

RADIS Noun Extraction  
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The intended purpose of this software is to help radiologists make a diagnosis using medical images. The diagnosis will be based on past patient history and conclusions from the image processing.

The patient provides symptoms to add to, or create their history. Based on their condition the radiologist will make a decision as to which imaging instrument will produce a relevant result. For example, an MRI will produce a more detailed image than a CT scan but not everyone can have an MRI plus it may not be necessary depending on the level of accuracy needed to make a diagnosis. The patient will then be taken to the instrument and a technician will take the image.

After the image is produced a digital copy will be sent to the image processor and the patient's file. The image processor will look for any abnormalities by comparing the image to past images, color schemes and white space. Some instruments take many pictures, known as slices, therefore the processor will have to know how to interpret and compile the many images. The report generator will search a database of possible diagnoses based symptoms and image results and provide a list of possible diagnoses based on statistical probability. The results will be interactive; the radiologist should be able to click on a diagnosis in the list to see the matching symptoms and a description of the diagnosis. In addition, the radiologist should be able to search the database for alternative diagnoses, by name or symptoms.

Once a diagnosis is made it should be added to a patient's file. The radiologist's notes should be added as well.