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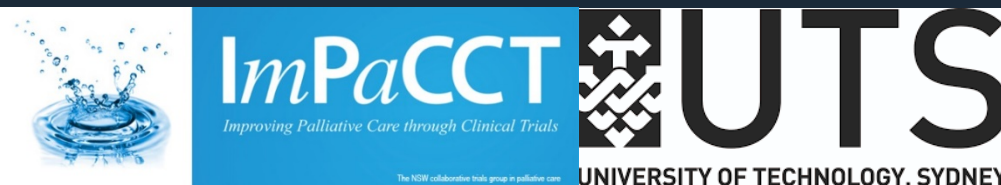
WOLFSON PALLIATIVE
CARE RESEARCH CENTRE



Comparison of trajectories of functional decline and symptom burden between lung cancer and other end-stage respiratory disease in the last 120 days of life: a national aggregated, cross-sectional case-series.

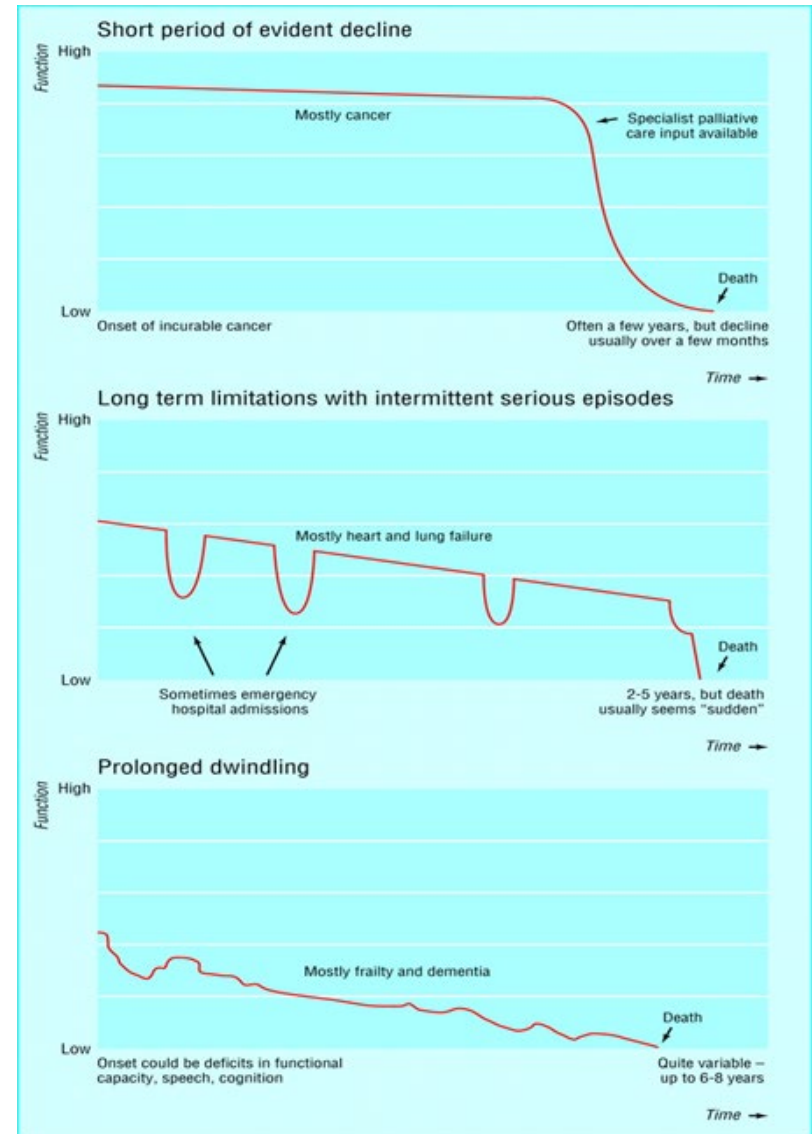
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- Why study function and symptoms in end of life?
- Objectives
- Methods
- Results
- Discussion

- 🌀 Lung cancer and end stage respiratory disease cause significant morbidity and mortality worldwide.
- 🌀 Significant symptom burden.
- 🌀 Differing life expectancies.
- 🌀 Previous studies¹ suggest different patterns of symptom burden and function in last months of life.



