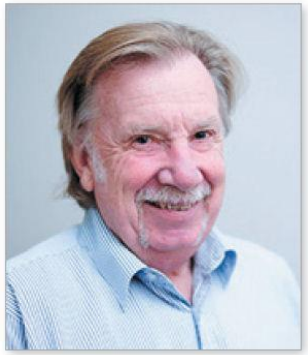
Ms Lynley Gulasekharam

Clinical Nurse Specialist Lung Cancer Care Coordinator

MidCentral Health, Palmerston North



Dr Chris Atkinson

Director & Consultant Radiation Oncologist

St Georges Cancer Care Centre

Christchurch

Dr Greg Frazer

Respiratory Physician

Christchurch Hospital

Christchurch

Dr Bernie Fitzharris

Consultant Medical Oncologist

St Georges Cancer Care Centre

Christchurch

Friday, August 09, 2019 (Room 2)

16:30 - 18:30 WS #53: Lung Health Forum (120mins, not repeated)

Living With Lung Cancer
in New Zealand
2019 and beyond…..

Chris Atkinson

Date: 9th August 2019

TUAPAPA PŪKAHUKAHU
LUNG FOUNDATION
New Zealand

Lung Cancer: NZ's Biggest Cancer Killer

Leading cause of cancer death

- ~20% of all cancer deaths

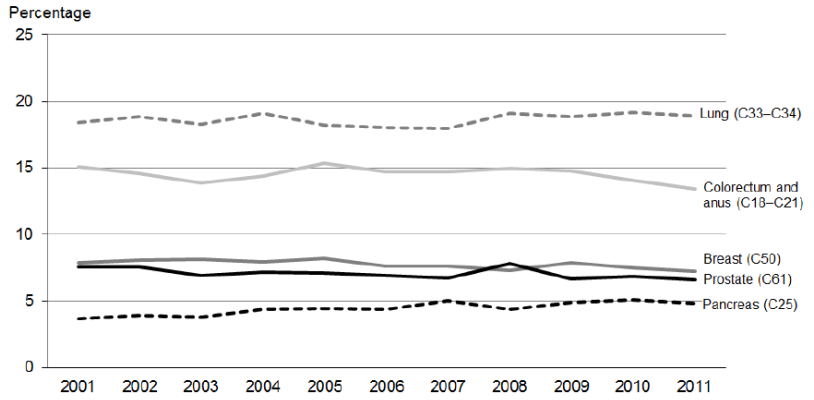
Fifth most common

- ~2000 cases/annum
- NSCLC > 80% of cases

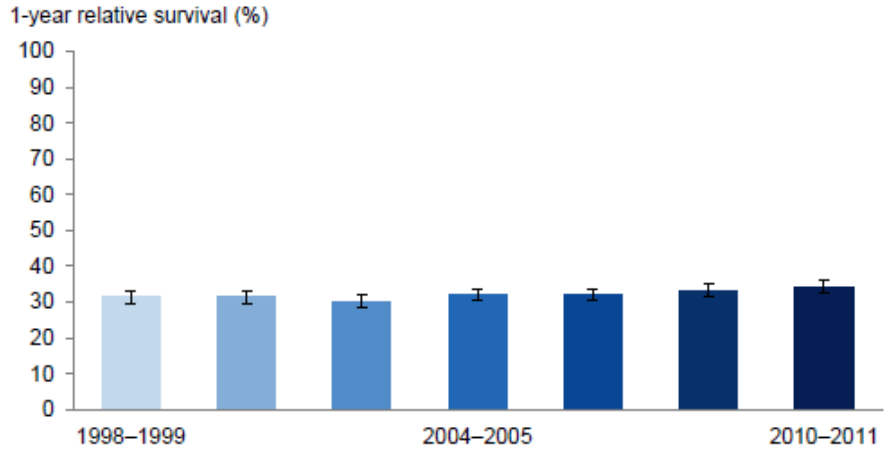
Poor Survival

- 30% 1 yr survival rate

Figure 4: Percentage distribution of the most common causes of cancer death



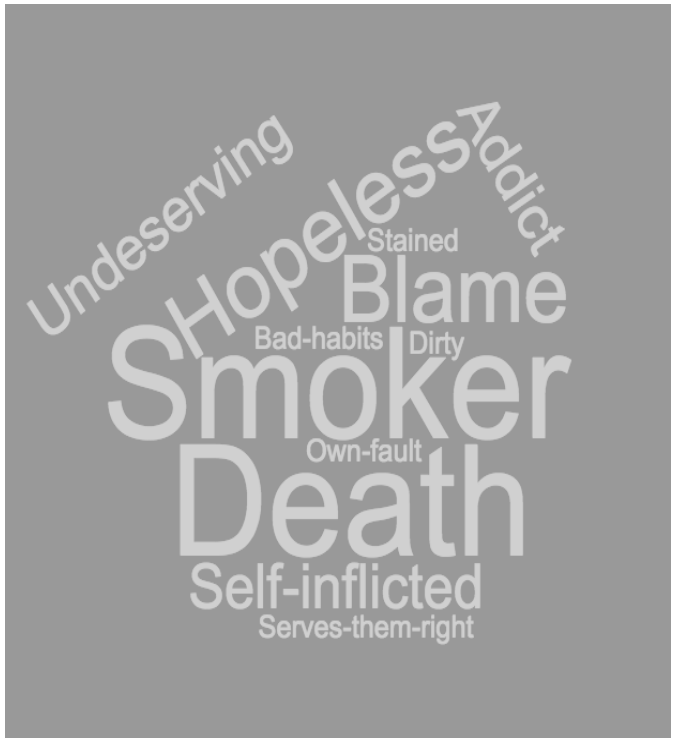
Survival for total population

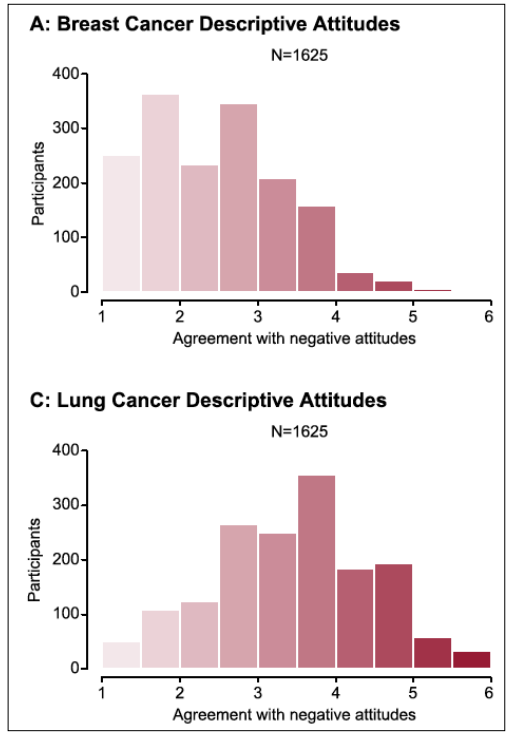


Ministry of Health. 2015.Cancer Patient Survival: 1994 to 2011. Wellington: Ministry of Health

