Barriers, Facilitators, and Strategies to Recognise and Refer High-Risk Individuals with Lung Cancer 'Alarm' Signs and Symptoms:

A Study with Primary Healthcare Professionals in Ireland

Summary

Prepared by: NCCP Early Diagnosis Function

Full report prepared for the National Cancer Control Programme by University College Cork[1]can be accessed www.hse.ie/cancerearlydetetction

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Table of Contents

Abbreviations

CP	Community Pharmacist
GP	General Practitioner
HSE	Health Service Executive
HCP	Healthcare Professional
LC	Lung Cancer
NCCP	National Cancer Control Programme
PN	Practice Nurse
PHN	Public Health Nurse
UCC	University College Cork

1. Background

1.1 Lung Cancer

Lung cancer (LC) is the leading cause of cancer incidence and mortality in men and women globally, with 2.1 million new cases and 1.8 million deaths in 2018 (Bray et al., 2018). In Ireland, LC is the fourth most commonly diagnosed invasive cancer (excluding non-melanoma skin cancer) with around 1,500 men and 1,200 women diagnosed each year (2017-2019). LC is the leading cause of cancer death in Ireland, with approximately 1,030 men and 850 women dying from it annually (2016-2018) (National Cancer Registry Ireland, 2021). Annual numbers of LC cases in Ireland are projected to increase by 119% between 2015 and 2045 (National Cancer Registry Ireland, 2019).

Almost three quarters of LC cases in Ireland are diagnosed at late stage disease (stage III or IV), which reduces patients' eligibility for curative treatment and reduces survivorship (National Cancer Registry Ireland, 2018). Timeliness of symptomatic cancer diagnosis is impacted by the complex interplay between disease factors, patient factors, healthcare professional (HCP) factors and system factors. Late diagnosis can result from lack of knowledge of LC signs and symptoms in the population, limited access to HCPs, and delays in referral and diagnosis (National Institute for Health and Care Excellence, 2021). Timely patient help-seeking and subsequent HCP referral for LC alarm signs and symptoms are crucial for early diagnosis and improved survivorship.

1.2 National Cancer Control Programme Study Aim

Recommendation 7 of Ireland's National Cancer Strategy 2017-2026 states that *"the NCCP and the HSE Health & Wellbeing Directorate, in partnership with the voluntary sector, will develop a rolling programme of targeted multi-media based public awareness and education campaigns, aimed at the early detection of specific cancers and with particular focus on at-risk populations"* (Department of Health, 2017; p.134). To inform delivery of this recommendation, the National Cancer Control Programme (NCCP) commissioned this qualitative research study to explore:

1. Barriers and facilitators to amongst primary HCPs recognising and referring individuals with signs and symptoms indicative of LC along the appropriate healthcare pathway
2. Strategies to improve early diagnosis of LC

1.3 Primary Healthcare Professionals in Ireland –'Pull Element'

There are approximately 30 million patient interactions with the Irish health service every year. Of those, 14 million are with general practice services, including general practitioners (GPs) and practice nurses (PNs) (Health Service Executive [HSE], 2021c). Community pharmacists (CPs) are among

the most accessible primary HCPs, with over 1.6 million weekly interactions with the public (Irish Pharmacy Union, 2018). Public health nurses (PHNs), who provide general nursing services at home to service users with a wide range of medical needs, also have multiple weekly patient contacts (HSE, 2021b). While these interactions provide an opportunity for patients to consult with a HCP, barriers to primary HCPs recognising and referring people with LC alarm signs and symptoms remain underexplored.

A “push-pull” approach can help improve the early diagnosis of LC, whereby members of the public with symptoms indicative of LC are “pushed” to act on their symptoms and HCPs are encouraged to “pull” individuals with LC ‘alarm’ signs and symptoms into relevant services.

The “push” element was explored in a recent study commissioned and funded by the NCCP, whereby 46 individuals with at least one LC risk factor, and who lived in areas of high LC incidence, were interviewed about their help-seeking intentions in the event that they developed symptoms indicative of LC (Saab et al., 2020a; 2020b; 2021b).

The current report presents the “pull” element of this project, whereby barriers to the recognition and referral of people with signs and symptoms indicative of LC are explored with Primary HCPs, namely GPs, CPs, PHNs, and PNs.

2. Method

Focus groups and individual interviews were conducted with GPs, CPs, PHNs, and PNs to explore barriers and facilitators to recognising and referring individuals with signs and symptoms indicative of LC along the appropriate healthcare pathway. A total of 36 Primary HCPs (10 CPs, 10 PHNs, 8 GPs, and 8 PNs) from 11 counties in Ireland participated in the qualitative study. Participant characteristics can be found in Appendix A.

