

## Online supplementary appendix

Appendix table S1. Study characteristics

Reference	Design	Country	Study period	Patients, N	Type of cancer	Comparator	End-of-Life Aggressiveness Indicator				Palliative care < last 3 DOL
							Chemotherapy	ED	ICU	Hospitalization	
Mrad <i>et al</i> 2017[61]	PBS	US	1998–2014	412 946	NSCLC	Trends			✓		✓
Rautakorpi <i>et al</i> 2017[25]	Retrospective cohort	Finland	2005–2013	38 982	All	Any	✓				
Presley <i>et al</i> 2017[26]	PBS	US	2006–2012	43 654	NSCLC	VHA/ Medicare/any			✓		
Falcoo <i>et al</i> 2017[32]	PBS	US	2007–2009	12 795	Lung cancer	Patients <65 years	✓	✓	✓	✓	✓
Ersek <i>et al</i> 2017[42]	PBS	US	2010–2012	847	NSCLC	Any	✓	✓	✓		
Wu <i>et al</i> 2016[23]	PBS	Taiwan	2009–2011	49 920	All	Patients <65 years & any chemotherapy		✓	✓	✓	
Henson <i>et al</i> 2016[43]	Retrospective cohort	UK		681	All	Any		✓			
Wright <i>et al</i> 2016[14]	Observational cohort	US	2011	1 146	All	Any	✓	✓	✓	✓	✓
Bekelman <i>et al</i> 2016[49]	PBS	7 European	2010	389 073	All	Each country	✓		✓		
Sano <i>et al</i> 2017[45]	Retrospective cohort	Japan	2010–2013	26 012	All	Palliative vs SOC	✓				
Parekh <i>et al</i> 2016[51]	Retrospective cohort	US	2009–2014	242	NSCLC	2009 vs 2013	✓				
Wang <i>et al</i> 2015[52]	PBS	US	2004–2009	82 242	All	2005 vs 2009	✓	✓	✓	✓	✓
Pacetti <i>et al</i> 2015[39]	Retrospective cohort	Italy	2010–2012	2 164	All	Any	✓				
Choi <i>et al</i> 2015[32]	Retrospective cohort	Korea	2002 vs 2012	263	All	Any	✓	✓	✓		
Cheung <i>et al</i> 2015[31]	PBS	Canada	2005–2009	107 253	All	Any	✓	✓	✓	✓	
Lee <i>et al</i> 2015[38]	Retrospective cohort	Korea	2000, 2005, 2010	2 345	All	Any	✓				
Kok <i>et al</i> 2015[27]	Retrospective cohort	Australia	2008–2012	266	NSCLC	2008 vs 2012	✓		✓		
Zhang <i>et al</i> 2014[63]	Retrospective cohort	US	2012	118	NSCLC	Any	✓		✓		
Adam <i>et al</i> 2014[33]	Retrospective cohort	Switzerland	2006–2007	120	All	Any	✓				
Sesé <i>et al</i> 2015[35]	Retrospective cohort	France	2010–2011	94	NSCLC	Any	✓				
Amano <i>et al</i> 2015[58]	Retrospective cohort	Japan	2013–2014	266	All	Early palliative care vs SOC	✓	✓	✓	✓	

Greer <i>et al</i> 2012[29]	Clinical trial	US	2006–2009	151	NSCLC	Early palliative care vs SOC	✓					
Mack <i>et al</i> 2012[46]	Observational cohort	US		1 231	NSCLC & colorectal	Any	✓	✓	✓			✓
Näppä <i>et al</i> 2011[40]	Retrospective cohort	Sweden	2008	374	All	Any	✓					
Gonsalves <i>et al</i> 2011[44]	Retrospective cohort	US	2002 vs 2008	200	All	2002 vs 2008	✓	✓	✓	✓		
Ho <i>et al</i> 2011[37]	PBS	Canada	1993–2004	227 161	All	1993 vs 2003	✓	✓	✓	✓		
Andreis <i>et al</i> 2011[59]	Retrospective cohort	Italy	2007–2009	102	All	Any	✓					
Warren <i>et al</i> 2011[53]	PBS	US & Canada	1999–2003	21 633	All	Patients with OS <6 and >6 months	✓					
Keating <i>et al</i> 2010[47]	PBS	US	2005	5 826	NSCLC and colorectal	VHA and SEER cohorts	✓	✓	✓			
Kao <i>et al</i> 2009[62]	Retrospective cohort	Australia	2005–2007	747	All	Any	✓					
Hashimoto <i>et al</i> 2009[55]	Retrospective cohort	Japan	2002–2006	255	All	Any	✓					
Tang <i>et al</i> 2009[28]	PBS	Taiwan	2000–2006	242 530	All	Trend	✓	✓	✓	✓		✓
Barbera <i>et al</i> 2008[34]	PBS	Canada	2002	5 855	All	Any	✓	✓	✓			
Earle <i>et al</i> 2008[11]	PBS	US	1991–2000	215 484	All	Trend	✓					
Temel <i>et al</i> 2008[36]	Observational cohort	US	2003–2005	46	NSCLC	Integrated palliative care	✓	✓	✓	✓		✓
Yun <i>et al</i> 2007[54]	Retrospective cohort	Korea	2004	3 750	All	Any	✓					
Murillo <i>et al</i> 2006[41]	Retrospective cohort	US	2000–2003	417	NSCLC	Any	✓					
Earle <i>et al</i> 2004[16]	PBS	US	1996	28 777	All	1993 vs 1996	✓	✓	✓	✓		✓
Giorgi <i>et al</i> 2004[57]	Retrospective cohort			193	All	Any	✓					
Emmanuel <i>et al</i> 2003[48]	PBS	US		7 919	All	Any	✓					
Aragon-Ching <i>et al</i> 2003[56]	Retrospective cohort			144	All	Any	✓					

PBS: population-based study; NSCLC: non-small cell lung cancer; VHA: Veterans Health Administration; SOC: standard of care; SEER: Surveillance, Epidemiology, and End Results.

**Appendix Table S2** End-of-life economic data for cancer patients.

Study	Patients, <i>N</i>	Type of cancer	Inclusion criteria	<i>n</i>	Mean last month cost/patient
Bekelman <i>et al</i> 2016[49]	389 073	All	US	211 816	\$US8 126
			Netherlands	7 216	\$US3 680
			Belgium	21 054	\$US5 840
			Canada	20 818	\$US10 273
			UK	97 099	\$US3 160
			Germany	24 434	\$US4 382
			Norway	6 636	\$US6 625
Cheung <i>et al</i> 2015[31]	107 253	All	Patients with aggressive EOL care	24 095	\$CAN18 131
			Patients with aggressive EOL care	83 158	\$CAN12 678