

Call me Clizia – A day in the life of a radiographer

Call me Clizia. I am a radiographer working at the radiology department of the county hospital where I live. Today I am doing the morning shift, so I need to be at my department by 7am. My radiographer colleagues and I always start the day with a cup of coffee while we are debriefed by the radiographer who did the night shift. This morning he told us that there were several emergency CT examinations which he had to perform on patients from the accident and emergency (A&E) department. All went well and the patients have gone back to the wards; he has tidied up the CT equipment and refilled all supplies so we can start the morning shift as planned. Today I will be performing general x-rays, however as there are several radiographers on vacation, I will most likely also help out in CT as they have quite a few examinations booked for today.

The phone rings and it is from the intensive care unit (ICU). They need an urgent chest x-ray for a patient in a critical situation. I quickly gather up a few x-ray cassettes and take them up with me to the ICU to use with the mobile digital x-ray unit. Arriving at the ICU, I consult with the ICU staff to ask for the x-ray referral and for some information on the patient needing the x-ray. While preparing the mobile x-ray unit for the examination I notice that there is another patient close by who is not mobile enough to be taken away while I perform the x-ray. I place a lead apron on this patient to try to minimise the scattered x-ray radiation that she would be exposed to while I perform the x-ray on the other patient. The ICU nurses help position the x-ray cassette underneath the chest of the patient and do their best to prevent various medical instruments and wires from overlapping the area being examined. After making the chest x-ray, I quickly consult with the ICU physician to confirm whether the x-ray image is suitable for his requirements. Making chest x-rays on patients lying in a bed is not ideal. We need to find ways of maintaining good image quality on patients who are unable to cooperate, cannot hold their breath, or have lots of medical instruments around them and lots of wires or cables across them. I enjoy doing x-rays in the ICU as the staff are very helpful and do their best to help me and my work; I am glad that I can contribute to the care of patients in the ICU.

Going back to the radiology department I realise that there are several patients waiting to have x-ray examinations. Reading through the referrals, I see that one has come for a chest x-ray, another one for an ankle x-ray and another one for an abdomen x-ray. I ask the assistant to check with the patients to prioritise their needs. While she talks with the patients, I double check to make sure that all the referrals are signed by the clinician. I also check to see whether the patient consent forms have been filled out and signed by the patients themselves.

I start with the chest x-ray. This time the conditions are ideal. After the patient has taken his shirt off, I position him standing in front of the cassette. This time I use a routine setting on my digital x-ray system. Having a look at the image on my screen, I am pleased to see that it is exactly what is needed. I finalise and save the image through the picture archiving and communication system (PACS). This is a great tool as it allows the referring clinician as well as the reading radiologist to view the x-ray image straight away, in their office or on the ward. I have heard that there are some places where the clinicians get the images sent straight to their smartphones. Wow! This is one of the reasons why I love my profession; the technology supporting radiology is changing dynamically with the latest innovative IT features always being integrated into our systems to improve the quality of patient care we provide.

Next, I call in the patient coming for an ankle x-ray. I ask the patient to remove his shoes and to lie down on the x-ray table. I first cover his lap with a lead apron, again to minimise unnecessary radiation dose, and position the cassette. This time I have to make two images from two different angles. This is the routine in the case of an ankle x-ray. After checking the images and disinfecting the table, I call in the other patient who is here for an abdominal x-ray. I quickly ask whether the patient has had anything to eat that morning. Not surprisingly, she says that she had breakfast. I explain to her that I will need to consult with the radiologist to double check whether it is possible to take an x-

ray now or maybe it would be better if she comes back at a later time with an empty stomach. We wouldn't want her to be x-rayed twice, especially if it is not an urgent case. I quickly cross the department to the radiologist who is already making reports based on the previous x-rays I have done. After I explain the situation, he decides to postpone the examination until he has consulted the referring clinician. Even though this is the standard procedure at our department, I am happy to experience once again that the team in the radiology department do their best to prevent people from receiving unnecessary radiation.

