

Supplementary Material

10.1302/2633-1462.22.BJO-2020-0173.R1

IRAS ID 262874, V1 07/08/2020

[Local orthopaedic department headed notepaper]

Dear [patient name],

You were recently in hospital under my care for a bone problem which

may be related to cancer (bone metastasis).

There is a study running across the UK at the moment interested in finding

out how people like you do after orthopaedic treatment for this condition.

They are interested in outcomes like complications and length of hospital

stay, but more importantly in how you are doing in terms of quality of life

and function. This will be the first study in the UK and one of the first in

the world to explore this.

I believe you may be eligible to participate by completing questionnaires

and returning them by post or email up until 2 years after your orthopaedic

treatment. If you are interested in finding out more, please read the

attached information leaflet and consider returning the guestionnaire pack

via the freepost envelope provided.

This will not affect your care and I won't know whether you participate or

not. Thank you for your time,

[Named orthopaedic consultant]

IRAS ID: 262874, V3 07/08/2020





Patient outcomes after orthopaedic treatment for bony metastases Participant Information Leaflet

Please read this information carefully.

We are asking you to take part in a study to find out how people get on after having orthopaedic treatment for metastatic bone lesions. You have been invited to take part in this study because you have had orthopaedic treatment for a weakened bone or pathological (low impact) fracture, which may be due to cancer elsewhere in the body.

Before you decide whether to take part, it is important for you to understand why the study is being done and what it will involve. Please take time to read this and talk to others about the study if you wish.

This information sheet will explain the reason for the study and what we hope to learn. It will also explain what will happen to you if you agree to take part.

IRAS ID: 262874, V3 07/08/2020

Study Overview

What is the purpose of the study?

We will identify patients who have had orthopaedic treatment for metastatic bone disease and follow them up to see how they do. It will help surgeons understand how best to treat this condition for future patients and may help us to identify early on if you are having a problem after treatment. We are hoping to recruit 400 patients across the UK.

What will happen to me if I participate?

We are interested in medical outcomes, such as rate of infection or time in hospital, but more importantly, we are interested in your mobility, function and quality of life. We will ask you to complete outcome questionnaires at regular intervals afterwards by post or email. We will not ask you to come back to hospital, but if you are having problems, we can arrange a follow-up appointment with your surgeon.

How long will I be in the study?

We are asking permission to post out questionnaires up until two years after your orthopaedic treatment. Afterwards, we will follow you up remotely via your GP and patient records for up to five years. We will always check with your records or GP that you are well enough to receive a questionnaire pack, and will not attempt to contact you after two years.

What will happen if I choose to proceed?

Once you have read this information sheet and had time to think about things, you can contact any of the researchers if you have any questions. We would like you to participate whether you had surgery or not.

IRAS ID: 262874, V3 07/08/2020

If you choose to proceed, we will ask you to sign a consent form and

complete the baseline questionnaire pack (enclosed). If you need help

with this, a family member, friend or the researcher can give you some

assistance.

If you choose not to take part, this will not affect your care in any way. If

you do not participate, no personal information about you will be recorded.

Who is conducting the study?

This study is being conducted by an orthopaedic registrar who is also a

PhD student with the University of Edinburgh. The study has been

reviewed by specialists in orthopaedics, oncology and palliative care. The

study is being supervised locally by [local Principal Investigator]

(Consultant Orthopaedic Surgeon).

Who has reviewed this study?

The study is sponsored by the University of Edinburgh and funded by the

Royal College of Surgeons of Glasgow, BASO and the Bridge of Earn

Research Funds. The Newcastle & North Tyneside REC 2 Research

Ethics Committee has reviewed the study and raised no objections from

the point of view of medical ethics. It is a requirement that records of this

research be made available for review by monitors from the NHS and the

University of Edinburgh.

3

IRAS ID: 262874, V3 07/08/2020

Study Conduct

What will the questionnaire packs contain?

The questionnaire pack contains several questionnaires aimed at

assessing your outcome in terms of function, mobility, pain relief and

quality of life. It should take around 20-30 minutes to complete.

You will also be asked some questions about how your condition affects

your mood and your outlook. If you do not want to answer any of these

questions, please just leave them blank. If you would like to speak to

someone about any concerns you have as a result of any of the questions,

please contact the researcher or the local supervising orthopaedic

consultant (see final page for contact details).

How often will I receive a questionnaire pack?

