

**Supplementary File 1:** Mesure d'activation du patient (PAM-13) French translation

<b>1. Activation du patient</b>
<b>Outil utilisé</b>
Mesure d'activation du patient ( <i>Patient Activation Measure-PAM-13</i> )
<b>Critères <sup>1</sup></b>
<ol style="list-style-type: none"><li>1. En fin de compte, je suis la personne qui est responsable de gérer ma condition de santé</li><li>2. Prendre un rôle actif dans mes soins de santé et le facteur le plus important pour déterminer ma santé et mon habileté pour fonctionner</li><li>3. Je suis confiant que je peux prendre des actions qui m'aideront à prévenir ou minimiser certains symptômes ou problèmes associés avec ma condition de santé</li><li>4. Je sais quels sont les effets de tous mes médicaments prescrits</li><li>5. Je suis persuadé que je peux savoir quand j'ai besoin de soins médicaux et quand je peux gérer mes problèmes de santé par moi-même</li><li>6. Je suis persuadé que je peux exprimer à mon professionnel de la santé mes préoccupations même quand il ou elle ne le demande pas</li><li>7. Je suis convaincu que je peux appliquer les traitements médicaux dont j'ai besoin à la maison</li><li>8. Je comprends la nature et les causes de ma condition de santé</li><li>9. Je connais les différentes options de traitements médicaux qui sont disponibles pour ma condition de santé</li><li>10. J'ai été capable de maintenir des changements de style de vie que j'ai adopté pour ma santé</li><li>11. Je sais comment prévenir des problèmes ultérieurs en lien avec ma condition de santé</li><li>12. Je suis confiant que je peux trouver des solutions quand des nouvelles situations ou problèmes apparaissent en lien avec ma condition de santé</li><li>13. Je suis persuadé que je peux maintenant des changements de style de vie comme une diète et de l'exercice même durant des périodes de stress</li></ol>
<b>Mesure des résultats</b>
<p><b>Notation</b> (pour chaque critère) :</p> <ul style="list-style-type: none"><li>▪ Fortement en désaccord (1 point)</li><li>▪ En désaccord (2 points)</li><li>▪ En accord (3 points)</li><li>▪ Fortement en accord (4 points)</li></ul> <p><b>Niveaux d'activation</b> (selon la conversion des résultats sur un score de 100) :</p> <ol style="list-style-type: none"><li>1. Ne croit pas que l'activation est important (<math>\leq 47</math>)</li><li>2. Manque de savoir ou de confiance pour agir (47.1-55.1)</li><li>3. Commence à agir (55.2-67)</li><li>4. Agit (<math>\geq 67.1</math>)</li></ol>

<sup>1</sup> Adapté de: Moljord I E O, Lara-Cabrera ML, Perestelo-Pérez L, Rivero-Santana A, Eriksen L, Linaker OM. Psychometric properties of Patient Activation Measure-13 among out-patients waiting for mental health treatment: a validation study in Norway. *Patient education and counseling*. 2015;98(11):1410-1417.

## 2. Impacts de l'utilisation de CONCERTO+

### Outil utilisé

Questionnaire utilisé lors de l'évaluation de la phase pilote du Programme de santé Concerto <sup>1</sup>

### Critères <sup>2</sup>

#### Résolution de problèmes/conseils :

1. Vous a-t-on demandé quels étaient les effets de votre maladie sur votre vie ?
2. Vous a-t-on aidé à planifier afin de pouvoir prendre soin de votre état de santé même en des moments difficiles ?
3. Vos fournisseurs de soins tenaient-ils compte de vos valeurs et de vos traditions au moment de vous recommander un traitement ?
4. Vous a-t-on aidé à élaborer un plan de traitement que vous pourriez mettre en pratique dans votre vie quotidienne ?

#### Prestation de soins/aide à la décision :

1. Vous a-t-on posé des questions sur vos habitudes de santé ?
2. Vous a-t-on encouragé à faire partie d'un groupe ou d'une classe, comme une session d'information éducative, pour vous aider à vivre avec votre état de santé chronique ?
3. Vous a-t-on remis une copie de votre plan de traitement ?