3. Results

3.1 Themes

Four major themes were created from the focus group data**:**

1. Primary HCPs' experiences and accounts of patient referral for LC
2. Primary HCP perception of patient help-seeking for signs and symptoms of concern
3. Facilitating early presentation and referral
4. Perspectives on previous LC awareness campaigns

Table 1 provides a summary of the findings regarding barriers, facilitators, and strategies to recognise and refer high-risk individuals with lung cancer 'alarm' signs and symptoms.

Table 1. Barriers, facilitators, and strategies to recognise and refer high-risk individuals with lung cancer 'alarm' signs and symptoms

Themes	Sub-themes	Abbreviated codes	Sources
Primary Healthcare Professionals' experiences and accounts of patient referral for lung cancer	*Triggers for Primary HCPs to refer patients*	• Typical LC signs and symptoms (localised [e.g., cough] and non-localised [e.g., weight loss, lack of energy])	GP, CP, PHN, PN
		• Atypical or non-specific signs and symptoms (e.g., back pain, looking pale/unwell, and abnormal blood tests)	GP, PHN, PN
		• Fear caused by haemoptysis	GP, CP, PHN, PN
		• Smoking as a LC risk factor	GP, CP, PHN, PN
		• Recurrent prescriptions (e.g., cough medicine, steroids, and antibiotics)	GP, CP, PHN, PN
	Primary HCPs' role in patient referral	• Advising, encouraging, and reassuring patients	GP, CP, PHN, PN
		• Upholding and respecting patient autonomy	CP, PHN
		• Patient assessment	GP, PHN, PN
		• Recognising the seriousness of presentation	GP, PHN, PN
		• Being on high alert *"in the patient's home"*	PHN
		• *"Knowing"* the patient and the relationship of trust: a double-edged sword	GP, CP, PHN, PN
	Awareness and Use of Rapid Access Lung Clinics	• Varied service knowledge and use	GP, PN, CP, PHN
		• Greater awareness and use of other rapid access cancer clinics	GP, PN, CP, PHN
		• Experiences of using the Rapid Access Clinic e-referral system	GP, PN
		• Ease of access to computed tomography (CT)	GP, PN
		• Hesitance to refer patients to Rapid Access Lung Clinics (e.g., fear of abusing the system and fear of mentioning LC when symptoms are not definitive)	GP, PN
	Challenges faced by Primary HCPs during referral	• Limited role and scope of practice	GP, CP, PHN
		• Fear of scaring patients while emphasising the urgency of referral	GP, CP, PHN
		• Opportunistic referrals	PHN, PN
		• Pressures on HCPs and the healthcare system	GP, CP, PHN
		• Respiratory diseases not prioritised (e.g., Chronic Disease Management Programme and HCPs' continuous professional development)	GP, PHN, PN
		• HCP fatigue from repeated patient presentations	GP, CP, PHN

		• Late patient presentation and missed/delayed LC diagnosis	GP
	Post LC diagnosis follow-up and continuity of care	• Predominantly fatalistic accounts of patient outcomes	GP, PHN, PN
		• Providing care and support following LC diagnosis	GP, PHN
		• *"The missing link":* lack of integration/communication within the healthcare system and the resulting disruption in continuity of care	GP, CP, PHN, PN
		• Enhancing integration, communication, and continuity of care (e.g., interprofessional communication, strong relationship with GPs, and keeping records of consultations)	GP, CP, PHN, PN
Primary HCP perception of patient help-seeking for signs and symptoms of concern	*Perceived healthcare system-related barriers to help-seeking*	• High cost of a GP visit	GP, CP, PHN, PN
		• Waiting times to see a GP and time constraint	GP, CP, PHN, PN
		• Misdiagnosis, delayed diagnosis, and chest X-ray failure to detect LC	GP, PHN, PN
	Perceived patient- related barriers to help-seeking	• Embarrassment, guilt, and fear of judgement due to smoking history	GP, CP, PHN, PN
		• Emotional factors: cancer fear, denial, and anger	GP, CP, PHN, PN
		• Sociodemographic and geographic factors (e.g., educational level, drug use, homelessness, and being male and older)	GP, CP, PHN, PN
	Perceived impact of the COVID-19 pandemic on patient help-seeking	• Stigma relating to cough	CP, PN
		• Lack of in-person contact with HCPs	GP, CP, PN
		• COVID-19-related health issues prioritised	CP, PHN, PN
		• Fear of contracting or transmitting COVID-19 in healthcare settings	CP, PHN, PN
	Promoting help-seeking for symptoms of concern	• Patient education	GP, PN
		• Learning from COVID-19, accessibility of additional and free services for LC health checks/health screening and diagnosis	GP, CP, PHN, PN
		• The positive role of family, GP, and community supports	GP, CP, PHN, PN
Facilitating early presentation and referral	*Primary HCPs*	• Providing information on when to refer patients	GP
		• Delivering education by LC Specialists	PHN, PN
		• Delivering education and webinars by professional organisations	GP, CP, PHN
		• Creating a checklist or algorithm for the early detection of LC signs and symptoms	GP, PHN, PN
		• Embedding LC symptoms into pre-existing systems (e.g., Chronic Disease Management Programme)	GP, PHN, PN
		• Using patient stories to educate HCPs	CP, PHN
		• Adopting an interdisciplinary approach to education	CP
	Patients	• Focusing on LC prevention and early detection	PHN
		• Focusing on the cough rather than smoking	CP