1. Bausewein C, et al. 2010

- To compare and contrast trajectories of symptoms and function in the last four months of life between advanced lung cancer and end-stage respiratory diseases.

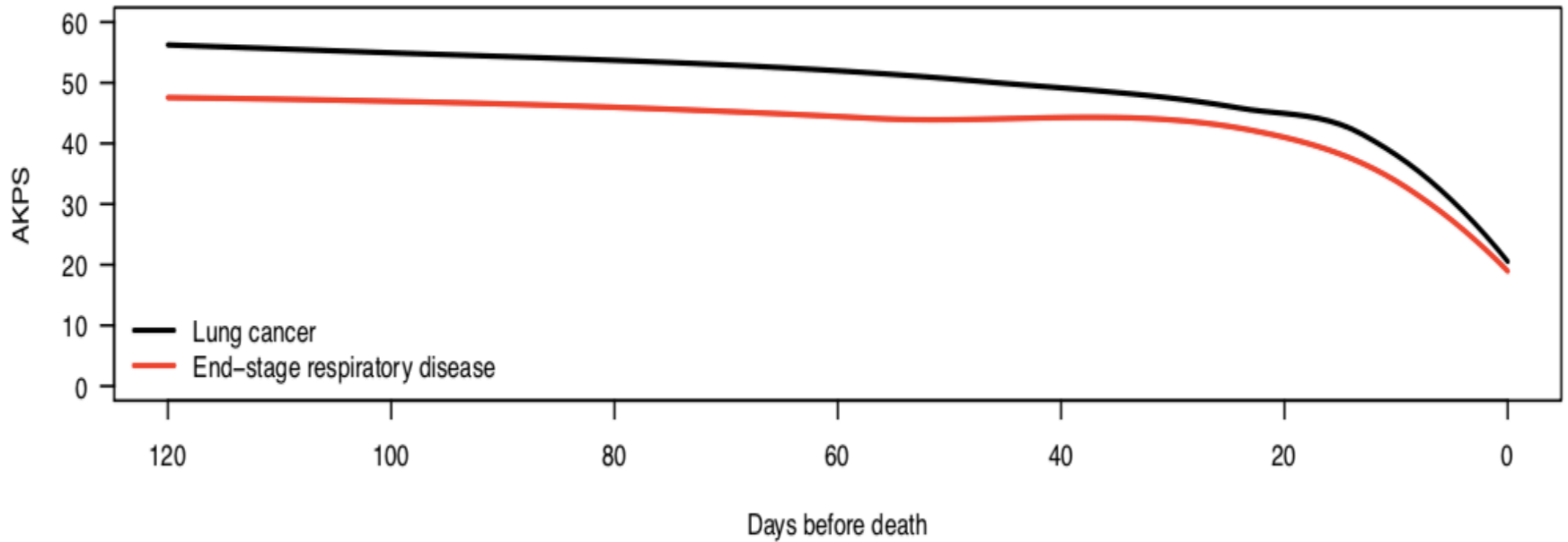
- Study setting - Australian national Palliative Care Outcomes Collaborative (PCOC) longitudinal database
- Study design – cross-sectional, consecutive cohort study
- three diagnostic cohorts:
 - lung cancer;
 - chronic respiratory disease and
 - all other people in the database (has been reported previously²).
- Death was the anchor point, with prospectively collected data for preceding months examined.

