 (3%)	59/834 (7%) 43/834 (5%)	64/857 (7%) 47/857 (5%)	50/855 (6%) 38/855 (4%)	28/755 (4%) 19/755 (3%)

[&] CTCAE grade ≥3, or 2 for palpitations

[§] Denominators exclude the 3 patients known not to have received Trastuzumab

[^] Denominators reduced due to either deaths or withdrawal of consent for follow-up within the 1st 6 months.

[#] Clinical cardiac dysfunction = Symptoms of cardiac disease, and / or signs of congestive heart failure and / or new medication for cardiac disease

[†] 7 deaths were reported to have a 'cardiac' cause, either first cause or contributory. None occurred during the first 12 months after starting trastuzumab treatment. 6 patients died with no metastatic disease, and 1 had metastatic disease. In all cases trastuzumab was judged to be unrelated / unlikely to be related to cardiac problems

* Low LVEF = Number of patients with at least one LVEF<50%, or LVEF % unknown but classified on report as abnormal

Abbreviations:

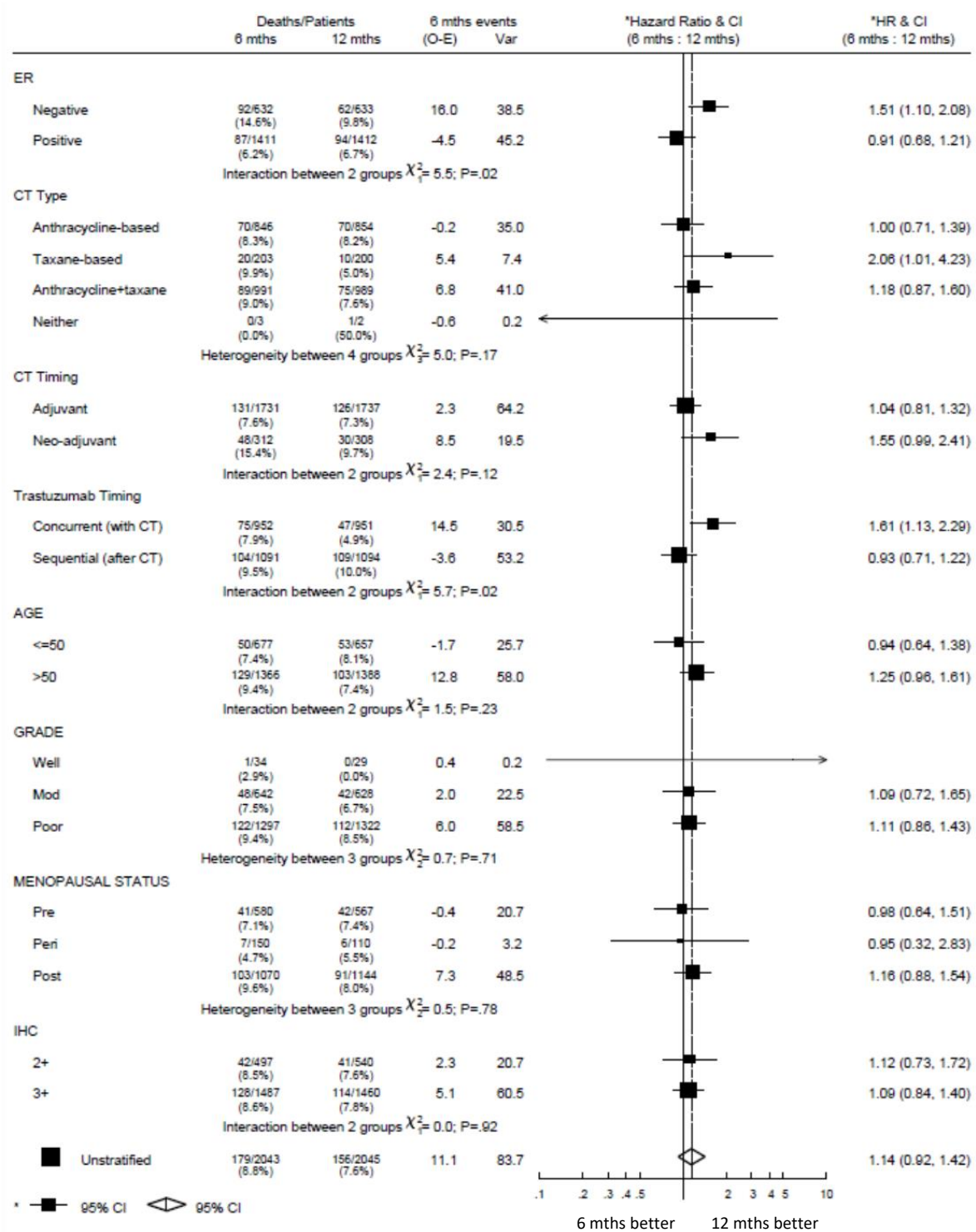
SAR – Serious Adverse Reaction

LVEF = Left Ventricular Ejection Fraction

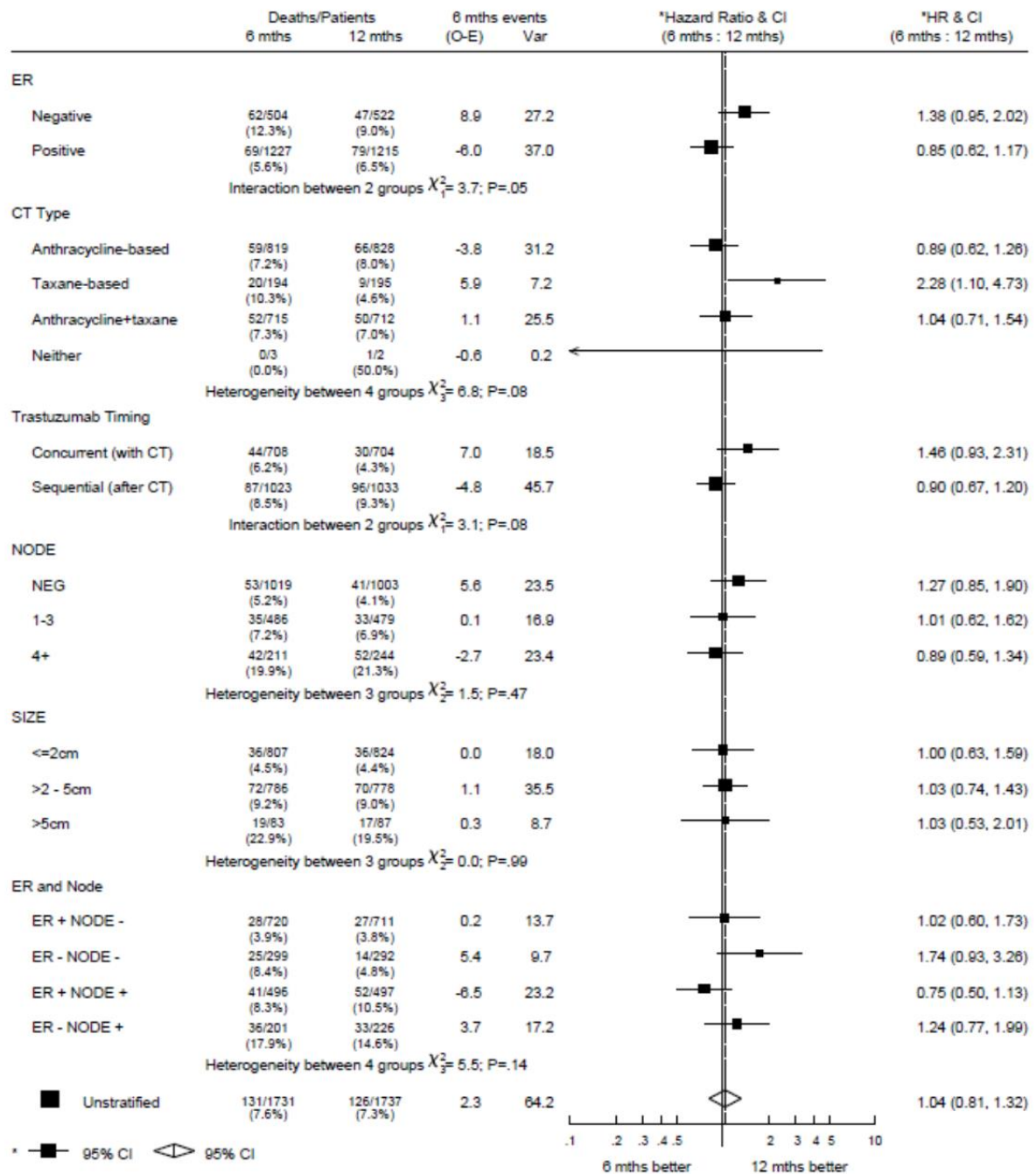
Figures

Supplementary Figure 1: Forest plots of Overall Survival for all patients (Panel A) and adjuvant only patients (Panel B)

