Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Managing Lung Nodules Using Telemedicine and Molecular Biomarkers During the COVID-19 Pandemic

To the Editor:

We congratulate the authors for publishing the important article "Management of Lung Nodules and Lung Cancer Screening During the COVID-19 Pandemic: CHEST Expert Panel Report" in a recent issue of *CHEST* (July 2020).[1] Such guidance is important during this time of social distancing, with a need to limit non-urgent procedures and imaging to reduce the risk of exposure to contagion for patients and providers. This is also a time for wider use of telemedicine, which can provide rapid access to specialists who can remotely provide medical decision guidance.

For newly discovered lung nodules with an intermediate probability of malignancy (probability of cancer [pCA], 5%-65%), blood-based molecular biomarkers may be able to refine the estimated probability of malignancy in a manner that impacts clinical decisions. An autoantibody (AAb) test that measures blood levels of seven autoantibodies to lung cancer-related antigens has a 98% specificity and 78% positive predictive value with a high positive result.[2,3] A positive AAb test result (moderate or high) may move a patient's intermediate risk nodule into the American College of Chest Physicians (CHEST) high-risk category (>65% pCA), similar to cases outlined in Expert Panel Scenario 10 or 11. When used in the proper subset of patients, this may increase the posttest pCA and identify patients who could benefit from earlier intervention.

When a negative autoantibody test is not informative, and reports "no elevated AAb," the integrated classifier (IC) biomarker, a blood-based proteomic test, with high negative predictive value, is available. The clinical validation study of the IC, PANOPTIC, evaluated intermediate-risk nodules with a pCA of 50% or less and cancer prevalence of 16%. In this subgroup, the IC test has a sensitivity of 97% and negative predictive value of 98%.[4] Use of this test could have led to a 40% relative reduction in procedures performed on benign nodules with a false-negative rate of 3%.

Clinical utility studies have been initiated to further evaluate the IC biomarker. Favorable results will show an increase in CT surveillance, reduction of procedures on benign nodules, and an acceptable false-negative rate. A change, redistribution of patients, from CHEST pretest intermediate risk to a posttest low risk (<5% pCA) will be the first indication of the test effect. The first look at redistribution is shown in Figure 1, and reported in a recent abstract.[5] The comparison of IC clinical validation data and registry study data show similar increases in the number of patients with a posttest risk of cancer of less than 5%, where the CHEST guidelines advise active surveillance.

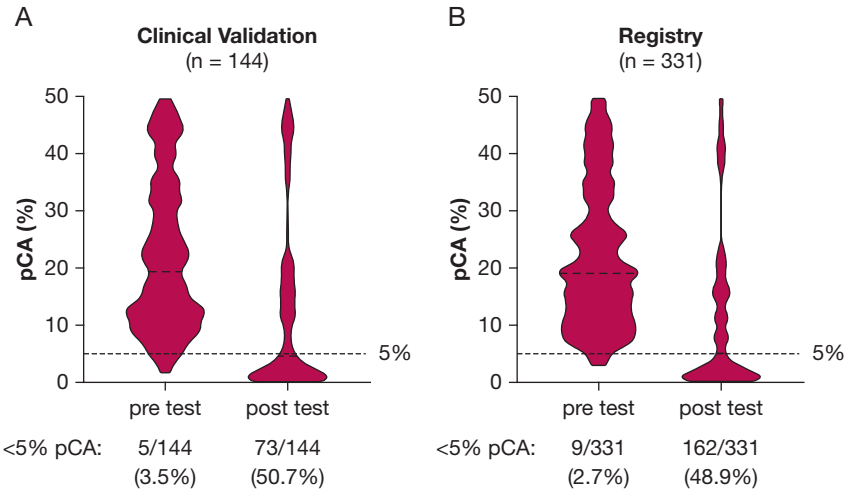

Figure 1 – *Pretest and posttest distributions using the integrated classifier in selected lung nodules. Shown is the probability of cancer (pCA) pretest and posttest values from two studies. A, from the clinical validation study with 8-30 mm nodules with a physician and SPN pCA pretest of ≤50% along with no cancer history within 5 years. B, data from the registry trial with the same selection criteria. The dashed lines within the plots indicate the median values, and the dotted line indicates the 5% pCA level. The corresponding numbers and percentages that fall below the 5% pCA line are shown at the bottom of the figure.*

The use of molecular biomarkers and telemedicine can assist with nodule management during the COVID-19 pandemic.

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Lung Cancer Screening

No Shared Decision-making When Overlooking Carl Rogers

To the Editor:

The report by Golden and colleagues[1] in a recent issue of *CHEST* (September 2020) of patients' assessment of the shared decision-making process during lung cancer screening is most welcome but deserved comment.[1]

First, Golden and colleagues[1] only assessed the second and third step of a process requiring four steps[2]: (1) Trigger, indicating that all options are acceptable; (2) Administer the information with leaflets using common-sense pictographs that use absolute numbers (with a consistent denominator, such as /1,000 screened), time frames and visuals employing the same scale for information on gains and losses of the option; (3) Promote active participation of the patient by the expression of his or her values; (4) Analyze whether the patient is comfortable with the decision by rephrasing.[2] The latter step, reflective listening, is the cornerstone of Carl Rogers "client-centered therapy," a term this humanistic psychologist coined in 1951 and then afterward hijacked to "patient-centered care," restoring the symbolic dominance of doctors on patients and bypassing the concept of the service to be provided. Simply, summarize what the person said by using his or her own words rather than paraphrasing and without digressing to other subjects. This reinforces the person's own expressions of problems, recognition of concerns, complaints, and values. It reveals potential misunderstanding of the person's concerns.[3]

Second, Golden and colleagues' conclusions,[1] beginning with "recent society and government policies for lung cancer screening place an emphasis on shared decision-making" deserved scrutiny:

(1) Among 162 lung cancer screening program websites from US medical centers, potential benefits were more frequently described than potential harms (98% vs 48%).[4]
(2) The quality indicator for screening programs is the rate of tests performed in the target population, as through the aim were having the person pass the test. This nurtures the ethic of conviction, not the ethic of responsibility and accountability! The quality indicator must be the rate of adequate shared decision-making process performed in the target population, regardless of the person's decisions.

Both issues are worldwide ones and not specific to lung cancer screening programs; they preclude shared decision-making.

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