Selective Internal Radiation Therapy (SIRT)

A. Interpreter / cultural needs

An Interpreter Service is required?  Yes  No
If Yes, is a qualified Interpreter present?  Yes  No
A Cultural Support Person is required?  Yes  No
If Yes, is a Cultural Support Person present?  Yes  No

B. Procedure

The following will be performed (Doctor/doctor delegate to document – include site and/or side where relevant to the procedure)

Selective Internal Radiation Therapy (SIRT) or Radioembolisation combines the delivery of radiotherapy and an embolisation procedure. Embolisation is a procedure that blocks off the blood flow to a targeted area in the body. The blood supply to the tumour is blocked by a material called an ‘embolic agent’. The embolic agent has radioactive material inside it. This results in the radio active material being trapped inside the tumour without exposing the entire body to its effects. It also blocks off the blood supply to the tumour. This procedure will require the use of a local anaesthetic and a sedation or general anaesthetic.

C. Risks of the procedure

In recommending a Selective Internal Radiation Therapy, 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:
- Minor pain, bruising and/or infection from the IV cannula. This may require treatment with antibiotics.
- Pain or discomfort at the puncture site. This may require medication.
- Bleeding or bruising may occur. This is usually stopped by applying pressure and/or ice to the puncture site. This is more common if you take Aspirin, Warfarin, Clopidogrel (Plavix and Iscover) or Dipyridamole (Persantin and Asasantin).
- Post Embolisation Syndrome which includes pain, nausea, vomiting and fever. Antibiotics and pain relief medications will be required to treat this.
- Failure of local anaesthetic which may require a further injection of anaesthetic or a different method of anaesthesia may be used.

Less common risks and complications include:
- Infection, requiring antibiotics and further treatment.
- Damage to surrounding structures such as blood vessels, organs and muscles, requiring further treatment.
- A blood clot or excessive bleeding from the puncture site. This may require other treatment and/or corrective surgery.
- An allergy to injected drugs, requiring further treatment.
- The procedure may not be possible due to medical and/or technical reasons.

Rare risks and complications include:
- The passing of radioactive material to non target organs causing potential damage.
- Incomplete blocking of the flow of blood. This may require further procedures.
- Infection and/or damage to the liver resulting in liver failure.
- An increased lifetime cancer risk due to the exposure to x-rays.
- Skin burns or damage from exposure to x-rays.
- Seizures and/or cardiac arrest due to local anaesthetic toxicity.
- Death as a result of this procedure is very rare.

If sedation is given extra risks include:
- Faintness or dizziness, especially when you start to move around
- Fall in blood pressure
- Nausea and vomiting
- Weakness
- An existing medical condition getting worse
- Heart and lung problems such as heart attack or vomit in the lungs causing pneumonia. This may require emergency treatment
- Stroke resulting in brain damage.
I understand; explained the proposed procedure.

I acknowledge that the doctor/doctor delegate has identified as having Renal Impairment:

- Giving the Contrast to people with weakened kidneys (renal impairment), can cause further kidney damage, which may in turn cause the kidneys to stop working properly (acute renal failure).

D. Risks of Iodinated Contrast for patients with renal impairment

Specific Risks of Iodinated Contrast to patient’s identified as having Renal Impairment,

- 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:

Relationship to patient:

Date:          PH No: ............................................................

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)

E. Patient consent

I request to have the procedure

Name of Patient:

Signature:

Date:

I have explained to the patient all the above points under:

[ ] the Patient Consent section (E)

[ ] Iodinated Contrast - Patients with Renal Impairment Section (D) (for renal impaired patients only)

and I am of the opinion that the patient/substitute decision-maker has understood the information.

Name of Doctor/delegate:

Designation:

Signature:          Date:

F. Doctor/delegate Statement

I have been given the following Patient Information Sheet/s:

[ ] Selective Internal Radiation Therapy

[ ] Iodinated Contrast

[ ] About Your Anaesthetic (if applicable)

[ ] Yes  Location of the original or certified copy of the AHD:

[ ] No  Name of Substitute Decision Maker/s:

Signature:

Relationship to patient:

Date:          PH No: ............................................................

Source of decision making authority (tick one):

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G. 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:

On the basis of the above statements,
1. What is Selective Internal Radiation Therapy?

Selective Internal Radiation Therapy (SIRT) or Radioembolisation combines the delivery of radiotherapy and an embolisation procedure. Embolisation is a procedure that blocks off the blood flow to a targeted area in the body.