a) OS – all patients

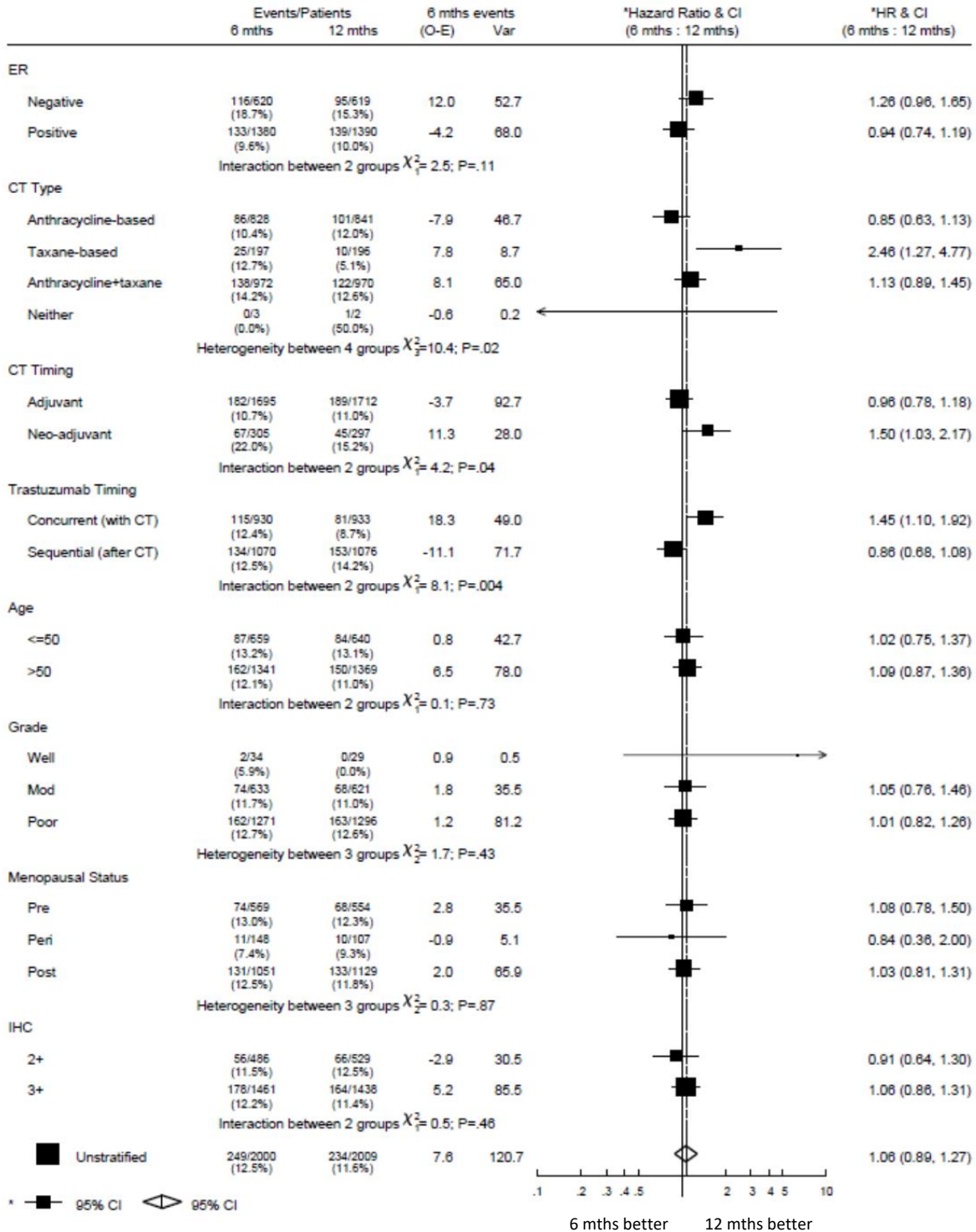


b) OS – adjuvant patients only

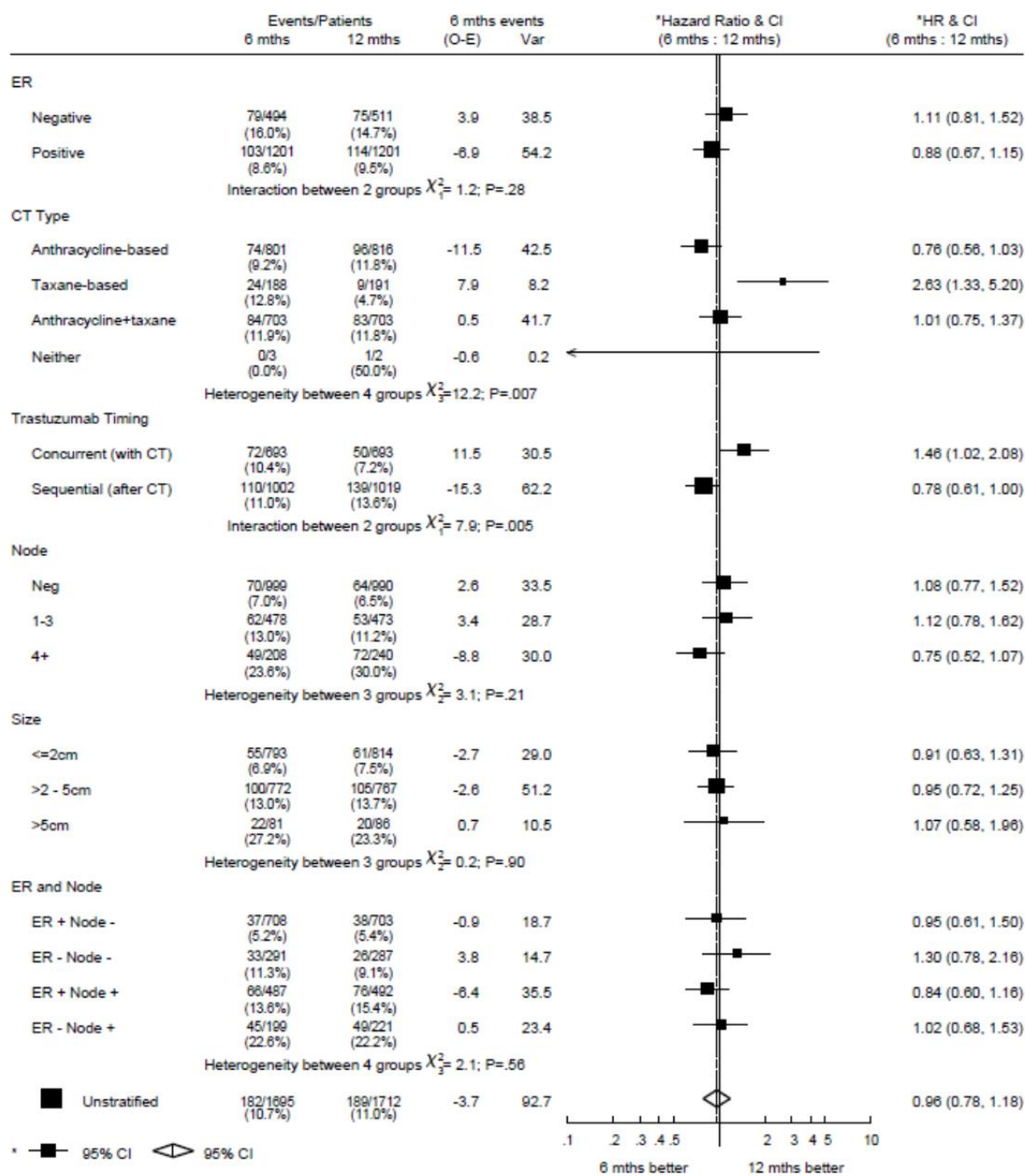


Supplementary Figure 2: Forest plots of Landmark Disease-Free Survival (Panel A for all patients, Panel B for adjuvant patients only) and landmark Overall Survival (Panel C for all patients, Panel D for adjuvant patients only)