Depending on how far you are from your orthopaedic treatment, you will

receive other similar questionnaire packs at 12 weeks, 6 months, 9

months, 1 year, 18 months and 2 years. Each pack will come with a letter

to remind you about the study and will contain contact details for you to

ask any questions that you have. You can receive packs by post or by

email, whichever you prefer.

What happens if I don't send back a questionnaire pack?

If we do not hear back from you after two weeks, we will send you a

reminder letter with another questionnaire pack. If we do not hear back

from you a second time, we will not send you out any further packs but

will continue to review your medical records remotely, with your

permission.

IRAS ID: 262874, V3 07/08/2020

If you decide you want to leave the study at any point, you simply have to

let the researcher or your GP know. It would be helpful for us to know

why you are leaving the study, but you don't have to give a reason if you

don't want to.

What happens at the end of the study?

The results of the study will be included in the researcher's PhD thesis

and published in a peer-reviewed medical journal. If you would like, we

will send out a summary of the results of the study to you at the end of the

initial 2-year study period.

What are the benefits of taking part?

Orthopaedic surgeons often do not see patients back in clinic unless they

are having problems. If your responses highlight that you are having

problems, we can arrange for your surgeon to see you in clinic to review

this. This may benefit you by highlighting to your surgeon early on that

you are having problems. Our hope is that we can work to improve care

for future patients with a condition like yours as a result of this study.

What are the risks of taking part?

If you wish to reply by post, we will send your questionnaire pack with a

freepost envelope so participating in the study shouldn't cost you

anything. Some of the guestions in the pack may make you anxious or

sad. If this is the case, please get in touch with the researcher, who can

arrange support or follow-up if you would like this.

IRAS ID: 262874, V3 07/08/2020

What if I don't want to take part anymore?

If you decide you want to leave the study, you can let the researcher know

using any of the options on the last page of this leaflet. If you are not well

enough to do this, it can be done by your GP or a family member.

How is my GP involved in the study?

We will notify your GP that you are participating in the study. We will

check with your medical records, your GP or your hospital doctor (should

you be in hospital for any reason) before we send out any future

questionnaire packs to make sure that you are well enough to receive

them.

What if there is a problem?

If you have any concerns about your participation, you can talk to a

researcher involved in the study. You can also contact a doctor who is

independent of the study:

[local contact independent of study]

You also have the right to raise a formal complaint. You can make

your complaint to any senior member of the research team or to the

Complaints Officer for your local NHS Trust.

In the event that you think you have suffered harm as a result of your

participation, there are no automatic financial compensation

arrangements. However, you may have the right to make a claim for

compensation against the University of Edinburgh or your local NHS

Trust.

IRAS ID: 262874, V3 07/08/2020

Will my taking part in the study be kept confidential?

We will not tell your orthopaedic doctor if you choose to participate or not. We will keep your identifiable data (name and address) in a locked office in your local NHS Trust to allow us to send out your follow-up questionnaire packs. This data will be removed from our records after two years, but we will retain your hospital number for up to five years to allow us to follow you up remotely. After the end of the study, your data along with your hospital number (CHI number, this includes your birthdate) will be kept for at least five years in case the data has to be looked at again during peer review and later publication. None of your identifiable information will ever leave the NHS.

Please turn over

IRAS ID: 262874, V3 07/08/2020

Data Protection Information Sheet

Patient outcomes after orthopaedic treatment for bony metastases

The EU General Data Protection Regulation (GDPR), along with the UK Data Protection Act, governs the processing (holding or use) of personal data in the UK.

You are receiving this as you are considering being a participant on this clinical research study. The information below details what data will be held about you and who will hold or store this.

The University of Edinburgh and NHS Lothian are the co-sponsors for this study based in the United Kingdom. We will use information from you and/or your medical records in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. The co-sponsors will keep identifiable information about you for 5 years after the study has finished.

As a university and NHS organisation, we use personally-identifiable information to conduct research to improve health, care and services. As a publicly-funded organisation, we have to ensure that it is in the public interest when we use personally-identifiable information from people who have agreed to take part in research. This means that when you agree to take part in a research study, we will use your data in the ways needed to conduct and analyse the research study. Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

Providing personal data directly e.g. verbally, in a questionnaire or from your care provider

[local NHS Health Board] will use your name, Community Health Index (CHI) number and the address provided to contact you about the research study, and make sure that relevant information about the study is recorded for your care, and to oversee the quality of the study. Individuals from the University of Edinburgh and regulatory organisations may look at your medical and research records to check the accuracy of the research study. [Local NHS Board] will pass these details to the sponsor along with the information collected from you and your medical records. The only people in the University of Edinburgh who will have access to information that identifies you will be people who need to contact you to audit the data collection process. The people who analyse the information will not be able to identify you and will not be able to find out your name, CHI number or contact details.

