Mr Rishi Chana FRCS (Tr& Orth)
Consultant Orthopaedic Surgeon

Total Knee Replacement Treatment Contract/Pro/Cons/Risk & Rehabilitation Profile:

It was a pleasure to review you in my clinic today.

There has been past medical history noted & no history of a DVT or VTE problems.

You have no known allergies and **are not aware of a Nickel allergy.**

On examination today there is an antalgic the knee was extremely irritable to examine causing severe knee pain with no evidence of groin and thigh pain or discomfort.

The X-rays show bone on bone arthritis of the knee.

Unfortunately you have got knee arthritis that is evident both on the scans.

I have explained the implications of this to you today and explained that the joint has reduced thickness with regards to the cartilage and in some areas there is bone on bone rather than the articular cartilage which explains the pain and stiffness with the joint. There are also cysts caused on both sides of the joint because of pressure of the bone on bone and this is all part of the arthritis picture.

This is a physical problem, there will have good days and bad days and you may have flare ups which should be managed with analgesia and limited exercise regime and self help programmes which I have directed you towards today. I have advised you to look at the www.surreyimsk.com and arthritis websites, as well as an information sheet today and sent recommend some physiotherapy. I have also advised you to contact your insurer as they may have a self help programme.

If things get worse then one could always consider options including injection which could temporarily help the pain. Depending on how things progress, ultimately if you need to have a more long term definitive option we have touched on the implications and outcomes of joint replacement surgery and again you has been given an information sheet on this. I have explained that at this moment in time there is no need to do anything at the moment and one should monitor the symptoms and continue with the self help and self education programme that we have agreed on at the moment. Please come and see me at your convenience once you have had time to reflect and digest the information above and we will have further consultations in order to come up with treatment agreement plan.

I have explained that the options would be to continue with conservative treatment, have a local anaesthetic and steroid injections which could last for up to three months at a time but then would cause the pain to come back or consider a total knee replacement. There is a small risk of infection or the steroid flaring up the pain before making it better. The risk is 1 in 1000. An infection may need a washout and antibiotics.

Having exhausted the conservative options above, we talked about the option of a knee replacement as this is the one and only form of long term definitive care that will offer an improved quality of life and long term pain relief.

I have explained that the knee replacement would use a cemented metal femoral or thigh bone resurfacing part with cemented metal tibial baseplate and a plastic liner inbetween to form a sloppy hinge joint of metal on plastic. I do not routinely resurface the patella or kneecap as most people do well with just the thigh component part being resurfaced.

You must inform the surgeon if you have any sensitivity to costume jewellery or a known Nickel allergy.

The procedure itself takes about an hour, you will be with us for approximately two to three days in hospital and then will be discharged when safe to recover and mobilise with crutches for a few weeks in your own home. The clips come out at two weeks and most people at the six to seven week stage feel 80% better and most people at three months feel 90% better. I have explained it takes the rest of the year to get fully better to a 100%. It is normal for the leg to ache and swell for a few months after the operation, especially if you have been on your feet all day. The outside half of the scar is numb as the nerves come from the inside of the leg and the scar causes a shadow of numbness across the outside part of the knee.

After the operation, you will see and receive physiotherapy to move the new knee replacement. It is very important to keep moving the knee to prevent scar tissue building up, inside the new joint which will cause stiffness. When lying in bed, please keep the knee fully straight and do not allow any pillows or rolled up towels to sit behind the knee as this will cause it to heal bent and stop it from fully straightening. When sitting, please bend the knee to at least 90 degrees and use the opposite leg to push it back further by crossing your non-operated leg in front of the operated side at the ankles. This has been shown to you in clinic. The body heals with scar tissue and the knee being the largest joint has a large cavity that becomes stiff with this scar tissue as it sets. This means that the knee has to keep moving from a straight position (extension) to fully bent (flexion) in order to break up scar tissue and prevent it from setting like cement within areas of the knee that it should not be allowed to set in. Its very similar to a windscreen wiper making an area of the windscreen clean to see through, if they move very little, only a small clear space is achieved…if they move fully throughout the screen area, then the space for clear vision is much larger…your knee needs to be fully bent and move to a (nearly) fully straight position to function normally. If stiffness sets in, then a manipulation under a general anaesthetic may need to be done which has the following risks: The theoretical risk of prosthetic fracture (1 in 500) this has never happened to me despite doing around 100 manipulations in my career. If there is a fracture it is a disaster as it requires surgery to fix the bone and is major operation and debilitation of several months. You are therefore strongly encourage to get the knee moving as soon as possible….a philosophy of move or lose it holds true here!