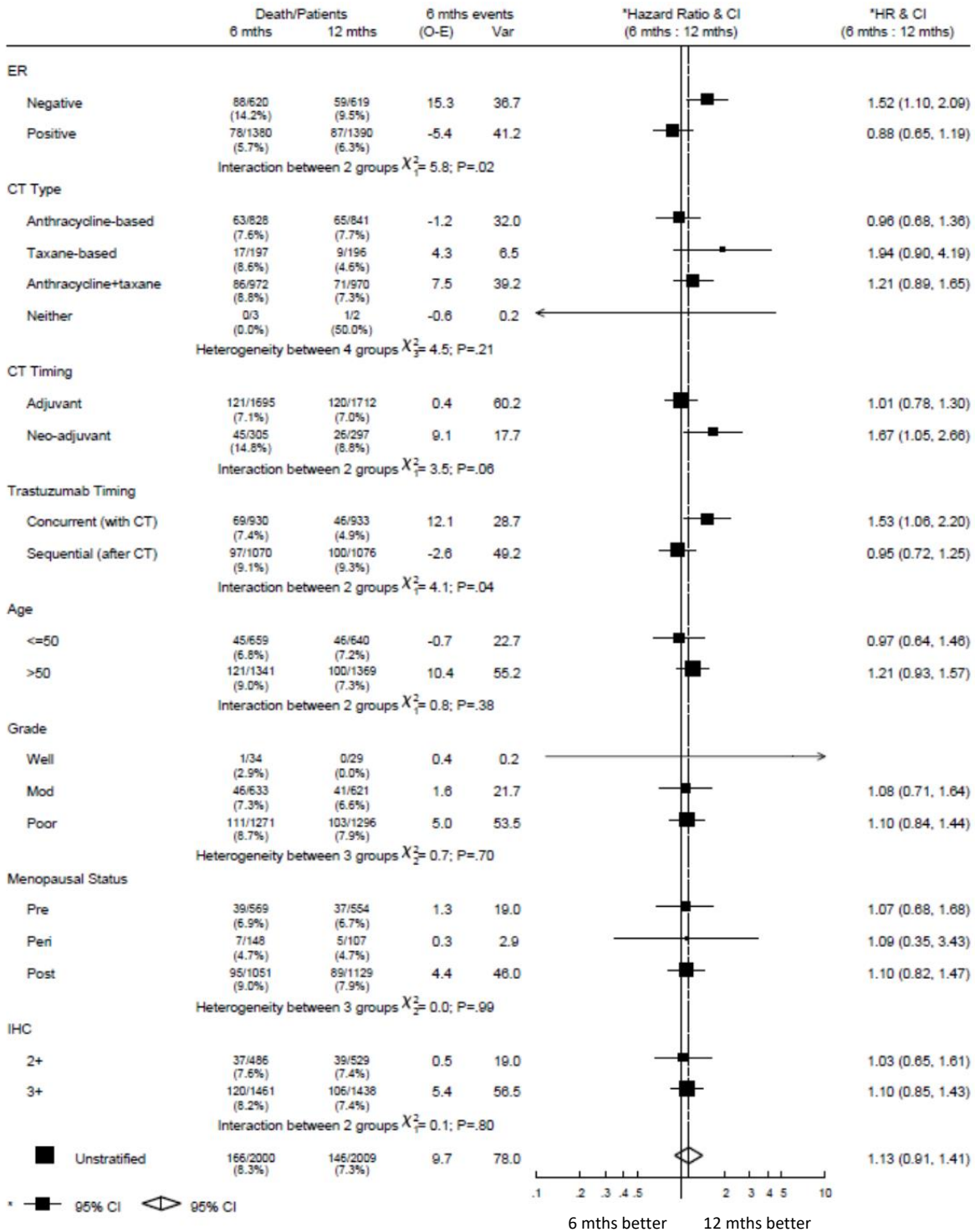
a) Landmark DFS – all patients



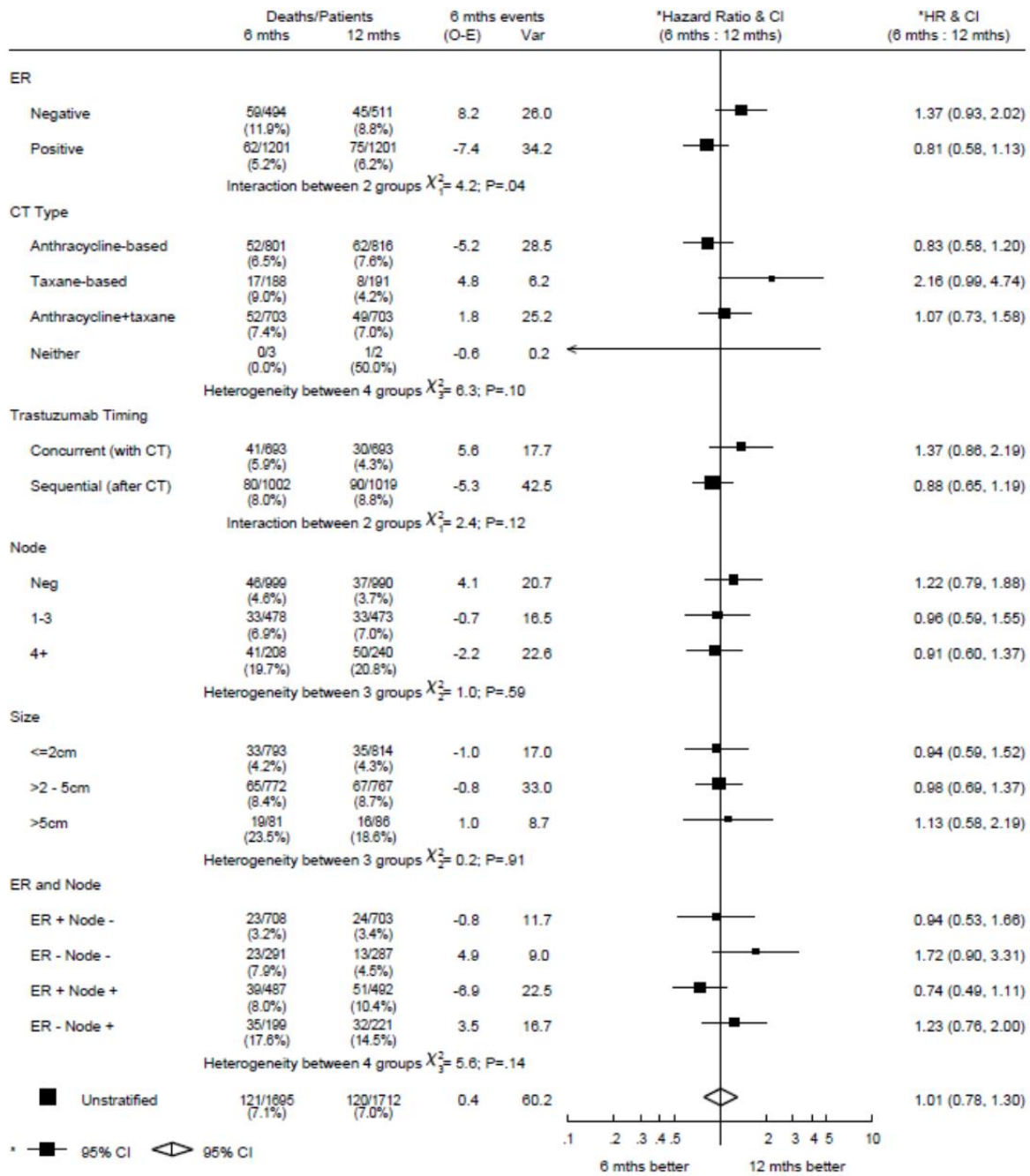
b) Landmark DFS – adjuvant patients only