The University of Edinburgh will keep identifiable information about you from this study for 5 years after the study has finished.

IRAS ID: 262874, V3 07/08/2020

Use of data for future research

When you agree to take part in a research study, the information about your health and care may be provided to researchers running other research studies in this organisation and in other organisations. These organisations may be universities, NHS organisations or companies involved in health and care research in this country or abroad. Your information will only be used by organisations and researchers to conduct research in accordance with the UK Policy Framework for Health and Social Care Research.

This information will not identify you and will not be combined with other information in a way that could identify you. The information will only be used for the purpose of health and care research, and cannot be used to contact you or to affect your care. It will not be used to make decisions about future services available to you, such as insurance.

Contact for further information

You can find out more about how we use your information and our legal basis for doing so in our Privacy Notice at www.accord.scot.

For further information on the use of personal data by NHS sites, please link to the Health Research Authority (HRA) website; https://www.hra.nhs.uk/information-about-patients/.

If you wish to raise a complaint on how we have handled your personal data, you can contact our Data Protection Officer who will investigate the matter. If you are not satisfied with our response or believe we are processing your personal data in a way that is not lawful you can complain to the Information Commissioner's Office (ICO) at https://ico.org.uk/.

Data Protection Officer contact information:

University of Edinburgh

Data Protection Officer
Governance and Strategic Planning
University of Edinburgh
Old College
Edinburgh
EH8 9YL

Tel: 0131 651 4114 dpo@ed.ac.uk

NHS Lothian

Data Protection Officer NHS Lothian Waverley Gate 2-4 Waterloo Place Edinburgh EH1 3EG

Tel: 0131 465 5444 Lothian.DPO@nhs.net



IRAS ID 262874, V3 07/08/2020



Patient outcomes after orthopaedic treatment for bony metastases

Consent form

Dear Participant,

Thank you for agreeing to take part in this study. Please sign this consent form and turn over for the questionnaire pack.

| turn | over for the questi | onnaire pack. | | | | | |
|------|--|---|---|------------------|--|--|--|
| | | | Ple | ease initial box | | | |
| 1. | I. I confirm that I have read the information sheet (Version 3 07/08/2020) for the above study. Any questions have been answered to my satisfaction. | | | | | | |
| 2. | 2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my care or rights being affected. | | | | | | |
| 3. | the study may be look Edinburgh and the loo | ked at by individuals from cal NHS board (where it is | cal notes and data collected detected the Sponsor(s), the University relevant to my taking part in alls to have access to my reco | y of this | | | |
| 4. | continue to collect da | • | p period, the researchers will rds for up to 5 years to asses treatment. | | | | |
| 5. | • | • | ed in the study, including any etween my GP and the resea | rcher | | | |
| 6. | I agree to take part in | the above study. | | | | | |
| Name | e of Participant | Date | Signature | | | | |
| Plea | se tick the box if you v | vould like to receive a cop | y of the results of the study: | | | | |

Supplementary File 3 IRAS ID 262874, V5 07/08/2020

Baseline Questionnaire, Upper limb General Information

| What is today's date? / | / 2020 | | | | |
|--|-----------------------------|--|--|--|--|
| Is anyone helping you complete t | his questionnaire? Yes / No | | | | |
| If yes, what is their relationship to you? | | | | | |
| Where are you at the moment? Home / with | | | | | |
| family / friends | Hospice | | | | |
| Other hospital | Other (please explain) | | | | |
| ward | | | | | |

Have you had surgery for your bone problem? Yes / No

Please turn over

Supplementary File 3 IRAS ID 262874, V5 07/08/2020

Pain

| | Not | Α | Quite | Very |
|--|--------|--------|-------|------|
| | at all | little | a bit | much |
| Do you have bone pain? | 1 | 2 | 3 | 4 |
| Does the bone pain interfere with your | 1 | 2 | 3 | 4 |
| ability to care for yourself? | | | | |
| Are you frustrated by your bone pain? | 1 | 2 | 3 | 4 |

Is your bone pain in the place you had the orthopaedic treatment?

