**SUPPLEMENTARY FILE A**

**Electronic Questionnaire**

***Provisional Draft Sample Questionnaire (indicative questions and subject to change)***

**Information (prior to undertaking the survey)**

*Thank-you for consenting to take part in this* ***ANONYMOUS*** *electronic survey. Your participation and honest feedback will be invaluable in shaping and developing GP training, now and in the future!*

*This main objective of the study is to understand the learning needs of North Central and East London (NCEL)-based GP trainees in conducting telephone consultations. We know that the use of tele-healthcare in primary care is growing; and this first step shall help to provide a platform that highlights the perceptions of GP trainees with respect to telephone consultations.*

*The survey should take* ***5-10 minutes****; a total 30 short questions, divided into 7 sections. If you are currently in a hospital rotation, please undertake the survey, based on your experience of your* ***most recent*** *GP placement.*

*We would be grateful if you could* ***please complete all the sections*** *of the survey and the whole questionnaire. The last section provides an opportunity for you to provide some written feedback about the topic. If you would like to know any additional information, or if there are any issues that you may wish to discuss further, then please do not hesitate to get in touch by e-mailing:**umar.chaudhry@sgul.ac.uk*

*At the end of the questionnaire, if you consent to provide your contact information, you will have an opportunity to* ***participate in the second half of the study****. This will be in the form of a semi-structured telephone interview, and shall allow us to explore some of the themes highlighted in this questionnaire in further detail.*

*Further details about the project can be found here.*

*We are once again grateful for your time and feedback!*

**Information (after completing the survey)**

*Thank-you once again for the time taken to complete this electronic survey.*

*We would now like to* ***invite you to participate in the second half of the study****. This will use a qualitative approach, in the form of a* ***short semi-structured telephone interview****, lasting approximately* ***15-30 minutes****. This will help enable us to understand in greater depth the current learning needs of North Central and East London (NCEL)-based GP trainees in terms of undertaking telephone consultations with patients, and build broader themes in relation to this topic.*

*To further participate in this second half of the project, please kindly provide your* ***name****,* ***e-mail address*** *and* ***mobile number*** *below. This information shall be held separately from your survey responses, and shall be stored securely on an encrypted password-protected drive at St George’s University of London.*

*By providing this information, you are agreeing to be contacted in relation to this second half of the study. Thereafter, in due course and following written consent, a suitable date and time shall be arranged for the semi-structured interview to take place. You shall be provided with a certificate following participation, highlighting your contribution to research with the aim of shaping and developing GP training.*

*Further information about these semi-structured interviews can be found here, which includes an information sheet and a consent form. If you would like to know any additional information, or if there are any issues that you may wish to discuss further, then please do not hesitate to get in touch by e-mailing:* *umar.chaudhry@sgul.ac.uk*

*Otherwise, we are once again extremely grateful for your time and feedback!*

***Full Name***

***E-mail Address***

***Mobile Number***

**SECTION 1 – DEMOGRAPHICS & BACKGROUND**

1. What is your gender identity?
	1. Male
	2. Female
	3. Other [free text box]
	4. Prefer not to say
2. What is your age?
	1. 25-29
	2. 30-34
	3. 35+
	4. Prefer not to say
3. Which of the following North Central and East London (NCEL) vocational training scheme (VTS) are you currently on?
	1. North Central London:
		1. Barnet
		2. Enfield
		3. Royal Free
		4. UCLH
		5. Whittington
	2. North East London:
		1. Ilford
		2. Hackney
		3. Newham
		4. Romford
		5. Tower Hamlets
		6. Whipps Cross
	3. Other
4. What is your current training grade?
	1. ST1
	2. ST2
	3. ST3
	4. ST4
5. Currently, how many months experience have you had within a GP placement, as part of the GP training programme?
	1. 0 months 🡪 [END OF SURVEY]
	2. ≤ 6 months
	3. 7-12 months
	4. 13-24 months
	5. > 24 months
6. In your most recent GP placement, what was/is your approximate practice list size?
	1. 0-5,000 patients
	2. 5,000-10,000 patients
	3. 10,000-15,000 patients
	4. 15,000-20,000 patients
	5. > 20,000 patients

**SECTION 2 – KNOWLEDGE & SKILLS and SECTION 3 – CLINICAL MANAGEMENT**

1. Please state the extent to which you agree with the following statement –

I am **confident** to work independently when undertaking the following aspects of telephone consultations with patients in primary care:

