

## **Additional file 3a: Topic guide for patients – 1<sup>st</sup> interview**

### **1. Introduction**

- Introduce myself
- Purpose of the interview
- Inform patient about confidentiality
- Get patient's consent
- Inform patient the interview will take around an hour
- Patient can withdraw from the study at any stage
- Will contact patient for a 2<sup>nd</sup> interview 6 months later
- Interview will be tape recorded for transcribing purposes
- Ask the name and age of patient
- Occupation

### **2. Impact about using Light Touch Monitor**

- Can you tell me about your experience about the Light Touch monitor?
  - Prompts:
    - Is it helping you?
      - What is the best about it?
      - What is the worst about it?
    - How has it affected you? Was it helpful?
    - Has it made any difference to your life?
      - What is difference? Can you give me an example?
    - If step down from the full kit tele-monitoring, ask about the difference.
    - If on the full kit tele-monitoring, ask whether patient perform the spirometry?
  - Ask briefly:
    - When did you start experiencing problems with your breathing?
    - When were you told that you had COPD?
    - Do you know the cause of your COPD?
      - Do you smoke?

### **3. Practical issues**

- How have you found using it?
- Is it helpful – why? Why not?
- Is it easy to use?
- Do you recommend this for patients with the same condition as you?
- Can you tell me how you normally use it?
  - Prompts:
    - When do you normally take your reading?

- What do you consider is your normal reading?
- Are there any changes in the reading during the day/night?
  - How do you feel about these changes?
- Are there any activities that change the readings?
  - How do you feel about your concern at the moment?
- Do you have your condition under control?
- Can you tell me if/how Light Touch has helped you managed your health at home?
- What are your expectations of the Light Touch monitor?

#### **4. Impact of Light Touch on daily life (Oximetry and symptom diary)**

- Can you tell me how does the Light Touch affect your daily life?
  - Prompts:
    - Do you notice symptoms/listen to what your body tells you?
    - Does keeping a diary helps you take your symptoms into account?
    - Do you sometimes do extra checks in the day?
    - Can you give an example of what a good day would be like for you?
    - Can you give an example of what a bad day is like for you?
    - When you feel poorly, do you make any other checks?
      - What are they?
    - Do you think of your condition all the time?
    - Do you think of the Light Touch monitor all the time?

#### **5. Decision making**

- **How do you decide what actions (if any) to take after you take your reading?**
  - Prompts
    - How do you work out what to do?
    - Is there anything else you take into account?
    - Do you have more faith in the reading you get or your symptoms?
    - How do you balance the reading and your symptoms?
    - What do you do if you have a low reading?
      - What actions do you take?
      - When do you take action?
      - Who decides what action you take?
      - Who do you contact if you have any concerns?
      - What symptoms do you normally look out for?
- Can you tell me about your last exacerbation (difficulty in breathing)?

- Can you tell me when you would start your emergency medication (antibiotics and/or steroids)?
- Does your medication helps?
- Do you have other important conditions you have to keep an eye on?
  - Do you monitor them as well?

## 6. Use of booklet

- Can you tell me your thoughts about the self-help booklet
  - Prompts:
    - How does the booklet help you?
      - Does it help to give you information?
      - Does it help you take action (make decision)?
    - Would you recommend this to someone with the same condition as you?
    - Is there anything in the booklet that needs improvement?
- Do you have/use any other sources of information/advice?

## 7. Family

- Can you tell me whether your family are involved in monitoring your condition?
  - Prompts:
    - How do they help you?
    - Do they help you take your reading?
    - Do they remind you to take your reading as you used to?
    - Do they remind you to use it to check whether you are okay?
    - Are your family worried about you?
    - Do you confide to them about your concerns?
- Can you tell me whether anybody in the family tries out or uses the Light Touch monitor?
  - Prompts:
    - If yes, do you compare your reading with theirs?
    - Are there times you might be concerned?
    - Do you take any actions?

## 8. Healthcare professionals

- Who are the healthcare professionals who look after you?
  - Prompts:
    - How do they help you?
    - How do you feel about their help?
    - How do you feel about these interactions?
    - Do you know who takes the information you sent to?
- What happens out of hours?

**9. Employment (only if the patient is in employment)**

- Can you tell me whether your condition affects your work (if working)?
  - Prompts:
    - Does your employer support you?
    - In what way does your employer support you?
    - How frequent do you use the Light Touch monitor at work?

**10. Pulmonary rehabilitation**

- Have you been offered any pulmonary rehabilitation programme (or exercise)?
  - Prompts:
    - If no, do you know the reason for this?
    - If yes, how long did you attend the programme?
    - Do you think attending the programme helps you in making decision about your condition?

**11. Future plans**

- Do you see yourself continuing to use the Light Touch in the next 6 months/a year?
- Do you see monitoring with the Light Touch something you want to do forever?

**12. Are there any concerns that you would like to share with me?**

- Prompts:
  - Do you anticipate any concerns?

**13. Is there anything you would like to add?**

**Thank the participant**

## **Additional file 3b: Topic guide for professionals – 1<sup>st</sup> focus group**

### **Focus group protocol: Healthcare professionals**

#### **Introduction:**

- Welcome and thank you for coming today.
- Introduce self and the co-facilitator
- Housekeeping issues - fire alarm and exits.
- This session will take around an hour.
- You are free to withdraw at any point.
- Please sign the consent form.
- The discussion will be recorded and confidentiality will be maintained.
- The purpose of this focus group is to hear your views/opinions/thoughts about the Light Touch Monitoring service.