- Australia-modified Karnofsky Performance Status
- Symptom assessment scales
 - pain,
 - breathlessness,
 - fatigue and
 - sleep problems.
- Analysis and reporting of anonymised data approved by Human Research Ethics Committee of the University of Wollongong (ID: HE2006/045)

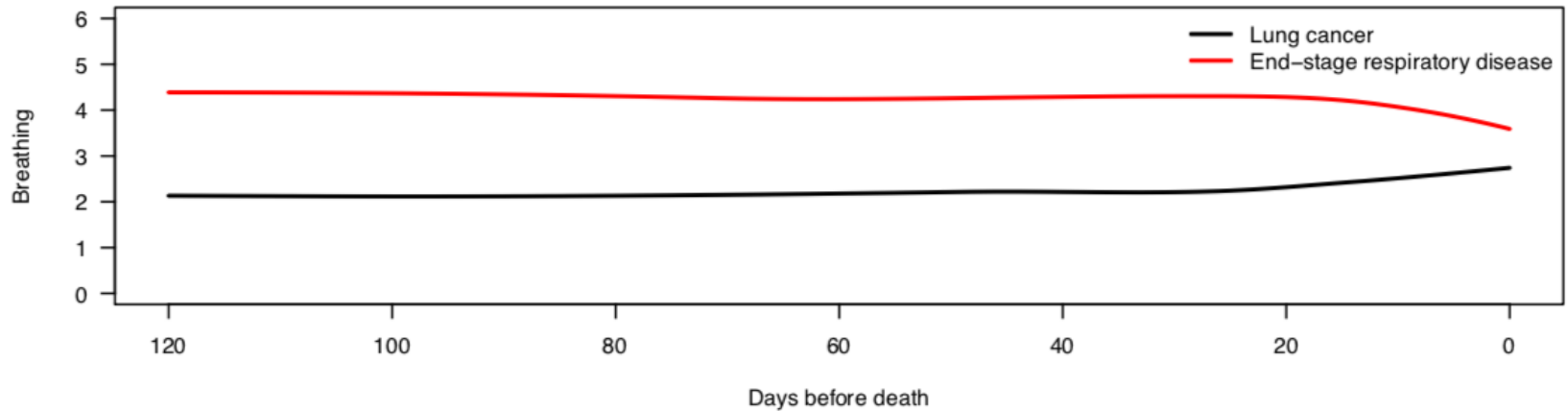
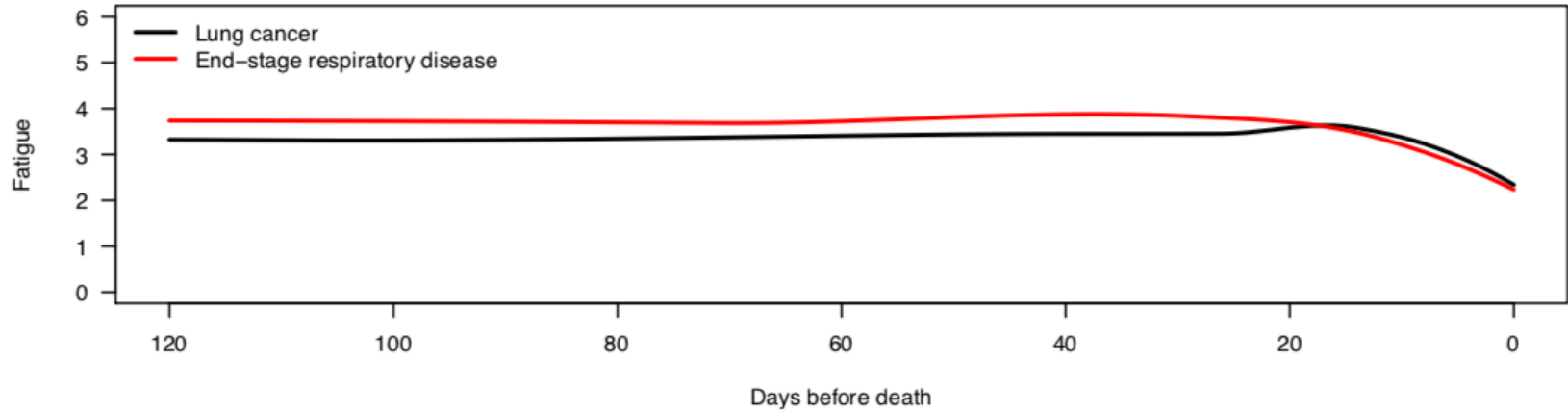
Table 1. Characteristics of the two diagnostic cohorts

