Six Steps to a **Successful Pancreatic Surveillance Program**

A Surgical Oncologist's Perspective

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Introduction:

Why I Could Not Accept the Status Quo

The Scope of the Challenge

15 percent of Americans are believed to be living with a pancreatic cyst

Up to 20 percent of MRIs identify a pancreatic cyst

At least half of patients with identified cysts receive no follow-up

Up to 30 percent of pancreatic cancers are derived from a mucinous cyst

> "I have seen, and continue to see, patients whose cancer formed from a cyst. They were a cyst patient, and now they have cancer. One which is rarely curable."
>
> — Russell C. Langan, MD

As a pancreatic surgeon, the inescapable fact is that **pancreatic cancer remains one of the most aggressive** and treatment-resistant malignancies we face. All too often, by the time patients come to us, the disease has already advanced, and there are few available treatment options to offer a cure.

What makes this especially difficult is knowing that cancer does not usually appear overnight. A portion of these cancers develop over time from pancreatic cysts that would have been visible on imaging but were not systematically followed. The risk is often documented, but without a structured surveillance approach, it does not translate into action.

As the Director of Surgical Oncology at RWJBarnabas Health and an Associate Professor of Surgery at Rutgers Robert Wood Johnson and Rutgers Cancer Institute, my clinical focus is pancreatic cancer as well as hepatobiliary and gastrointestinal cancers. I have spent my career watching the natural history of pancreatic cancer, awaiting medical breakthroughs for therapeutic options. What has become more clear is that if we want to improve outcomes for pancreatic cancer, at this time, until more efficacious therapies exist, we need to intervene earlier — before cancer develops.

Even though **cysts represent the most common identifiable precursor lesion to pancreatic cancer,** follow-up remains inconsistent, fragmented, and often dependent

on patients navigating an increasingly complex system on their own. This translates into too many patients living at risk for the development of pancreatic cancer. A cancer that is rarely curable.

Knowing this, I sought to rethink how pancreatic cysts are identified, tracked, and managed over time. To do this, you need a system that can operate at scale, consistently apply evidence-based guidelines, and support longitudinal follow-up without relying solely on manual processes.

In turn, we built a dedicated pancreatic surveillance program and then transitioned to using AI automation and intelligence. Here, I reflect on what I learned during program implementation and how it helped us transform pancreatic cysts from incidental findings into actionable opportunities for earlier detection and better outcomes.

> **“In brief, I wholeheartedly believe that programmatic design with a focus on AI utilization is enabling systems to identify at-risk patients and ensure ongoing surveillance so they don’t go on to develop pancreatic cancer years later.”**

Six steps to a successful pancreatic surveillance program

1	2	3	4	5	6
Select the right AI tool	Find the right navigator or coordinator	Establish an evidence-based workflow	Decide on a centralized or decentralized model	Drive longitudinal adherence	Promote and sustain awareness

Step 1 Select the Right AI Tool

What the Right Platform Made Possible

Before Eon

- Manual review of radiology reports
- Fragmented identification across sites
- No centralized surveillance list

After Eon

- AI model identifies patients across all radiology settings
- 4,622 downstream surveillance exams generated
- 77% return rate among high-risk patients
- 55% of pancreatic cancers found in stages I-III
- 37x growth in new patients

For a successful — and scalable — surveillance program, you need to move beyond basic identification. You need an AI platform that doesn't just raise an alert or a red flag. You need a tool with clinical intelligence that can understand the nuances of pancreatic cysts, stratify risk based on patient history, imaging, and genetic pancreatic cyst analysis to deliver evidence-based care plans that could be activated right away.

That led me to Eon.

I had seen how **Eon's AI-powered longitudinal surveillance** transformed lung nodule programs. Together, we envisioned a future that would deliver those kinds of results for patients with pancreatic cysts.

I didn't want a tool that simply extracted findings. I wanted a model specifically designed for patients with pancreatic disease. A platform that identified cysts with precision, intelligently navigated patients, and provided dynamic care plans that adjust over time. Eon delivered exactly that.

Eon's pancreas-specific AI model doesn't just pull out keywords from radiology reports; it understands clinical nuance, interprets the full context, enriches it with medical record data, and recommends care plans in accordance with established guidelines. If radiology recommendations are missing or ambiguous, Eon's model fills the gap with evidence-based next steps that align with the health system's guidelines. Moreover, any time a new imaging or exam is added to the record, the care plan updates in real time. Additionally, the software can pre-populate orders for our surveillance patients, thereby reducing the time spent in a patient's chart.