Stigmatisation Lung Cancer Patients

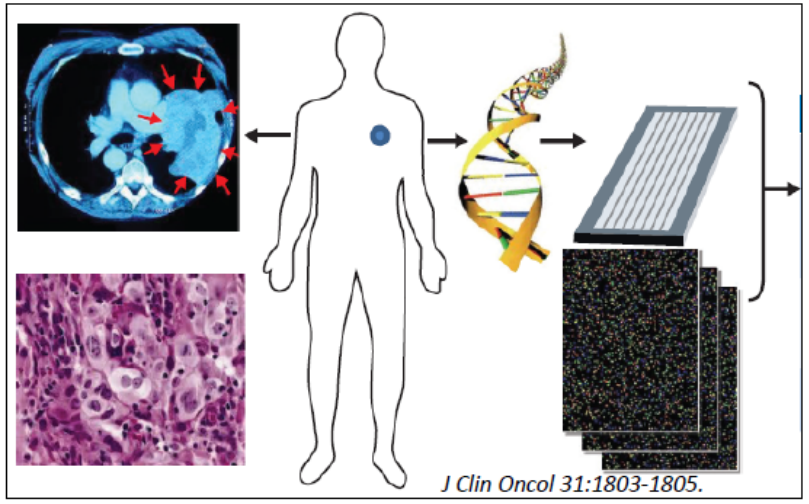
Vincent van Gogh

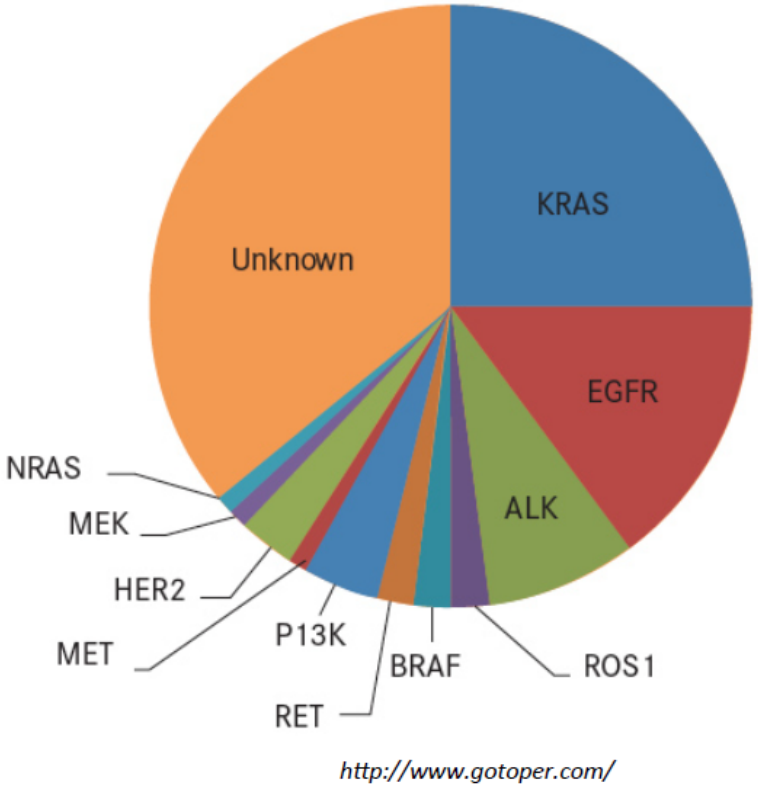




Personalised Lung Cancer Treatment

Identification of molecular drivers in each patient to individualise therapy





EGFR mutation-positive Lung Cancer

What has been achieved in New Zealand?

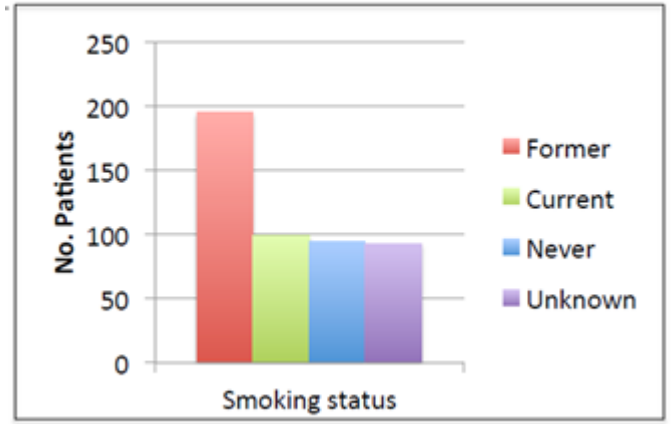
Between 2012 and 2015:

- PHARMAC funded erlotinib and gefitinib
- Ministry of Health published EGFR mutation testing guidelines

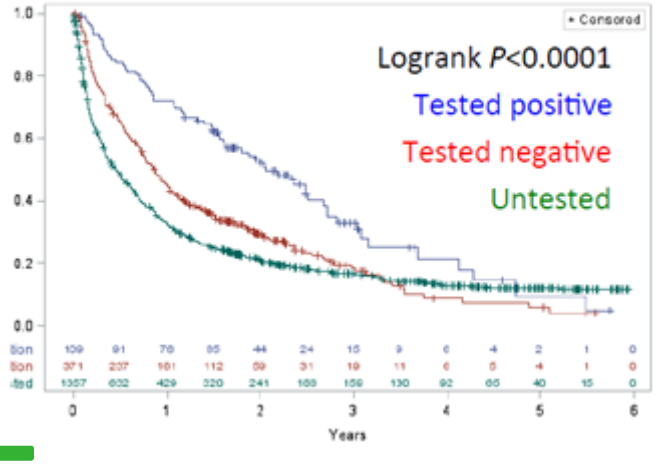
Research findings:

- Testing uptake increased to 75%
- Prevalence of EGFR mutations = 22% (up to 280 cases/yr)

