

## Department of Diagnostic Radiology

# Patient Information Leaflet: Nuclear Medicine Information for Carers or Comforters accompanying the Patients

This information leaflet is for family members or friends who will accompany a patient during a Nuclear Medicine diagnostic imaging procedure in order to provide physical or emotional support. As a Carer and Comforter of the patient undergoing the Nuclear Medicine procedure it is important that you are aware that you are likely to receive a small dose of radiation. We will try to keep this dose as low as possible. The leaflet explains what the risks are and will ask you to sign your understanding of these risks. Please note that Carers and Comforters must be over 18 years of age.

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## What is a Diagnostic Nuclear Medicine procedure?

Diagnostic Nuclear Medicine procedures usually involves injecting the patient with a small amount of radioactive material. This radiation can then be detected by a gamma camera to give information on organ function/physiology. There will be a low level of radiation present around the patient for several hours after the injection. This radiation may be excreted from the patient in urine, saliva and sweat. Being present to assist a patient, e.g. a child or vulnerable adult, or exposure to bodily fluids during this time makes you a 'Carer and Comforter' as defined by the radiation regulations. The



operator will give you details of how long certain restrictions will last following the procedure as these will vary depending on the individual treatment.

## What are the risks?

The dose you will receive depends on the procedure the patient is having and the type of care that needs to be given, but is equivalent to a few days or a few months of natural background radiation. There is radiation all around us, from the earth and the atmosphere. The average UK natural background dose is around 2.7 units (the unit being millisievert, mSv) per year (this varies across the country from 1.5 to 7.5 units per year). Any radiation dose, from any source, carries a small risk.

The current best estimate is that the increase in the risk of developing a cancer is no more than 0.005% (1 in 20000) for every unit of radiation dose received.

For comparison, the natural risk of developing cancer is around 50% (1 in 2), so the total risk for a person receiving an additional radiation dose of 1 unit is 50.005%.

As can be seen, the additional risk is very small in the context of other everyday risks (such as travelling by car or train).

## How much radiation will I get by acting as a Carer or Comforter?

The dose to the patient is set (by national regulations) to the level needed for effective diagnosis or treatment. The dose to other persons in reasonably close contact with the patient, such as a Carer or Comforter, depends upon several factors:

- The type of procedure the patient is having.
- The clearance speed of the radioactive material from the patient.
- The level of contact.

For legal purposes we divide Carers and Comforters into 2 groups:

### Group 1

- Family or friends entering controlled areas with patients having imaging tests (e.g. parents, spouses).
- Parents or Carers of young children and babies who need nursing, changing etc. after their appointment.

We have calculated that you will get a radiation dose of less than 1 unit from your involvement in the procedure.

## Group 2

- Family or friends providing high level of personal care to older children/adult patients after their appointment.
- Family or friends of patients receiving therapy doses, who will be unable to comply with close contact restrictions after their appointment.

You will receive personalised written information taking into account the dose received by the patient, and the extent of care needed; but this should not exceed 5 units.

Please follow the below advice so that the radiation dose to yourself is as low as possible, without reducing the care or comfort you give the patient:

- Reduce your contact time with the patient- which will mean a reduced dose to yourself.
- Have less contact with the patient - (only if safe to do so) which means a reduced dose to yourself.
- Increase your distance from the patient- at least by one meter which means a reduced dose to yourself.
- Time after the procedure - radiation decays (goes down) as time goes on, which means a reduced dose to yourself.

The risk from such a low dose of radiation is very small. But if you are worried about your own radiation risk while working in the capacity of a Carer and Comforter to the patient (after they have had a Nuclear Medicine procedure), please let the operator know that you do not wish to proceed.

## Contact Us

Please refer to the appointment letter. If you require the information in paper format please contact the Radiology Department on the number provided on the letter.

## How to provide feedback

Our aim is to provide a quality of care we would want for ourselves, our families and friends. If there was anything that we could have done please let us know via the department/ward staff or the patient experience team available on 01432 372986 or email [PALs@wvt.nhs.uk](mailto:PALs@wvt.nhs.uk) (opening times may vary).

This leaflet is available in large print, Braille, Audio tape or other languages upon request. Please contact patient experience team on the above telephone number.

You may be asked to give your opinion on the service you have received. We welcome your feedback as this will help us to improve the care and treatment we provide to our patients.

[Wye Valley NHS Trust website](#)

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