Leveraging Eon's AI-powered platform enables care teams to increase the number of patients they can care for without hiring a proportionate number of additional staff. It also gave me confidence. You no longer have to rely on manual chart reviews or worry about inconsistent follow-up patterns. Instead, the platform provides a validated list of patients stratified by risk, with reccomended care plans that you can easily modify and can be intiated immediately. The patient dashboard assists with identifying and managing non-compliant patients, supporting care teams from a medical-legal risk perspective.

What set Eon apart was its specificity. Most AI tools in this space are either too general, focused solely on identification, or built only for pulmonary nodules. Eon built an AI model specifically for pancreatic cysts across the entire patient journey from identification to surveillance and that has made all the difference.

Step 2 Find the Right Navigator or Coordinator

Why the Right Coordinator Matters

Bridges the gap between AI-identified patients and clinical action

Communicates with patients and ensures follow-ups are scheduled

Tracks adherence across a multi-year surveillance timeline

Serves as a central point of contact for providers and departments

Enables program scale without a proportional increase in staffing

No matter how advanced a platform is, you still need people to turn information into action. My reccomendation is you start by finding the right person to serve as the coordinator/navigator — the human bridge between the technology and the patient.

They don't need pancreas-specific experience. You need someone who cares, who understands the importance of closing follow-up gaps, and who can communicate with patients, engage providers, and stays organized as the program scales. Clinical skill can be taught. Compassion and commitment cannot.

While Eon identified pancreatic cysts and surfaced the relevant clinical details, the navigator can focus on what matters most—ensuring patients are contacted, appointments are scheduled, and communication loops are closed. The person tracking each patient's progress through the care pathway and making sure no one is lost to follow-up is the constant in a system that often feels fragmented.

> **"It only takes one committed person to anchor a program. The right navigator can transform information into outcomes."**

As a program expands, so does the scope of the navigator's work. But the initial decision to build around someone mission-driven provides a strong foundation. The technology handles the data. The navigator makes sure it turns into care.

I chose to work with an internal navigator, but Eon also offers external, virtual-based navigation services that can be harnessed to support your program. Therefore, this AI-driven pancreatic model can be implemented in any system setting, whether you have an established pancreas program at an urban academic medical center or you are a small rural hospital.

Step 3 Establish an Evidence-Based Workflow

Why Standardization Is Non-Negotiable

You define the guidelines. Eon builds the logic. That's how you turn variation into consistency.

Without standardized workflows, pancreatic cyst management often leads to:

- Inconsistent care across providers and locations
- Operational friction and confusion around follow-up
- Difficulty tracking outcomes or benchmarking program performance

What Eon enables:

- Embeds your selected clinical guidelines directly into the platform
- Converts cyst management logic into clear, automated workflows
- Applies care pathways consistently across all patients
- Automatically updates recommendations when new imaging or labs appear

Once the right technology and the right person were in place, the next step was to define the clinical workflow. You do not want follow-up instructions to be vague or inconsistent. You want a standardized process that aligns with established guidelines and can be applied consistently across all sites.

One of the challenges in managing pancreatic cysts is the variability among multiple sets of accepted guidelines, including those published by various organizations in the U.S., including the International Association of Pancreatology (IAP), American College of Gastroenterology (ACG), American Gastroenterological Association (AGA), American College of Radiology (ACR), and European guidelines, which can create operational friction and make it difficult to ensure consistent care. In addition, there are other challenges. Not all radiologists dictate their reports the same way. A pancreatic cyst finding is not always included in the impression. This means the model needs to be advanced enough to extract relevant information from the full report, not just a section, or just part of the relevant clinical detail. And it needs to work without disrupting existing processes or workflows.

Eon's model helped achieve this seamlessly. Their Clinical Transformation team embeds our care logic directly into the platform so results are standardized across the system, reflect our evidence-based preferences, and are automatically applied to every patient.

Each patient identified by the platform is risk-stratified and placed into a defined pathway. For lower-risk cysts, that might mean an annual MRI or EUS. For cysts with high-risk features, that might mean immediate multidisciplinary review, EUS, or even surgery. Every recommendation is rooted in guidelines.

You want the workflow to be dynamic. If a patient has new imaging or clinical details are added to a patient's chart, Eon's platform adjusts the care plan in real time, ensuring the patient does not remain on outdated timelines, and any increase in risk is recognized quickly.

Consistency does not just improve efficiency. It improves equity. It ensures that every patient, regardless of where they enter the system, receives care in accordance with the same clinical standards.

The platform also has the capability to backload all known pancreatic cyst patients into the dashboard, to house the pancreatic program in one, dynamic, user-friendly location. This allows care teams to better track all patients longitudinally, and move away from manual spreadsheets.