#### Établissement des objectifs/personnalisation :

1. Vous a-t-on demandé de parler de vos objectifs en ce qui concerne la manière de prendre soin de votre condition chronique ?
2. Vous a-t-on aidé à fixer des objectifs spécifiques pour améliorer votre alimentation ou votre activité physique ?
3. Vous a-t-on montré comment ce que vous avez fait pour prendre soins de vous-même a influencé votre condition chronique ?
4. Vous a-t-on remis une liste écrite des choses que vous devriez faire pour améliorer votre santé ?
5. Étiez-vous satisfait de la manière dont vos soins étaient organisés ?

#### Coordination des soins :

1. Vous a-t-on dirigé vers un diététiste, un éducateur en matière de santé ou un conseiller ?
2. Vous a-t-on dit comment vos visites chez d'autres genres de médecins (p. ex., spécialiste, chirurgien) contribuaient à votre traitement ?
3. Vous a-t-on demandé comment se passaient vos visites chez les autres médecins ?
4. A-t-on communiqué avec vous après une visite pour savoir comment les choses se passaient ?

#### Globalité des soins :

Depuis que vous utilisez CONCERTO+, avez-vous...

1. Pu obtenir un rendez-vous avec un professionnel de la clinique ?
2. Été aidé(e) lorsque vous en aviez besoin ?
3. Obtenu un rendez-vous de suivi de votre condition de santé ?
4. Eu besoin d'entrer en contact avec un professionnel de l'équipe ou reçu une réponse de l'un d'entre eux à la suite de votre appel téléphonique ?
5. L'impression que votre infirmière coordonne l'ensemble de vos soins ?

<sup>1</sup> Adapté de : McIntosh, CN. Examen de la validité factorielle de certains modules de l'Enquête canadienne sur l'expérience des soins de santé primaires. Statistique Canada, Division de l'information et de la recherche sur la santé. Juillet 2008.

<sup>2</sup> Ces critères ont été développés initialement et validés par Glasgow et collaborateurs : Glasgow RE, Wagner EW, Schaefer J, MahoneyLD, Reid RJ, Greene SM. 2005. Development and validation of the patient assessment of chronic illness care (PACIC). Medical Care. 43, 5: 436-444.

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| <ol style="list-style-type: none"> <li>6. Le sentiment que l'équipe du Programme a tenu compte de votre problème de santé ?</li> <li>7. Pu constater que l'on a tenu compte de vos consultations avec d'autres professionnels de la santé que ceux de l'équipe du Programme ?</li> <li>8. Pu vous faire aider à comprendre vos résultats de tests (par exemple : test de laboratoire, prise de pression, etc.) ?</li> <li>9. Obtenue une réponse lors d'une situation urgente pour vous ?</li> </ol> |
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<b>3. Acceptation de CONCERTO+</b>
<b>Outils utilisé</b>
Questionnaire basé sur le Modèle d'acceptation de la technologie
<b>Critères</b>
<p><b>Facilité d'utilisation perçue :</b></p> <ol style="list-style-type: none"> <li>1. Mon interaction avec le système CONCERTO+ est claire et compréhensible</li> <li>2. Je trouve qu'il est facile de demander au système CONCERTO+ de faire ce que je veux</li> <li>3. L'utilisation de CONCERTO+ améliorera mon suivi</li> <li>4. L'utilisation de CONCERTO+ améliorera mon efficacité à me prendre en charge</li> </ol> <p><b>Utilité perçue :</b></p> <ol style="list-style-type: none"> <li>1. L'utilisation de CONCERTO+ améliorera mon état de santé</li> <li>2. Je trouve que CONCERTO + est un outil utile pour le suivi de mon état de santé</li> <li>3. L'utilisation de CONCERTO + plus intéressant.</li> <li>4. J'aime travailler avec l'ordinateur.</li> <li>5. Je cherche des aspects de mon métier qui demande d'utiliser l'ordinateur</li> </ol> <p><b>Intention comportementale d'utiliser :</b></p> <ol style="list-style-type: none"> <li>1. Je vais utiliser CONCERTO+ dans le futur.</li> <li>2. J'établis un plan pour utiliser CONCERTO+</li> </ol>
<b>4. Utilisation de CONCERTO+</b>
<b>Outil utilisé</b>
Registres d'utilisation de CONCERTO+
<b>Critères</b>
Registres ( <i>Logs</i> )