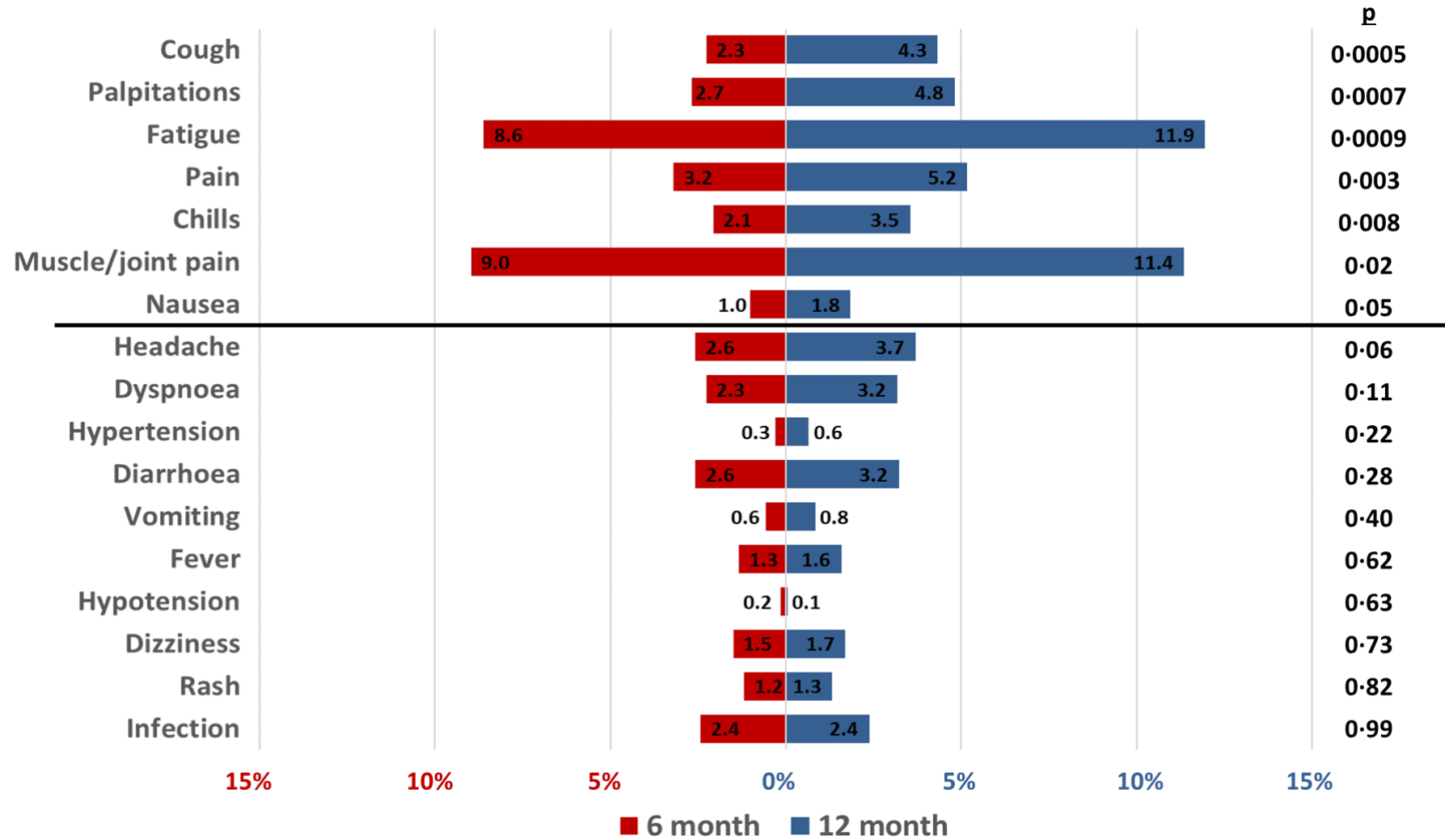
c) Landmark OS – all patients



d) Landmark OS – adjuvant patients only

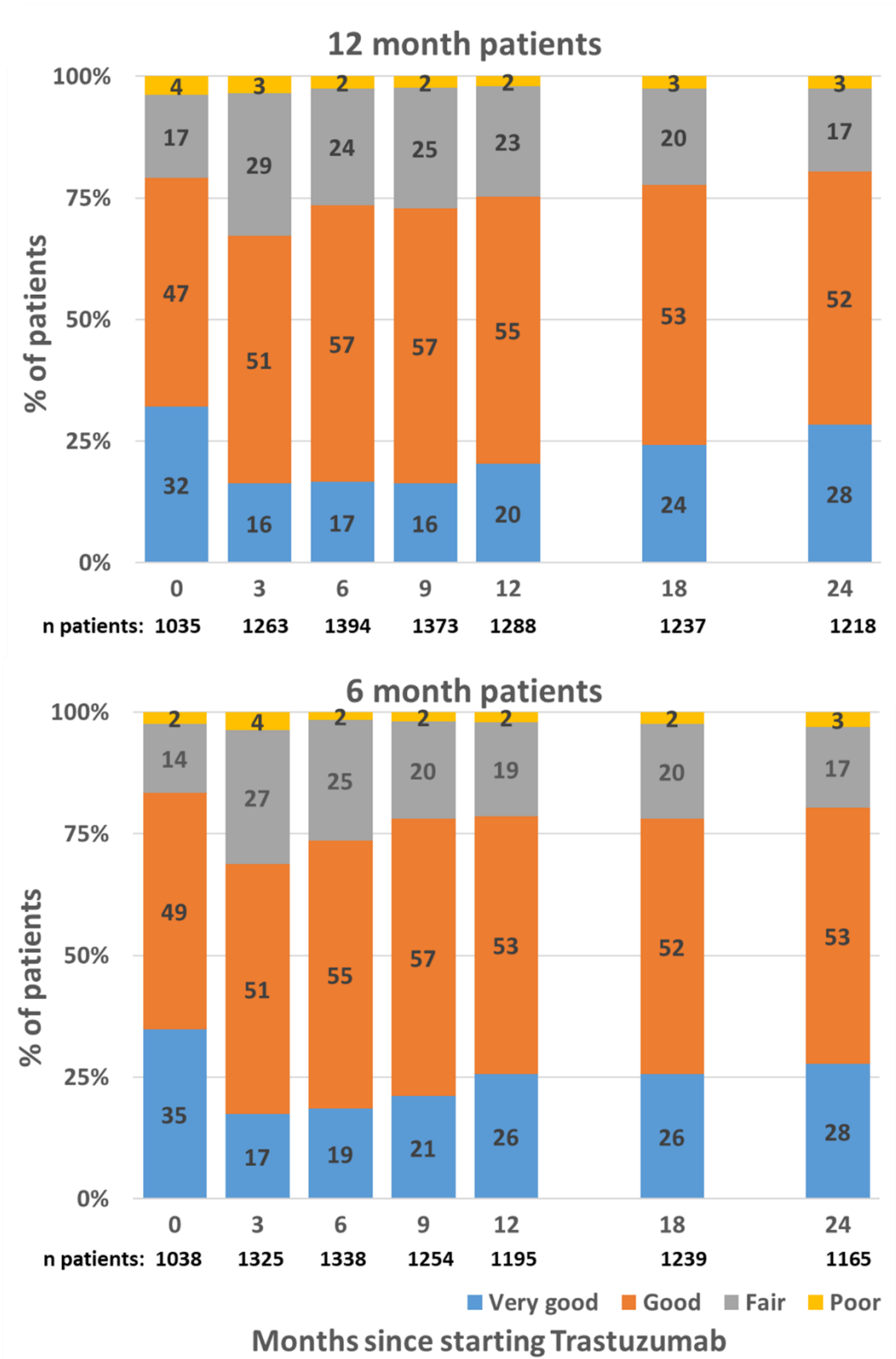


Supplementary Figure 3: Patients reporting an Adverse Event of severe grade (CTCAE ≥ 3, or 2 for palpitations)