#### **Ground rules:**

- Please feel free to express your opinion
- We won't be telling people outside this room who said what.
- Everyone has a chance to talk, respect others when they are talking.
- There is no right or wrong answers; even negative comments are useful in gaining an insight about the service
- Is there any question before I start?

#### **Let's start by introducing yourself:**

- Name, professional post, how long you have been in your post.

### **1. Implementation of the LTM**

- How do you select patients for the Light Touch monitoring service?
  - What barriers do you faced in the implementation of the LTM service?
  - How things could have been managed?
- What facilitate/helped you in the implementation of the LTM service?
  - Information needs of staff/patient/carer
  - Training for staff/patient/carer
- What instructions/advice do you give the patients regarding:
  - The channel of communications
  - The symptom diary
    - Supply of symptom diary
    - Do you think daily recording is necessary?
    - What to record and for how long?
  - The self management plan booklet – do all patients receive this?
  - The patient's management plan
  - What is your view on the pulse oximeter?
    - Replacement of batteries

### **2. Technology and service provision**

- Can you tell me your perceptions and experiences of the technology and Light Touch Monitoring service provision?
  - Is there any changes in the way patients and healthcare professionals relate to each other?
  - Can you provide the service to all who may benefit?
  - What is your view on the pulse oximeter?
- Do you think the LTM helps you to prevent admissions/visits to the Accident & Emergency Department?
  - Is there any increase or reduction in home visits?
  - Is there any difference on patient admission and emergency department visits?
  - Is there any change in the prescribing of medications?
- How do you evaluate the effectiveness of this service?
  - Resources
  - Support for staff/patient/carer
- Do you think receiving a text message from patients on their oxygen saturation level would enhance the service?

### **3. Perception of the patient's decision making process**

- How do you think patients make decisions regarding:
  - Treatment
  - Response to deterioration
  - Need for professional advice
- How do you think the LTM influence this process?
- Do you think the LTM has made a difference on how patients perceive their condition and in self management?
  - How confident are you when the patients take their own oxygen saturation measurement?

### **4. Healthcare professionals perceptions and experiences of the LTM process**

- What is your experience in making decision when a COPD patient using the LTM rings up with low oxygen saturation?
  - Protocol/procedure
  - Confidence in making decisions
  - Steps taken if any concerns
  - How do you feel about the lack of face to face consultation?
- What do you do with the information in patient's symptom diary?
- Do you look at the readings on an exacerbation routinely?
  - If the patients record in scraps of paper
  - If patients did not record
  - Help in decision making
  - Other information to consider
  - Any changes to the symptom diary

- What do you do with the self management plan booklet?
  - Update on self management plan booklet
- How do you handle incoming calls for help?
  - On a rota
  - How do you record?
  - Co-ordination of information

**End the session:**

- Is there anything else you would like to add?
- Thank the participants

## **Additional file 3c: Topic guide for managers – 1<sup>st</sup> interview**

### **Light Touch Monitoring Study**

#### Interviews with managers

#### **Introduction:**

- Introduce self
- Purpose of the interview
- Inform that the interview will take an hour
- Participant can withdraw at any point
- Get consent
- Inform confidentiality will be maintained
- Interview will be recorded for transcribing purposes

#### **1. Participant's details**

- Ask the participant's name, professional post and how long the participant has been in the post.

#### **2. Implementation of the LTM service**

- What is your perception and experience in implementing the Light touch monitoring service?
  - What barriers do you faced in the implementation of the LTM service?
  - How things could have been managed?
- What facilitate/helped you in the implementation of the LTM service?
  - Information needs staff/patient/carer
  - Training and education for staff/selection of patients
- What is your experience in setting up the LTM contact facilities?

#### **3. Technology and service provision**

- Can you tell me your perception and experiences of the technology and Light Touch monitoring service provision?
- Is there any changes in the way patients and healthcare professionals relate to each other?
- How do you evaluate the effectiveness of this service?
- How do you feel about the lack of face to face consultation?
- What are your views on the resources?
  - Pulse oximeters
  - Replacement of batteries
  - Self-management plan booklets
  - Symptom diary
  - Support for staff/patients/carers
  - Managing contacts/phone calls from patients/carers



**4. Future vision for the Light Touch Monitoring service**

- What is your future vision on the Light Touch monitoring service?
  - Can you provide the service to all who may benefit?
  - Do you intend to collect the pulse oximeters back once patients are self-managing with their symptoms?
  - Is there any progress on the Florence service?
  - Is there any plan to refer patients to the LTM service earlier rather than at critical points (presently most patients are referred from hospitals)?
  - What plans are in place to highlight this service to other healthcare professionals?

**5. Is there anything you would like to add?**

## **COPD Light Touch Study**

### **Additional file 3d: Topic guide for patients – 2<sup>nd</sup> interview**

#### **Introduction**

- Purpose of the 2<sup>nd</sup> interview
- Inform patient about confidentiality
- Get patient's consent
- Inform patient the interview will take up to ½ an hour
- Interview will be tape recorded for transcribing purposes

#### **1. How is your health since the last time I saw you?**

#### **2. Impact of LTM on daily life**

- Can you tell me how you are getting on with the pulse oximeter since then?
- Has it made any difference to your life?

#### **3. Practical issues using the pulse oximeter**

- How have you found using the pulse oximeter?

#### **4. Decision making**

- Has using the pulse oximeter helped you manage your health at home?
- How have you been keeping with the symptom diary?
- Can you tell me whether you have any exacerbation since the last time we met?
  - If yes: What did you do and who did you contact?
  - Were you admitted to the hospital?

#### **5. Future plans**

- How long do you think you will be using this?

#### **6. Is there anything you would like to add?**

**Thank the participant**