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## INTRODUCTION

Lung cancer is now India's #1 cause of cancer death (10.9% of all cancer deaths) despite ranking only 3rd by incidence (7.2%) — GLOBOCAN 2024.

- This mismatch reflects late-stage presentation
- 75–95% of Indian NSCLC and up to 85% of SCLC present with locally advanced/metastatic disease.
- Delay at Indian centres is well documented — 101–126 days symptom-to-treatment (Vashistha 2019); AIIMS Delhi's 2022 series (n=410) found most delay accrues before specialist referral.
- Reported contributors — TB misdiagnosis, low awareness, stigma, alternate-medicine use, limited peripheral expertise — come mainly from UK qualitative work (Corner 2006; Tod 2008);
- No in-depth account exists from India/South Asia despite its disproportionate burden (Nepal IARC 2025: 25% wait >6 months for treatment).

### Objectives

- Identify factors associated with delay in lung cancer diagnosis
- Estimate the duration of delay at a tertiary Indian centre
- Explore patient experience in depth via qualitative interviews — the first such account from this region

## METHODS

■ **Design:** Prospective, mixed-methods descriptive study.

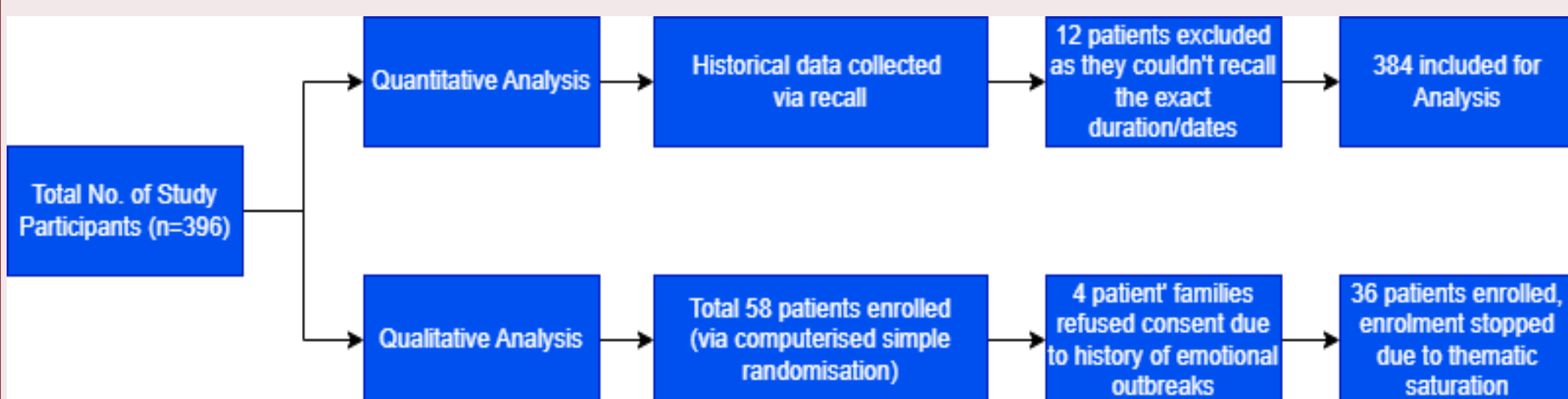
■ **Setting & Population:** Pulmonary / Respiratory Medicine OPD & IPD, National Institute of Tuberculosis and Respiratory Diseases (NITRD), New Delhi — a national tertiary referral centre; all newly diagnosed lung cancer patients enrolled.

■ **Quantitative Arm:** Structured interview covering demographics, smoking status, comorbidities, socioeconomic/literacy status, distance to centre, alternate-medicine use, and the full delay pathway from symptom onset to treatment initiation (see diagram below).

■ **Qualitative Arm:** In-depth audiotaped interviews (30–60 min) in a randomly selected subset of 40–80 patients or until thematic saturation; transcribed verbatim and thematically coded.

■ **Analysis:** Quantitative: SPSS — mean/95% CI for delay (overall & by subgroup), forest plots for categorical comparisons, ANCOVA adjusting for confounders ( $\alpha=0.05$ , Bonferroni-adjusted). Qualitative: NVivo thematic analysis.

■ **Ethics:** Written informed consent from all participants; confidentiality maintained by PI/Co-PI; no conflicts of interest; data retained  $\geq 5$  years per institutional policy.



