

Lung Nodule Manager App Review

Andres Elovic 1 • Ali Pourmand 1

Published online: 12 February 2019

© Society for Imaging Informatics in Medicine 2019

Abstract

Intermediate lung nodules are frequently discovered in CT imaging as either incidental or part of cancer screening. The Lung Nodule Manager allows for a quick retrieval of guidelines by physicians and health care professionals to determine the proper management and follow-up for patients.

Keywords Lung nodule · Lung nodule app

App Specs

App icon URL: https://itunes.apple.com/us/app/lung-nodule-followup-guidelines/id527797391

App name: Lung Nodule Manager (2017) App developer: RADIOLOGiQ, LLC

App developer website: http://www.radiologiq.com/

App price: free

Apple App Store URL: https://itunes.apple.com/us/app/

lung-nodule-followup-guidelines/id527797391

Google Play Store URL: N/A Category: medical, educational Tags: pulmonary, nodule, free

Compatibility: requires iOS 10.0 or later. Compatible with

Apple devices
Works offline: Y
FDA approval: N/A
Promotion code: N/A

Electronic supplementary material The online version of this article (https://doi.org/10.1007/s10278-019-00187-2) contains supplementary material, which is available to authorized users.

Andres Elovic elovica@gwmail.gwu.edu

Ali Pourmand pourmand@email.gwu.edu

The George Washington University School of Medicine and Health Sciences, Washington, DC, USA

Quick Review

Overall rating (1–5): 5 Content (1–5): 5 Usability (1–5): 5

Pros

The layout is extremely easy and user friendly. Easy as well to switch between a lung nodule found incidentally, which uses the Fleischner Society Guideline or if the nodule was found as a cancer screening, which uses the Lung-RADS classification.

Cons

When first using the app, it might seem a little confusing not knowing if a specific color implies a level of severity. However, after playing around on the app, one can understand it quickly. The app also does not work on portrait mode for the iPhone.

At a Glance

Intermediate lung nodules are frequently discovered in CT imaging, as either incidental or part of cancer screening. Lung Nodule Manager allows for quick retrieval of guidelines by physicians and healthcare professionals to determine the proper management and follow-up for patients.



Full Review

Intro

Lung Nodule Manager offers physicians and other healthcare professionals the most up-to-date guidelines for the management and follow-up of lung nodules, as established by the Fleischner Society and the American College of Radiology. Intermediate lung nodules are frequently discovered in CT imaging, and this app seamlessly integrates and informs on the proper course of action on incidental lung nodules and lung nodules discovered during cancer screening. Additionally, this app conveniently integrates a tool for assessing the malignancy risk of any lung nodule discovered.

Purpose/Features/Content

Lung Nodule Manager serves as a go to resource for recently discovered incidental lung nodules and lung nodules discovered during cancer screening. The app elegantly divides the type of nodule found as either solid or subsolid, as each have different management guidelines. Furthermore, a great feature of the app is how it separates each type of nodule found into different subcategories. It does this by having the user answers questions regarding the specificity of the nodule (e.g., location of nodule, high/low-risk patient, speculation, appearance of nodule) and ending with a pop-up message describing the proper management and follow-up guideline. After answering the entire question, the user taps the screen on the top right corner and a message pops up describing the guidelines to follow.

Upon classifying the nodule, the app goes a step further and informs the user on the risk of the nodule being malignant. It is able to calculate this by allowing the user to input additional information of the nodule like the type of nodule (solid or subsolid), the size of the nodule, if there are multiple nodules, if the nodule has grown from previous imaging, and information of the patient like age, gender, family history, and lung disease (e.g., emphysema).

Lastly, if a physician or healthcare professional wants to see the journal article where the recommendations are retrieved from, there is a link on the top right corner of the FAQ page opens the journal in a Safari web browser.

The overall purpose of this app is to offer physicians and healthcare workers a quick and accurate recommendation for incidental solid and subsolid lung nodules based on the Fleischner Society and the American College of Radiology most recent publications.

Usability

The app is satisfactory with its straightforward design, easy-to-learn application layout, and well-chosen colors for visualization. Navigating through the different questions concerning the patient's history and nodule is quick and easy.

Good

The interface is intuitive and easy to navigate. Each function is user friendly and prevents confusion by its users. The ease and speed of classifying the nodule allow the physician or healthcare professional to do so while discussing with the patient.

Room for Improvement

It would be good for the app to offer a mini tutorial when first downloaded so the user understands the layout better and quicker. Being able to increase the letter size in the app would ultimately benefit the doctors in reading the guidelines and being able to show it to the patients.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims inpublished maps and institutional affiliations.

