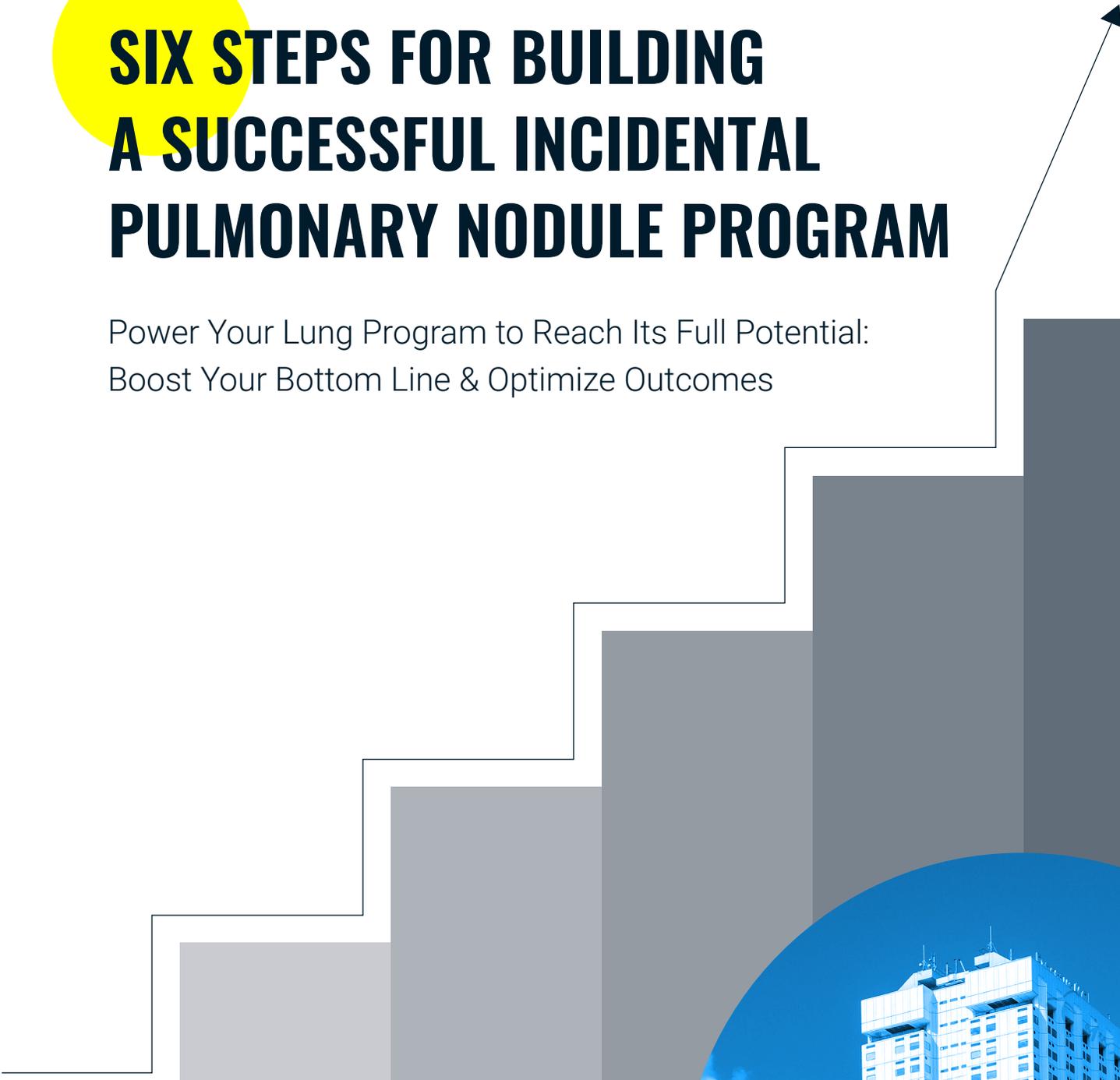


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SIX STEPS FOR BUILDING A SUCCESSFUL INCIDENTAL PULMONARY NODULE PROGRAM

Power Your Lung Program to Reach Its Full Potential:
Boost Your Bottom Line & Optimize Outcomes

A white line graphic of a staircase with five steps, ascending from the bottom left towards the top right. The steps are solid grey blocks. An arrow points from the top right of the staircase towards the top right corner of the page.