The risks involved in this operation include having a scar, there is a 1% risk of infection, there are also risks involved with having myocardial infarction or CVA (a stroke) and this as well as other complications can result in fatality but according to past medical history this is low in this patient's case. I have explained that the wear rates cause the knee to wear out after about 15 to 20 years, and there is also a small risk of loosening and fracture if one were to fall over and if this happens then you would need revision surgery. If a deep infection occurred then one would need revision surgery and this can happen in 1 in 500. This does however involve two or three operations, long stays in hospital and the need for intra-venous antibiotics. Thankfully, I have not had this problem with my experience so far. We always try and get the legs to match up with the length but during the surgery I always achieve stability and balance first and then leg length secondary, although more than 95% of the time the legs are measured within 5mm of each other which is an acceptable standard and a normal within the population. Another risk is stiffness and you will have patient education with the physiotherapist about bending and straightening the knee after the operation to avoid this. The risk of this is 25% or higher if you do not comply. The other risks involve bleeding or nerve injury, about 1% of the time the tibial or peroneal nerves or tibial blood vessels can also become involved during the surgery and these are usually resolved if they become injured within six to nine months, the risk of this is 1 in 200, if the sciatic nerve is more permanently involved this can result in a foot drop and as an outpatient you will have crutches and orthotics to help with this. If there is severe injury to the nerve or blood vessel structures, immediate emergency surgery during the knee replacement operation may be required and can lead to amputation if unsuccessful. This risk is less than 1 in 1000. At the time of surgery, instruments are inserted into the thigh bone (femur) to hollow them out so we can insert the stem. During this, bone marrow can become dislodged into the blood stream and this can cause injury to the lungs in the form of a fat embolism. This can become worse if cement is also used for the stem preparation. This happens in all cases to a very minor extent but rarely, especially if you have a weaker respiratory system this fat embolism syndrome can cause the lungs to become inflamed and congested with fluid. This may require high dependency unit support and monitoring and possible assisted breathing whilst the lungs recover, which may take a few days but can also increase the risk of a chest infection.

We have discussed our risk assessment for VTE and I have explained the NICE guidelines will be to use TED stockings, mobilisation for four weeks and chemical prophylaxis for 14 days and we will stick to these guidelines in order to minimise risk of a DVT and PE.

A risk of using chemical injections to thin the blood (clexane or fragmin, a form of heparin or aspirin) is that the blood becomes too thin and forms a haematoma or collection of blood around the joint. This may require a further operation to wash out the blood and prevent an infection. This can happen in 1 out of 200 cases. If an infection takes hold, this can lead to further surgery and even amputation in 1 in 1000 cases. The other thing to keep in mind is that up to 1 in 1000 of people using clexane or fragmin can develop Heparin Induced Thrombocytopenia (HIT). This is a condition where the blood platelets become consumed due to the blood thinning injections. This can be an emergency where you need to be admitted and treated for generalised clots within the body which can lead to multi-organ failure in severe cases as well as a platelet transfusion. A blood test to measure your levels will usually be performed to check your platelet levels are fine.

Patient instructions

We discussed and talked about signs and symptoms suggesting VTE (e.g., swelling, pain, redness, or venous distension in a limb, as well as pleuritic sharp chest pain or dyspnea; difficulty breathing) because 75% of postoperative VTE occurs following discharge from hospital. Please consult your physician immediately if you

experience any of these symptoms or any experience necrotic reactions (black skin, not bruising) at an injection site, because this may suggest HIT. Finally, you should seek immediate medical attention for symptoms suggesting a severe allergic reaction, such as breathing difficulty, wheezing, and swelling of the face, lips, tongue, or throat.
Early mobilisation should be encouraged to diminish the likelihood of developing a VTE. If long-term prophylaxis is given, pre-arranging for patients to practise injections or for community-based organisations to be involved in giving the injections is recommended.

The patient is happy with these explanations and the risk profiles, I have also advised them to look at the Surrey Orthopaedic Clinic and iwantgreatcare.org websites and BMI knee replacement leaflet, I have given them my card with a 24 hour hotline should there be any problems after recovery so that they can contact us if there was a situation and I will see you due course for surgery.

Kind regards

Yours sincerely

Mr Rishi Chana
Consultant Hip & Knee Surgeon

I have read, reflected and understood the conversation above. As part of my Treatment Contract I have discussed and conveyed my specific goals, worries, concerns and questions with Mr Chana. These are outlined below and by signing this confirm that a shared decision about all aspects of my care have been completed to my entire satisfaction.

My goals or outcomes expected of the treatment including surgery are:

Get mobility and function to allow me to continue my lifestyle with keeping active and walking.

My specific concerns pertinent to my personal circumstances are:

Allow enough time to recover to get back to life and independence!

I accept the risk profile and procedure tailored to my personal circumstances and concerns raised through the consultations and give Mr Chana informed consent to perform the agreed surgery / treatment plan specified above. I have also reinforced my understanding of the plan above by explaining what I am going to say to my family at home about things back to Mr Chana so we are both happy with our understanding.

VTE Plan:
TEDS and Fragmin 5,000 units once daily for two weeks as per NICE guidelines.

Signed