Test eligible patients: smoking status



Survival Impact of EGFR testing

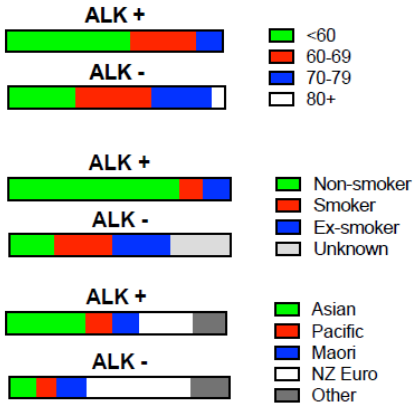


Implementation of EGFR testing and targeted therapy was associated with improved survival

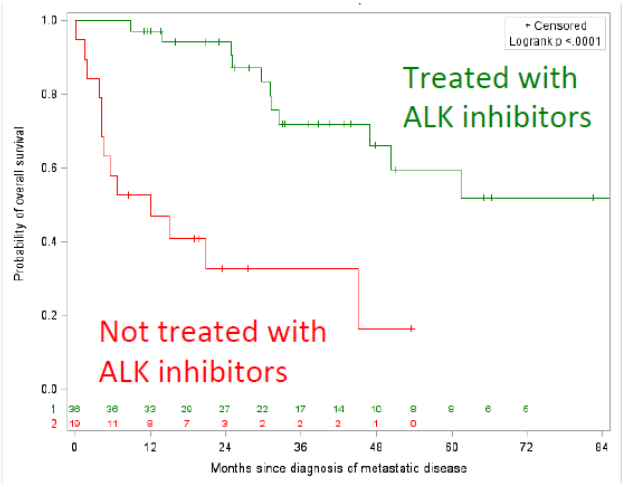
Anaplastic Lymphoma Kinase (ALK)
gene rearrangement positive Lung Cancer

ALK+ Lung Cancer in NZ

- >350 patients tested
- Prevalence = 8.5% (up to 110 pts/yr)



Survival of NZ ALK+ patients

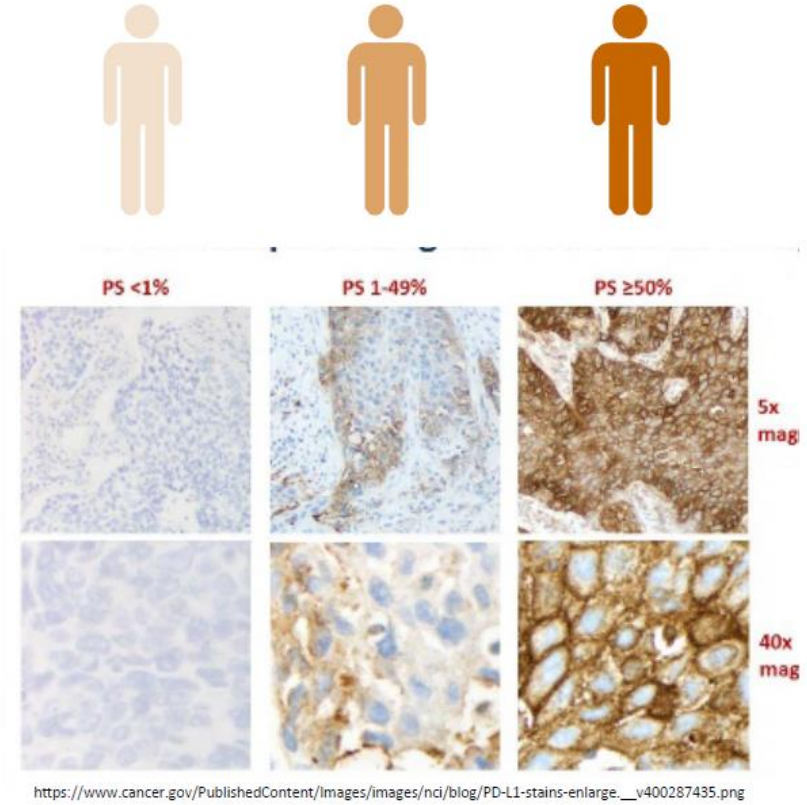


Implementation of ALK testing and targeted therapy in NZ will greatly improve survival

- **2007:** ALK lung cancer discovered
- **2015:** First treatment (Crizotinib) for ALK + Lung Ca approved by Medsafe
- **2018:** Still no PHARMAC-funded treatments or national testing for ALK + Lung Cancer

