Patient, Provider, and System Level Barriers and Proposed Solutions Tip Sheet

Reference the below tables to find common barriers and proposed solutions for lung cancer screening at the patient, provider, and system levels.

**Patient Barriers and Proposed Solutions**

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| **Barrier** | **Proposed Solutions** |
| Lack of awareness and familiarity of eligibility1, 2*Individuals that are potentially eligible for lung cancer screening are often not aware that this tool exists and that being screened may be beneficial for their health.*  | * Patient navigators can provide outreach to potentially eligible patients and the community to offer education about lung cancer screening.
* Frame lung cancer screening as a normal preventive health care goal.
* Be prepared with brochures or other materials that will allow interested individuals and parties to gain additional information.
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| Patient perceptions1, 2*Eligible individuals may not want to be screened because of fear of a cancer diagnosis, fear of further stigmatization, or worry about radiation exposure.* | * Outreach to potentially eligible individuals should focus on the benefit of early detection and survival. Avoid stigmatizing language and shaming about cigarette smoking!
* Work with providers in your organization to convey accurate information about lung cancer screening to patients.
* Reassure that exposure to low levels of radiation does not cause any immediate health risks but may slightly contribute to one’s overall cancer risk. The dose of radiation a person receives from a low dose CT scan is about the same amount receiving from the environment over one year.
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| Concerns about costs1, 2*Screening candidates are often concerned about the potential costs of screening, including healthcare cost and travel costs or time off from work.*  | * Offer education about how lung cancer screening is a preventive service under the Affordable Care Act and eligible patients should not have associated co-pays for the shared decision-making visit and the low dose CT scan.
* Navigators can help uninsured individuals obtain insurance or Medicaid coverage if appropriate.
* The cost of needed pulmonary nodule or incidental finding follow-up may still be problematic. Providers may need to consider only ordering additional imaging and/ or procedures that are absolutely necessary.
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| Inability to access screening1, 2*Distance to the screening facility, lack of public transportation, cost of parking, and language barriers may all be problems patients face when trying to access a screening CT.* | * Be familiar with cab vouchers, courtesy shuttles, and ride-sharing programs in your area.
* Know which screening facilities close to you offer extended radiology facility hours for evening and weekend options.
* Offer communications/ educational materials in other languages if possible.
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**Provider barriers and proposed solutions**

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| **Barrier** | **Proposed Solutions** |
| Unfamiliarity with guidelines and evidence1, 2*As a new type of cancer screening, primary care providers may be unaware or uneducated about the guidelines, eligibility, the evidence base, and the policy coverage of lung cancer screening.* | * + - * Healthcare organizations and providers can seek out educational opportunities in several modalities (Grand Rounds, continuing education in-person or online, etc) to appeal to different learning styles.
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| Challenges identifying eligible patients1, 2*Cigarette smoking history is often not captured correctly or accurately in the electronic medical record, making it harder to find potentially eligible individuals than other cancer screenings.* | * + - * Look for ways to enhance and track smoking history within and outside the electronic medical record.
			* Use navigators or coordinators to provide in-reach and outreach to verify cigarette smoking history and find eligible individuals that are interested in discussing screening with their provider.
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| Difficulty conducting shared decision-making1, 2*Primary care providers have limited time with patients and often need to discuss competing health concerns in the time they do have with patients. This may result in insufficient time to properly engage in shared decision-making and discuss lung cancer screening.* | * + - * If patient is eligible and interested in lung cancer screening providers can consider making a separate appointment devoting to shared decision-making.
				+ Give consideration to billing Medicare (if applicable) for the shared decision-making visit.
			* Use navigators to provide patients with educational materials prior to shared decision-making so candidates can come prepared to discuss and engage with their preferences during the conversation.
			* Provide providers with continuing education on how to conduct proper shared decision-making and engage patients in their health care decisions.
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| Unfamiliarity with managing abnormal and incidental findings1,2 *Many primary care providers are unfamiliar with pulmonary nodule management and are not sure they can appropriately track and manager abnormal and incidental findings.* | * Lung cancer screening CT scans should follow structured reporting and follow-up recommendations using Lung-RADS. These recommendations follow standardized pulmonary nodule algorithms meant to mitigate associated patient risk.
* Utilize navigators to help with tracking needed follow-up timing and procedures and help patients with make and reduce appointment barriers.
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**Healthcare system barriers and possible solutions**

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| **Barrier** | **Proposed Solutions** |
| Lack of support from leadership2*As a new type of cancer screening, organizational leadership may be unaware or uneducated about the guidelines, eligibility, the evidence base, and the policy coverage of lung cancer screening.* | * Healthcare organizations and providers can seek out educational opportunities in several modalities (Grand Rounds, continuing education in-person or online, etc) to appeal to different learning styles.
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| Limited or competing demands for resources and complex implementation2*Organizations may lack appropriate personnel and equipment to effectively offer lung cancer screening.* | * Consider if there are organized screening programs in your area where you can refer interested individuals.
* Develop business relationships with imaging facilities and pulmonary nodule management programs in your area that have the necessary personnel, equipment, and expertise.
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**References**

1) Wang GX, Baggett TP, Pandharipande PV, et al. Barriers to Lung Cancer Screening Engagement from the Patient and Provider Perspective. *Radiology*. 2019 Feb;290(2):278-287.

2) Carter-Harris L and Gould MK. Multilevel Barriers to the Successful Implementation of Lung Cancer Screening: Why Does It Have to Be So Hard? Ann Am Thorac Soc. 2017 Aug;14(8):1261-1265.