Yes / No

How severe is the pain in the place where you had the orthopaedic treatment? (circle the number)

| No pain | M | ild pai | in | Moderate pain | | Se | vere p | ain | Worst pain | |
|------------|---|---------|----|---------------|---|----|--------|-----|---------------|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Is the pain made worse by using the limb? Yes / No

Please turn over

IRAS ID 262874, V5 07/08/2020

Do you have any other bone pain <u>apart from the place</u> where you had the orthopaedic treatment? Yes / No

Please rate the severity of this other bone pain (circle the number):

| No pain | M | lild pai | in | Mod | Moderate pain | | Severe pain | | | Worst pain |
|------------|---|----------|----|-----|---------------|---|-------------|---|---|---------------|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Are you taking <u>regular</u> analgesia (pain killers) for this pain? Yes / No Are you taking <u>as required (PRN)</u> pain killers for this pain? Yes / No If so, which pain killers are you taking at present?

| Pain killer (analgesia) | Regular / as required (prn) |
|-------------------------|-----------------------------|
| | |
| | |
| | |
| | |

How often are you taking pain killers for this pain?

| Every hour | Less than once per day | |
|-----------------------------|------------------------|--|
| Several times per day/night | Less than once a week | |
| Once per day or night | Other (please explain) | |

IRAS ID 262874, V5 07/08/2020

MSTS

How does **pain** affect your life? (please tick one)

| 0 No effect | 3 Moderate / disabling | |
|--------------------------|--------------------------|--|
| 1 Minimal effect | 4 Severely affected | |
| 2 Modest / not disabling | 5 Very severely affected | |

How does your **function** affect your life? (please tick one)

| 0 No restrictions | 3 Intermediate restriction | |
|------------------------------|----------------------------|--|
| 1 Hardly any restriction | 4 Severe restriction | |
| 2 Some restriction (can't do | 5 Total restriction | |
| hobbies or things I enjoy) | | |

How does your emotional state affect your life? (please tick one)

| 0 I am motivated | 3 I am accepting of things | |
|------------------------------|-------------------------------------|--|
| 1 I am somewhat motivated | 4 I am somewhat accepting of things | |
| 2 I am satisfied with things | 5 I am unhappy with things | |

IRAS ID 262874, V5 07/08/2020

Please rate your affected arm function (please tick one)

| 0 Normal | 3 My hand position is |
|-----------------------------|------------------------------|
| | significantly restricted |
| 1 My arm function is almost | 4 I can't get my hand above |
| normal | my waist |
| 2 I can't get my hand above | 5 I can't move my arm at all |
| my shoulder | |

Please rate how well your affected arm works (please tick one)

| 0 Normal | 3 I find it very difficult to pinch |
|------------------------------|-------------------------------------|
| | or grasp |
| 1 My hand function is almost | 4 I cannot pinch or grasp |
| normal | anything |
| 2 My hand is somewhat | 5 I cannot hold or grasp |
| clumsy | anything |

Please rate your **strength** in your affected arm (please tick one)

| 0 I can lift normal objects | 3 I can usually lift light objects | |
|-------------------------------------|------------------------------------|--|
| 1 I can usually lift normal objects | 4 I can only lift things with help | |
| 2 I am able to lift light objects | 5 I cannot lift anything at all | |

IRAS ID 262874, V5 07/08/2020

EORTC QLQ-C30

Please answer all of the questions yourself by circling the number that best applies to you. There are no "right" or "wrong" answers.

Quite Very Not Α at All Little a bit much Do you have any trouble doing 1 3 4 2 strenuous activities, like carrying a heavy shopping bag or suitcase? 3 Do you have any trouble taking a long 1 2 2 4 walk? Do you have any trouble taking a short 1 2 3 4 walk outside of the house? Do you need to stay in bed or a chair 4 1 2 3 4 during the day?

1

2

3

4

During the past week:

5

Do you need help with eating, dressing,

washing yourself or using the toilet?

| | | Not at All | A Little | Quite a bit | Very much |
|----|--|------------|-------------|-------------|--------------|
| 6 | Were you limited in doing either your | 1 | 2 | 3 | 4 |
| | work or other daily activities? | | | | |
| 7 | Were you limited in pursuing your | 1 | 2 | 3 | 4 |
| | hobbies or other leisure time activities? | | | | |
| 8 | Were you short of breath? | 1 | 2 | 3 | 4 |
| 9 | Have you had pain? | 1 | 2 | 3 | 4 |
| 10 | Did you need to rest? | 1 | 2 | 3 | 4 |
| 11 | Have you had trouble sleeping? | 1 | 2 | 3 | 4 |
| 12 | Have you felt weak? | 1 | 2 | 3 | 4 |
| 13 | Have you lacked appetite? | 1 | 2 | 3 | 4 |
| 14 | Have you felt nauseated? | 1 | 2 | 3 | 4 |
| 15 | Have you vomited? | 1 | 2 | 3 | 4 |
| 16 | Have you been constipated? | 1 | 2 | 3 | 4 |
| 17 | Have you had diarrhoea? | 1 | 2 | 3 | 4 |
| 18 | Were you tired? | 1 | 2 | 3 | 4 |
| 19 | Did pain interfere with your daily activities? | 1 | 2 | 3 | 4 |