Step 4 Decide on a Centralized or Decentralized Model

Centralized Logic. Local Action.

Challenges in large systems:

- Inconsistent workflows across sites
- Missed follow-up due to unclear responsibility
- Difficulty maintaining standardization at scale

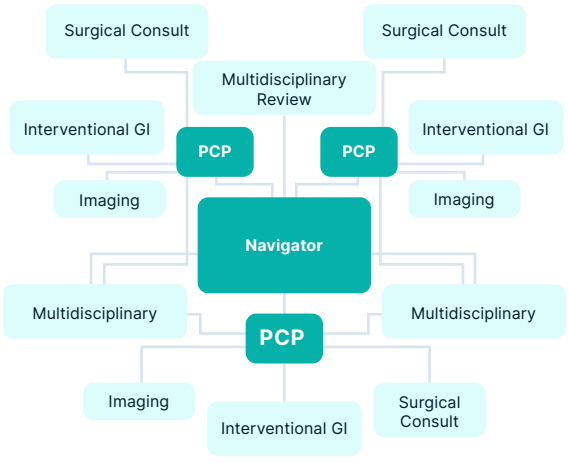
What a hybrid model enables

- A centralized platform for consistent identification and care planning
- Clear, actionable summaries for local teams
- Faster decision-making without sacrificing guideline alignment
- Scale across hospitals, imaging centers, and departments

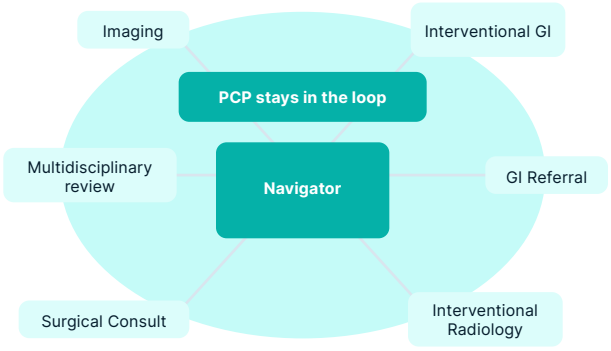
I practice at a large, complex system spanning multiple hospitals, imaging centers, and physician groups. It is important to determine whether to centralize surveillance or allow sites to manage their own workflows. This will be unique to your system's dynamics.

Decentralized vs. Centralized

Decentralized Program



Centralized Program



For the program to succeed, it has to be both consistent and flexible.

We centralized the core components of **identification, risk stratification, care plan generation, and follow-up logic through the Eon platform.** That provides the confidence that every patient, regardless of where they were scanned, was being evaluated through the same clinical lens.

At the same time, it empowered local providers with the information they needed to act. The platform delivers concise, linked summaries that clearly explain the cyst type, associated risk, and next steps. This enabled frontline teams to move quickly without needing to interpret lengthy radiology reports or search the record.

The logic is consistent, but the handoff is flexible. It allows for local clinical judgment without introducing variability into the surveillance process.

For a large health system, that balance is critical. It allows for scale without sacrificing quality.

Step 5 Drive Longitudinal Adherence

Why Long-Term Surveillance Fails and How to Fix It

Surveillance only works if you can sustain it.

Common breakdowns:

- Patients fall off the radar after initial identification
- Imaging occurs outside of GI or the health system
- No system tracks changes in risk over time

What Eon's Follow-Up Listener enables:

- Listens for updates in imaging across the entire EMR
- Automatically adjusts care plans and timelines
- Flags rising risk so teams can intervene sooner
- Maintains continuity without increasing manual workload