		• Using learnings from previous health campaigns (e.g., stroke, cervical, skin, and male cancers)	GP, CP, PHN, PN
		• Offering free and accessible lung health check/ lung screening services	CP, PHN, PN
Perspectives on previous LC awareness campaigns	*Perspectives on previous patient-focussed campaigns (Be Clear on Cancer and Detect Cancer Early)*	• Risk of information overload in both campaigns	GP, CP, PHN, PN
		• Mixed views on the visuals of both campaigns	GP, CP, PHN, PN
		• The risks and benefits of using patient, doctor, and celebrity profiles in both campaigns	GP, CP, PHN, PN
		• The benefits of the catchy slogan and strapline of the “Detect Cancer Early” campaign	GP, CP, PHN, PN
		• Practicality and usability of leaflets for patients queried	GP, CP, PHN, PN
	Perspectives on a HCP-focused infographic (Think Lung)	• Mixed views on the information provided	GP, CP, PHN, PN
		• Easy to read	GP, CP, PHN, PN
		• Information felt engineered to fit the acronyms	GP, CP, PHN, PN
		• Queries around who was the target audience	GP, CP, PHN, PN

CP=Community Pharmacist; GP=General Practitioner; HCP=Healthcare Professional; LC=Lung Cancer; PHN=Public Health Nurse; PN=Practice Nurse.

3.1.1 Theme 1: Primary HCPs' experiences and accounts of patient referral for LC

Triggers for referral

Triggers for referral cited by participants included typical LC signs and symptoms – these included respiratory symptoms, such as persistent or changing cough, and non-respiratory symptoms, such as weight loss and lack of energy - and atypical/non-specific signs and symptoms such as back pain, looking pale/unwell and abnormal blood tests. Haemoptysis was cited as a particular alarm symptom.

GPs and CPs highlighted repeated prescriptions for antibiotics and steroids, or frequent requests for cough bottles, as red flags warranting referral to a GP or for chest x-ray/secondary care.

Smoking was a well-recognised risk factor, with some participants voicing surprise at the diagnosis of LC in non-smokers.

There were varying levels of awareness of the potential for a lung cancer diagnosis in patients with atypical/non-specific signs and symptoms.

Primary HCP role in patient referral

Perceived role varied by category of Primary HCP (GP, PN, CP, PHN) and scope of practice.

Overall, it was felt that Primary HCPs' role was to advise, encourage and reassure patients, and assess them appropriately while upholding and respecting patient autonomy.

Knowing the patient well, an established trusting relationship, and being able to assess patients in their own homes were felt to aid the referral process.

Awareness and use of RALCs

GPs and PNs were mostly aware of RALCs due to their direct dealings with them

GPs, who are the primary source of referrals to the Rapid Access Lung Clinics (RALCs), provided rich insights regarding RALCs. Access to appropriate work-up, including CT, and specialist opinion was cited as a positive. However, there was some lack of clarity regarding referral criteria and some participants felt that RALC referral criteria were very stringent, stating referral criteria is too narrow for the broad symptom signature of lung cancer, GPs seemed hesitant to refer patients to RALCs unless they were sure that signs and symptoms were consistent. Some GPs appeared unaware of the

existence of lung cancer referral guidelines and not all GPs were aware that e-referral to RALC was available

Moreover, it seemed that HCPs, including GPs, were more aware of other rapid access cancer clinics (e.g., prostate, breast, and pigmented lesion) compared to RALCs.

A lack of knowledge of referral pathways (i.e., RALCs) was cited as an issue for non-GP HCP, who wanted to better understand the pathways patients were likely to follow once they had been advised to consult their GP.

Challenges/barriers faced by HCPs during referral

Challenges faced by Primary HCPs included reluctance to mention a possible diagnosis of LC, fear of 'misdiagnosing' (i.e. mentioning a possible LC diagnosis when the cause of the symptoms may be a benign condition) and the need to emphasise the urgency of the referral without frightening the patient.

The varying scope of practice of the different Primary HCP groups informed their perception of their role in early diagnosis of lung cancer. The role of the GP in discussing potential diagnoses, and as the gatekeeper of secondary care, was recognised but were hesitant to use the term 'lung cancer' with patients, especially when a diagnosis had not been confirmed. Other primary HCP groups generally feeling that it was not within their scope of practice to explicitly mention potential diagnoses, such as cancer.