IRAS ID 262874, V5 07/08/2020

During the past week:

| 20 | Have you had difficulty concentrating on things, like reading a newspaper or watching television? | 1 | 2 | 3 | 4 |
|----|---|---|---|---|---|
| 21 | Did you feel tense? | 1 | 2 | 3 | 4 |
| 22 | Did you worry? | 1 | 2 | 3 | 4 |
| 23 | Did you feel irritable? | 1 | 2 | 3 | 4 |
| 24 | Did you feel depressed? | 1 | 2 | 3 | 4 |
| 25 | Have you had difficulty remembering things? | 1 | 2 | 3 | 4 |
| 26 | Has your physical condition or medical treatment interfered with your family life? | 1 | 2 | 3 | 4 |
| 27 | Has your physical condition or medical treatment interfered with your social activities? | 1 | 2 | 3 | 4 |
| 28 | Has your physical condition or medical treatment caused you financial difficulties? | 1 | 2 | 3 | 4 |

For the following questions please circle the number between 1 and 7 that best applies to you:

| How w | ould yo | ou rate yo | ur over | all <u>health</u> | during t | the past w | eek? |
|--------|---------|------------|----------|--------------------|-----------|-------------|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Very p | oor | | | | E | Excellent | |
| How w | ould yo | ou rate yo | ur overa | all <u>quality</u> | of life d | uring the բ | oast week? |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Very p | oor | | | | E | Excellent | |

IRAS ID 262874, V5 07/08/2020

EORTC QLQ BM22

Patients sometimes report that they have the following symptoms or problems. Please indicate the extent to which you have experienced these symptoms or problems during the **past week**. Please answer by circling the number that best applies to you.

During the past week, have you had any pain:

| | | Not at | Α | Quite | Very |
|---|--------------------------------|--------|--------|-------|------|
| | | All | Little | a bit | much |
| 1 | In your back? | 1 | 2 | 3 | 4 |
| 2 | In your leg(s) or hip(s)? | 1 | 2 | 3 | 4 |
| 3 | In your arm(s) or shoulder(s)? | 1 | 2 | 3 | 4 |
| 4 | In your chest or rib(s)? | 1 | 2 | 3 | 4 |
| 5 | In your buttock(s)? | 1 | 2 | 3 | 4 |

During the past week:

| | | Not at All | A Little | Quite a bit | Very much |
|----|--|---------------|-------------|-------------|--------------|
| 6 | Have you had constant pain? | 1 | 2 | 3 | 4 |
| 7 | Have you had intermittent pain? | 1 | 2 | 3 | 4 |
| 8 | Have you had pain not relieved by pain medications? | 1 | 2 | 3 | 4 |
| 9 | Have you had pain while lying down? | 1 | 2 | 3 | 4 |
| 10 | Have you had pain while sitting? | 1 | 2 | 3 | 4 |
| 11 | Have you had pain when trying to stand up? | 1 | 2 | 3 | 4 |
| 12 | Have you had pain while walking? | 1 | 2 | 3 | 4 |
| 13 | Have you had pain with activities such as bending or climbing stairs? | 1 | 2 | 3 | 4 |
| 14 | Have you had pain with strenuous activity (e.g. exercise, lifting)? | 1 | 2 | 3 | 4 |
| 15 | Has pain interfered with your sleeping at night? | 1 | 2 | 3 | 4 |
| 16 | Have you had to modify your daily activities because of your illness? | 1 | 2 | 3 | 4 |
| 17 | Have you felt isolated from those close to you (e.g. family, friends)? | 1 | 2 | 3 | 4 |
| 18 | Have you worried about loss of mobility because of your illness? | 1 | 2 | 3 | 4 |
| 19 | Have you worried about becoming dependent on others because of your illness? | 1 | 2 | 3 | 4 |
| 20 | Have you worried about your health in the future? | 1 | 2 | 3 | 4 |
| 21 | Have you felt hopeful your pain will get better? | 1 | 2 | 3 | 4 |
| 22 | Have you felt positive about your health? | 1 | 2 | 3 | 4 |