Seeing as there are no more patients waiting for x-rays, I decide to go over to the CT area to see whether I can help them. I get there just in time, as a team from the A&E department, together with the neurosurgeon, rush in with a head trauma patient who needs an urgent CT scan of the head. I quickly ask the assistant to notify the radiologist on duty while I rush in to help. Positioning the patient is not easy because of his accident. This time we need to fasten the patient to the table to prevent further accidents from occurring. The CT scan of the brain is ready by the time the radiologist arrives. It shows a severe epidural haematoma, which is a build-up of blood between the skull and the outer membrane of the brain. We quickly save the images to the PACS system so the neurosurgeon can have easy access to them in the operating theatre. Once again, I am proud that I can work with an excellent team in the radiology department, supported by the latest technology which not only allows for fast and precise imaging of patients, but caters for patient safety at the highest level.

Next there is a 10-year-old boy, suffering from acute abdominal pain, who is waiting with his parents. Quite understandably, they are all very worried. The surgeon has asked for an abdominal CT as he suspects appendicitis in the young boy. We decide to consult the radiologist as he might prefer to have a talk with the surgeon and start by doing an ultrasound exam instead of CT, to avoid unnecessary exposure to ionising radiation. Luckily both clinicians decide it is best to start with an ultrasound. I have a word with the parents to calm them down and to say that the radiologist will be there soon to explain why another examination will be performed instead. I phone my colleague at the ultrasound station so she can prepare for this extra examination besides the pre-booked examinations.

Then the assistant comes into CT to say that we are needed in the operating theatre where there is a hip operation in progress. I quickly head up to the operating theatre and change my clothes. I see that the assistant has already prepared the mobile C-arm, which is a special C-shaped piece of equipment that is used to connect the x-ray source and x-ray detector to one another, with the patient in the gap of the 'C'. Looking around the operating room, I noticed that the anaesthesiologist and the nurse are not wearing lead aprons. I provide them with lead aprons and ask all others to leave the room while I make the x-ray. I understand that it could be uncomfortable to wear such heavy aprons, but safety comes first and I have an obligation to maintain safety for staff and patients. I take some x-ray images for the orthopaedic surgeon so he can confirm that the implanted screw is really in the correct position. After cleaning up and disinfecting the C-arm, I return to the radiology department.

The radiologist is just leaving the department for lunch. He tells me that the ultrasound showed no evidence of appendicitis in the 10-year-old boy and thanks me for taking the action of calling him. I am thankful that, in the end, we have avoided exposing the child to unnecessary ionising radiation.

Back in the radiology department, I hear that two trauma patients have arrived at the A&E department following a car accident. One has multiple traumatic injuries (known as polytrauma) with several fractures. The nurses are already cleaning the blood from the wound and removing bits of glass that probably came from a broken car window. I go over to the CT area to help the radiographers prepare for the patients. We put on disposable aprons and gloves prior to receiving

the patients. We are aware of the hazards associated with blood contamination and it is our obligation to do all that we can, not only for patient safety, but for our own safety.

The first patient brought to CT has breathing difficulties, so an urgent chest CT is requested by the emergency team. The patient is taken to the CT scanner where I see that not only are his sternum and four ribs fractured, but he has a perforated lung. The chest surgeon is called to have a quick look at the images and after consulting with the radiologist, he asks us to help organise the transfer of the patient to the operating theatre. Our assistant is glad to help and offers to help take the patient away. We quickly clean the CT table and get ready for the next patient. Luckily, the next patient has only suffered minor trauma with no apparent fractures. Nonetheless, a CT scan with a low dose of radiation and an injection of contrast medium (a substance which helps to make certain things more clearly visible in the image) is needed to rule out any internal injuries. My colleague goes over the consent form with the patient and discusses safety aspects and potential hazards before asking for the patient's signature. It is always very important to document all aspects of patient care as these may be significant in the future. In the meantime, I prepare the contrast medium injector and after positioning the patient, I connect the injector with the tube placed in the patient's right arm. Everything goes well during the examination. We are glad to see that the patient doesn't have any further injuries. After the patient is taken away, I help clean up the CT area for the afternoon shift.

As my morning shift comes to an end, I go off to have a coffee in our lounge with some of the radiographers and radiologists. We talk of how colourful our work is, no matter whether we do routine shifts or weekend shifts, so many incredible things happen and we are always ready to contribute to patient care by helping other clinicians and staff members at the hospital. We all believe that the radiographers and radiologists make a perfect team here!

It is now 2pm; my radiographer colleagues have arrived for the afternoon shift. It has been an intense day, but at the end I feel happy because I have had the opportunity to achieve the best of this profession: to help others in need.

I'm proud to be a radiographer!