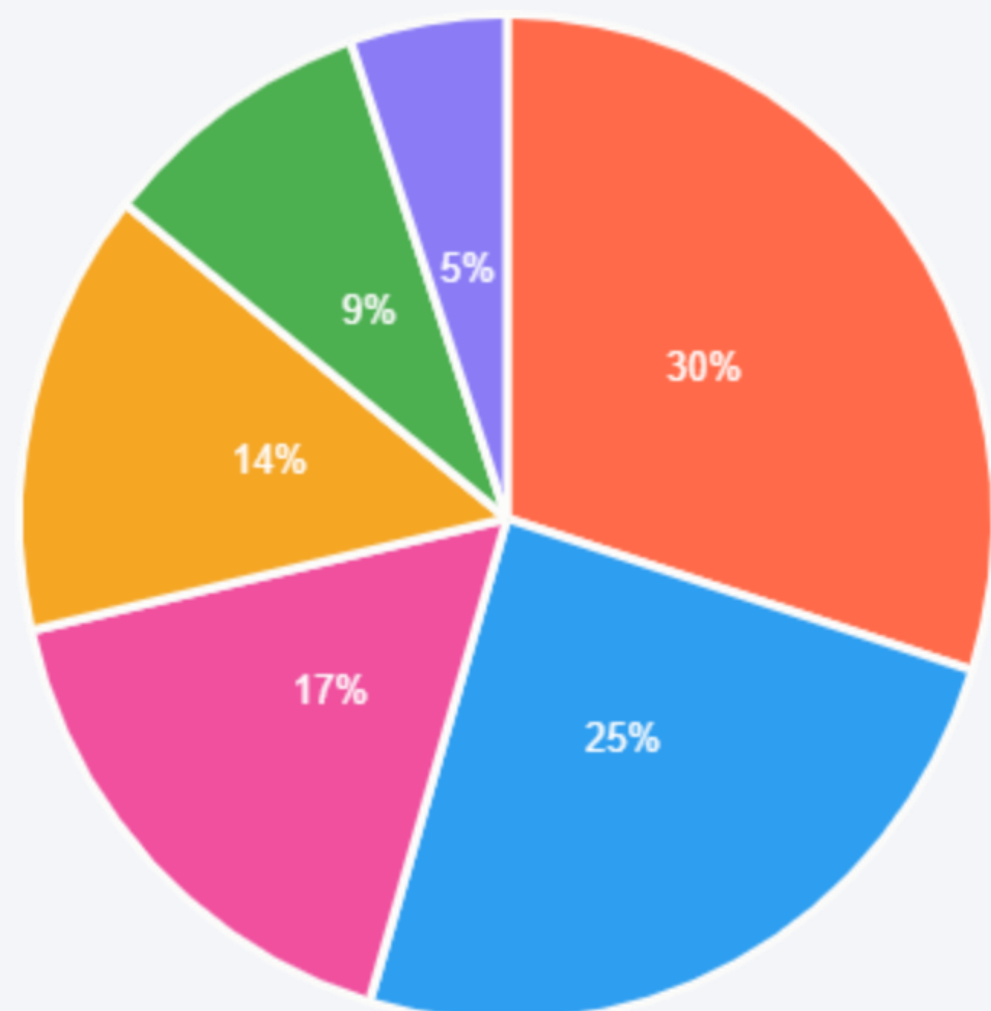
## DISCUSSION AND CONCLUSION

### Actionable Take Away Message

- Structured, time-bound cancer care pathways already exist internationally —UK's 28-day Faster Diagnosis and Sweden's Standardiserat vårdförlopp (SVF) (30–40 days)
- No equivalent standardized time-to-diagnosis or time-to-treatment benchmark currently exists for lung cancer in India or South Asia
- National and regional cancer societies — including in LMIC settings — should adopt defined, auditable time-to-diagnosis and time-to-treatment targets.

### Future Direction for Research

- Targeted Community- and primary-care-level education on lung cancer symptoms and its confounders and mimics.
- Interventions addressing stigma around a cancer diagnosis and around invasive procedures (e.g., biopsy) and treatment, at both patient and community level.
- Feasibility research on implementing standardized, time-bound referral-to-treatment pathways (adapted from NHS/Swedish models) within resource-limited health systems.