IRAS ID 262874, V5 07/08/2020

Satisfaction

Please circle a number to rate your <u>satisfaction with your orthopaedic</u> <u>surgery</u>: (If you did not have surgery, please go to page 19)

| | Excellent | Very well | Well | Fair | Poor | Not sure |
|---|-----------|--------------|------|------|------|-------------|
| How well did the surgery relieve the pain in your affected limb? | 1 | 2 | 3 | 4 | 5 | 6 |
| How well did the surgery increase your ability to perform regular activities? | 1 | 2 | 3 | 4 | 5 | 6 |
| How well did the surgery allow you to perform heavy work or sports? | 1 | 2 | 3 | 4 | 5 | 6 |
| How well did the surgery meet your expectations? | 1 | 2 | 3 | 4 | 5 | 6 |

Please circle a number to rate your <u>satisfaction with the orthopaedic</u> care you received:

| | Definitely | Maybe | Probably not | Certainly not | Not sure |
|---|------------|-------|--------------|---------------|----------|
| Would you have this operation again if needed? | 1 | 2 | 3 | 4 | 5 |
| Would you recommend this operation to someone else? | 1 | 2 | 3 | 4 | 5 |

Please rate your <u>overall satisfaction</u> with your orthopaedic treatment (circle one):

1 2 3 4 Very satisfied Satisfied Dissatisfied Unsure

Thank you. Please turn over

Supplementary File 3 IRAS ID 262874, V5 07/08/2020

Baseline Questionnaire, Lower limb General Information

| What is today's date? / | / 2020 | | | | | | |
|--|------------------------|--|--|--|--|--|--|
| Is anyone helping you complete this questionnaire? Yes / No | | | | | | | |
| If yes, what is their relationship to you? Where are you at the moment? | | | | | | | |
| Home / with | | | | | | | |
| family / friends | Hospice | | | | | | |
| Other hospital | Other (please explain) | | | | | | |
| ward | | | | | | | |

Have you had surgery for your bone problem? Yes / No

Please turn over

Supplementary File 3 IRAS ID 262874, V5 07/08/2020

Pain

| | Not | Α | Quite | Very |
|--|--------|--------|-------|------|
| | at all | little | a bit | much |
| Do you have bone pain? | 1 | 2 | 3 | 4 |
| Does the bone pain interfere with your | 1 | 2 | 3 | 4 |
| ability to care for yourself? | | | | |
| Are you frustrated by your bone pain? | 1 | 2 | 3 | 4 |

Is your bone pain in the place you had the orthopaedic treatment?

Yes / No

How severe is the pain in the place where you had the orthopaedic treatment? (circle the number)

| No pain | M | lild pai | in | Mod | Moderate pain | | | Severe pain | | |
|------------|---|----------|----|-----|---------------|---|---|-------------|---|----|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Is the pain made worse by using the limb? Yes / No

Please turn over

IRAS ID 262874, V5 07/08/2020

Do you have any other bone pain <u>apart from the place</u> where you had the orthopaedic treatment? Yes / No

Please rate the severity of this other bone pain (circle the number):

| | lo iin | M | lild pa | in | Mod | erate | pain | Se | vere p | ain | Worst pain |
|---|-----------|---|---------|----|-----|-------|------|----|--------|-----|---------------|
| (|) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Are you taking <u>regular</u> analgesia (pain killers) for this pain? Yes / No Are you taking <u>as required (PRN)</u> pain killers for this pain? Yes / No If so, which pain killers are you taking at present?

| Pain killer (analgesia) | Regular / as required (prn) |
|-------------------------|-----------------------------|
| | |
| | |
| | |
| | |

How often are you taking pain killers for this pain?

| Every hour | Less than once per day | |
|-----------------------------|------------------------|--|
| Several times per day/night | Less than once a week | |
| Once per day or night | Other (please explain) | |

IRAS ID 262874, V5 07/08/2020

MSTS

How does **pain** affect your life? (please tick one)

| 0 No effect | 3 Moderate / disabling |
|--------------------------|--------------------------|
| 1 Minimal effect | 4 Severely affected |
| 2 Modest / not disabling | 5 Very severely affected |

How does your **function** affect your life? (please tick one)

| 0 No restrictions | 3 Intermediate restriction | |
|------------------------------|----------------------------|--|
| 1 Hardly any restriction | 4 Severe restriction | |
| 2 Some restriction (can't do | 5 Total restriction | |
| hobbies or things I enjoy) | | |