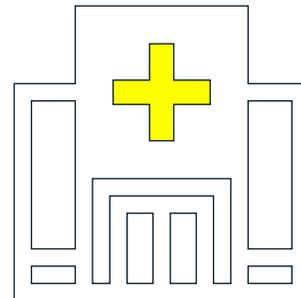
SIX STEPS FOR BUILDING A SUCCESSFUL INCIDENTAL PULMONARY NODULE PROGRAM

Power Your Lung Program to Reach Its Full Potential:
Boost Your Bottom Line & Optimize Outcomes

Starting a successful Incidental Pulmonary Nodule (IPN) program can be challenging to say the least. From the right processes, to the right people, to the right technology, everything must work in lockstep for the program to reach its true potential. When it does, providers and patients benefit alike.

So, how do you get started?

Read on for best practices to build a comprehensive Incidental Pulmonary Nodule program.



1

FIND THE RIGHT LUNG COORDINATOR AND/OR NAVIGATOR

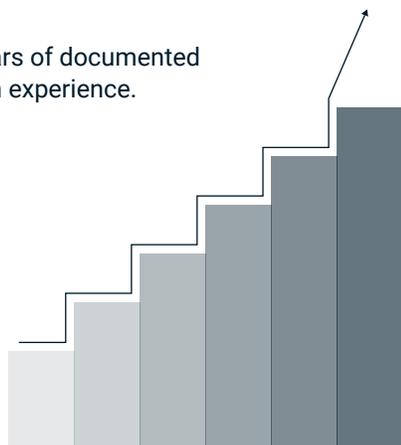
The foundation of every successful early detection lung cancer program is the lung nodule coordinator or navigator leading the charge. The person in this role has a diverse skillset and is well-versed in radiology, oncology, and the complex coordination necessary to track IPN patients.

Ideally, this individual is a process-driven professional who has strong communication skills and is comfortable acting as a liaison between the patient and their physicians. A lung coordinator or nurse navigator's main functions include:

- Connecting patients with resources and support systems
- Ensuring proper follow-up of patient follow-up exams
- Helping to decrease patient anxiety and fear
- Providing necessary education to patients and families regarding diagnostic and treatment plans
- Facilitating interaction and communication with healthcare staff and providers

A recent survey of nurse navigators found 57% of them were self-taught on the roles and functions of a navigator^[1]. However, most have completed at least one of the following requirements:

- Licensure as a healthcare, mental health, or social work professional
- Completed a patient navigator/advocate training program
- Three or more years of documented patient navigation experience.



Finding this type of candidate can sometimes feel like a needle in a haystack; however, there are other ways to fill this important role. Because of the multiple skills required, a person who has some healthcare experience is a benefit, however not required. Ideally, the coordinator or navigator will have strong communication skills and the ability to put processes into place. While nurses are the designation of choice for navigating oncology patients, non-licensed candidates who are organized, communicative, and self-starters are excellent options for the lung nodule coordinator role.

Elevate Your Program with Centralized Management

The Eon Centralized Management solution allows you to focus on revenue-driving efforts by offloading resource-intensive tasks to automated technology and a team of highly skilled coordinators. Your entire program is efficiently managed, everything from mailing letters to ensuring life-saving exams are scheduled. To learn more, contact an Eon expert at success@eonhealth.com.

Need help defining a role? Visit <https://eonhealth.com/toolkit/job-descriptions/> to view job descriptions for coordinators and navigators as you build your program.

2

BUILD A MULTIDISCIPLINARY TEAM WITH DEFINED ROLES

A successful lung program benefits from the support of a multidisciplinary team. This is a team of experts specializing in different aspects of care and should consist, at a minimum, of a radiologist, a pulmonologist, the coordinator/navigator, and an administrator. Here's a breakdown of the core team's functions and roles:

RADIOLOGISTS are the genesis of any good IPN program. They are the ones identifying incidental nodules from studies performed for reasons other than suspicion of lung cancer. Manual processes rely on Radiologists to adhere to trigger mechanisms for IPN patients to enter care pathways, while software solutions may automate IPN registration.

PULMONOLOGISTS are trained to understand lung abnormalities and the necessary care to track and diagnose them. Most often, a pulmonologist will see the IPN patient first as a consult in their clinic and determine the appropriate next steps. (Please note, this role could be filled by other specialists, including a thoracic surgeon.)

COORDINATOR/NAVIGATOR is responsible for tracking IPN patients, presenting patients to the multidisciplinary team, and facilitating coordination of patient care and communication to physicians.

ADMINISTRATOR supports the lung nodule coordinator or navigator and the overall program by reviewing program analytics, reports, and helping improve efficiencies.