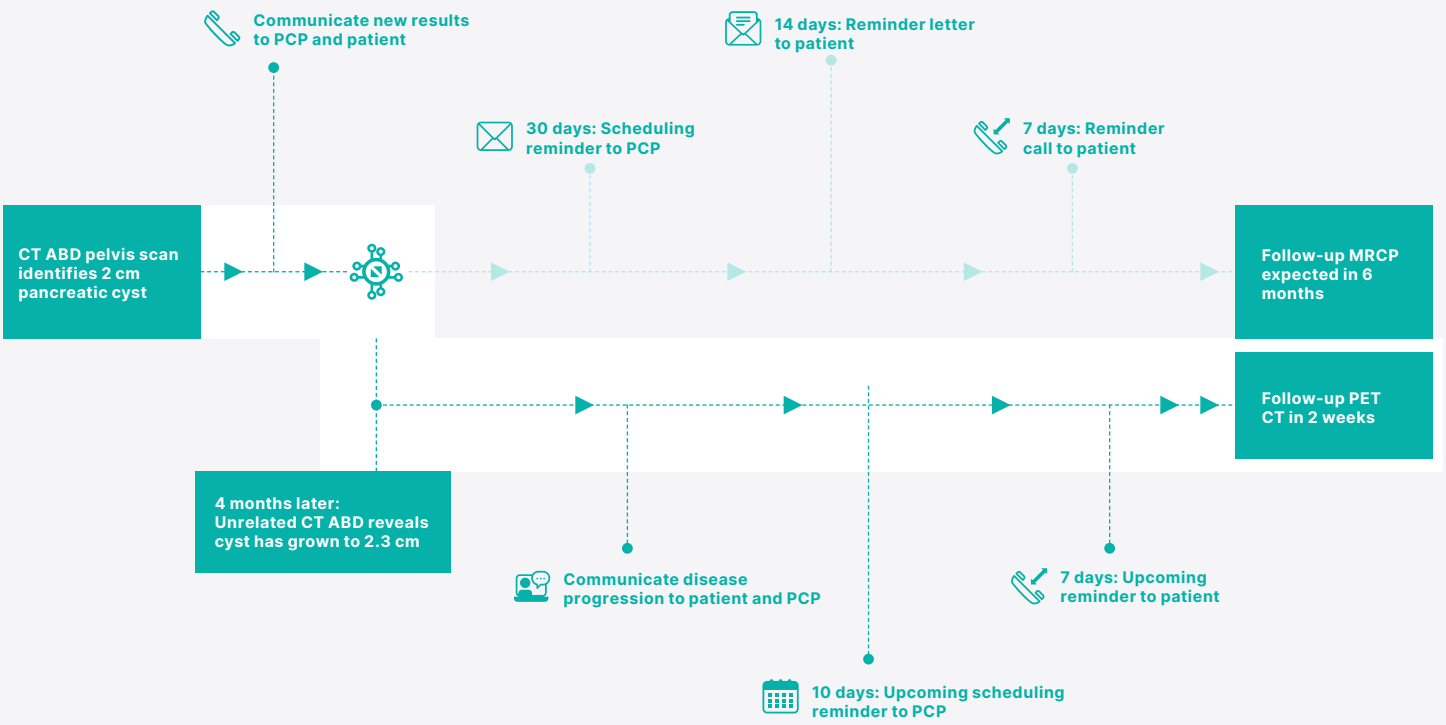
Pancreatic cyst surveillance is not a one-time event. It spans years, often decades. So a successful program needs to not only identify at-risk patients but also manage their care journey over time and across healthcare settings. That kind of long-term commitment is where most programs fall apart. That is why I placed such a strong emphasis on longitudinal follow-up.

Eon's Follow-Up Listener functionality enabled just that. It listens to the EMR for updates in any cyst-related diagnostic imaging and automatically modifies the care plan accordingly. Even if the scan is not directly related, Eon's platform identifies changes, such as an increase in cyst size, and when appropriate, triggers a change in the patient's risk category, streamlining clinical workflows.

This functionality allows you to maintain surveillance without increasing manual workload, ensures that any increase in risk is detected early, and enables you to close the loop even years after the initial cyst was found.

Eon's Follow-up Listener™ In Action

Eon's AI-powered platform detects disease progression, resets care plans, eliminates redundancies, and proactively prevents gaps in care.



Step 6 Promote and Sustain Awareness

Awareness Drives Adoption

Common challenges:

- Referring providers are unclear on the next steps
- Low visibility across departments
- Limited understanding of program impact

What to do differently:

- Create clear referral pathways and share them systemwide
- Close the loop with referring physicians through timely updates
- Align stakeholders across surgery, GI, radiology, and oncology
- Report impact metrics to sustain executive and clinical buy-in

> **"You can build the best surveillance program in the world, but if no one knows it exists, it won't reach its potential. That is why education and communication are central to our success."**

Engage referring providers early. Many of them had already identified pancreatic cysts on imaging but were unsure what to do next. Others assumed the ordering physician or radiologist would handle follow-up. Create simple referral pathways and made sure every provider knows how to activate the program.

Focus on closing the loop. When a patient is referred or enrolled, the referring physician receives a clear summary of the findings, the risk level, and the care plan. This also helps build trust and turned our partners into advocates.

Internally, align stakeholders from surgery, GI, radiology, and oncology, giving everyone visibility into the process and where their role fits. This eliminates redundancy and reduces the risk of patients getting lost between departments.

Finally, share results. When you can show, for example, that your program identified 90 pancreatic cancers, generated over 4,600 downstream exams, and helped catch more than half of those cancers at stages I through III over a one-year period at one hospital location, people pay attention. Awareness turns into buy-in, and buy-in sustains momentum.