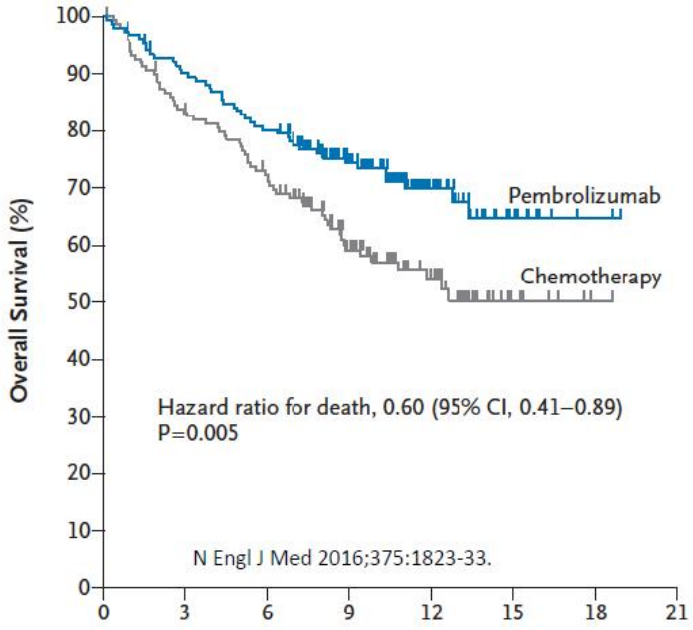
Personalised Immunotherapy: Lung Cancer

Programmed Cell Death Ligand 1 (PD-L1) expression in Lung Cancer



https://www.cancer.gov/PublishedContent/Images/images/nci/blog/PD-L1-stains-enlarge.__v400287435.png

Keytruda in PD-L1 strongly overexpressing Lung Cancer



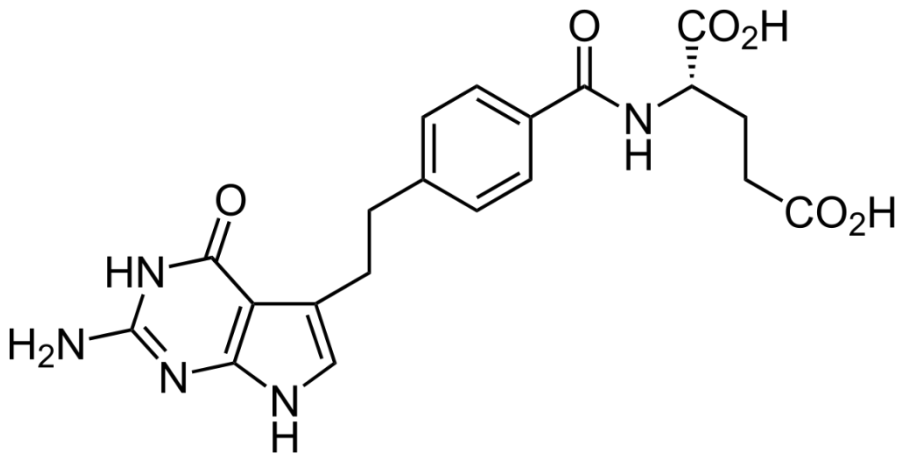
Keytruda more than doubles survival with less side-effects but more $$$

No data on NZ prevalence or profile; No testing guidelines or state-subsidised treatment in NZ

Pemetrexed

Targeted chemotherapy.

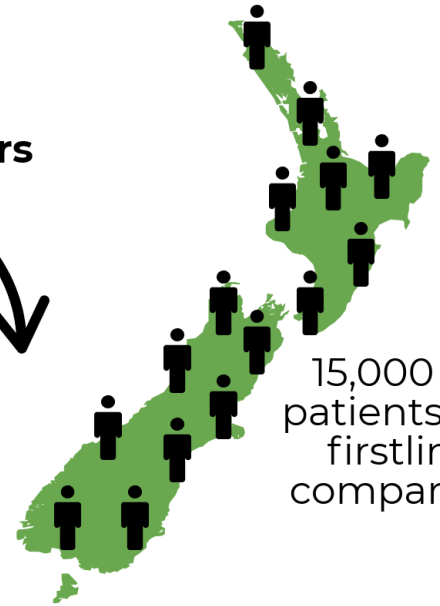
Shown to be most effective chemotherapy for people with Advanced Adenocarcinoma of the lung.