The opportunistic nature of referrals was highlighted as challenging for some HCP groups, including PHNs, who may recognise signs/symptoms of cancer in the course of their interactions with patients, but lack a formal mechanism for referral of such patients to the GP.

Participants expressed their frustration around siloed provision of care and the lack of integration/communication in the healthcare system, impacting continuity of care for patients with suspected LC. Non-GP HCPs reported that, having advised a patient to consult their GP, there was no formal mechanism for them to learn of the outcome of that referral.

Some HCPs reported fatigue relating to repeat patient presentations with respiratory complaints in the perceived absence of efforts to achieve smoking cessation.

Additionally, primary HCPs reported fatalistic accounts of patient outcomes with LC, with several accounts of patients dying quickly after diagnosis.

Perceived pressure on the healthcare system added to the complexity of the referral process. Respiratory conditions in general, and LC in particular, were percieved not be prioritised at health system level.

3.1.2 Theme 2: Primary HCP perception of patient help-seeking barriers

Perceived system barriers to timely patient help seeking included the financial cost of a GP visit. However, some participants pointed out that high risk cohorts for lung cancer include people who are eligible for the General Medical Scheme (GMS) and, as such, financial cost should not present a significant barrier to access for these patients.

Additional barriers cited included long waiting times to access primary care, geographic distribution of services, and sociodemographic factors (e.g., being male, older, and living in rural areas).

Patient embarrassment, guilt, and fear of judgement due to smoking history were identified as barriers to help-seeking, as were emotional factors, such as fear, denial and anger associated with a potential cancer diagnosis.

The COVID-19 pandemic presented unique additional barriers to timely patient help-seeking, including stigma relating to cough, lack of in-person contact with HCPs, the pausing and reconfiguration of some services, perceived prioritisation of COVID-19-related care, and patient fear of contracting or transmitting COVID-19 in a healthcare setting.

3.1.3 Theme 3: Facilitating early presentation and referral

Promoting early LC recognition and referral by primary HCPs

Participants felt that appropriate education for HCPs would promote timelier recognition and referral of patients with suspected LC. It was suggested that interdisciplinary education sessions could be provided by LC specialists and professional organisations. Webinars and HSeLanD were cited as potential mechanisms for delivery of education. The option of using patient stories and testimonials to educate HCPs was discussed.

HCPs reported a need for further education regarding existing LC referral pathways and guidelines, and clear information on the signs/symptoms that warrant referral. The options of creating simple new referral checklists or algorithms was discussed, as was the option of embedding such resources into pre-existing systems/programmes, e.g. the Chronic Disease Management Programme.

Achieving enhanced integration and continuity of care across the services was also highlighted as a potential mechanism for enhancing early diagnosis of LC.

Figure 1 provides a summary of Primary HCP recommendations regarding strategies to promote early recognition and referral of patients with suspected LC

