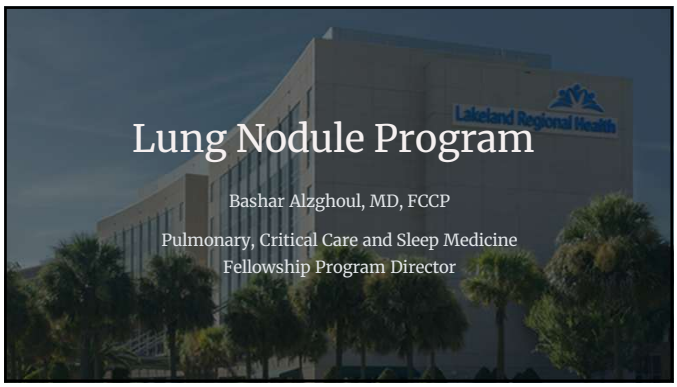
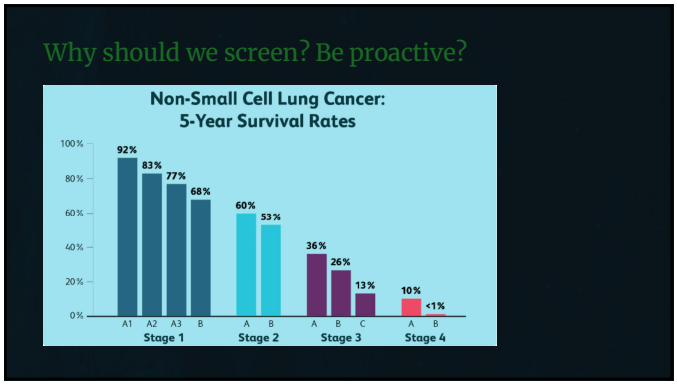
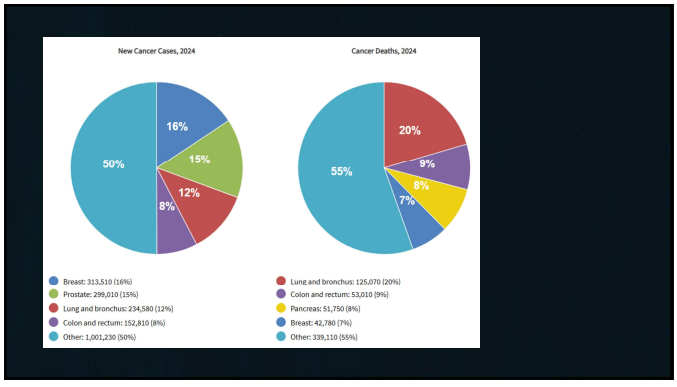

Lung Nodule Program
Bashar Alzghoul, MD, FCCP
Pulmonary, Critical Care and Sleep Medicine
Fellowship Program Director

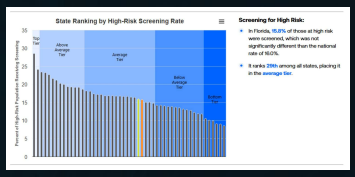
1


Why should we screen? Be proactive?
Non-Small Cell Lung Cancer:
5-Year Survival Rates
100%
80%
60%
40%
20%
0%
92%
83%
77%
68%
60%
53%
36%
26%
13%
10%
<1%
A1 A2 A3 B
A B
A B C
A B
Stage 1
Stage 2
Stage 3
Stage 4

2


New Cancer Cases, 2024
16%
15%
12%
8%
50%
Breast: 313,510 (16%)
Prostate: 299,010 (15%)
Lung and bronchus: 234,580 (12%)
Colon and rectum: 152,810 (8%)
Other: 1,001,230 (50%)
Cancer Deaths, 2024
20%
9%
8%
7%
55%
Lung and bronchus: 125,070 (20%)
Colon and rectum: 53,010 (9%)
Pancreas: 51,750 (8%)
Breast: 42,780 (7%)
Other: 339,110 (55%)

3



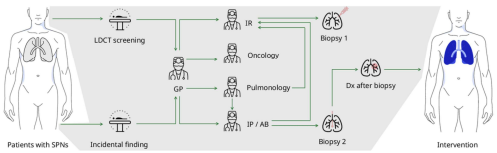
Screening for High Risk:

- In Florida, 15.8% of those at high risk were screened, which was not significantly different than the national rate of 16.0%.
- It ranks 29th among all states, placing it in the average tier.

4

Lung cancer patient pathway today

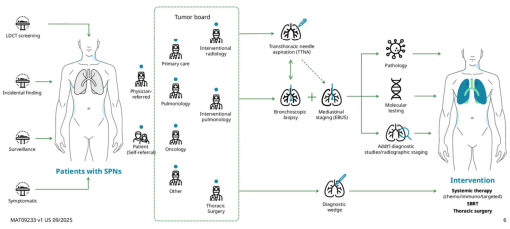
- The current pathway for lung biopsy candidates is suboptimal, lengthening the time it takes from screening to diagnosis to care, therefore limiting intervention options.[1]



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Complexity in today's lung cancer patient pathways leads to
delayed diagnosis

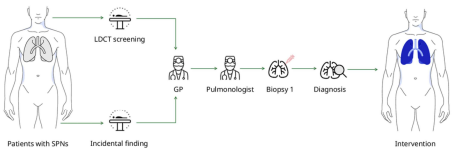


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6

What if there was a better way?

