What is the definition of a lung nodule
A lung nodule is defined as a "spot" on the lung that is 3 cm (about 1 ½ inches) in diameter or less. Lung nodules usually need to be at least 1 cm in size before they can be seen on a chest x-ray.

How common are lung nodules?
Lung nodules are quite common, and are found on 1 in 100 CT scans of the chest. Over 150,000 lung nodules are found in people in North America each year. Roughly half of smokers over the age of 50 will have nodules on a CT scan of their chest.

What causes lung nodules?
Lung nodules can be either benign (non-cancer) or malignant (cancer). The most common causes of benign nodules include granulomas (clumps of inflamed tissue) and hamartomas (benign lung tumors). The most common cause of malignant lung nodules include lung cancer, or cancer from other regions of the body that has spread to the lungs. Lung nodules can be broken down into 4 major categories: infections, inflammation, benign tumors, or malignant tumors.

Do lung nodules cause symptoms?
Most lung nodules do not have any symptoms and are found “accidentally” when a chest x-ray or CT scan is done for some other reason.

What are the chances that a lung nodule is cancer?
Overall, the likelihood that a lung nodule is cancerous varies considerably depending on several things: age, smoking, occupation, medical history as well as the size, shape and growth of the nodule.

Diagnosis
The first thing your doctor will want to do if he/she sees a lung nodule on your x-ray is to obtain any previous x-rays you have had and compare them. If the nodule or nodules have been present for a long time, further tests may not be needed. If the lung nodule is new or you don’t have any prior x-rays to compare, further workup may include one or all of the following:

• Observation and repeat CT studies if the nodule is likely benign
• Further imaging, such as a PET scan
• Biopsy is considered if the nodule is at least 1 centimeter and shows evidence of growth over time or has other features. There are several methods for biopsy:
  – Bronchoscopy
  – CT-guided biopsy
  – Open lung surgery
Treatment
The treatment of lung nodules varies widely depending upon the cause, whether they are related to infections, inflammation, cancer, or other conditions. Most benign lung nodules, especially those that are present and haven’t changed over a period of a few years, can be left alone.

Your suggested management
Based on your imaging (CT scan) and clinical findings we estimate your risk of having a cancerous nodule to be:

- Low
- Intermediate
- High

Therefore, the following has been suggested for you:

- CT monitoring for at least months / years:
  - Your first CT scan was on
  - Your next CT scan is on
  - Your next CT scan is on
  - Your next CT scan is on
  - Your next CT scan is on
  - Your last CT scan is on

Follow-up
- Your management decisions will be based on the results of your next CT scan. Therefore, you may either:
  - receive a phone call to discuss the CT scan results without a clinic appointment (if CT shows stable nodule)
  - have additional tests organized along with a clinic visit (if CT scan shows a change in your nodule).