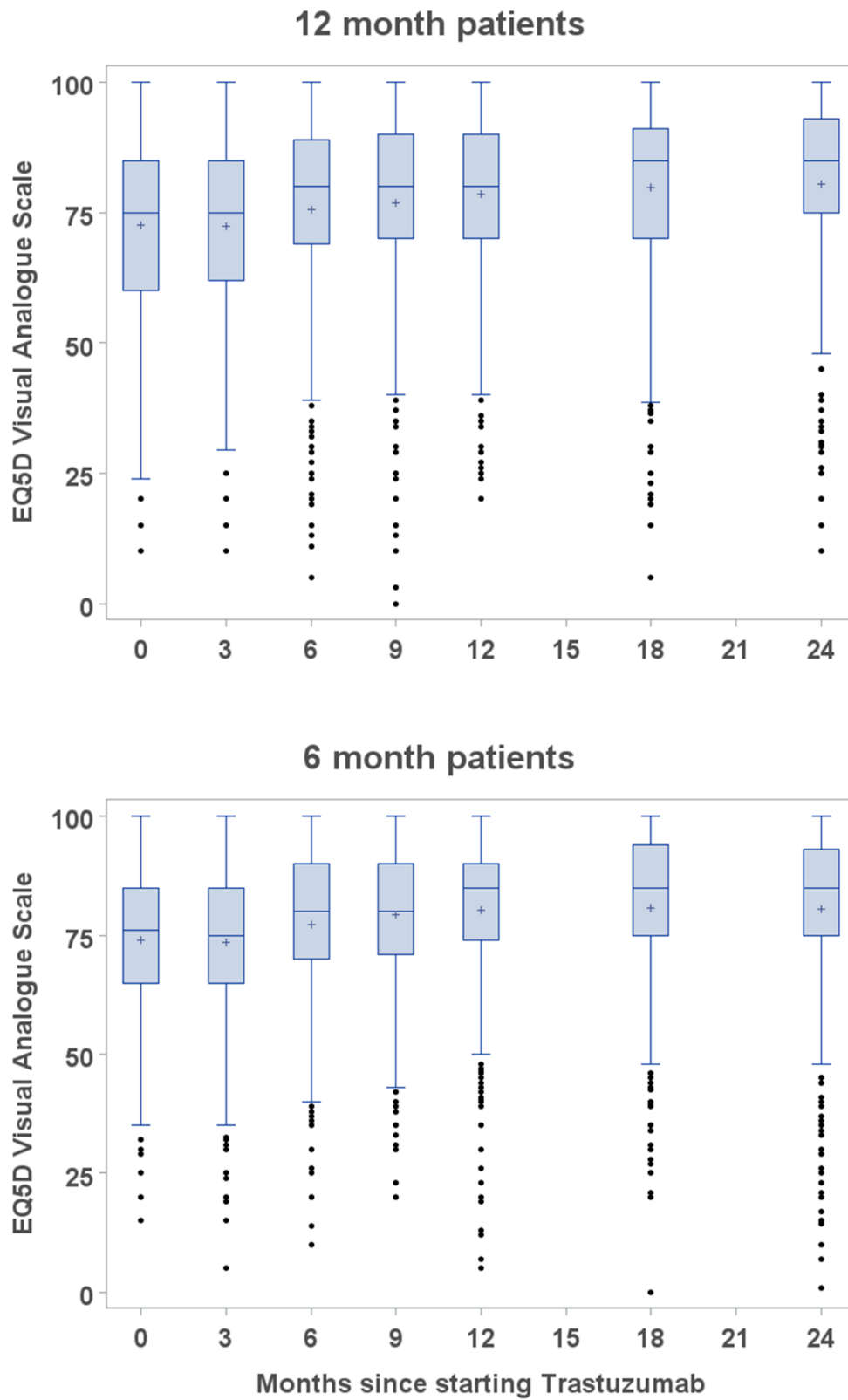


Supplementary Figure 4: Quality of Life over time; General Health (Panel A) and EQ-5D-3L Visual Analogue Scale (Panel B)

(A)



(B)



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Royal Gwent Hospital	Dr Carys Morgan, Dr Chris Gaffney, Dr Mohammed Harb, Dr Robert Jones, Dr Simon Waters
Royal Hampshire County Hospital	Dr Nicholas Murray, Dr Sanjay Raj, Dr Virginia Hall
Royal Lancaster Infirmary	Dr David Eaton, Dr Sarah Moon
Royal Liverpool University Hospital	Dr Nicola Thorp, Dr Susan O'Reilly
Royal Shrewsbury Hospital	Dr Huzeifa Gadir, Dr Laura Pettit, Dr Rajiv Agrawal, Dr Sheena Khanduri
Royal Surrey County Hospital	Dr Anthony Neal, Dr Robert Laing, Dr Stephen Houston
Royal Sussex County Hospital	Dr Alistair Ring, Dr David Bloomfield, Dr Gargi Patel, Dr Richard Simcock, Dr Sarah Westwell
Royal United Hospital	Dr Abigail Jenner, Dr Hugh Newman, Dr Mark Beresford, Dr Rebecca Bowen, Dr Susan Masson, Dr Susana Mancero
Russells Hall Hospital	Dr Georgi Georgiev, Dr Laura Pettit, Dr Muhammad Habibullah Khan, Dr Prakash Ramachandra, Dr Rozenn Allerton
Salisbury District Hospital	Dr Clare Crowley, Dr Ellen Copson, Dr Jennifer Bradbury, Dr Melanie Harvey
Sandwell General Hospital	Dr David Spooner
Scarborough General Hospital	Dr Amandeep Dhabha
Scunthorpe General Hospital	Dr Saiqa Spensley
Solihull Hospital	Dr Medy Tsalic
South Tyneside District Hospital	Dr Goudarz Mazdai, Dr Helen Turnbull, Dr Nicola Cresti, Dr Prithvi Jampana
Southampton General Hospital	Dr Clare Crowley, Dr Ellen Copson, Dr Jennifer Marshall, Dr Nicholas Murray, Dr Peter Simmonds, Dr Sanjay Raj
Southend Hospital	Dr Anne Robinson, Dr Colin Trask, Dr Hafiz Algurafi, Dr Helena Nam
Southport and Formby District General Hospital	Dr Helen Neville-Webbe, Dr Khizar Hayat, Dr Nasim Ali
St Bartholomew's Hospital	Dr Chris Cottrill, Dr Chris Gallagher, Dr Emma Spurrell, Dr John Conibear, Dr Karen Tipples, Dr Nita Patel, Dr Rebecca Roylance, Dr Virginia Wolstenholme
St. George's Hospital	Dr Ciara O'Hanlon Brown, Dr Laura Assersohn, Dr Muireann Kelleher
St. Mary's Hospital (IOW)	Dr Jennifer Marshall
St. Mary's Hospital (London)	Dr Susan Cleator
Stepping Hill Hospital	Dr Abbas Chittalia
Stoke Mandeville Hospital	, Dr Andrew Theobald, Dr Anthony Kong, Dr Christopher Alcock, Dr Clare Jacobs, Dr Eleanor James, Dr Thinn Pwint
Sunderland Royal Hospital	Dr A Radha Todd, Dr Kathryn Wright, Dr Sanjoy Chatterjee
The County Hospital (Prev. Staffordshire General)	Dr Amjad Al-Niामी, Dr Apurna Jegannathen, Dr Caroline Brammer, Dr Laura Pettit
The James Cook University Hospital	Dr Alison Humphreys, Dr Nicola Storey

