

Should I refer my patient for an X-ray or CT if another examination can be done that does not use ionising radiation?

If a non-ionising imaging examination can give the best answer to the clinical question, requesting it would save your patient from unnecessary exposure to ionising radiation

There are different kinds of imaging techniques. Some of them as conventional radiography and CT use ionising radiation and others such as ultrasound and MRI use non-ionising radiation. When imaging soft tissues, MRI and ultrasound may give you the best results. However, MRI may also pose other risks for certain patients. The recommendations for good medical imaging practices (imaging referral guidelines) will help choose the appropriate diagnostic examination and the best possible care, depending on the symptoms and clinical characteristics of the patient.

Talk to the radiologists about it!

# Choosing the appropriate imaging technique protects the patients' interests!



### The benefits for the patients

- They obtain the right diagnosis with the right examination
- They can start the right treatment without delay
- They avoid any unjustified exposure to ionising radiation



The appropriate use of imaging improves healthcare management for everyone: providing enhanced availability of equipment and control of costs

#### **How to talk about ionising radiation?**

Exposure to X-ray can damage the cells in the human body and potentially increase the risk of developing cancer later in life. This risk is assumed to be proportional to the dose received and thus increases with the number of examinations performed. For example, a CT scan of the head performed with the proper technique has a radiation dose equivalent to almost a year of natural radiation, i.e. an effective dose of 2 mSv¹. While this increases cancer risk a little, the clinical benefits will far outweigh this risk if the examination is justified.

#### What are recommendations concerning medical imaging?

The recommendations for good medical imaging practices (imaging referral guidelines) help to choose the most appropriate diagnostic examination according to the clinical symptoms of the patient and provide the best possible care. Deviating from the recommendations for a given patient is possible if this is clearly justified. If in doubt, prior discussion with the radiologist is the key to help to choose the best examination method.

1. Source: https://www.radiologyinfo.org/en/info.cfm?pg=safety-xray

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