Other team members like a thoracic surgeon, a radiation oncologist, and a medical oncologist are great additions if your facility supports those service lines. The multidisciplinary team should meet regularly, and if possible, hold nodule boards to discuss suspicious IPNs. The nodule board is an excellent time to discuss patient care and provide recommendations for diagnostic and treatment next steps.

NOT ALL IPN CARE PATHWAY REGISTRATION IS THE SAME. HERE ARE DIFFERENT TECHNIQUES TO REGISTER PATIENTS:

1 Computational Linguistics (CL) is a data science discipline used to create models that understand text and the linguistic structure of written English. Computational Linguistics is a superior approach to IPN identification as it works in the background and does not require the radiologist to do anything outside of normal workflow. CL can achieve high-precision output with high positive predictive value, which limits the number of false positives. Some CL engines also extract size, location, and nodule characteristics.

2 Computer-Aided Detection (CAD) may require a manual image push to the CAD analysis software and usually requires the radiologist to launch in a different viewer (outside of PACS) to review and classify the CAD findings. CAD review and classification is time-consuming and may require the study to be read twice. CAD is most often used on screening exams such as LCS or mammography. Due to the large volume of IPNs, CAD has not been shown to be a pragmatic option for registering incidental pulmonary nodules.

3 Natural Language Understanding (NLU) pipelines use brute-force and text-scraping techniques to identify keywords, such as nodule and mass. NLU is a low-sensitivity tool with 60-75% positive predictive value, meaning 25-40% of patients identified are false-positives and require FTE time to sort through actionable positives vs. false positives.

4 Radiologist uses a macro or free text phrase in his/her dictation that triggers the patient to be added to an incidental worklist. This method relies on the radiologist utilizing the correct macro or phrase, which can be disabled or overwritten. Adherence is <20% in community settings and results in missed registration of many incidental findings (high false negatives).

5 Radiologist or CT tech drops patient study into a separate PACS folder for lung coordinator review. This method is reliant on human adherence and results in missed registration of many incidental findings (high false negatives).

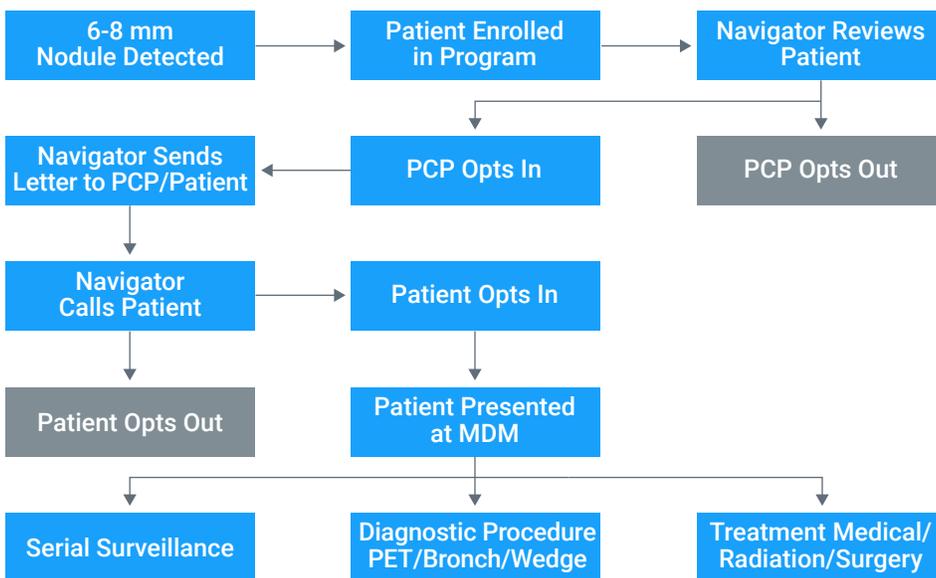
3

ESTABLISH WORKFLOWS EARLY ON

When building a lung program, it is important to clearly define workflow processes from the start. It is estimated that ~50% of healthcare finances are wasted because of inefficient processes [2]. Here's how to engineer an efficient IPN program workflow:

- 1** Establish identification and care pathway registration to ensure patient capture and follow-up. Start by determining how incidental nodules will be flagged and registered to the lung program. Ideally, you should have a software program to automate identification, without disrupting radiologist workflow, or requiring manual tasks and file builds from CT techs. (See previous page and “**Not All IPN Care Pathway Registration Is the Same.**”)
- 2** Decide who is responsible for triaging low-risk from high-risk patients, and how communication of results and next steps will be provided to the patient and ordering physician. Typically, the lung nodule coordinator or navigator will fill this role, and can often be the first interaction with the patient. Technology solutions are available that can segment risk and triage patients automatically, as well as conveniently send reports to providers and care teams via mail, fax, or email.
- 3** Develop consent processes for primary care physicians. These processes will allow the ordering physician the option to automatically opt-in (or out) of their patients being seen in the nodule board. If an ordering physician opts out of the program, the responsibility reverts back to that physician to manage their patients' follow-up. If they opt-in, patients are auto-enrolled in the lung program and may be seen in the nodule board or by the multidisciplinary team, or enrolled in serial surveillance, tracked and managed by the coordinator or navigator.
- 4** Create care pathways for IPN patients. Defined pathways ensure proper attention is paid to each patient, whether entering serial surveillance or going to the nodule board. Putting effort into these pathways will go a long way as your program matures. And, be sure to always review and update as necessary.

BELOW IS AN EXAMPLE OF A VERY BASIC IPN PATHWAY



The financial benefits of implementing workflow processes in healthcare organizations in the US have been between **\$37M** and **\$59M** in a period of five years [2].

Need help building a custom pathway for your facility? Reach out to an Eon expert at success@eonhealth.com

4

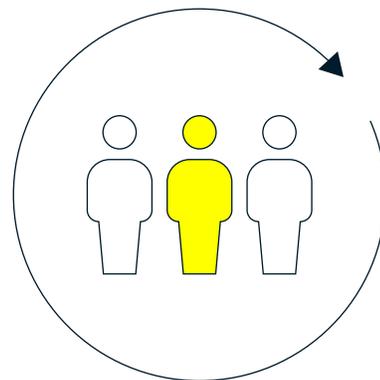
CREATE A SEAMLESS FOLLOW-UP PROCESS

Having efficient processes to track and follow your patients is essential. Unfortunately, follow-up adherence for IPNs is extremely low. Less than 30% of IPN patients receive the recommended care provided by the radiologist [3]. This costs hospitals 10-20% in revenue a year and hurts patients who benefit from serial surveillance and earlier diagnosis.

The first step is to ensure communication from your lung program to the ordering physician's office and patient. Many programs contact both the ordering physician and the patient by letter or phone four weeks before their upcoming exam. All communication should be documented and the navigator should confirm the exam gets scheduled. Studies have shown a 65.6% increase in adherence when navigators or coordinators are involved [4].

Some hospitals use manual tracking mechanisms like Excel spreadsheets, however software solutions have proven invaluable in tracking patients over time. The most advanced technology uses statistical or rule-based modeling of natural language, like Computational Linguistics, to extract pertinent risk information and segment patients. This is extremely effective for longitudinal tracking as the technology is designed to constantly listen (in the background) for any pertinent exams to occur related to IPN management. Facilities then have insight into who is scheduled, who still needs to have an order placed, and who is at risk for never showing up. Since patient no-shows and scheduling inefficiencies cost the U.S. healthcare system more than \$150 billion a year, patient capture can drive increases in downstream revenue [5].

Whether you are using the most advanced software available or relying on manual mechanisms to track patient follow-up, it's essential to have an up-to-date record of every exam or missed exam. And, when missed appointments occur, they should always be followed up with communication attempts to reschedule the patient. Proactive measures like this drive adherence and can save lives.



Studies have shown a **65.6%** increase in adherence when navigators or coordinators are involved [4].

Need help with follow-up letters? Visit <https://eonhealth.com/toolkit/letter-templates/> to view letter templates and follow-up communications.

5

SEEK OUT THE RIGHT TECHNOLOGY PARTNER

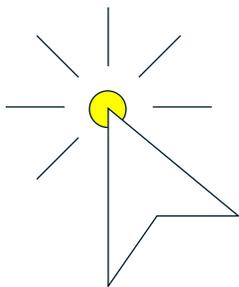
Labor-intensive tasks are not only expensive, but they are also time-consuming. That's why it is crucial to find a powerful technology partner that can reduce manual tasks and offer efficiencies that help your team save time.

A recent poll conducted by ASQ found that with the right partner, you can:

- Reduce the need for office visits and improve patient compliance.
- Encourage patients to get more involved in the long-term management of their own health conditions.
- Eliminate time-consuming tasks like entering data into electronic medical records and required registries.