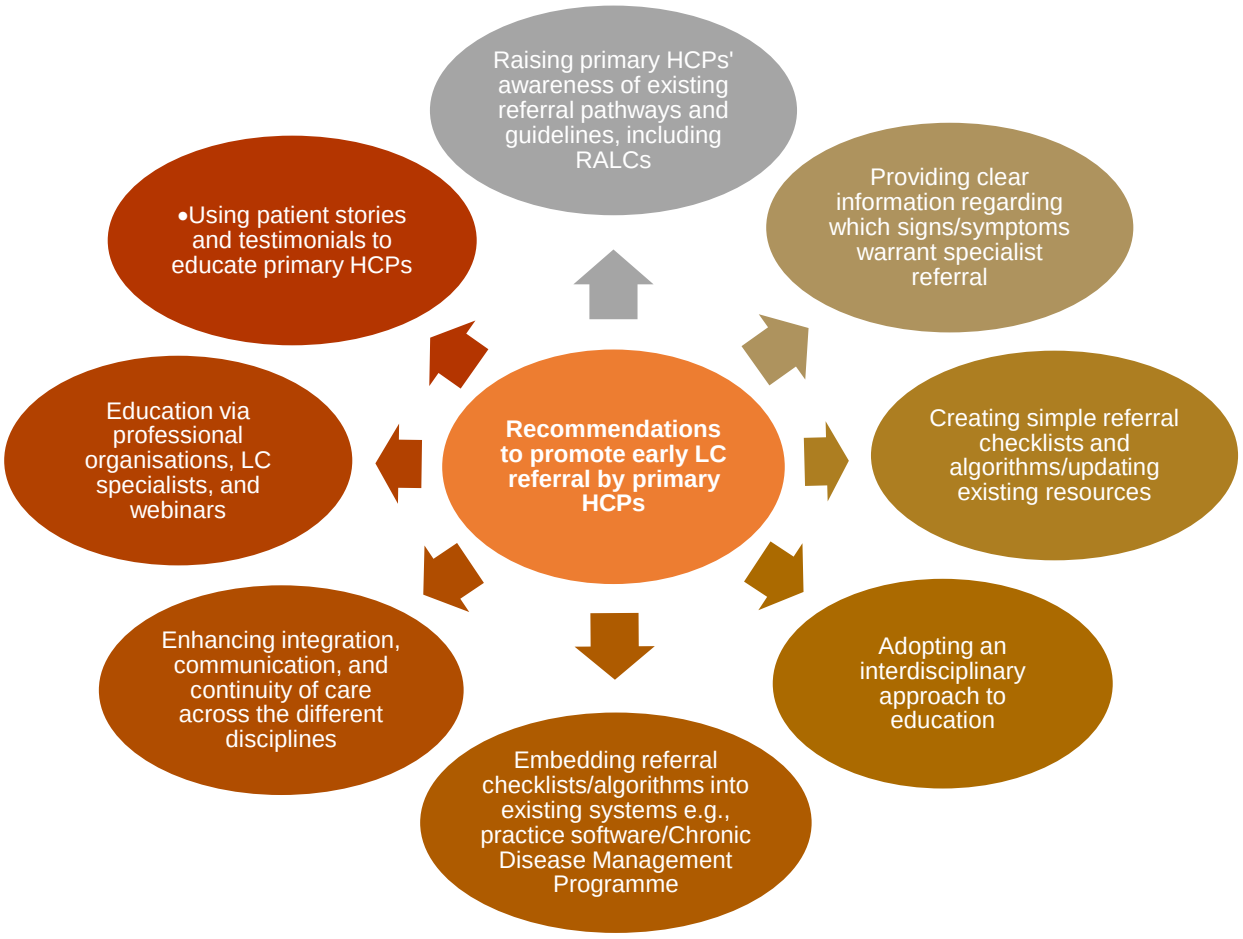

Figure 1. Summary of recommendations to promote early referral by Primary HCPs.

Potential strategies to promote early patient help-seeking

Proposed mechanisms to promote timely patient help-seeking included patient education regarding LC signs and symptoms, the importance of early diagnosis, and services available (e.g. rapid access pathway - RALCs). Additional strategies included leveraging the role of family, GP and community supports. The potential role of free and accessible 'lung health checks'/screening services was also discussed.

With regard to education and awareness campaigns, participants suggested adopting a targeted approach (e.g. targeting males and socioeconomically deprived cohorts) and focusing on the symptoms (e.g. cough) rather than the behaviour (e.g. smoking). They suggested learning from the approach taken in previous campaigns, e.g. the 'F.A.S.T' stroke awareness campaign, with it's clear algorithm and focused messaging.

Figure 2 provides a summary of Primary HCP recommendations regarding initiatives to promote early patient help-seeking for symptoms of concern.