**Supplementary File 2:** Outcome measures and items (original English version)

<b>1. Patient Activation</b>
<b>Tool used</b>
<i>Patient Activation Measure-PAM-13</i>
<b>Criteria<sup>1</sup></b>
<ol style="list-style-type: none"><li>1. When all is said and done, I am the person who is responsible for managing my health condition.</li><li>2. Taking an active role in my own healthcare is the most important factor in determining my health and ability to function.</li><li>3. I am confident that I can take actions that will help prevent or minimize some symptoms or problems associated with my health condition.</li><li>4. I know what each of my prescribed medications does.</li><li>5. I am confident I can tell when I need to go get medical care and when I can handle a health problem.</li><li>6. I am confident I can tell my health provider the concerns I have even when he or she does not ask.</li><li>7. I am confident I can follow through on the medical treatment I need to do at home.</li><li>8. I understand the nature and causes of my health condition.</li><li>9. I know the different medical treatment options available for my health condition.</li><li>10. I have been able to maintain the lifestyle changes I have made for my health.</li><li>11. I know how to prevent further problems with my health condition.</li><li>12. I am confident I can find a solution when new situations or problems arise with my health condition.</li><li>13. I am confident I can maintain lifestyles changes, like diet and exercise, even during times of stress.</li></ol>
<b>Results measurement</b>
<b>Scoring</b> (for each criteria): <ul style="list-style-type: none"><li>▪ Strongly disagree = 1</li><li>▪ Disagree = 2</li><li>▪ Agree = 3</li><li>▪ Strongly agree = 4</li></ul>
<b>Activation level</b> (converted into a score of 100): <ol style="list-style-type: none"><li>1. Not believing that activation is important (<math>\leq 47</math>)</li><li>2. Lack of knowledge or confidence to take action (47.1-55.1)</li><li>3. Beginning to take action (55.2-67)</li><li>4. Taking action (<math>\geq 67.1</math>)</li></ol>

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<sup>1</sup> Adapted from: Moljord I E O, Lara-Cabrera ML. Perestelo-Pérez L, Rivero-Santana A, Eriksen L, Linaker OM. Psychometric properties of Patient Activation Measure-13 among out-patients waiting for mental health treatment: a validation study in Norway. *Patient education and counseling*. 2015;98(11):1410-1417.

## 2. Impacts of the use of CONCERTO+

### Tool used

Survey used for the assessment of the CHP pilot

### Criteria<sup>1</sup>

#### Problem-solving/Advice

1. Have you been asked how your illness affects your life?
2. Have you been helped in planning ahead to take care of your illness even in hard times?
3. Did your care providers ask about your values and traditions when they recommended treatment?
4. Have you been helped in drawing up a treatment plan that you could follow in your daily life?

#### Delivery system design/Decision support

1. Have you been asked about your health habits?
2. Have you been encouraged to go to a specific group or class to help you cope with your chronic illness?
3. Have you been given a copy of your treatment plan?

#### Goal-setting/Tailoring

1. Have you been asked to talk about your goals in the context of receiving care for your chronic condition?
2. Have you been helped in setting specific goals to improve your diet or fitness?
3. Have you been given a written list of things you should do to improve your health?
4. Have you been shown how taking proper care of your illness influenced your condition?
5. Are you satisfied that your care was well organized?

#### Follow-up/Coordination

1. Have you been referred to a dietitian, health educator, or counselor?
2. Have you been told how your visits with other doctors were going?
3. Have you been told how your visits with other types of doctors, such as a specialist or a surgeon, helped in your treatment?
4. Have you been asked how your visits with other doctors were going?
5. Have you been contacted after a visit to see how things were going?

#### Overall care<sup>2</sup>

Since you began using CONCERTO+

1. Have you had an appointment with a professional from the clinic?
2. Have you received help when you were in need?
3. Have you had a follow-up appointment for your health condition?
4. Have you been helped through contact with a professional from the team or by receiving an answer from one of the team members after a phone call?
5. Have you had the feeling that your nurse coordinates all of your care?
6. Have you had the feeling that your health problems are being taken into account by the Program team?
7. Have you noticed that your visits with other health professionals are being taken into account by the Program team?
8. Have you been helped in understanding your test results (e.g. laboratory test, pressure tap, etc.)?
9. Have you received an answer in emergency situations?

<sup>1</sup> These criteria were originally developed and validated by Glasgow RE, Wagner EW, Schaefer J, Mahoney LD, Reid RJ, Greene SM. 2005. Development and validation of the patient assessment of chronic illness care (PACIC). *Medical Care*. 43, 5: 436-444.