* 1. Telephone triage for urgent care
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	2. Ascertaining the main reason(s) for consultation
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	3. Assessing symptoms to make a diagnosis
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	4. Undertaking relevant investigations
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	5. Prescribing medications
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	6. Discussing subsequent management
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	7. Documentation
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	8. General communication skills
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	9. Handling ethical and medico-legal issues
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	10. Complex clinical scenarios (for example, patients with multiple co-morbidities)
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	11. Challenging clinical situations (for example, breaking bad news)
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	12. Communicating with at-risk or vulnerable patients (for example, learning disability or language barriers)
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	13. Giving information regarding the results of specific tests
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	14. As part of out-of-hours practice
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	15. Safety-netting advice
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	16. Chronic disease reviews
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
	17. Medication reviews
		1. Strongly agree
		2. Agree
		3. Neither agree nor disagree
		4. Disagree
		5. Strongly disagree
1. Have you had any specific training in relation to the following aspects of telephone consultations with patients in primary care:
	1. Telephone triage for urgent care
		1. Yes
		2. No
	2. Ascertaining the main reason(s) for consultation
		1. Yes
		2. No
	3. Assessing symptoms to make a diagnosis
		1. Yes
		2. No
	4. Undertaking relevant investigations
		1. Yes
		2. No
	5. Prescribing medications
		1. Yes
		2. No
	6. Discussing subsequent management
		1. Yes
		2. No
	7. Documentation
		1. Yes
		2. No
	8. General communication skills
		1. Yes
		2. No
	9. Handling ethical and medico-legal issues
		1. Yes
		2. No
	10. Complex clinical scenarios (for example, patients with multiple co-morbidities)
		1. Yes
		2. No
	11. Challenging clinical situations (for example, breaking bad news)
		1. Yes
		2. No
	12. Communicating with at-risk or vulnerable patients (for example, learning disability or language barriers)
		1. Yes
		2. No
	13. Giving information regarding the results of specific tests
		1. Yes
		2. No
	14. As part of out-of-hours practice
		1. Yes
		2. No
	15. Safety-netting advice
		1. Yes
		2. No
	16. Chronic disease reviews
		1. Yes
		2. No
	17. Medication reviews
		1. Yes
		2. No

**SECTION 4 – EXPERIENCE**

1. Please state the extent to which you agree with the following statement –

Overall, I have a positive experience in undertaking telephone consultations with patients in primary care:

* 1. Strongly agree
	2. Agree
	3. Neither agree nor disagree
	4. Disagree
	5. Strongly disagree
1. The reason(s) for **positive experiences** include (select as many that apply):
	1. Positive patient feedback
	2. Ease of access
	3. Efficiency in managing workload
	4. Ability to build relationships
	5. Can improve decision-making
	6. Feel competent in undertaking
	7. Other – please state [free text-box]
2. The reason(s) for **negative experiences** include (select as many that apply):
	1. Difficulty in more complex situations, including psycho-social clinical needs
	2. Absence of examination
	3. Difficulty in picking up physical cues from patient
	4. Medico-legal and ethical dilemmas
	5. Lack of specific training
	6. Other – please state [free text-box]
3. When you are undertaking telephone consultations with patients in primary care, in your experience, which of the following patient-related factors affect the nature of the consultation you have (select as many that apply)?
4. Prior contact
5. Language-related
6. Demographics, including ethnicity
7. Socio-economic status
8. Education or literacy status
9. Learning disability
10. Physical or mental health
11. Other – please specify [free text box]
12. Please state the extent to which you agree with the following statement –

I am **confident** in knowing the situations that are appropriate to leave a telephone message or voicemail; and the content of that message, when undertaking consultations with patients in primary care:

1. Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree
6. Please state the extent to which you agree with the following statement –

I am **more confident** in undertaking telephone consultations with patients in primary care than I am with face-to-face consultations:

1. Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree
6. **In routine hours** (0800-1830), for which of the following purposes do you perform telephone consultations on a regular basis with patients in primary care (select as many that apply)?
	1. Telephone triage for urgent care
	2. Booked telephone consultations
	3. Responding to patient messages
	4. Discussing results of certain investigations
	5. Medication reviews
	6. Chronic disease reviews
	7. Other – please specify [free text box]
7. **In routine hours** (0800-1830), how many telephone consultations (planned and unplanned) would you undertake in a full clinical day?
	1. 0 contacts
	2. ≤ 5 contacts
	3. 6-10 contacts
	4. 11-15 contacts
	5. 16-20 contacts
	6. > 20 contacts
8. **Out-of-hours**, on average, how many **patient contacts** do you have per telephone triage session?
	1. 0 contacts
	2. ≤ 5 contacts
	3. 6-10 contacts
	4. 11-15 contacts
	5. 16-20 contacts
	6. > 20 contacts
9. **Out-of-hours**, to date, how many **telephone triage sessions** have you completed as part of the GP training programme?
	1. 0 sessions
	2. 1-4 sessions
	3. 5-8 sessions
	4. 9-12 sessions
	5. 13-16 sessions
	6. 17-20 sessions
	7. > 20 sessions

**SECTION 5 – LEARNING NEEDS ASSESSMENT**

1. I have **undergone training** in undertaking telephone consultations with patients in primary care, by the following methods (select as many that apply):
2. Not applicable (not had any training)
3. Self-directed learning
4. E-learning
5. Wider reading
6. Work-based training (trainer-led teaching)
7. Face-to-face learning (in the form of small groups)
8. Other – please specify [free text box]
9. I have **received feedback** in undertaking telephone consultations with patients in primary care, by the following methods (select as many that apply):
10. Not applicable (not had any feedback)
11. Video-recorded consultations
12. Multi-source feedback from other healthcare professionals
13. Patient-satisfaction surveys
14. As part of mini-CEX
15. As part of CSA examinations
16. Supervisor observations
17. Other – please state [free text-box]
18. Please state the extent to which you agree with the following statement –

There are current gaps in learning in terms of undertaking telephone consultations with patients in primary care:

* 1. Strongly agree
	2. Agree
	3. Neither agree nor disagree
	4. Disagree
	5. Strongly disagree
1. Please state the extent to which you agree with the following statement –

The training to undertake telephone consultations with patients in primary care needs to be strengthened:

1. Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree
6. Please state the extent to which you agree with the following statement –

**In routine hours** (0800-1830), to date, I am of the opinion that the **supervision** I have received in terms of undertaking telephone consultations with patients in primary care is satisfactory:

* 1. Strongly agree
	2. Agree
	3. Neither agree nor disagree
	4. Disagree
	5. Strongly disagree
1. Please state the extent to which you agree with the following statement –

**In routine hours** (0800-1830), to date, I am of the opinion that the **feedback** I have received in terms of undertaking telephone consultations with patients in primary care is satisfactory:

* 1. Strongly agree
	2. Agree
	3. Neither agree nor disagree
	4. Disagree
	5. Strongly disagree
1. Please state the extent to which you agree with the following statement –

**Out-of-hours**, to date, I am of the opinion that the **supervision** I have received in terms of undertaking telephone consultations with patients in primary care is satisfactory:

* 1. Strongly agree
	2. Agree
	3. Neither agree nor disagree
	4. Disagree
	5. Strongly disagree
1. Please state the extent to which you agree with the following statement –

**Out-of-hours**, to date, I am of the opinion that the **feedback** I have received in terms of undertaking telephone consultations with patients in primary care is satisfactory:

* 1. Strongly agree
	2. Agree
	3. Neither agree nor disagree
	4. Disagree
	5. Strongly disagree

**SECTION 6 – FUTURE PRACTICE**

1. The following would be appropriate areas for improvement in training to undertake telephone consultations with patients in primary care (select as many that apply):
2. Not needed
3. More experience
4. More specific training
5. Changes to the RCGP curriculum
6. Inclusion as part of VTS sessions
7. Inclusion as part of mini-CEX assessments
8. Feedback from supervisors
9. Feedback from other healthcare professionals in primary care
10. Feedback from out-of-hours sessions
11. Assessment (either formative or summative)
12. Other – please state [free text-box]
13. Please state the extent to which you agree with the following statement –

Based on the training received to date, **overall** I am confident in undertaking telephone consultations with patients in primary care:

1. Strongly agree
2. Agree
3. Neither agree nor disagree
4. Disagree
5. Strongly disagree

**SECTION 7 – ADDITIONAL COMMENTS**

1. Based on the objectives of this study, and having completed the survey, please provide any additional comments that you feel may be useful in terms of undertaking telephone consultations with patients in primary care.

