A CSF (cerebrospinal fluid) flow study is a test used to see the flow patterns of fluid in your brain and around your spinal cord. A lumbar puncture procedure is performed to allow a radioactive substance to be injected into the fluid around the spinal cord in your lower back. This lumbar puncture procedure will require the injection of a local anaesthetic.

C. Risks of the procedure

In recommending the CSF flow study the doctor believes the benefits to you from having this procedure exceed the risks involved. The risks and complications with this procedure can include but are not limited to the following.

Common risks and complications include:
- Headache which may require medication and bed rest.
- Low blood pressure causing dizziness. Bed rest can help relieve this.
- Bleeding or bruising could occur. This is more common if you take aspirin or any other blood thinning medication.
- Failure of local anaesthetic may require a further injection of anaesthetic or a different method of anaesthesia may be used.
- Nerve damage is usually temporary, and should get better over a period of time. Permanent nerve damage is rare.

Less common risks and complications include:
- A severe headache which may require bed rest for several days. Sometimes other procedures are required to be done to relieve this headache.
- Vomiting may occur and require treatment with medication.
- Infection, requiring antibiotics and further treatment.

Rare risks and complications include:
- An allergy to injected drugs may occur, requiring further treatment.
- Spinal cord injury resulting in a stroke in the spinal cord.
- Permanent nerve damage with possible paralysis.
- Seizures requiring medication and further treatment.
- Cardiac arrest due to local anaesthetic toxicity.
- Meningitis requiring antibiotics and other treatment.
- Death as a result of this procedure is very rare.

If serious complications occur, admission to hospital maybe required.

D. Women of child bearing age

This procedure can not be performed if you are pregnant.

Are you or could you be pregnant?
Yes ☐ No ☐ Unsure ☐
If unsure, I agree to have a urine or blood pregnancy test
Yes ☐ No ☐
Are you breastfeeding?
Yes ☐ No ☐
If you have answered ‘yes’ or are unsure of any of the above questions, the health practitioner will obtain further advice and consult with a Medical Officer.

E. Risks of radiation

The risks of the radiation exposure from this scan needs to be compared to the risks of your condition not being treated.

Exposure to radiation may cause a slight increase in the risk of cancer to you over your lifetime.
F. Patient consent

I acknowledge that the doctor/doctor delegate has explained the proposed procedure.

I understand;

- the risks and complications, including the risks that are specific to me.
- local anaesthetic required for this procedure. I understand the risks, including the risks that are specific to me.
- that this diagnostic procedure is necessary as part of the management plan for my condition.
- if immediate life-threatening events happen during the procedure, they will be treated based on my discussions with the doctor/doctor delegate or my Acute Resuscitation Plan.
- a doctor/doctor delegate undergoing further training may conduct this procedure.

I have been given the following Patient Information Sheet:

☐ CSF Flow Study

- I was able to ask questions and raise concerns with the doctor/doctor delegate about the proposed procedure and its risks. My questions and concerns have been discussed and answered to my satisfaction.
- I understand I have the right to change my mind at any time including after I have signed this form but, preferably following a discussion with my doctor/doctor delegate.
- I understand that image/s or video footage may be recorded as part of and during my procedure and that these image/s or video/s will assist the doctor to provide appropriate treatment.
- I understand that Queensland Health may release my relevant de-identified information obtained from this and related procedures for education and training of health professionals.

On the basis of the above statements, I request to have the procedure

Name of Patient:.................................................................  Signature: .................................................................  Date:.................................................................

Patients who lack capacity to provide consent

Consent must be obtained from a substitute decision maker/s in the order below.

Does the patient have an Advance Health Directive (AHD)?

☐ Yes ▶ Location of the original or certified copy of the AHD:

☐ No ▶ Name of Substitute Decision Maker/s: ........................................................................................................

Signature: ........................................................................................................  Date:.................................................................

Source of decision making authority (tick one):

☐ Tribunal-appointed Guardian
☐ Attorney/s for health matters under Enduring Power of Attorney or AHD
☐ Statutory Health Attorney
☐ If none of these, the Adult Guardian has provided consent. Ph 1300 QLD OAG (753 624)

G. Doctor/delegate Statement

I have explained to the patient all the above points under the Patient Consent section (F) and I am of the opinion that the patient/substitute decision-maker has understood the information.

Name of Doctor/delegate: ........................................................................................................

Signature: ........................................................................................................  Date:.................................................................

H. Interpreter’s statement

I have given a sight translation in

........................................................................................................