<sup>2</sup> Adapted from McIntosh, CN. Examen de la validité factorielle de certains modules de l'Enquête canadienne sur l'expérience des soins de santé primaires. Statistique Canada, Division de l'information et de la recherche sur la santé. July 2008.

### 3. Acceptance of CONCERTO+

#### Tool used

Survey based on the *Technology Acceptance Model*

#### Criteria

##### Perceived ease of use

1. My interaction with CONCERTO+ is clearer and more comprehensive.
2. I find it is easy to get CONCERTO+ to do what I want it to do.
3. The use of CONCERTO+ will improve my follow-up.
4. The use of CONCERTO+ will improve the effectiveness of my care.

##### Perceived usefulness

1. The use of CONCERTO+ will improve my health condition.
2. I find CONCERTO+ to be a useful tool for the follow-up of my health condition.
3. The use of CONCERTO+ is interesting.
4. I like to use a smart phone or a tablet to look for health information.
5. I'm eager to use technology to manage my health condition.

##### Behavioural intention to use

1. I'm going to use CONCERTO+ in the future.
2. Using CONCERTO+ is part of my plan.

### 4. The use of CONCERTO+

#### Tool used

CONCERTO+ logs use

#### Criteria

*Logs*

**Supplementary File 3:** ExpandNet recommendations for scaling up (WHO, 2013) Original English version

1. Engage in a participatory process involving key stakeholders.
2. Ensure the relevance of the proposed innovation.
3. Reach a consensus on expectations for scale up.
4. Tailor the innovation to the socio-cultural and institutional settings.
5. Keep the innovation as simple as possible.
6. Test the innovation in the variety of socio-cultural and institutional settings where it will be scaled up.
7. Test the innovation under routine operating conditions and existing resource constraints of the health system.
8. Develop plans to assess and document the process of implementation.
9. Advocate with donors and other sources of funding for financial support beyond the pilot stage.
10. Prepare to advocate for necessary changes in policies, regulations, and other health systems components.
11. Develop plans for how to promote learning and disseminate information.
12. Plan on being cautious about initiating scale up before the required evidence is available.

**Supplementary File 4:**Recommandations d'ExpandNet pour le passage à l'échelle (OMS, 2013) (French translation)

1. Engager un processus participatif impliquant les principales parties prenantes
2. Assurer la pertinence de l'innovation proposée
3. Trouver un consensus sur les attentes à propos du passage à grande échelle
4. Ajuster l'innovation aux cadres socioculturels et institutionnels
5. Garder l'innovation aussi simple que possible
6. Tester l'innovation dans la variété de cadres socioculturels et institutionnels où elle passera à grande échelle
7. Tester l'innovation dans les conditions de fonctionnement de routine et sous les contraintes de ressource actuelles du système de santé
8. Planifier l'évaluation et la documentation du processus de mise en œuvre
9. Plaider auprès des bailleurs de fonds et autres sources de financement pour un soutien financier au-delà de la phase pilote
10. Se préparer à plaider pour des changements nécessaires dans les politiques, règlements et autres composantes des systèmes de santé
11. Planifier la façon de promouvoir l'apprentissage et la diffusion de l'information
12. Se préparer à la prudence quant au lancement du passage à grande échelle avant l'obtention des preuves requises



**Supplementary File 5: Ethical and funding approval (English translation)**

**ETHICS APPROVAL**

Research project involving human beings or the consultation of personal information

This research project is reviewed in accordance with the ethical procedures management of research with human beings of Université Laval **by the sectorial committee of research ethics in health science**

<b>Project title</b>	Personalize concerto: Patient usability experience optimized for embedded, coordinated, and efficient healthcare
<b>Researcher's name</b>	Marie-Pierre Gagnon
<b>Approval number</b>	2018-067 / 01-06-2018
<b>Decision date</b>	June 1, 2018
<b>Approval expiration date</b>	July 1, 2019

After reviewing the information and documents it has been provided, the committee notes that the project respects ethical principles of research with human beings. It takes note of the written confirmation of the researcher that she is aware of the follow-up actions<sup>1</sup> associated with ethical approval of this project and that she has agreed to apply them. Therefore, the committee approves this project for one year.

June 6, 2018

\_\_\_\_\_  
Mahmoud Rouabhia, Chair of the  
Research Ethics Committee in  
Health Sciences

<sup>1</sup> Follow-up action reminder on the next page.