[free text box]

1. If you have any positive or negative comments about the structure and content of this on-line questionnaire, then we shall be grateful for your feedback.

[free text box]

**SUPPLEMENTARY FILE B**

**Semi-structured Telephone Interviews**

***Provisional Draft Sample Questionnaire (indicative questions and subject to change)***

**Information (prior to undertaking the telephone interview)**

*Hello! My name is Umar Chaudhry. Can I please confirm that this is…*

*I would just like to confirm that this is a suitable time for you to chat? This is with regards to the pre-arranged interview about the study looking into the learning needs of GP trainees in conducting telephone consultations, in terms of knowledge & skills, experiences and future practice.*

*Thank-you once again for agreeing to participate in this second half of the study. It should not take more than 30minutes. There is no rigid structure, there are a couple of topics that I may wish to touch upon, but a lot of it shall be guided by our discussion. Please refrain from using any patient identifiable information; rather to talk more broadly about the experience itself.*

*First of all, I’d like to confirm that you have read the information sheet that has been sent to you, and you understand the nature of the project itself and what is involved in this semi-structured interview? Can I also confirm that you have signed the informed consent form to participate in this component of the study? As the information sheet states, any information that you do provide shall be transcribed, anonymised, and held securely as described. Your answers here shall be kept separate from the answers you provided in the survey.*

*Brilliant! Do you have any questions at this stage? Shall we begin? Ok!*

*[START TIMER]*

***START RECORDING***

**Information (after completing the telephone interview)**

*[STOP TIMER]*

*OK, so that completes the telephone interview. I hope that you found it interesting.*

*As I mentioned earlier, any information that you do provide shall be transcribed, anonymised, and held securely. We hope to have a look at the data and see whether we can draw any conclusions from what you and others have discussed.*

*Thank-you very much once again for your participation! If you would like any further information about the project itself, then please do not hesitate to get back in touch with me.*

1. To begin with, how would you describe your current overall experience in conducting telephone consultations with patients in primary care?
2. Have you had any specific training or learning opportunities when it comes to undertaking telephone consultations with patients in primary care? If so, what was that training, and how has it affected your ability to manage patients? Are you aware of any gold-standard approaches?
3. In terms of knowledge and skills, are there certain types of telephone consultations or certain components within telephone consultations that you find particularly difficult? Why do you find these difficult? How can these be overcome?
4. What are the advantages and disadvantages to undertaking telephone consultations with patients in primary care, with respect to a) the patient; b) you as the doctor? How has it affected your workload, and what do you think the perceptions of patients’ are when it comes to telephone consultations?
5. Can you give me an example of a positive experience when you undertook a telephone consultation with a patient in primary care, and the reasons for that positive experience?
6. Conversely, can you give me an example of a negative experience when you undertook a telephone consultation with a patient in primary care, and the reasons for that negative experience?
7. When compared to face-to-face consultations, what is it about telephone consultations with patients in primary care that may make you more, or less, confident?
8. How do you tend to manage more challenging telephone consultations with patients in primary care, especially when it comes to handling various ethical and medico-legal issues?
9. What are your current learning needs when it comes to conducting telephone consultations with patients in primary care? Do you feel you have any gaps in your training or learning?
10. When it comes to conducting telephone consultations with patients in primary care, what sort of intervention(s) can you think of that may help to improve these gaps? How do you think one might measure an outcome of any intervention that may be undertaken?
11. How is your OOH training in telephone consultations with patients in primary care different from your in-hours training, in terms of learning skills, supervision and feedback? Do you feel that any such training needs to be adapted?
12. What changes would you like in terms of your current training needs that may improve your ability and confidence in conducting telephone consultations with patients in primary care?
13. In terms of quality and quantity of experiences in relation to conducting telephone consultations with patients in primary care, how do you feel these contribute to your overall ability and confidence?
14. Moving forward, what specific changes to your training, or any wider changes to feedback, assessments or the curriculum do you envisage that may help your knowledge and skills when it comes to undertaking telephone consultations with patients in primary care?
15. Do you have any other comments that you would like to add following our discussion, in relation to conducting telephone consultations with patients in primary care