## REFERENCES & ACKNOWLEDGEMENTS

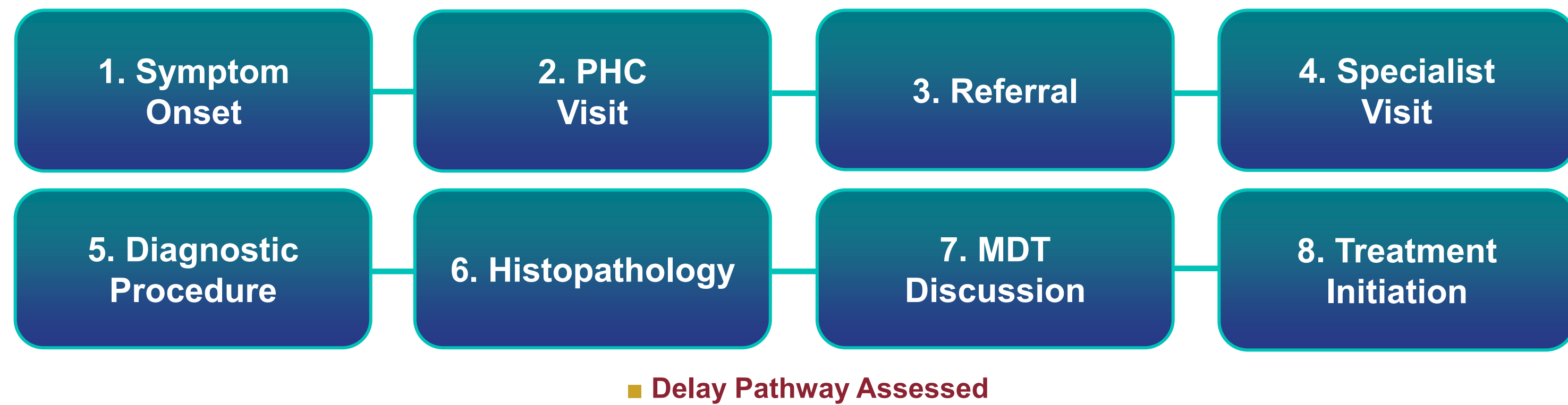
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### Artificial Intelligence (AI) Use Disclaimer

- AI Tool(s) Used:** Claude (Anthropic) assisted with drafting/formatting of this poster's content. All data, interpretation, and conclusions were reviewed and approved by the authors.

## RESULTS

### QUANTITATIVE FINDINGS



■ Delay Pathway Assessed

384

PATIENTS ENROLLED (N)

77 days

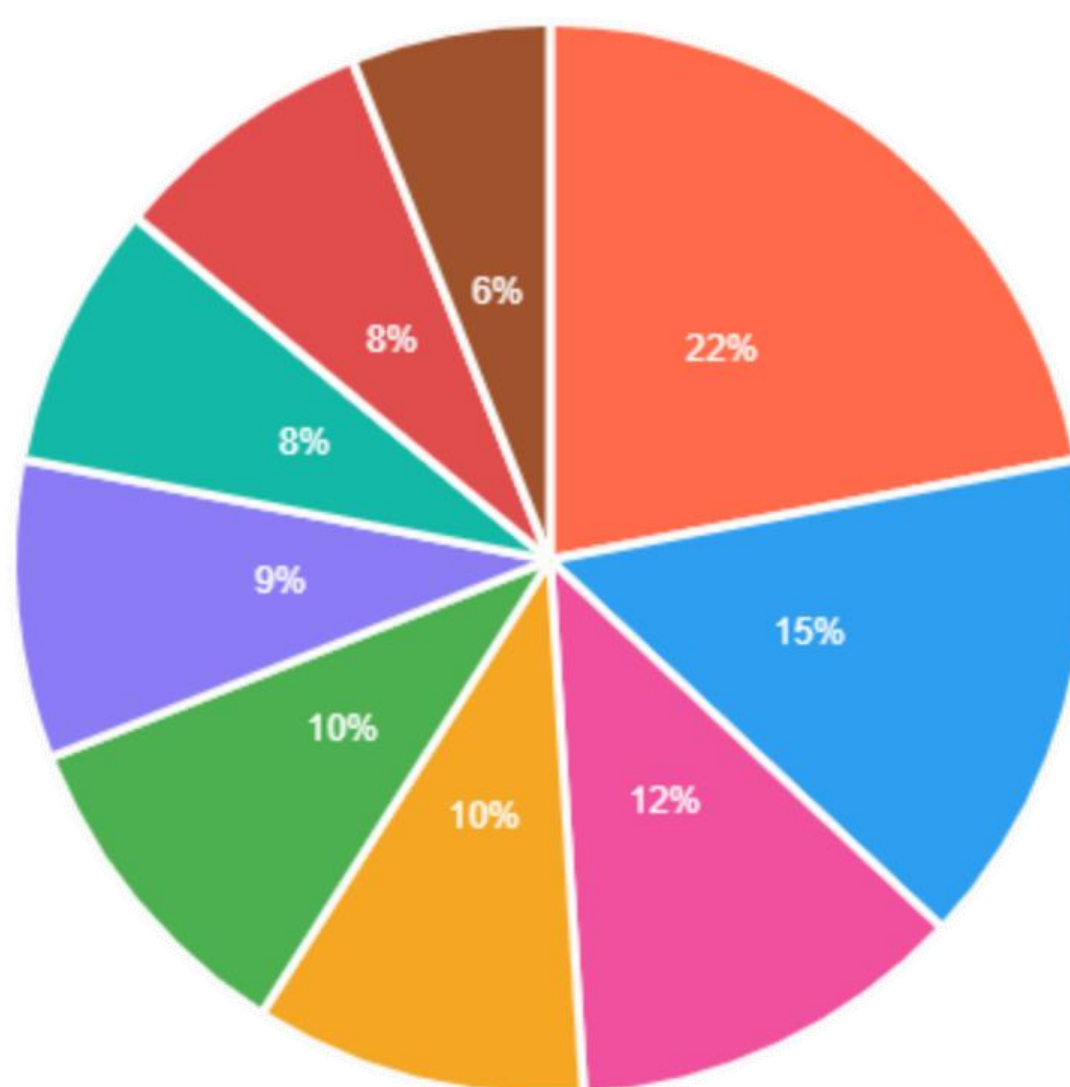
MEDIAN DELAY, DAYS (IQR)

