

Townsville lung cancer referral pathway reduces the time interval from initial GP consultation to specialist referral for people with suspected lung cancer

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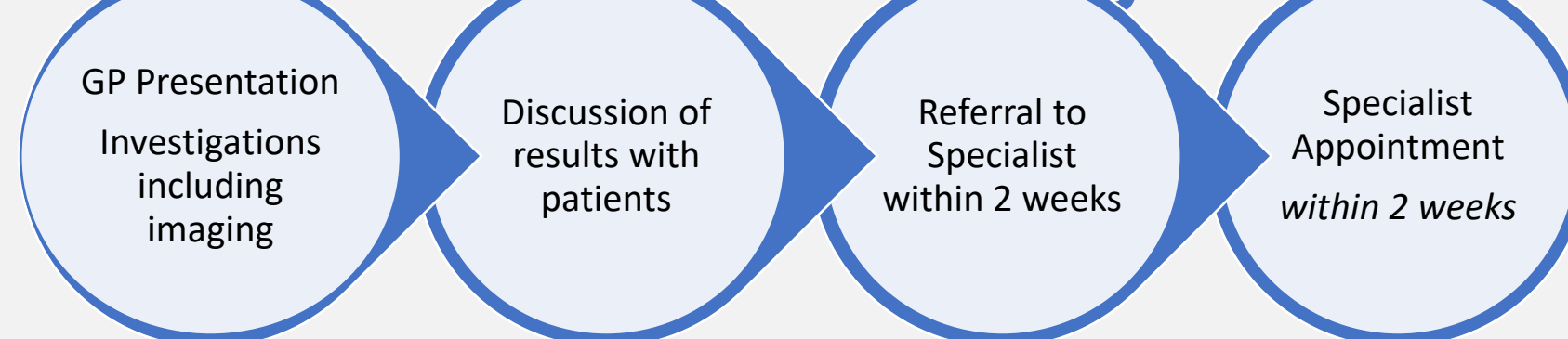
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INTRODUCTION and AIM:

In order to reduce the delays and improve the referral patterns of General Practitioners (GPs) for people with suspected with lung cancer, we implemented the Townsville Lung Cancer Referral Pathway (TLCRP) in September 2019. This is a web-based Health Pathway for the use of GPs which outlines the recommended investigations and specialists to refer to for people with suspected lung cancer .

This audit aims to study the impact of implementing TLCRP on timeliness and referral patterns of lung cancer patients.

TLCRP Recommended Pathway and Times



Methods

Retrospective chart audit of lung cancer patients seen at Townsville Cancer Centre, comparing two groups:

- **Pre-TLCRP implementation group:** all lung cancer patients seen between August 2016 to July 2019 .
- **Post-TLCRP implementation group:** all lung cancer patients seen between August 2020 to July 2023 .

Primary outcome:

Time from initial presentation to GP to the time to referral to a lung cancer specialist (respiratory physician, oncologist or thoracic surgeon) -T1.

Statistics:

Calculated sample size: 182

Simple univariate descriptive statistics was used and then pre and post implementation comparisons were made.

Key Findings:

The time interval from initial GP consultation to initial lung cancer specialist referral was **significantly reduced** after implementation of TLCRP while the waiting time for specialist appointment worsened during this time period.

- Proportion of patients seen in specialist clinic within two weeks did not improve after implementation of tlcrrp.
- Percentage of patients referred to respiratory clinic by GP remained the same in both groups.
- Proportion of patients having chest x-ray or CT scan did not change significantly after implementation of tlcrrp.

Table 1:Summary of time intervals

Median (Range) Time interval in days	Pre-Pathway	Post-Pathway	p-value
Initial presentation to the GP to Initial referral to specialist (T1)	15 (1-160)	8 (1-70)	0.028
Initial Referral from the GP to Lung cancer Specialist appointment (T2)	15 (1-90)	20 (1-76)	0.028
Initial presentation to GP to Lung cancer Specialist appointment (T3= T1+T2)	35 (2-183)	30 (6-90)	0.104

Table 2: Secondary outcomes

Proportions of patients:	Pre-pathway n (%)	Post-pathway n (%)	p-value
Seen by specialist within 14 days [†]	38 (40)	30 (34)	0.22
With suspected lung cancer referred by GP directly to respiratory clinic.	76 (83)	72 (80)	0.20
Who had chest Xray organised by the GP	57 (62.6)	51 (57.3)	0.72
Who had CT chest organised by GP	85 (93)	83 (93)	0.54

[†] GP pathway only

Table 3: Patient demographics

	Pre-Pathway N=161 (%)	Post-Pathway N=152 (%)	p-value
Age (Mean)	68	68	0.96
Gender - Male	96 (58.5)	89 (58.5)	1.0
female	68 (41.5)	63 (41.5)	
Indigenous Status -Non-Indigenous	148 (90)	131 (86)	0.44
Aboriginal &/or TS	16 (10)	21 (14)	
Type of lung cancer- NSCLC	139 (84.7)	128 (84.2)	0.93
SCLC	23 (14)	23 (15)	
Stage of lung cancer- 1 & 2	20	9	0.93
3	37	35	
4	105	106	
Treatment Intent			0.95
Curative	42 (25.6)	38 (25)	
Palliative	122 (74.4)	114 (75)	
Diagnostic Pathway			0.56
GP	95 (57.9)	88 (57.9)	
Emergency	49 (29.8)	50 (32.9)	
Other specialists	20 (12.2)	14 (9.2)	
Suburb & locality (MMM)			0.75
2 (regional)	115 (71.4)	112 (73.6)	
3 -7 (rural & remote)	46 (28.6)	40 (26.4)	

Figure 1: Days from initial GP consult to specialist referral