## Follow-up actions associated with ethics approval

For the project entitled **Personalize concerto: Patient usability experience optimized for embedded, coordinated, and efficient healthcare** (file number: 2018-067)

1. Notify the Committee in writing without undue delay (independent of its statutory meeting agenda) in the following situations:
  - Any changes to the project, as approved this day, that would include changes to the choice of participants, to recruitment, to the obtention of consent, to the collection of data, and/or to the incurred risks or disadvantages before the application of any such changes (the template of the letter requesting an amendment is available on the CÉRUL website).
  - Any changes to the instrument used for recruitment (ads, posters, or other instruments), to the confirmation of consent (consent form, information sheet, or other forms of confirmation), or to the collection of data (survey, interview grid, or other data collection mechanisms) by providing the latest version of the document under consideration, where changes will be highlighted, before its use.
  - Any unexpected and serious event (e.g. psychological distress of a participant, threat against a person, unexpected or side effects of a product, a drug or a test) that may occur in the course of the current project and would involve a participant, by completing the VRR-EI form available on the CÉRUL website.
  - Any early termination of this research for any reason, be it funded or not, including reasons due to suspension or cancellation on the part of the granting agency.
2. Until the project is finished, and not only for recruitment, submit an annual renewal request for approval by providing a report on research progress, the number of recruited participants, and the difficulties encountered along the way, by using the VRR-107 form. The renewal request must be sent to the committee at least 30 days before the end date of the approval, independent of the statutory meeting agenda.

I, the undersigned, Marie-Pierre Gagnon, declare that I **have read and understood the above follow-up actions associated with ethics approval** and agree to apply them during the entire research project for which I am the principal researcher.

Signature of the principal researcher: \_\_\_\_\_

Date: 2018-06-04

Supplementary File 6: Ethical approval (original French version)



Vice-rectorat à la recherche et à la création  
Comité d'éthique de la recherche

## APPROBATION DE L'ÉTHIQUE

Projet de recherche impliquant des êtres humains ou  
la consultation de renseignements personnels

Ce projet de recherche a été examiné en conformité avec les  
*Modalités de gestion de l'éthique de la recherche sur des êtres humains* de l'Université Laval,  
par le **Comité sectoriel d'éthique de la recherche en sciences de la santé**

**Projet intitulé :** Personnaliser CONCERTO : L'expérience patient  
optimisée pour des soins intégrés, coordonnés et  
efficaces

**Nom du chercheur :** Madame Marie-Pierre Gagnon

**Numéro d'approbation :** 2018-067 / 01-06-2018

**Date de décision :** 1<sup>er</sup> juin 2018

**Date d'expiration  
de l'approbation :** 1<sup>er</sup> juillet 2019

Après examen des informations et des documents qui lui ont été transmis, le Comité a constaté que ce projet respecte les principes d'éthique de la recherche avec des êtres humains. Il prend acte de la confirmation écrite de la chercheuse à l'effet qu'elle a pris connaissance des mesures de suivi<sup>1</sup> associées à l'émission de l'approbation éthique de son projet et qu'elle accepte de les appliquer. Par conséquent, le Comité approuve ce projet pour un an.

\_\_\_\_\_  
**Mahmoud Rouabhia**, président  
Comité d'éthique de la recherche en sciences de la santé

6 juin 2018  
\_\_\_\_\_  
Date

<sup>1</sup> Rappel des mesures de suivi au verso



Vice-rectorat à la recherche et à la création  
Comité d'éthique de la recherche

## Mesures de suivi associées à l'approbation éthique

Pour le projet intitulé : **Personnaliser CONCERTO : L'expérience patient optimisée pour des soins intégrés, coordonnés et efficaces** (numéro de dossier : 2018-067)