(state the patient’s language here) of the consent form and assisted in the provision of any verbal and written information given to the patient/parent or guardian/substitute decision-maker by the doctor.

Name of Interpreter: ........................................................................................................

Signature: ........................................................................................................  Date:.................................................................
1. What is a CSF Flow Study?
A CSF (cerebrospinal fluid) flow study is a test used to see the flow patterns of fluid in your brain and around your spinal cord.
A lumbar puncture procedure is performed to allow a radioactive substance to be injected into the fluid around the spinal cord in your lower back.
A gamma camera, located in the Nuclear Medicine Department, will take pictures several times during the day and possibly over several days.

2. Will there be any discomfort, is any anaesthetic needed?
The lumbar puncture procedure will require the use of a local anaesthetic. Local anaesthetic is used to numb a small part of your back. It is used to prevent or relieve pain, but will not put you to sleep.

3. Preparation for the procedure
The nuclear medicine department will give you instructions on how to prepare for your procedure.
- Please tell the staff if you are or suspect you might be pregnant.
- If you take Aspirin, Warfarin, Clopidogrel (Plavix and Iscover) or Dipyridamole (Persantin and Asasantin) or any other drug that is used to thin your blood ask your doctor/health practitioner if you should stop taking it before the procedure as it may affect your blood clotting.
- List or bring all your prescribed drugs, those drugs you buy over the counter, herbal remedies and supplements.
- Do not drink any alcohol and stop recreational drugs 24 hours before this procedure. If you have a drug habit, please tell your doctor.

4. During the procedure
Local anaesthetic is injected into the soft tissues of your lower back.
Using x-ray, a spinal needle is put into your lower back. While the needle is being inserted try not to move or suddenly cough.
A radioactive substance is then injected into the fluid around your spinal cord.
A gamma camera will take pictures several times throughout the day and over several days.
On occasion, a further scan called a SPECT/CT may be required. This is a scan using a low dose of radiation. The SPECT/CT scan can take around 30 minutes. There is no need to drink anything or be injected with anything for this part of the test.
It is necessary to remain still during the scanning process.

5. After the procedure
Once you have recovered from the procedure the nuclear medicine department will discuss any special instructions with you.
You may need to lie flat for a period of time to reduce the risk of a headache. This is at the discretion of the doctor.
You will be monitored until it is safe for you to go home.
Take care when you first stand, as temporary leg weakness can occur.
After your pictures have been reviewed by the nuclear medicine doctor, your referring doctor will receive the report of the findings.

6. What are the risks of this procedure?
In recommending the CSF flow study the doctor believes the benefits to you from having this procedure exceed the risks involved.
The risks and complications with this study can include but are not limited to the following.
Common risks and complications include:
- Headache which may require medication and bed rest.
- Low blood pressure causing dizziness. Bed rest can help relieve this.
- Bleeding or bruising could occur. This is more common if you take aspirin or any other blood thinning medication.
- Failure of local anaesthetic may require a further injection of anaesthetic or a different method of anaesthesia may be used.
- Nerve damage is usually temporary, and should get better over a period of time. Permanent nerve damage is rare.
Less common risks and complications include:

- A severe headache which may require bed rest for several days. Sometimes other procedures are required to be done to relieve this headache.
- Vomiting may occur and require treatment with medication.
- Infection, requiring antibiotics and further treatment.
- Damage to surrounding structures such as blood vessels, organs and muscles. This may require corrective surgery.

Notes to talk to my doctor/health practitioner about

Rare risks and complications include:

- An allergy to injected drugs may occur, requiring further treatment.
- Spinal cord injury resulting in a stroke in the spinal cord.
- Permanent nerve damage with possible paralysis.
- Seizures requiring medication and further treatment.
- Cardiac arrest due to local anaesthetic toxicity.
- Meningitis requiring antibiotics and other treatment.
- Death as a result of this procedure is very rare.

If serious complications occur, admission to hospital may be required.

7. Risks of radiation

The risks of the radiation exposure from this scan needs to be compared to the risks of your condition not being treated.

Exposure to radiation may cause a slight increase in the risk of cancer to you over your lifetime.

8. What are the safety issues when you leave the hospital?

Take care not to bump the area that has been numbed with the local anaesthetic.

Go to your nearest Emergency Department or GP if you become unwell or have;

- Pain, unrelieved by simple pain killers
- Continuous bleeding or swelling at puncture site
- Redness or inflammation at the puncture site
- Fever
- Other warning signs the doctor may have asked you to be aware of.