The Tunbridge Wells Hospital (Prev. Kent & Sussex)	Dr Rema Jyothirmayi
The Whittington Hospital	Dr Alison Jones, Dr Emma Spurrell, Dr Mulyati Mohamed, Prof Jayant Vaidya
Torbay Hospital	Dr Andrew Goodman, Dr Peter Bliss
University Hospital	Dr Clive Irwin, Prof Chris Poole, Prof Robert Grieve
University Hospital Aintree	Dr Julie O'Hagan, Dr Peter Robson
University Hospital Of Hartlepool	Dr Adrian Rathmell, Dr Eleanor Aynsley, Dr Nicola Storey
University Hospital Of North Durham	Dr Wendy Taylor
University Hospital Of North Tees	Dr Janine Graham, Dr Nicola Storey
Velindre Hospital	Dr Helen Passant, Dr Jacinta Abraham, Dr Nayyer Iqbal, Dr Rosie Stevens
Wansbeck General Hospital	Dr Anthony N Branson, Dr Helen Turnbull, Dr Nicola Cresti, Dr Rebecca Goranova
Warrington Hospital	Prof Peter Clark
Warwick Hospital	Dr Nawaz Walji, Prof Robert Grieve
West Cumberland Hospital	Dr Paul Dyson
West Middlesex University Hospital	Dr Pippa Riddle, Dr Rizvana Ahmad
West Suffolk Hospital,	Dr Anne Margaret Moody, Dr Cathryn Woodward
Western General Hospital	Dr Angela Bowman, Dr Larry Hayward, Dr Olga Olkonomidou, Dr Peter Hall, Prof David Cameron
Weston Park Hospital	Dr Kash Purohit, Dr Matthew Hatton, Dr Matthew Winter, Prof Robert Coleman
Wexham Park Hospital	Dr Jocelyn Adams, Dr Narottam Thanvi, Dr Richard Ashford, Dr Ruth Davis
Whiston Hospital	Dr Helen Innes, Dr Rajamram Sripadam
William Harvey Hospital	Dr Julia Hall, Dr Natasha Mithal
Worcester Royal Infirmary	Dr Jo Bowen, Dr Radhika Counsell
Worthing Hospital	Dr Ashok Nikapota, Dr Rebecca Herbertson, Dr Sankha Mitra
Wrexham Maelor Hospital	Dr Audrey Champion, Dr Niladri Ghosal, Dr Win Soe
Wycombe General Hospital	Dr Andrew Weaver, Dr Bernadette Lavery, Dr Ketan Shah, Dr Pattie Beresford, Dr Thinn Pwint
Yeovil District Hospital	Dr Geoffrey Sparrow, Dr Julie Walther, Dr Urmila Barthakur
Ysbyty Gwynedd	Dr Catherine Bale, Dr Jill Bishop, Dr Rachel Williams

Trial Investigators/contributing sites, PIs, and patient numbers

Randomising Site	Current PI	Total Patients Randomised
Addenbrooke's Hospital	Dr Helena Earl	95
Peterborough City Hospital	Dr Karen McAdam	83
Norfolk & Norwich University Hospital	Dr Daniel Epurescu	78
Royal Sussex County Hospital	Dr David Bloomfield	74
St Bartholomew's Hospital	Dr Karen Tipples	65
Southampton General Hospital	Dr Peter Simmonds	61
Royal Derby Hospital	Dr Pamela Woodings	60
Southend Hospital	Dr Hafiz Algurafi	60
Queen's Hospital (Romford)	Dr Eliot Sims	58
Wexham Park Hospital	Dr Narottam Thanvi	58
Charing Cross Hospital	Dr Susan Cleator	57
Maidstone Hospital	Dr Catherine Harper-Wynne	57
New Cross Hospital	Dr Rakesh Mehra	56
Luton and Dunstable Hospital	Dr Anup Vinayan	55
Royal Shrewsbury Hospital	Dr Laura Pettit	55
Royal Liverpool University Hospital	Dr Susan O'Reilly	54
Russells Hall Hospital	Dr Rozenn Allerton	51
Cumberland Infirmary	Ms Helen Roe	50
Eastbourne District General Hospital	Dr Charlotte Moss	50
Christie Hospital	Dr Anne Armstrong	49
Queen's Hospital (Burton)	Dr Mojca Persic	48
Royal Hampshire County Hospital	Dr Sanjay Raj	47