1. Mistreatment of the ailment  
2. Delay due to Repeat Procedures

LEADING ASSOCIATED FACTORS

| Study                                | Design / Setting           | N     | Symptom→Treatment, days |
|--------------------------------------|----------------------------|-------|-------------------------|
| Vashistha et al. 2019, Delhi         | Retrospective              | 1,370 | 126 [85–197]            |
| Garg et al. 2022, AIIMS Delhi        | Prospective                | 410   | ~127*                   |
| DECAN / IARC 2025, Nepal (6 cancers) | Prospective cohort         | 1,182 | 110 [63–204]            |
| NITRD, New Delhi — this study        | Prospective, mixed-methods | 384   | 77 days                 |

Reasons for diagnostic delay



|                          |     |                          |     |
|--------------------------|-----|--------------------------|-----|
| Lack of information      | 22% | Financial capability     | 15% |
| Adequate counselling     | 12% | Alt. systems of medicine | 10% |
| Fear of cancer diagnosis | 10% | Routine OTC meds         | 9%  |
| Treatment with TB        | 8%  | Stigma / fear of spread  | 8%  |
| Lack of family support   | 6%  |                          |     |

### QUALITATIVE FINDINGS

n = 36 in-depth interviews — thematic saturation achieved

#### Illness Perception & Symptom Interpretation

- Patients **normalize severe symptoms** by attributing them to benign, everyday causes like weather, wind, or exertion.
- Highly disruptive symptoms like tiredness or chest pain are commonly dismissed as **normal signs of getting older**.
- Pre-existing chronic conditions (**co-morbidities**) complicate symptom recognition by masking new physical changes.
- Patients interpret progressive physical changes as **disconnected, isolated events** rather than a single illness.
- Lung cancer **lacks tangible indicators** like a lump, preventing easy detection through physical self-examination.

**Key Finding:** Familiarity masks deadly symptoms

#### Pathway to Care & Reasons for Delay

- The period before seeking medical help represents the **longest delay interval** in the diagnostic process.
- Fear of a cancer diagnosis and **fatalistic beliefs** actively prevent patients from reporting symptoms.
- Anxiety about **wasting the doctor's time** acts as a significant barrier to seeking primary care.
- Smokers often feel **undeserving and unworthy** of active medical treatment, causing hesitation.
- Communities have **low healthcare utilization patterns** and place high value on cultural stoicism.

**Key Finding:** Patient delay is universal.

#### Family & Social Response

- Family members serve as the **most critical facilitators** in helping patients overcome pre-diagnostic delay.
- Relatives are essential in **noticing gradual physical changes** that patients routinely minimize or ignore.
- Family members often bypass patient passivity by **directly booking GP appointments**.
- Relatives step in to **actively advocate and arbitrate** if they feel symptoms are being ignored.
- Social circles can **reinforce benign explanations**, particularly by assuming non-smokers are not at risk.

**Key Finding:** Families overcome patient delay.

#### Emotional Impact of Diagnosis

- The prospect of diagnosis triggers **intense emotional dread** and severe anxiety regarding death.
- Patients suffer from **immense moral shame and stigma** due to the public association with smoking.
- Public health campaigns focusing on death reinforce **feelings of fatalistic despair**.
- The fear of being blamed or stigmatized causes some patients to **conceal their diagnosis**.
- Negative clinical testing experiences make patients **feel judged and alienated** by providers.

**Key Finding:** Stigma breeds moral shame.