Funding Pemetrexed

February 2005

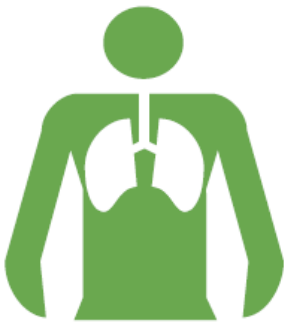
Almost 13 years



15,000 New Zealand patients missed out on firstline treatment compared to Australia

November 2017

You have a better chance of surviving lung cancer in Australia



Diagnosed during
2006 - 2010

697

These New Zealand lung cancer deaths could have been avoidable if you lived in Australia

Lung cancer treatments remain <u>unfunded</u>, but readily available in other countries

Pembrolizumab (Keytruda)
Nivolumab (Opdivo)
Atezolizumab (Tecentriq)

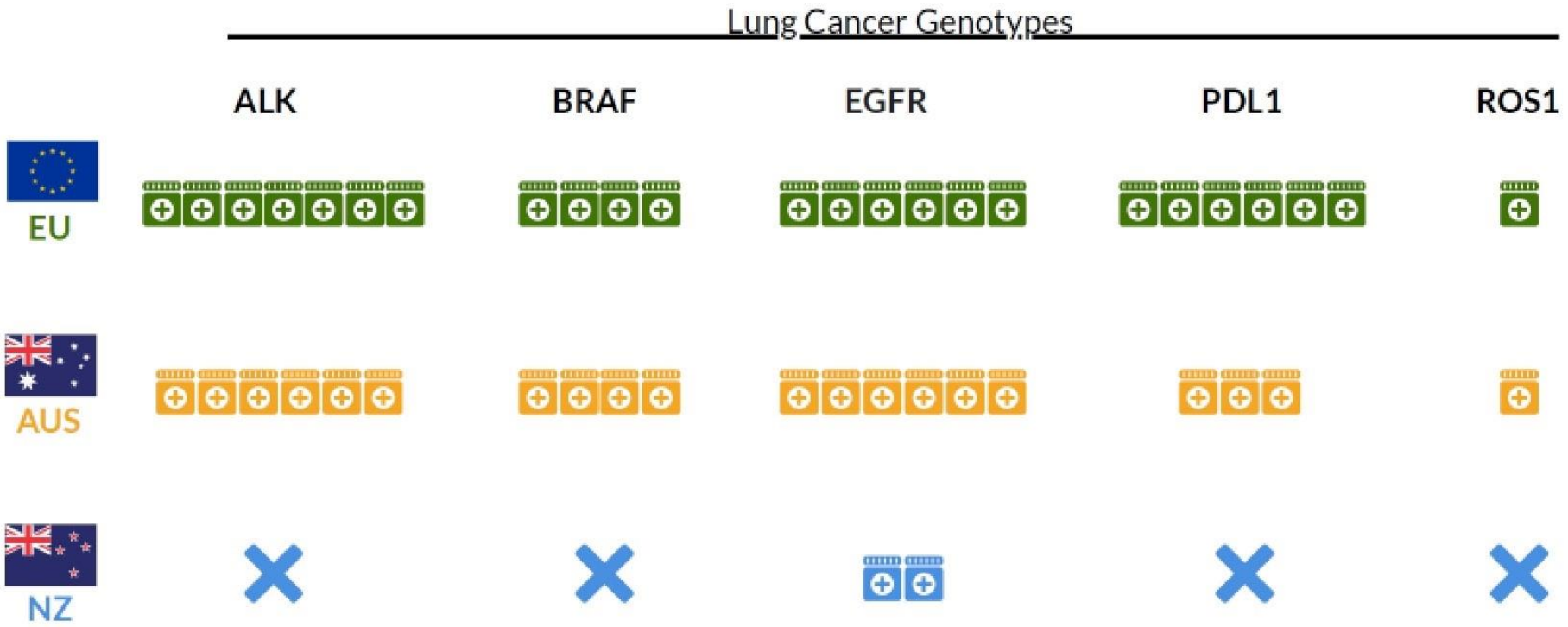
Crizotinib (Xalkori)
Alectinib (Alecensa)
Osimertinib (Tagrisso)

Efficacy; These treatments work better than standard chemotherapy; fewer side effects, improved progression free survival and quality of life