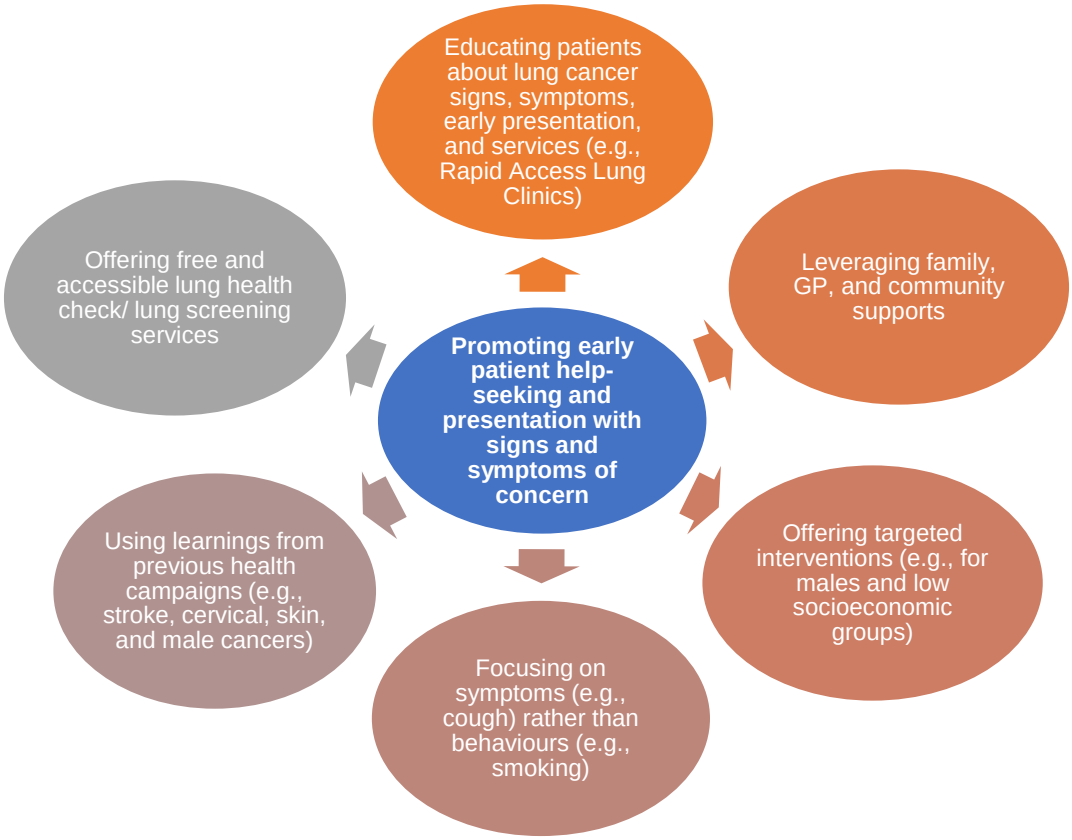

Figure 2. Summary of Primary HCP recommendations to promote early patient help-seeking for symptoms of concern.

3.1.4 HCPs perspectives on previous LC awareness campaigns

Participants were shown a two-page HCP-focussed infographic titled "Think Lung" developed by the NCCP to educate HCP on the recognition of patients at increased risk of LC, including signs and symptoms (Kennedy et al., 2021; HSE, 2021b) (Appendix B). Response to this resource varied by

HCP group - PHNs and PNs believed that the infographic was helpful and usable, while CPs and GPs were critical of the infographic and discussed how the information felt engineered to fit the acronyms used (i.e., LUNG and CANCER).

Participants were shown posters and leaflets from two National Health Service (NHS) patient-focussed LC awareness campaigns in England (Be Clear on Cancer) and NHS Scotland (Get Checked Early) (Appendix B). While the NHS English campaign was perceived as informative and factual, the Scottish campaign was favoured by most participants due to the colours used, the use of a celebrity (i.e., Sir Alex Ferguson), and the positive slogan “Don’t Get Scared Get Checked.” Participants discussed varying aspects of both NHS campaigns, including the information provided; risk of information overload; use of visuals; use of patients, doctors, and celebrities to deliver information; effectiveness of catchy slogans and straplines; and the practicality and utility of leaflets for patient education/awareness-raising.

5. Conclusion

This research study explores barriers and facilitators to referral of people with signs and symptoms indicative of LC experienced by primary HCPs in Ireland, and potential strategies to empower HCPs to recognise and refer these people in a timely manner.

Primary HCP education, including in relation to existing referral pathways and signs/symptoms that warrant referral, is required. Education should include use of positive patient testimonials, and should be in the form of communications from professional organisations, webinars, interdisciplinary team meetings and educational interventions delivered by LC specialists. The potential for new, simple referral checklists and algorithms was discussed, as was the option of embedding such resources in pre-existing systems such as Ireland’s GP Chronic Disease Management Programme. Adopting a non-judgemental approach towards smokers and focusing on the symptom (e.g., cough) rather than the behaviour (i.e., smoking) would attenuate stigma and enable patients to better engage with Primary HCPs. System level enablers of earlier diagnosis identified by primary HCP include enhanced integration and continuity of care.

Responsibility for referral ultimately remains with GPs, who are the gatekeepers to secondary care in Ireland. Other Primary HCPs can play an important role in early diagnosis of cancer through advising and encouraging patients with symptoms suggestive of cancer to consult their GPs in a timely manner. Interventions targeting Primary HCPs should be tailored to meet the needs and scope of practice of each Primary HCP group.

This study also provides valuable insights from Primary HCPs regarding perceived barriers to patient help-seeking for signs and symptoms suggestive of LC. Some participants believed that the high cost of a GP visit for those without a medical/GP visit card, perceived long waiting times to access care, and previous bad experiences with the healthcare system would deter patients from seeking help for symptoms of concern. Perceived patient-related barriers to help-seeking also included negative emotions that may be triggered by a potential cancer diagnosis, in addition to feelings of embarrassment and guilt associated with smoking. Certain socio-demographic factors were also perceived to impede help-seeking, including drug use, homelessness, living in rural areas, and being male and older. While virtual GP consultations were perceived as practical during the COVID-19 pandemic, some participants expressed concerns around a lack of ability to assess the patient in person, and associated risk of missed cancer diagnoses. Participants recommended several strategies to facilitate timely patient help-seeking for symptoms of concern, including targeted educational campaigns/interventions focussing on symptoms (e.g., cough) rather than behaviours (e.g., smoking), free and accessible lung health checks/screening, and leveraging patients' support networks (family, community etc.).