When you start a lung program, you want to make sure everyone is spending their time doing what they do best. And that's where superior software comes in. With a powerful platform, you can:

- Automate redundant and repetitive tasks for the 80-90% of patients who are lower-risk.
- Prioritize the 10-20% of high-risk patients who need immediate diagnostic workup and care coordination.
- Reduce manual data entry and administrative burdens for coordinators, navigators, and thoracic service lines.
- Access to a Mobile Nodule Board that allows on-the-go care providers to communicate and make critical patient decisions at any time.
- Through advanced integration techniques, patient demographics and pertinent patient exams are extracted from the hospital EMR and PACS.
- Aggregate disparate software into one, easy-to-use dashboard.
- Embed the radiology report and capture relevant IPN information (e.g., nodule characterization, size, location, and more) in one place, giving navigators fast access to necessary information needed for nodule board.



These features are designed to simplify tracking and ensure patient follow-up—all with a wide range of real-time programmatic analytics at the click of your mouse.

6

PROMOTE YOUR PROGRAM

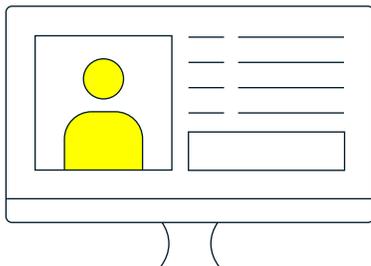
Once your lung program's foundation is in place, it's crucial to spread the word with a strategic communication plan.

- 1 Start by attending other service-line meetings to promote your program, as well as talk to your Emergency Department leaders. Tell them that you are watching their reports and now have a comprehensive program for patients with IPNs.
- 2 Communicate frequently with your radiology partners and attend Grand Rounds to meet primary care physicians and develop face-to-face relationships. If your facility has a physician liaison, utilize them as a resource to educate referring physicians.
- 3 Get involved in your community. Join local committees, groups, and activities to build relationships and educate people about what you're doing.
- 4 Work with your facility's marketing team to create a plan that will help generate awareness and grow your program. This includes creating collateral like patient and physician packets, brochures, posters, and one-page flyers that detail your incidental pulmonary nodule program and mission, differentiators, and dedication to patient outcomes.

ALL OF THIS WILL BOOST VISIBILITY AND ESTABLISH YOUR PROGRAM AS A MARKET LEADER.

THE EON ADVANTAGE

There are many facets to building a successful program. Identifying and tracking IPNs while supporting the overall lung cancer program is what Eon does. With superior Computational Linguistics—Eon's proprietary Artificial Intelligence (AI) technology—clients are empowered to positively identify and track IPNs with over 97% precision. Eon's cloud-based technology and powerful data models provide predictive follow-up solutions that reduce administrative burden and cost. So providers can spend their time on what matters most—capturing and coordinating patient care that delivers great results.



Guiding incidental pulmonary nodule patient journeys, from diagnosis to survivorship, is challenging. However, with the right foundation, processes, and strategies, your facility will be set up for success. You'll engineer an agile, revenue-driving machine, powered by the most advanced technology on the market today.

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RECAP

How to Build a Successful Incidental Pulmonary Nodule Program

With the right processes, people, and technology, creating an effective and profitable program is achievable. Follow these six proven steps to reach your IPN program goals.

- **STEP 1**
Find the right lung coordinator and/or navigator
Seek out a leader who is a master communicator and can train others on processes that will help ensure the long-term success of your program.
- **STEP 2**
Build a multidisciplinary team with defined roles
Coordinate a multi-faceted team of experts who specialize in different aspects of care and meet regularly in a nodule board to discuss suspicious IPNs.
- **STEP 3**
Establish workflows early on
Create workflow processes early to ensure patient capture and follow-up, and define care pathways so proper attention is paid to each patient.
- **STEP 4**
Create a seamless follow-up process
Build an efficient process to track and follow your patients throughout their entire journey from diagnosis to survivorship.
- **STEP 5**
Seek out the right technology partner
Find a powerful technology partner that can reduce manual tasks and offer efficiencies that help your team save time.
- **STEP 6**
Promote your program
Spread the word out about your program by attending service line meetings, communicating with partners, and creating marketing collateral that generates awareness.

“ I went from doing everything on spreadsheets to doing everything in the Eon dashboard. The notification section is a big help in tracking my patients. The communication section is simply wonderful.”

Linda Odell, Assistant Manager Radiology, Sovah Health Martinsville – Lifepoint

Need help getting started with an early detection lung cancer program?

Visit <https://eonhealth.com/webinar/> to watch webinars with industry experts and contact us success@eonhealth.com

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Eon is a Denver-based healthtech company dedicated to revolutionizing the way healthcare data is gathered, curated, and shared among industry professionals. We are on a mission to ensure the right data reaches the right people at the right time to identify disease early and stop it in its tracks.

**Together we can
defy disease.**