- Could we create a linear pathway for lung biopsy patients by enabling physicians to give patients answers with Ion?

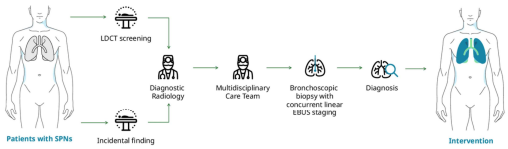


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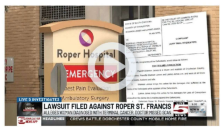
Building A Faster Pathway at Lakeland Regional Medical Center

Could we create a linear pathway for lung biopsy patients by enabling physicians to give patients answers with Ion?



8

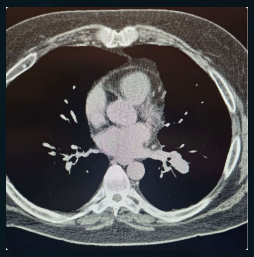
Woman was not told about lung nodule years before terminal cancer diagnosis, lawsuit alleges

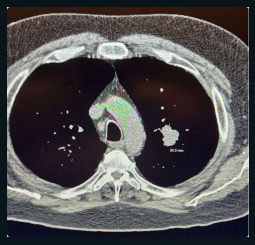


VIDEO: Lawsuit: Woman diagnosed with terminal cancer after Roper St. Francis doctor missed scan results (Source: WCSC)

9

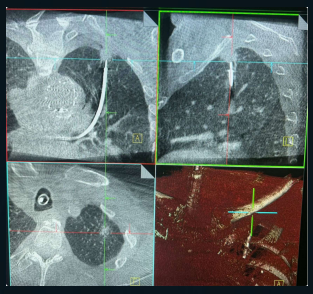
Small cell and Squamous in one patient





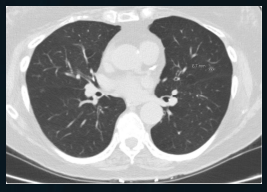
10

The robot arm can go all the way



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Patient #1



Patient #2



Both positive for Stage 1 adenocarcinoma

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Lakeland Regional Health Offers

New, Advanced Lung Care Technology

Goal for year 2 as a program was impacting 100-150 patients...

500+ patients!!!



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ORIGINAL ARTICLE

Navigational Bronchoscopy or Transthoracic Needle Biopsy for Lung Nodules

Authors: Robert J. Lentz, M.D., Katherine Frederick-Dyer, M.D., Virginia B. Planz, M.D., Tatsuki Koyama, Ph.D., Matthew C. Aboudara, M.D., Sameer K. Avasarala, M.D., Jonathan D. Casey, M.D., for the Interventional Pulmonary Outcomes Group

Published May 18, 2025 | DOI: 10.1056/NEJMoa2414059

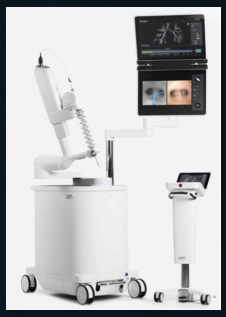
14

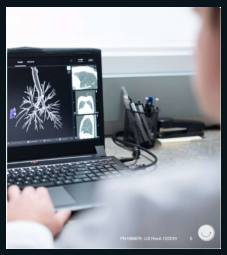
CONCLUSIONS

The diagnostic accuracy of navigational bronchoscopy was noninferior to that of transthoracic needle biopsy among patients with peripheral pulmonary nodules measuring 10 to 30 mm. (Funded by Medtronic and others; VERITAS ClinicalTrials.gov number,

for superiority). Pneumothorax occurred in 4 of 121 patients (3.3%) in the navigational bronchoscopy group and in 32 of 113 patients (28.3%) in the transthoracic needle biopsy group and led to the placement of a chest tube, hospital admission, or both in 1 patient (0.8%) and 13 patients (11.5%), respectively.

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Using the following as reference point:

Estimating 70 cases/quarter, puts Lakeland Regional @ 90th percentile in country for Ion utilization (*Volumes above the median typically result in delayed time to from presentation to diagnosis*)

	Ion Procedures per Quarter
10th Percentile	7
25th Percentile	14
Median	28
75th Percentile	47
90th Percentile	70

** Data As of Jan 2024*

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Robotic Assisted Bronchoscopy

- Ability to biopsy nodules as small as 6 mm
- Currently targeting lesions 10 mm and greater
- Patient is intubated for the procedure
- About 1 hour long
- We can stage the patient at the time of diagnosis
- EBUS

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What are we are doing at LRH

- Lung Nodule Nurse Navigator- Kaylee Kader
- Direct point of contact to schedule a visit
- Facilitate next steps of care
- Keep track of data
- Nurse Practioner- Amber Peterson

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Goal of the lung nodule program

- Facilitate and expedite early diagnosis
- Patient gets seen by Amber Peterson within 1 week of consult
  - Has a ION dedicated CT Chest (non contrast)
- Biopsy within 3 weeks

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Questions?

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