	Lung cancer	End-stage Respiratory Disease
	N = 18,586 (Assessments = 89,904)	N = 4,279 (Assessments = 14,827)
Female (%)	39.7*	44.9*
Born in Australia (%)	62.8	63.8
English speaking (%)	90.6	91.4
Age at death		
Median	73*	81*
Range	0-103	0-103
Interquartile Range	65-81	73-87
Australia-modified Karnofsky performance status		
Median	40	30
Range	10-100	10-100
Interquartile range	20-50	20-50
Time from referral to death (DAYS)		
Median	22*	6*
Range	0 - 2710	0 – 1852
interquartile range	6-72	2-40

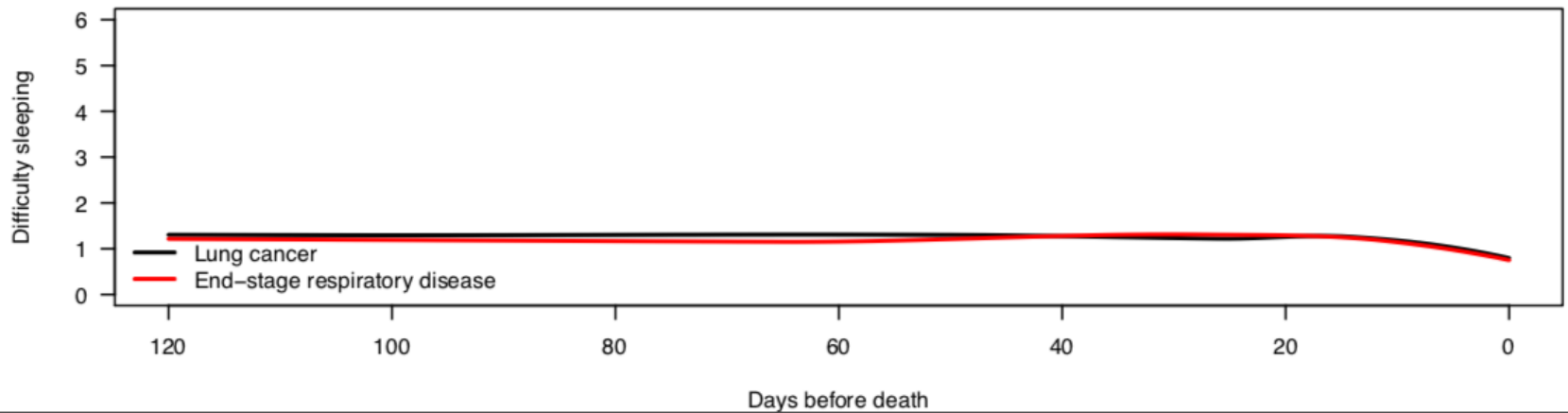
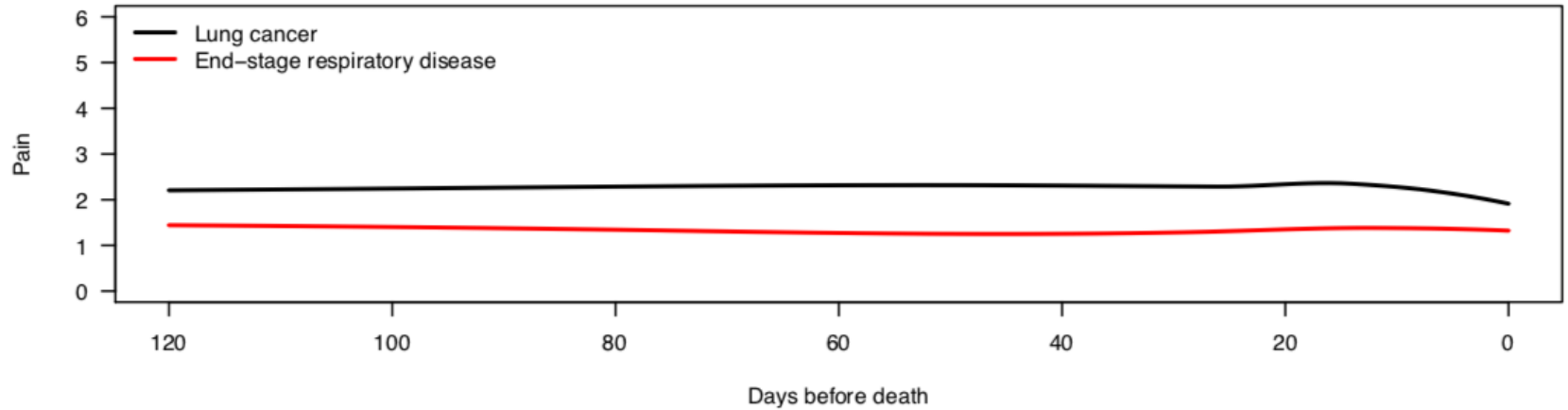
*P<0.001