Appendices

Appendix A: Study Participant Characteristics

A total of 36 HCPs participated in the study (10 CPs, 10 PHNs, 8 GPs, and 8 PNs). The majority were female (n=29, 80.5%) and held either a bachelor's (n=11, 30.6%) or master's degree (n=11, 30.6%). On average, participants had 21.67 years of experience (±10.53) and spent 12.3 years (±8.8) in their current role. Half of the participants (n=18, 50%) worked in county Cork. The remaining participants worked in 10 other counties. More than half of the participants (n=22, 61.1%) reported working in urban areas. The full participant characteristics are presented in Table 2.

Table 2. Study participant characteristics (n=36)

Characteristic		n (%)
Age (years)	21–30 years	5 (13.9)
	31–40 years	5 (13.9)
	41–50 years	13 (36.1)
	51–60 years	11 (30.6)
	>60 years	2 (5.6)
Gender	Female	29 (80.5)
	Male	7 (19.5)
Highest Level of Education	Diploma	1 (2.8)
	Higher/postgraduate diploma	6 (8.3)
	Bachelor's degree	11 (30.6)
	Master's degree	11 (30.6)
	PhD/Doctorate	3 (8.3)
	Other	4 (11.1)
Years of experience since primary qualification	Range: 1-36 Mean: 21.67 (±10.53)	
Current role	Community Pharmacist	10 (27.8)
	Public Health Nurse	10 (27.8)
	Practice Nurse	8 (22)
	General Practitioner *(Qualified)*	7 (19.4)
	General Practitioner *(Trainee)*	1 (0.3)
Time in current professional role (years)	Range: 1-26 Mean: 12.3 (±8.8)	
County of work	Cork	18 (50)
	Mayo	5 (13.9)
	Dublin	4 (11.1)
	Waterford	2 (5.6)
	Donegal	1 (2.8)
	Galway	1 (2.8)
	Kerry	1 (2.8)
	Limerick	1 (2.8)

	Louth	1 (2.8)
	Tipperary	1 (2.8)
	Wexford	1 (2.8)
Place of work	Urban	22 (61.1)
	Rural	14 (38.9)

Appendix B Perspectives and recommendations on early detection of lung cancer public campaigns

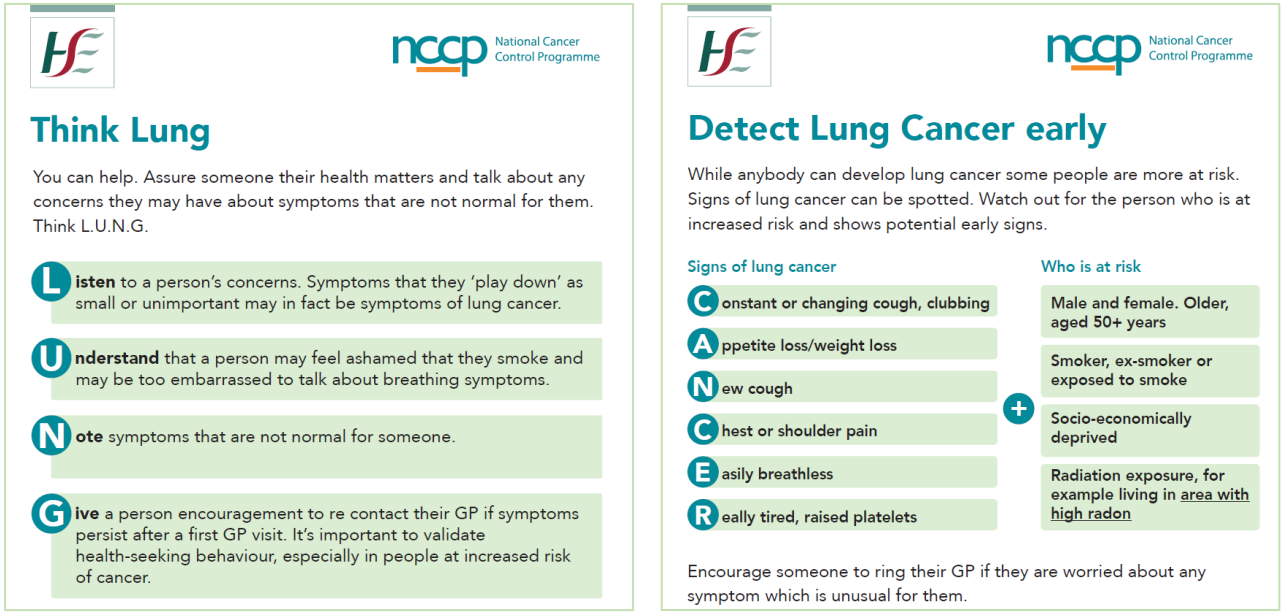

Figure 3: NCCP Think Lung Infographics

Table 3. HCPs perspectives and recommendations relating to the NCCP "Think Lung" infographic.