How does your emotional state affect your life? (please tick one)

| 0 I am motivated | 3 I am accepting of things | |
|------------------------------|-------------------------------------|--|
| 1 I am somewhat motivated | 4 I am somewhat accepting of things | |
| 2 I am satisfied with things | 5 I am unhappy with things | |

IRAS ID 262874, V5 07/08/2020

Do you require any supports to help you walk? (please tick one)

| 0 No aids | 3 I sometimes need a stick, |
|-------------------------------|-------------------------------|
| | cane or crutch |
| 1 I don't usually require any | 4 I always need a stick, cane |
| aids | or crutch |
| 2 Orthosis (for example shoe | 5 Two crutches / can't walk |
| support or brace) | with any type of support |

Please rate your **independence** (please tick one)

| 0 I am fully independent | 3 I am fairly dependent | |
|---------------------------------|-----------------------------|--|
| 1 I am somewhat | 4 I am quite dependent / | |
| independent | housebound | |
| 2 I am limited in what I can do | 5 I am completely dependent | |

Please rate your **gait** (walking - please tick one)

| 0 I walk normally | 3 My walking is moderately | |
|--------------------------|----------------------------------|--|
| | affected | |
| 1 My walking is almost | 4 My walking is severely | |
| normal | affected | |
| 2 My walking is slightly | 5 Very difficult / impossible to | |
| affected | walk | |

IRAS ID 262874, V5 07/08/2020

EORTC QLQ-C30

Please answer all of the questions yourself by circling the number that best applies to you. There are no "right" or "wrong" answers.

Quite Very Not Α at All Little a bit much Do you have any trouble doing 1 3 4 2 strenuous activities, like carrying a heavy shopping bag or suitcase? 3 Do you have any trouble taking a long 1 2 2 4 walk? Do you have any trouble taking a short 1 2 3 4 walk outside of the house? Do you need to stay in bed or a chair 4 1 2 3 4 during the day? Do you need help with eating, dressing, 1 5 2 3 4 washing yourself or using the toilet?

During the past week:

| | | Not at All | A Little | Quite a bit | Very much |
|----|--|------------|-------------|-------------|--------------|
| 6 | Were you limited in doing either your | 1 | 2 | 3 | 4 |
| | work or other daily activities? | | | | |
| 7 | Were you limited in pursuing your | 1 | 2 | 3 | 4 |
| | hobbies or other leisure time activities? | | | | |
| 8 | Were you short of breath? | 1 | 2 | 3 | 4 |
| 9 | Have you had pain? | 1 | 2 | 3 | 4 |
| 10 | Did you need to rest? | 1 | 2 | 3 | 4 |
| 11 | Have you had trouble sleeping? | 1 | 2 | 3 | 4 |
| 12 | Have you felt weak? | 1 | 2 | 3 | 4 |
| 13 | Have you lacked appetite? | 1 | 2 | 3 | 4 |
| 14 | Have you felt nauseated? | 1 | 2 | 3 | 4 |
| 15 | Have you vomited? | 1 | 2 | 3 | 4 |
| 16 | Have you been constipated? | 1 | 2 | 3 | 4 |
| 17 | Have you had diarrhoea? | 1 | 2 | 3 | 4 |
| 18 | Were you tired? | 1 | 2 | 3 | 4 |
| 19 | Did pain interfere with your daily activities? | 1 | 2 | 3 | 4 |

IRAS ID 262874, V5 07/08/2020

During the past week:

| 20 | Have you had difficulty concentrating on things, like reading a newspaper or watching television? | 1 | 2 | 3 | 4 |
|----|---|---|---|---|---|
| 21 | Did you feel tense? | 1 | 2 | 3 | 4 |
| 22 | Did you worry? | 1 | 2 | 3 | 4 |
| 23 | Did you feel irritable? | 1 | 2 | 3 | 4 |
| 24 | Did you feel depressed? | 1 | 2 | 3 | 4 |
| 25 | Have you had difficulty remembering things? | 1 | 2 | 3 | 4 |
| 26 | Has your physical condition or medical treatment interfered with your family life? | 1 | 2 | 3 | 4 |
| 27 | Has your physical condition or medical treatment interfered with your social activities? | 1 | 2 | 3 | 4 |
| 28 | Has your physical condition or medical treatment caused you financial difficulties? | 1 | 2 | 3 | 4 |