Great Western Hospital	Dr Shiroma De Silva-Minor	46
Royal Lancaster Infirmary	Dr David Eaton	45
Barnet Hospital	Dr Peter Ostler	44
James Paget Hospital	Miss Sue Down	43
Medway Maritime Hospital	Dr Maher Hadaki	43
Princess Royal University Hospital	Dr Mark Harries	42
Cheltenham General Hospital	Dr Kim Benstead	41
City Hospital	Dr Mariam Jafri	41
Conquest Hospital	Dr Charlotte Moss	41
Diana, Princess of Wales Hospital	Dr Mohammad Butt	41
Manor Hospital	Dr Sundus Yahya	41
Mount Vernon Hospital	Dr David Miles	41
Raigmore Hospital	Dr Carol MacGregor	41
King's College Hospital	Dr Anne Rigg	40
Macclesfield District General Hospital	Dr Lisa Barraclough	39
Queen Elizabeth Hospital (Birmingham)	Dr Daniel Rea	39
Torbay Hospital	Dr Andrew Goodman	39
University Hospital Of North Durham	Dr Wendy Taylor	39
Warwick Hospital	Dr Nawaz Walji	38
Guy's Hospital	Dr Janine Mansi	37
The County Hospital (Prev. Staffordshire General)	Dr Apurna Jegannathen	37
St. George's Hospital	Dr Muireann Kelleher	36
Yeovil District Hospital	Dr Urmila Barthakur	35
Clatterbridge Centre for Oncology	Dr Zafar Malik	34
Queen Elizabeth Hospital (King's Lynn)	Dr Margaret Daly	34
Queen Elizabeth Hospital (London)	Dr Hartmut Kristeleit	34
Southport and Formby District General Hospital	Dr Helen Neville-Webbe	34
Stoke Mandeville Hospital	Dr Andrew Eichholz	34
Royal Free Hospital	Dr Jacqueline Newby	33
William Harvey Hospital	Dr Natasha Mithal	32
Darent Valley Hospital	Dr Catherine Harper-Wynne	31
North Middlesex Hospital	Dr Fharat Raja	31
Royal United Hospital	Dr Rebecca Bowen	31
Sunderland Royal Hospital	Dr Kathryn Wright	31
Chesterfield Royal Hospital	Dr Omar Din	29
Musgrove Park Hospital	Dr Mohini Varughese	28
Queen Alexandra Hospital	Dr Caroline Archer	28
Salisbury District Hospital	Mrs Catherine Reed	28
The James Cook University Hospital	Dr Alison Humphreys	28
Essex County Hospital	Dr Mukesh Mukesh	27
Kent and Canterbury Hospital	Dr Jane Brown	27
University Hospital Of North Tees	Dr Nicola Storey	27
West Suffolk Hospital	Dr Anne Margaret Moody	27
Ysbyty Gwynedd	Dr Catherine Bale	27
Bedford General Hospital	Dr Sarah Smith	26
Royal Gwent Hospital	Dr Simon Waters	26
University Hospital	Prof Robert Grieve	26
Kidderminster Hospital	Dr Mark Churn	25
Queen Elizabeth Hospital (Gateshead)	Dr Daniela Lee	25
Wycombe General Hospital	Dr Andrew Eichholz	25
Bradford Royal Infirmary	Dr Chris Bradley	24
St. Mary's Hospital (IOW)	Dr Jennifer Marshall	24
Whiston Hospital	Dr Helen Innes	24
Worthing Hospital	Dr Adrian Moss	24
Northampton General Hospital	Dr Roshan Agarwal	23
Aberdeen Royal Infirmary	Dr Trevor McGoldrick	22
Borders General Hospital	Dr Carolyn Bedi	22
County Hospital	Dr Daniel Nelmes	22

George Eliot Hospital	Dr Susan Lupton	22
Royal Surrey County Hospital	Dr Anthony Neal	22
St. Mary's Hospital (London)	Dr Susan Cleator	22
Dorset County Hospital	Dr Perric Crellin	21
East Surrey Hospital	Dr Chee Goh	21
Lister Hospital	Dr Nihal Shah	21
The Whittington Hospital	Prof Jayant Vaidya	21
Castle Hill Hospital	Dr Amandeep Dhadda	20
Halton General Hospital	Dr Joanne Cliff	20
Scarborough General Hospital	Dr Amandeep Dhadda	20
South Tyneside District Hospital	Dr Daniela Lee	20
Warrington Hospital	Dr Joanne Cliff	20
Western General Hospital	Dr Larry Hayward	20
Newham General Hospital	Dr Karen Tipples	19
University Hospital Aintree	Dr Julie O'Hagan	19
Barnsley District Hospital	Dr Shobha Silva	17
Blackpool Victoria Hospital	Dr Pavel Bezecky	17
Dumfries and Galloway Royal Infirmary	Dr Larry Hayward	17
North Tyneside General Hospital	Dr Mahtab Najibah	17
University Hospital Of Hartlepool	Dr Nicola Storey	17
Wrexham Maelor Hospital	Dr Win Soe	17
West Middlesex University Hospital	Dr Rizvana Ahmad	16
Broomfield Hospital	Prof Saad Tahir	15
Glan Clwyd Hospital	Dr Jill Bishop	15
Lincoln County Hospital	Dr Chiara Intrivici	15
Royal Berkshire Hospital	Dr Jocelyn Adams	15
Basildon and Thurrock University Hospital	Dr Helen Swinburn	14
Ipswich Hospital	Dr Karen E Sherwin	14
North Devon District Hospital	Dr Kate Scatchard	14
Queen Elizabeth The Queen Mother Hospital	Dr Natasha Mithal	14
Airedale General Hospital	Dr Shazza Rehman	13
Darlington Memorial Hospital	Dr Wendy Taylor	13
The Tunbridge Wells Hospital (Prev. Kent & Sussex)	Dr Catherine Harper-Wynne	13
Pinderfields Hospital	Dr Jay Naik	12
Poole Hospital	Dr Amitabha Chakrabarti	12
Royal Glamorgan Hospital	Dr Jacinta Abraham	12
Velindre Hospital	Dr Jacinta Abraham	12
Basingstoke and North Hampshire Hospital	Dr Sanjay Raj	11
Hinchingbrooke Hospital	Dr Cheryl Palmer	11
Milton Keynes Hospital	Dr Maria Karina	11
Wansbeck General Hospital	Dr Mahtab Najibah	11
Weston Park Hospital	Dr Matthew Winter	11
Worcester Royal Infirmary	Dr Mark Churn	11
Alexandra Hospital	Dr Mark Churn	10
Doncaster Royal Infirmary	Dr Lynda Wyld	10
Furness General Hospital	Dr David Eaton	10
Good Hope Hospital	Dr Medy Tsalic	10
Nottingham City Hospital	Dr Stephen Chan	10
Princess of Wales Hospital	Dr Richard Webster	10
Birmingham Heartlands Hospital	Dr Indrajit Fernando	8
King's Mill Hospital	Dr Sarah Khan	8
Pilgrim Hospital	Dr Chiara Intrivici	8
Ealing Hospital	Dr Olivia Hatcher	7
Northwick Park Hospital	Dr Andreas Makris	7
Royal Albert Edward Infirmary	Dr Elena Takeuchi	7
Royal Bournemouth Hospital	Dr Tamas Hickish	7
Nevill Hall Hospital	Dr Theresa Howe	6
Rotherham General Hospital	Dr Matthew Hatton	6

Scunthorpe General Hospital	Dr Waqas Ali	6
Ashford Hospital	Dr May Teoh	5
Bishop Auckland General Hospital	Dr Wendy Taylor	5
Prince Charles Hospital	Dr Jacinta Abraham	5
Solihull Hospital	Dr Medy Tsalic	5
Hexham General Hospital	Dr Mahtab Najibah	4
Sandwell General Hospital	Dr Mariam Jafri	4
Freeman Hospital	Dr Mark Verrill	3
Friarage Hospital	Dr Alison Humphreys	3
King Edward VII Hospital	Dr Narottam Thanvi	3
Dewsbury and District Hospital	Dr Jay Naik	1
Leighton Hospital	Dr Laura Horsley	1
Stepping Hill Hospital	Dr Abbas Chittalia	1
West Cumberland Hospital	Ms Helen Roe	1