Non-Small Cell Lung Cancer Treatment Options

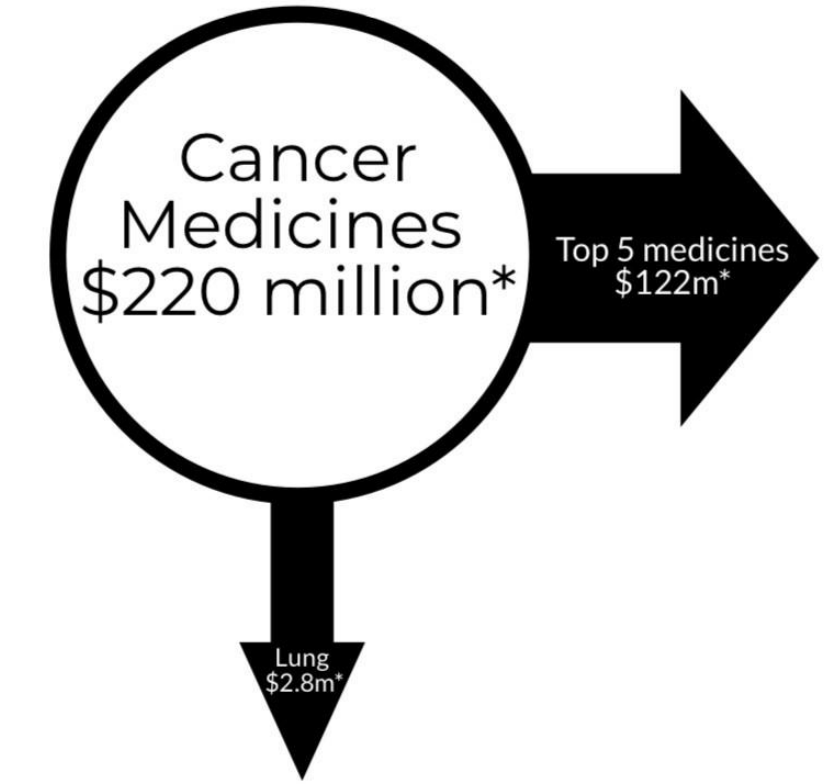
(Excluding Chemotherapy)

2010 - 2019



A comparison of the number of innovative treatments funded for each lung cancer genotype.

References: Planchard et al (2018). Annals Oncol. 29(4): 192-237; Gandhi et al (2018). NEJM 378: 2078-2092; Australian Pharmaceutical Benefits Scheme (APBS) (2019); PHARMAC Pharmaceutical Schedule (2019)



Trastuzumab (Herceptin) — Breast

Pembrolizumab (Keytruda) — Melanoma

Abiraterone (Zytiga) — Prostate

Lenalidomide (Revlimid) — Blood

Rituximab (Rituxan) — Blood

$1.2m Erlotinib (Tarceva) — Lung

$1.2m Getfitinib (Iressa) — Lung

$0.4m Pemetrexed — Lung

* 2017/18 gross expenditure, excludes confidential rebates

References:
PHARMAC submission to HSC 8th February 2019.
PHARMAC email to LFNZ 4th March 2019

Financial Toxicity

Patient/whanau debt to meet cost of unfunded drugs:

Loss of masculinity/meaning in the family.

Increases inequalities between Maori/Pacific and Pakeha.

Major stress incurred as “then advocate” for others in similar situation.

Loss of privacy on “give a little”, Facebook.

Anger at other costs to deliver unfunded drugs safely.

More than $1.2 Million Raised from Ten Thousand Donors in Support of Lung Cancer Patients on “Give a little”

Reference: Givealittle Report 20th May 2019

Financial Toxicity

Must increase vote health spending not just on prevention (tobacco) but also:

Screening

Early detection

Lung Cancer genomic mutation screening

Innovative personalised cancer care (drugs)

Research

Advocacy: Educating the patient

Now:

must educate the public/politicians.

lung cancer is our biggest cancer killer.

lung cancer is not just tobacco related.

lung cancer has a significant genetic determined basis.

lung cancer demands NZ relevant research.

Solutions

Where does all the tobacco tax get spent?

Acknowledging Lung Cancer is one of our greatest health inequalities:

- Maori
- Pacific
- Non smokers

Acknowledging lung cancer kills more New Zealanders than breast cancer, prostate cancer and melanoma combined.

Solutions

Research into New Zealand lung cancer mutation rate, lung cancer outcomes, potential interactions of immunotherapy drugs with other medicines.