For the following questions please circle the number between 1 and 7 that best applies to you:

| How | would yo | ou rate yo | our over | all <u>health</u> | during t | the past w | eek? |
|------|----------|------------|-----------|--------------------|-----------|--------------------|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Very | poor | | | | E | Excellent | |
| How | would yo | ou rate yo | our overa | all <u>quality</u> | of life d | uring the p | past week? |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Very | poor | | | | E | Excellent | |

IRAS ID 262874, V5 07/08/2020

EORTC QLQ BM22

Patients sometimes report that they have the following symptoms or problems. Please indicate the extent to which you have experienced these symptoms or problems during the **past week**. Please answer by circling the number that best applies to you.

During the past week, have you had any pain:

| | | Not at | Α | Quite | Very |
|---|--------------------------------|--------|--------|-------|------|
| | | All | Little | a bit | much |
| 1 | In your back? | 1 | 2 | 3 | 4 |
| 2 | In your leg(s) or hip(s)? | 1 | 2 | 3 | 4 |
| 3 | In your arm(s) or shoulder(s)? | 1 | 2 | 3 | 4 |
| 4 | In your chest or rib(s)? | 1 | 2 | 3 | 4 |
| 5 | In your buttock(s)? | 1 | 2 | 3 | 4 |

During the past week:

| | | Not at All | A Little | Quite a bit | Very much |
|----|--|---------------|-------------|-------------|--------------|
| 6 | Have you had constant pain? | 1 | 2 | 3 | 4 |
| 7 | Have you had intermittent pain? | 1 | 2 | 3 | 4 |
| 8 | Have you had pain not relieved by pain medications? | 1 | 2 | 3 | 4 |
| 9 | Have you had pain while lying down? | 1 | 2 | 3 | 4 |
| 10 | Have you had pain while sitting? | 1 | 2 | 3 | 4 |
| 11 | Have you had pain when trying to stand up? | 1 | 2 | 3 | 4 |
| 12 | Have you had pain while walking? | 1 | 2 | 3 | 4 |
| 13 | Have you had pain with activities such as bending or climbing stairs? | 1 | 2 | 3 | 4 |
| 14 | Have you had pain with strenuous activity (e.g. exercise, lifting)? | 1 | 2 | 3 | 4 |
| 15 | Has pain interfered with your sleeping at night? | 1 | 2 | 3 | 4 |
| 16 | Have you had to modify your daily activities because of your illness? | 1 | 2 | 3 | 4 |
| 17 | Have you felt isolated from those close to you (e.g. family, friends)? | 1 | 2 | 3 | 4 |
| 18 | Have you worried about loss of mobility because of your illness? | 1 | 2 | 3 | 4 |
| 19 | Have you worried about becoming dependent on others because of your illness? | 1 | 2 | 3 | 4 |
| 20 | Have you worried about your health in the future? | 1 | 2 | 3 | 4 |
| 21 | Have you felt hopeful your pain will get better? | 1 | 2 | 3 | 4 |
| 22 | Have you felt positive about your health? | 1 | 2 | 3 | 4 |

IRAS ID 262874, V5 07/08/2020

Satisfaction

Please circle a number to rate your <u>satisfaction with your orthopaedic</u> <u>surgery</u>: (If you did not have surgery, please go to page 19)

| | Excellent | Very well | Well | Fair | Poor | Not sure |
|---|-----------|--------------|------|------|------|-------------|
| How well did the surgery relieve the pain in your affected limb? | 1 | 2 | 3 | 4 | 5 | 6 |
| How well did the surgery increase your ability to perform regular activities? | 1 | 2 | 3 | 4 | 5 | 6 |
| How well did the surgery allow you to perform heavy work or sports? | 1 | 2 | 3 | 4 | 5 | 6 |
| How well did the surgery meet your expectations? | 1 | 2 | 3 | 4 | 5 | 6 |

Please circle a number to rate your <u>satisfaction with the orthopaedic</u> <u>care you received</u>:

| | Definitely | Maybe | Probably not | Certainly not | Not sure |
|---|------------|-------|--------------|---------------|----------|
| Would you have this operation again if needed? | 1 | 2 | 3 | 4 | 5 |
| Would you recommend this operation to someone else? | 1 | 2 | 3 | 4 | 5 |

Please rate your <u>overall satisfaction</u> with your orthopaedic treatment (circle one):

1 2 3 4 Very satisfied Satisfied Dissatisfied Unsure

Thank you. Please turn over