The blood supply to the tumour is blocked by a material called an 'embolic agent'. The embolic agent has radioactive material inside it. This results in the radioactive material being trapped inside the tumour without exposing the entire body to its effects. It also blocks off the blood supply to the tumour.

The SIRT is done by placing a needle and a thin plastic tube (catheter) into the artery in your groin.

Iodinated 'Contrast' (once called x-ray dye) is used during the procedure to help map your arteries for the doctor to locate and treat the tumour. For more information on iodinated Contrast and the risks involved in its use, please read the Iodinated Contrast Patient Information Sheet. (If you do not have this information sheet please ask for one).

2. Will there be any discomfort, is any anaesthetic needed?

This procedure will require the use of a local anaesthetic and a sedation or general anaesthetic.

3. What is sedation?

Sedation is the use of drugs that give you a 'sleepy-like' feeling. It makes you feel very relaxed during a procedure that may be otherwise unpleasant or painful. You may remember some or little about what has occurred during the procedure.

This procedure may only have a light sedation. You need to be able to fully co-operate at times by holding your breath when instructed by the doctor.

Sedation is generally very safe but has a risk with side effects and complications. Whilst these are usually temporary, some of them may cause long-term problems.

The risk to you will depend on:
- whether you have any other illness
- personal factors, such as whether you smoke or are overweight.

4. Preparation for the procedure

The medical imaging department will give you instructions on how to prepare for your procedure.

- You may be admitted to hospital overnight before your procedure.
- You may be given medications to help prevent nausea and pain, and antibiotics to help prevent infection.

- You will be told when to have your last meal and drink. This is to make sure your stomach is empty so that if you vomit during the procedure there will be nothing to go into your lungs.
- Please tell the staff if you are or suspect you might be pregnant or are breastfeeding.
- 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 the procedure as these may alter the affects of the sedation anaesthetic. If you have a drug habit please tell your doctor.

5. During the procedure

A fine needle (IV cannula) will be put into a vein in your arm.

You will be given the sedation anaesthetic.

The Radiologist (x-ray doctor) will inject local anaesthetic into the skin. A needle and catheter are inserted into the artery in your groin; sometimes your arm may be used. Once the catheter is in place the needle is removed.

The catheter is guided through the main blood vessels in your body until it reaches the tumour in your liver. You should not be able to feel the catheter inside your body.

X-ray pictures are taken while the Contrast is injected into your arteries

Once the catheter is in place the radioactive embolic agent is injected. Several injections may be needed to complete the dose and block off the artery.

Once the artery is completely blocked, the catheter will be removed. Firm pressure will be put over the area where the catheter went into your skin (puncture site), sometimes a special plug is used. This allows the artery to seal so you will not bleed.

6. After the procedure

The recovery time after the procedure varies between 4 to 6 hours. You will need to lie flat and keep your leg (or arm) still and straight. Moving too soon after the procedure may cause bleeding at the puncture site.

The IV Cannula will be removed after you have recovered.

Most patients experience Post Embolisation Syndrome which includes pain, nausea, vomiting and fever. It is due to the blood supply to the treated area being cut off. You will be able to go home once your pain and nausea have settled, usually within 2 days. It is normal to have a fever for up to a week after the procedure.

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Common risks and complications include:
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- Pain or discomfort at the puncture site. This may require medication.
- Bleeding or bruising may occur. This is usually stopped by applying pressure and/or ice to the puncture site. This is more common if you take Aspirin, Warfarin, Clopidogrel (Plavix and Iscover) or Dipyridamole (Persantin and Asasantin).
- Post Embolisation Syndrome which includes pain, nausea, vomiting and fever. Antibiotics and pain relief medications will be required to treat this.
- Failure of local anaesthetic which 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:
- Infection, requiring antibiotics and further treatment.
- Damage to surrounding structures such as blood vessels, organs and muscles, requiring further treatment.
- A blood clot or excessive bleeding from the puncture site. This may require other treatment and/or corrective surgery.
- An allergy to injected drugs, requiring further treatment.
- The procedure may not be possible due to medical and/or technical reasons.

Rare risks and complications include:
- The passing of radioactive material to non target organs causing potential damage.
- Incomplete blocking of the flow of blood. This may require further procedures.
- Infection and/or damage to the liver resulting in liver failure.
- An increased lifetime cancer risk due to the exposure to x-rays.
- Skin burns or damage from exposure to x-rays.
- Seizures and/or cardiac arrest due to local anaesthetic toxicity.