Program Results:

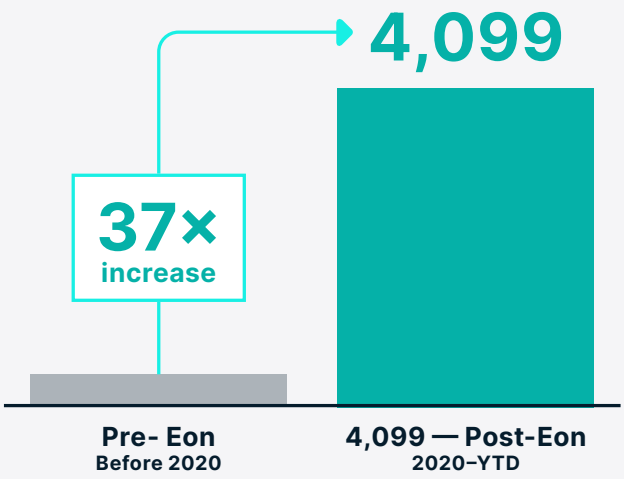
What We Achieved and Why It Matters

Since implementing Eon's AI-powered surveillance model, we've seen measurable impact across clinical outcomes, patient adherence, and downstream performance. These results are not theoretical. They represent real patients who were identified earlier, navigated more effectively, and treated when it still mattered.

90
Pancreatic cancers identified (2021–2023)

55%
Pancreatic cancers found in early stages (I, II, and III)

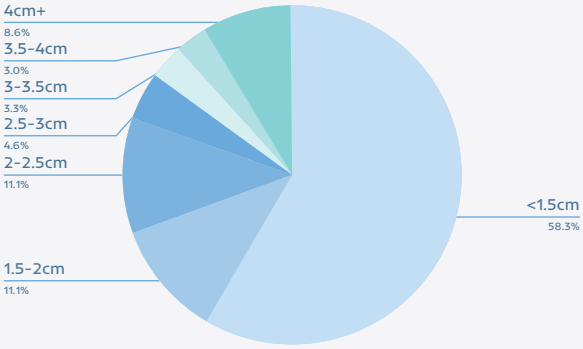
New Pancreas Patients Requiring Follow-up



Pancreatic Cyst Size Distribution

Percentage of “High Risk” by Cyst Size

14.9%
cysts ≥ 3 cm



Patients Identified & Downstream Volume

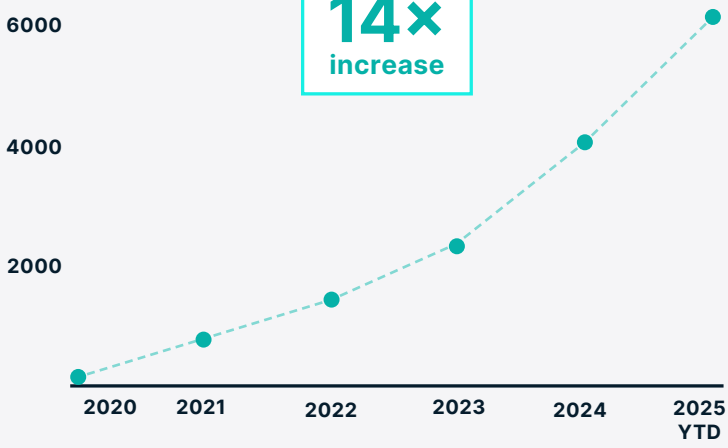
8/18/2020 to 10/20/2025

4,099
Unique patients identified

4,622
Downstream exams

Cumulative Patient Growth Over Time

14×
increase



Patients Returning for Care

77.4%
High-risk patient return rate

72%
All patients return rate

Conclusion:

Build It Right and Build It Now

Pancreatic cancer is a deadly disease. But by identifying its precursors early and acting on pancreatic cysts with urgency and structure, we can transform patient outcomes.

We did not wait for the perfect conditions. We started with a clear problem and a shared commitment to do better. We selected the right technology. We hired the right people. We built workflows that could scale, and we focused on adherence, communication, and measurable impact.

Today, our program is identifying more patients, navigating them more effectively, and detecting pancreatic cancer at earlier stages. It works because we built it for real-world complexity and built it to last.

If your health system is still relying on passive referrals or fragmented follow-up, I can tell you from experience: there is a better way, and the time to act is now.

This article is based on my recent webinar, “From 110 to 4,100 Patients: How AI Surveillance Can Build and Scale Your Pancreatic Cyst Program.”

You can watch the full session on demand **here**.