Positive aspects	• Contains *"salient"* points such as understanding the patient and triggers regarding what to look for	GP, PN
	• Simple, clear, and non-threatening	PN
	• Contains sufficient information	PHN
	• Presents new information	PHN
	• Easy to read and inviting	GP2
	• Well-pitched for HCPs	PHN
	• Colours and formatting favoured	PHN
Areas for improvement	• Generic and basic	CP
	• Does not present new information	CP
	• Raised platelets as signs of LC queried	GP
	• Socio-economic deprivation as a risk factor for LC queried	PN
	• Acronyms LUNG and CANCER felt *"generic and engineered"* to fit the information	GP, CP
	• Uncertainty regarding the target audience	GP, CP
Recommendations	• Need for more details	PN
	• Need for information on cough duration	GP
	• Include occupational hazards as risk factors	PN
	• Need for information on referral process rather than symptoms	CP
	• Potentially more suitable to educate pharmacy counter staff	CP
	• Using the infographic during team meetings to keep information fresh in people's minds	PHN
	• Electronic rather than paper format favoured	GP, PHN

CP=Community Pharmacist; GP=General Practitioner; HCP=Healthcare Professional; LC=Lung Cancer; PHN=Public Health Nurse; PN=Practice Nurse.

Figure 4: NHS England Be Clear on Cancer Poster

Table 4: HCPs Perspectives and recommendations relating to the "Be Clear on Cancer" campaign

Positive aspects	• Positive message: *"GP wants to see you"*	GP
	• Outlining important symptoms	GP
	• Positive emphasis on what can be done/ early detection	CP
	• Impactful as poster campaign	CP
	• Big and clear	PHN
	• Calm colour (green) and legible	PHN
	• Doctors look benign, approachable, human, and not scary	CP
	• Use of well-known TV doctor	GP
	• Use of real relatable patient stories	CP
	• Soft, gentle, catchy, and clear slogan	GP, PHN
	• Useful to educate patients	CP
	• *"Leaflet broaches the possibility of cancer and facilitates a tough conversation"*	CP
Areas for improvement	• Very long leaflet running the risk of *"information overload"*	GP, PN, PHN
	• Leaflets are *"useless and do not get picked up and read"*	PHN, CP
	• Would potentially scare patients	PN, PHN
	• Signposting to CPs omitted	CP
	• Lacking in imagery and not vibrant	PN
	• Doctors in the campaign looked angry	GP
	• Use of doctors made the campaign sterile	GP
	• Posters get glanced at once and then forgotten	PHN
	• Only white patients and doctors featured	PHN
	• Targeted more towards HCPs	CP
	• Wallet/ pocket card versions impractical/ get lost	PHN
Recommendations	• Adding information on the red flags for LC	GP
	• Signposting to CPs as somebody to speak to	CP
	• Use of more obvious and dramatic visuals, colours, and images	GP, PN
	• Gender balance and inclusivity needed	PHN
	• One-page leaflet would be more user-friendly	PN
	• Billboard campaign would draw the attention	PHN

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Figure 5: NHS Scotland Detect cancer early poster

Table 5: HCPs perspectives and recommendations relating to the "Get Checked Early" campaign

Positive aspects	• *"Less clinical"*	PHN
	• *"Less shouty"*	GP
	• *"Positive and upbeat"*	PN
	• Positive messages: *"lung cancer is not the death sentence that it used to be," "lung cancer doesn't have to mean game over"*	GP, PN
	• Snappy and positive slogan: *"don't get scared get checked"*	CP, PHN, PN
	• Important information provided	CP
	• *"Draws your attention…eye catching and identifiable"*	GP
	• Slicker and looks like a magazine unlike other leaflets	PHN
	• Use of Sir Alex Ferguson: worthwhile, generates conversation, recognisable, friendly, trustworthy, relatable, inviting	GP, CP, PHN, PN
	• Length of leaflet less problematic than "Be Clear on Cancer"	PN
	• *"Leaflet broaches the possibility of cancer and facilitates a tough conversation"*	CP
Areas for improvement	• Too much text in the leaflet	PHN
	• Leaflets are *"useless and do not get picked up and read"*	PHN, CP
	• Delivery not strong enough	CP
	• Signposting to Pharmacists omitted	CP
	• Imagery of tea and toast as reminder of hospitals	CP
	• Using a celebrity runs the risk of the person not being recognised thus reducing campaign credibility	CP
	• Celebrity may not be liked by some. Using them can be *"divisive"*	PHN
	• Use of *"extra time"* and *"game over"* terminology perceived as *"fatalistic"*	GP, PHN, PN
Recommendations	• Need for information on frequent cough medicine use	GP
	• Signposting to Pharmacists as somebody to speak to	CP
	• One-page leaflet would be more user-friendly	PN
	• Billboard campaign would draw the attention	PHN

CP=Community Pharmacist; GP=General Practitioner; LC=Lung Cancer; PHN=Public Health Nurse; PN=Practice Nurse.

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