Death as a result of this procedure is very rare.

If sedation is given extra risks include:
- Faintness or dizziness, especially when you start to move around
- Fall in blood pressure
- Nausea and vomiting
- Weakness
- An existing medical condition getting worse
- Heart and lung problems such as heart attack or vomit in the lungs causing pneumonia. This may require emergency treatment
- Stroke resulting in brain damage.

8. What are the safety issues when you leave hospital?
Go to your nearest Emergency Department or GP if you become unwell or have:
- A cool or cold limb
- Uncontrolled pain and/or nausea
- Continuous bleeding or swelling at the puncture site
- Redness or inflammation at the puncture site
- A fever, higher than previously experienced
- Other warning signs the doctor may have asked you to be aware of.

Notes to talk to my doctor/health practitioner about:
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1. What is Iodinated Contrast?
The medical imaging procedure your doctor has asked you to have uses iodinated ‘Contrast’ (once called X-ray dye). Contrast is a colourless liquid which includes iodine. Contrast is injected into your bloodstream to allow your organs to be seen more clearly on x-rays. Contrast is not a dye. It does not stain the inside of your body. Your doctor needs to use Contrast to be able to get all the information needed to assist with your diagnosis.

This information sheet must be read together with the information sheet of the procedure you are booked for (if you do not have this information sheet please ask for one).

2. During the procedure
When the Contrast is injected you may feel:
- A very warm or ‘flushed’ feeling over your body, this may also make you think you have passed urine. You will not pass urine – it is only a feeling.
- A ‘metallic’ taste or smell may also happen. This usually lasts less than a minute.

3. After the procedure
It is recommended that you drink 2 to 4 glasses of water after your procedure to help flush the Contrast from your body.
Contrast does not affect your ability to carry out normal activities; you should be able to continue with your day as normal.

4. Precautions
Contrast is not suitable for some people; you will be asked a series of questions before it is given to you. Your answers allow staff to identify any risk factors that you may have.
- Please tell the staff if you are or suspect you might be pregnant or are breastfeeding.

Kidney function
- Contrast is removed from your blood by your kidneys through your urine. It is easily removed from the body of people who have normal kidney function.
- Giving Contrast to people with weakened kidneys (renal impairment), can cause further kidney damage, which may in turn cause the kidneys to stop working properly (acute renal failure).
- You may be asked to have a simple blood test to find out the level of their kidney function.

Diabetic Drug interactions - Metformin
(Other Drug names: Avandamet, Diabex, Diaformin, Foremet, Glucohexal, Glucomet, Glucophage, Glucovan, Metforbell)

If kidneys suffer damage from the Contrast then the kidneys may not be able to remove Metformin from the body. It is safer to briefly stop taking Metformin when having Contrast. Staff will inform you when to stop and when it is safe to take Metformin again.

Contact your GP to monitor your diabetes if you are told to stop your Metformin.

5. What are the risks of Iodinated Contrast?
The risks and complications with this injection can include but are not limited to the following.

Common risks and complications include:
- Centre for Disease Control (CDC) and the Australian Government Department of Health

Less common risks and complications include:
- Injected Contrast may leak outside of the blood vessel, under the skin and into the tissue. This may require treatment. In very rare cases, further surgery could be required if the skin breaks down.
- Acute Renal Failure occurs when one or both of your kidneys suddenly stop working. Failure can last for days or weeks. It may take the kidneys a long time to regain their previous level of function and you may require dialysis to filter your blood during this time. There is a risk your kidneys could be permanently damaged. To reduce this risk the smallest possible dose of Contrast will be given.
- The injection may not be possible due to medical and/or technical reasons.

Rare risks and complications include:
- Allergic reactions occur within the first hour with most happening in the first 5 minutes. Late reactions have been known to occur up to a week after the injection.

Note: Allergy to topical iodine and/or seafood does not imply an allergy to iodinated Contrast.

The reactions vary from:
- Mild – hives, sweating, sneezing, coughing, nausea.
- Moderate – wide spread hives, headaches, facial swelling, vomiting, shortness of breath.
- Severe – Severe reactions are rare but include: life-threatening heart palpitations, very low blood pressure, throat swelling, fits and/or cardiac arrest.
- Death as a result of iodinated Contrast is very rare.

6. What are the safety issues when you leave the hospital?
Go to your nearest Emergency Department or GP if you become unwell.