Mersey and West Lancashire
Teaching Hospitals
NHS Trust

Whiston Hospital Warrington Road, Prescot, Merseyside, L35 5DR Telephone: 0151 426 1600

St Helens Hospital Marshalls Cross Road, St Helens, Merseyside, WA9 3DA Telephone: 01744 26633

Southport Hospital Town Lane, Kew, Southport, Merseyside, PR8 6PN Telephone: 01704 547 471

Ormskirk Hospital
Dicconson Way, Wigan Road,
Ormskirk, Lancashire, L39 2AZ
Telephone: 01695 577 111

Growth Hormone Stimulation Test Clonidine / Arginine

Patient leaflet

If you need this leaflet in a different language or accessible format please speak to a member of staff who can arrange it for you.

اگر به این بروشور به زبان دیگر یا در قالب دسترسپذیر نیاز دارید، لطفاً با یکی از کارکنان صحبت کنید تا آن را برای شما تهیه کند.

Jeśli niniejsza ulotka ma być dostępna w innym języku lub formacie, proszę skontaktować się z członkiem personelu, który ją dla Państwa przygotuje.

Dacă aveți nevoie de această broșură într-o altă limbă sau într-un format accesibil, vă rog să discutați cu un membru al personalului să se ocupe de acest lucru pentru dumneavoastră

如果您需要本传单的其他语言版本或无障碍格式,请联系工作人员为您安排。

إذا احتجت إلى هذه النشرة بلغة أُخرى، أو بتنسيق يسهل الوصول إليه، يرجى التحدث إلى أحد الموظفين لترتيب ذلك لك.

Author: Nurse

Department: Paediatrics

Document Number: MWL2831

Version: 006

Review Date: 30/09/2028

What is Growth Hormone?

Growth hormone is essential for normal growth and is made by the pituitary gland (located at the base of the brain). It is then released into the blood stream and it travels to the body's tissues helping with growth and development.

Normal levels of growth hormone in the blood change from hour to hour and are very difficult to assess. Growth hormone is released by a series of 'spurts' throughout the day and night especially during sleep.

Some special tests allow us to look at individual hormone levels or a number of hormone levels together.

To detect and measure the levels of growth hormone, blood must be taken when a surge of growth hormone has been provoked, otherwise blood would need to be taken at very frequent intervals usually during the night.

What is a Growth Hormone Stimulation Test?

This is a test to check the amount and production rate of growth hormone in your or your child's body. It helps to confirm or exclude a diagnosis of growth hormone deficiency responsible for growth failure for example short height.

Notes

Page 1 Page 6

What are the side effects?

The most common side effect of the medication given for the test is tiredness and lowered blood pressure. Very rarely your child may have a reaction to the medication given.

Rest assured you are in safe hands during your stay with us

After the test:

On completion of the test the cannula will be removed and your child will be able to have something to eat and drink prior to going home.

If you are intending to send your child to school they should be excused from sporting activity for the remainder of the day.

Your doctor will be informed of the results of the test when they are available. The doctor will contact you with recommendations if required.

Consequences of not having the procedure?

The doctor looking after your child may not have the full medical information they need to treat your child's symptoms.

Why do the test?

Random blood tests for growth hormone are rarely helpful in diagnosing or excluding growth hormone deficiency. Therefore, we use various drugs to stimulate the pituitary glands to see how much growth hormone is released.

There are other causes of growth failure for example an under active thyroid gland, chronic illness like asthma, kidney and heart problems etc. Therefore it is always better to check that these conditions are not causing the growth failure.

What are the benefits of the test?

The doctor looking after your child will have a greater understanding of the medical problem and thus the appropriate management can be initiated.

What are the risks and discomforts of the test?

The nurse conducting the test will ensure you are made as comfortable as possible. All discomfort will be minimised.

Page 5 Page 2

How will the test be performed?

You or your child will be asked to attend **Children's Observation Unit (CHOBS)** at a suitable time and date.

Your child will need to fast (have nothing to eat and drink except water after midnight the night before the test).

Your child may bring any suitable activities books, toys, DVD etc. that they may wish to play with during their stay in the hospital. Encourage your child to wear comfortable warm clothing.

Arrange for your child to be excused from school

On arrival at the hospital on the day of the test, the specialist nurse will introduce herself to you and explain what will happen during the test.

During the test your **child will be asked to lie flat for the duration of the test.** Magic cream will be applied to an area on the hand or arm to help numb the skin.

After a period of 20-30 minutes, the cream will be removed and a small plastic tube and needle (cannula) will be inserted into a large vein, the needle will be removed leaving just the tube.

The cannula will be left in place for the duration of the test to enable the nurse to collect blood samples as specific times. This is to prevent your child needing to have a needle inserted for each blood test.

The specialist nurse will check your height and weight. An initial blood test will be taken to check the level of growth hormone. We will then give your child a medication either by mouth (usually Clonidine) or through the cannula into the vein (usually Arginine), which one will be decided by your doctor prior to the test. Normally we use Clonidine.

Blood samples for growth hormone will be taken at **30**, **60**, **90** and **120** minutes after stimulation with the above named medication. However, timing of the blood samples is slightly more frequent if we have to use the Arginine.

The results of the blood tests will reflect how much your child's body reserves for growth hormone and how well your child's body can respond to the stimulation.

Page 3 Page 4