DISTRESS FROM FATIGUE AND BREATHING



DISTRESS FROM PAIN AND DIFFICULTY SLEEPING





LIMITATIONS



- PCOC referral based service.
- Multimorbidity not accounted for.

- People with ESRD are just as symptomatic
 - Distress from fatigue and sleeping difficulties were low
 - pain was more of a concern in those with lung cancer
 - Distress from breathlessness was more of a concern in those with ESRD
- In contrast to previous work, there was very little difference in the trajectory of functional decline between the two conditions
- This challenges "they have a different trajectory" as the common explanation for reduced access to palliative care for people with ESRD

- Size of the study
- Consecutive case-series, aggregated cross-sectional efficacy study
- Standardised assessment tools

- ▶ Comparable symptom burden with longer life expectancy in end stage respiratory disease suggest that both diseases generate similar palliative care needs.
- ▶ Data examined retrospectively from date of death; informing our understanding about shapes of trajectories and offer considerations for service planning.
- ▶ Should not be used prescriptively to make decisions about individual patient care.

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REFERENCES

- Fitzmaurice C, Dicker D, Pain A, et al. The Global Burden of Cancer 2013. *JAMA Oncology*. 2015; 1(4): 505–527. DOI: 10.1001/jamaoncol.2015.0735
- Murray SA, Kendall M, Boyd K, Sheikh A. Illness trajectories and palliative care. *BMJ*. 2005;330(7498):1007-1011. doi:10.1136/bmj.330.7498.1007
- World Health Organization. Chronic obstructive pulmonary disease (COPD). Fact sheet. December 2017. [https://www.who.int/news-room/fact-sheets/detail/chronic-obstructive-pulmonary-disease-\(copd\)#:~:text=The%20Global%20Burden%20of%20Disease,in%20low%20and%20middleincome%20countries.](https://www.who.int/news-room/fact-sheets/detail/chronic-obstructive-pulmonary-disease-(copd)#:~:text=The%20Global%20Burden%20of%20Disease,in%20low%20and%20middleincome%20countries.) [Accessed 11 Nov 2020]
- Wysham NG, Cox CE, Wolf SP, et al. Symptom Burden of Chronic Lung Disease Compared with Lung Cancer at Time of Referral for Palliative Care Consultation. *Ann Am Thorac Soc* 2015;12(9):1294-1301.
- Bausewein C, Booth S, Gysels M, et al. Understanding breathlessness: cross-sectional comparison of symptom burden and palliative care needs in chronic obstructive pulmonary disease and cancer. *J Palliat Med* 2010;13(9):1109-1118.
- Morgan DD, Tieman J, Allingham S, et al. The trajectory of functional decline over the last 4 months of life in a palliative care population: A prospective, consecutive cohort study. *Palliat Med* 2019;33(6):693-703.
- Grose D, Morrison DS, Devereux G, et al. Comorbidities in lung cancer: prevalence, severity and links with socioeconomic status and treatment. *Postgrad Med J* 2014;90(1064):305-310.