

Department of Radiology

Pregnancy testing before certain types of X-rays

Information for patients & parents

Introduction

National guidance recommends that NHS organisations should check if a patient is pregnant before they do certain types of x-rays^{1,2}. This guidance applies to women and girls aged between 12 and 55 years.

Keeping patients safe in hospital

We already ask many questions about a patient's health; for example the medicines they are taking and if they have any allergies. We will also be asking girls and young women questions about pregnancy to avoid the risk of harm.

What are the risks?

Some x-rays can harm an unborn baby if they are carried out when a patient is pregnant. There is no risk of death, birth defects, growth problems or mental impairment in an unborn child exposed to x-rays. But the doses of radiation used in procedures like CT scans, barium enemas and nuclear medicine scans, can increase the risk of cancer^{1,2}.

- **Computerised Tomography (CT)** uses several beams of X-ray at the same time, from different angles, to give a detailed picture of the inside of the body. A CT involving the pelvis and tummy area, if done in the early weeks of pregnancy, can increase the risk of childhood cancer in an unborn child.
- A **barium enema** is a type of X-ray of the rectum (the inside of your bottom). It uses a liquid containing a metallic element called barium, which helps get clearer x-ray pictures of the area.
- **Nuclear medicine** scans use a special camera (gamma) to take pictures showing the function of different parts of the body. A radioactive chemical that can be picked up by the scanner is injected into the body.

These radiological examinations should be avoided during pregnancy, and if possible even in undiagnosed pregnancy.

Some surgical procedures, including orthopaedic (bone) surgery and cardiac (heart) procedures also involve the use of x-rays in doses that should be avoided in pregnancy.

The small increase in risk of childhood cancer does not justify termination of pregnancy if these x-rays are required in an emergency³.

Testing for Pregnancy at Alder Hey

All female patients aged 12 years or older who are having a procedure involving a high dose of radiation will be asked to provide a sample of urine for a pregnancy test before their procedure.

Patients are asked to arrive at least 30 minutes before their x-ray is due in order to complete the pregnancy test without delaying their procedure.



Consent

If a doctor considers a young person to be mature enough, they are judged to be 'competent to consent' and can agree to a pregnancy test for themselves. Competent young people can also refuse a pregnancy test⁴.

Parents and carers can refuse their daughter being tested for pregnancy, if their daughter is not competent to consent.

We would want to discuss the reasons for refusing a test, to help us make the best decisions about treatment and keeping young people safe.

Pregnancy Test results

The hospital cannot share the result of the pregnancy tests with parents or carers without a competent young person's permission. We will encourage young people to involve their parent or carer in decisions about their care.

For most young people, we expect the test will be negative, showing that they are not pregnant, and the procedure can go ahead as planned. We will not routinely inform parents or carers of the result of the pregnancy test, even if it is negative.

For a small number of young people, the test may be positive. We would have to think very carefully about the best way to proceed, and make sure the right care was organised to help with the pregnancy.

In some circumstances, a positive result may not be due to pregnancy, and the reasons for this may need to be investigated with an ultrasound scan or blood test.

Sometimes it is necessary to cancel or delay procedures at short notice. If this happens, please do not assume that this is due to the result of a pregnancy test.

Collecting your urine sample:

Please collect a sample of urine on the morning of the procedure. The first urine of the day is the best, as it is the most concentrated, but don't worry if it is collected later.

If you are collecting your urine at home, please store your sample in a suitable container in the fridge until you are ready to travel to Alder Hey. Specimen containers can be obtained from your GP, any pharmacy or from the lab at Alder Hey. Please ring the lab on 0151 252 5488 (or via switchboard on 0151 228 4811, extension 2488) if you would like one sent to you by post.

References

1. Pre-procedure Pregnancy Checking in under 16s: Guidance for Clinicians
<http://www.rcpch.ac.uk/system/files/protected/page/pregnancy%20checking%20guidance%20final.pdf>
2. Pregnancy Testing Guidance: Statistical background and risk:
http://www.rcpch.ac.uk/system/files/protected/page/Pregnancy%20checking%20supplementary%20paper%20statistics%20and%20risks_0.pdf
3. Protection of Pregnant Patients during Diagnostic Medical Exposures. Advice from the Health Protection Agency, the Royal College of Radiologists and the College of Radiographers.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335107/RCE-9_for_web.pdf
4. NSPCC Gillick Competency and Fraser Guidelines
<https://www.nspcc.org.uk/preventing-abuse/child-protection-system/legal-definition-child-rights-law/gillick-competency-fraser-guidelines/>

For further information

If you have any questions about pregnancy testing, consent, competency or sharing test results please visit the Alder Hey website <http://www.alderhey.nhs.uk>

This leaflet only gives general information. You must always discuss the individual treatment of your child with the appropriate member of staff. Do not rely on this leaflet alone for information about your child's treatment.

This information can be made available in other languages and formats if requested.

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