

AI-enabled lung nodule management & risk stratification drives measurable ROI

Comparing a manual EMR-based referral system to a fully automated AI-powered incidental lung nodule (ILN) program

Case Study Highlights

133%

more biopsies after VNC compared with EMR flagging

700%

more surgeries after VNC compared with EMR flagging

75%

stage I detection rate of enrollees over 13 months

~\$584K

additional program revenue over 13 months

Healthcare provider

 JUPITER MEDICAL CENTER

Provider type

 Community Medical Center

Location

 Jupiter, Florida, USA

Problem

Jupiter Medical Center relied on a manual EMR flagging system that generated few referrals, resulting in missed patients. As incidentally detected lung nodule volumes increased, the care team had difficulty ensuring consistent, risk-based follow-up.

Solution

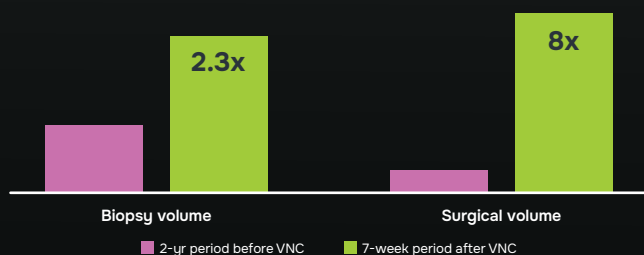
After evaluating internal solutions and external partners, Jupiter set up their incidental lung nodule (ILN) program and selected Optellum's FDA-cleared AI platform, Virtual Nodule Clinic (VNC). Jupiter used VNC to analyze all its CT radiology reports and automatically flag patients with reported lung nodules for further review. A nurse navigator then contacted flagged patients for enrollment and monitoring in VNC. Optellum's Lung Cancer Prediction® (LCP) AI score (reimbursable by CMS at \$650 per use) was used to risk stratify & prioritize patients with high-risk nodules.

Results

Within seven weeks

Compared with manual EMR flagging, VNC, powered by LCP AI:

- Helped identify & contact **~16 patients per week**, up from <1 per week
- >95% of patients scored**, helping the care team prioritize high-risk nodules
- Drove a **2.3-fold (133%)** increase in lung biopsies
- Drove an **eight-fold (700%) increase** in lung cancer surgeries



Over 13 months

VNC helped drive:

Clinical impact

- 136 new enrolled patients
- 25 robotic bronchoscopies & 16 transthoracic biopsies
- 24 surgeries (8 lobectomies, 16 segmentectomies)
- 75% of lung cancers detected at stage I

Financial impact

- Approximately \$584K in additional high-margin revenue (~\$45K per month)
- Additional downstream oncology revenue from subsequent care



“Had they not used the AI technology..., I wouldn't be in the position I'm in today

Mary Jordan
Retired ICU nurse & VNC patient

[Read her full story >>](#)

Conclusion

Optellum's VNC helped optimize Jupiter's ILN program by supporting the care team to identify, manage, and prioritize high-risk lung nodules for earlier intervention. Together, the VNC-powered ILN program delivered better outcomes for patients than before deployment, as well as additional high-margin revenue for the thoracic surgery and oncology service lines.