Evolving different health economics models to measure true lung cancer treatment outcomes.

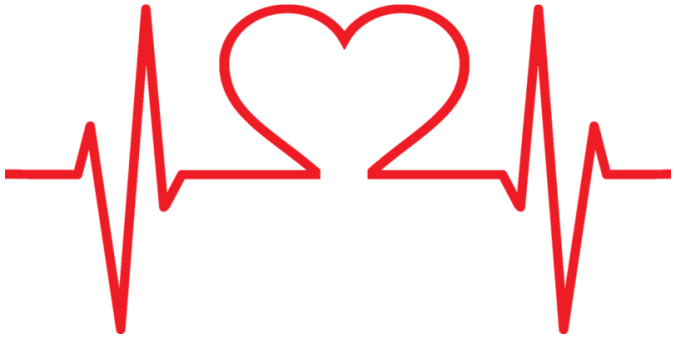
Health Economic Issues

Need to factor in less chemotherapy and deferred palliative care costs.

If patient survives some years, and continues to work and pay tax, that would offset more expensive innovative drug care costs.

We fund expensive innovative therapies in other cancers
–? Lung cancer stigma.

PHARMAC .v. drug companies.



Do we structure health dollar expenditure differently?

Does New Zealand wish to continue to be "Third World" with respect to Lung Cancer care given it is our biggest cancer killer?

"Of all the forms of inequality, injustice in health care is the most shocking and inhumane"

Dr Martin Luther King Jr.

Normalising Your Lung Cancer Journey

Language

Love

Living

Loss

Life

Language

Plain and caring

Opposite to war

battle
fight
victim
bravery
survivor

Love

Self

Partner

Family

Friends

Humour

Resilience

Living

Spirituality

Sleep

Diet

Exercise

Alcohol

Loss

Side effects of cancer

Side effects of treatment

Body image

Work

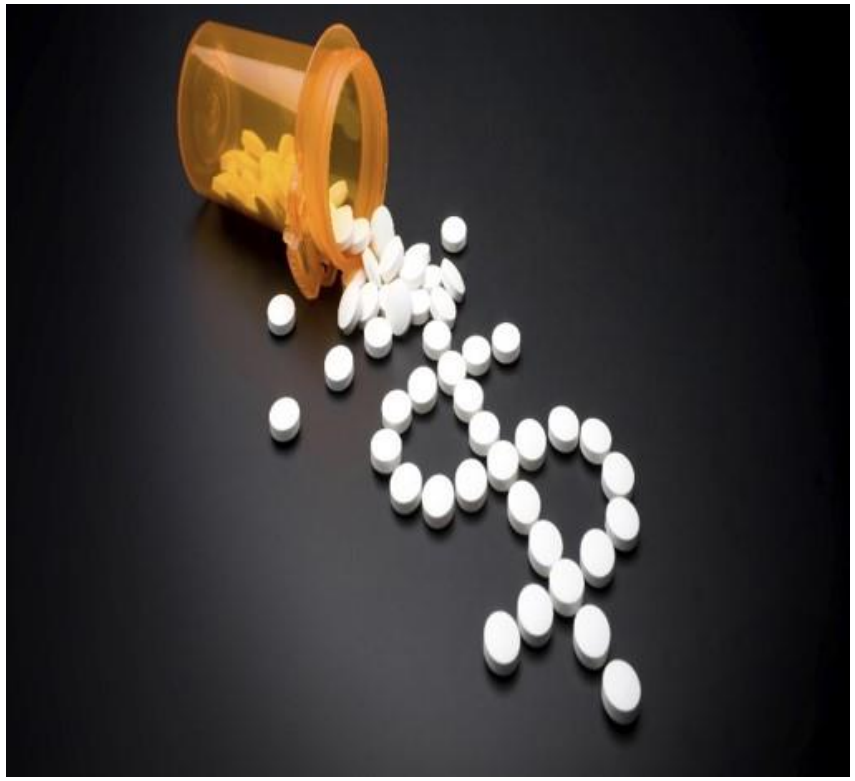
Relationship

Sexuality

Confidence in the future

Loss

Financial Toxicity



Life

Screening

Early detection

Cancer diagnosis

Care Plan (informed consent)

Treatment

Life

Living after cancer

Dying of something else

Dying of cancer

Life

End of life

Maintenance of meaning

dignity

quality of life

Choice

Legacy

Questions and answers

Discussion