1. Informer le Comité par écrit et dans les meilleurs délais (indépendamment du calendrier de ses réunions statutaires) des situations suivantes si elles se présentent :
  - de **toute modification au projet**, comme il a été approuvé en ce jour, qui comporterait des changements dans le choix des participants, dans le recrutement, dans la manière d'obtenir leur consentement, de réaliser la collecte des données ou encore, dans les risques ou inconvénients encourus par la participation, et ce, préalablement à l'application de ce changement (modèle de lettre de demande d'amendement disponible sur le site Internet des CÉRUL) ;
  - de **toute modification** qui serait apportée à un **instrument utilisé pour le recrutement** (annonces, affiches, etc.), pour confirmer le **consentement** (formulaire de consentement, feuillet d'information, etc.) ou pour effectuer la **collecte** des données (questionnaire, grille d'entrevue, etc.) en fournissant la nouvelle version du document concerné, où les modifications auront été mises en évidence, préalablement à son utilisation ;
  - de **tout événement imprévu et sérieux** (ex. : détresse psychologique d'un participant, menace proférée à l'égard d'une personne, effets secondaires ou imprévus ou indésirables d'un produit, d'un médicament ou d'un test, etc.) qui surviendrait dans le déroulement d'une activité du présent projet et qui impliquerait un participant, en complétant le formulaire VRR-EI disponible sur le site Internet des CÉRUL ;
  - de **l'interruption prématurée de ce projet de recherche** pour une raison quelconque qu'il soit financé ou non, y compris en raison de la suspension ou de l'annulation de l'approbation d'un organisme subventionnaire.
2. Tant que le projet ne sera pas terminé, et non seulement le recrutement, présenter annuellement une **demande de renouvellement** de l'approbation, en fournissant un rapport sur le déroulement de la recherche, le nombre de participants recrutés et, le cas échéant, sur les difficultés rencontrées en cours de réalisation, à l'aide du formulaire VRR-107. La demande de renouvellement doit être transmise au Comité dans un délai de 30 jours avant la date de fin de l'approbation, indépendamment du calendrier des réunions statutaires.

Maison Michael-John-Brophy  
2241, chemin Sainte-Foy  
Québec (Québec) G1V 0A6  
CANADA

418 656-2131, poste 4506  
Télécopieur : 418 656-2840  
cer@vrr.ulaval.ca  
www.cerul.ulaval.ca

Research title: Personalize concerto: Patient usability experience optimized for embedded, coordinated, and efficient healthcare

### **Supplementary File 7: Consent form for validation cycles**

This research entitled "Optimizing patient usability experience with an eHealth platform for embedded, coordinated and efficient healthcare" is conducted by Marie-Pierre Gagnon, from faculty of nursing at Université Laval.

Before you agree to take part in this research project, please take the time to read and understand the following information. This document will explain you the aim of this research project, his process, advantages, risks and disadvantages. We invite you to ask all questions you may deem necessary to the research staff. You can find their contact details at the end of the form.

#### **Type of study**

This research project aims to develop, implement and evaluate a user-centered, multifunctional and personalized eHealth platform (CONCERTO+) to promote a more active patient role in chronic disease management and decision-making, satisfaction towards healthcare services and quality of life. Specific objectives are to:

- 1) develop a module of a multifunctional and personalized eHealth platform integrated to the CHP (Concerto Health Program) for patients and caregivers allowing them to engage in the follow-up and management of their chronic diseases;
- 2) test the integration of CONCERTO+ in monitoring care pathways of three frequent co-existing chronic diseases (diabetes, hypertension, dyslipidemia) and assess the usefulness and acceptability of the solution for patients with chronic diseases and their caregivers;
- 3) assess the scalability of the CONCERTO+ solution.

#### **The course of the participation:**

##### Validation of the prototype of the application CONCERTO+

Your participation in this research will consist in validating the prototype of the application CONCERTO+. In practical terms, you should go to the usability laboratory of Université Laval lead by Dr Holly Witteman. The validation of the application will be done either on a smartphone or a digital tablet. The aim is to collect your input in visual presentation, content, usability of the application, the pros and cons and any consideration of the application developed. Iterative testing via three validation sessions will be organized. If you agree to participate to the validation cycles, your participation may have incur parking and travel expenses. In addition, the participation in each validation cycle requires approximately one and a half hour of your time.

Research title: Personalize concerto: Patient usability experience optimized for embedded, coordinated, and efficient healthcare

### **Potential benefits and risks or disadvantages related to your participation**

There are no direct benefits for the participants. However, this research enables improve the adaptation and value of the CHP in order to provide a multifunctional and personalized eHealth platform, to promote a more active patient and informal care givers role in chronic disease management.

### **Compensation**

If you participate in validation cycles, we can provide you a lump sum amount of 18 \$ for the time you have allocated for this activity. This sum will be returned in each validation session.

### **Voluntary participation and right to withdraw**

You are free to participate to this research project. You may voluntarily withdraw at any time without any justification and with no adverse consequences or without prejudice. However If you decide so, It is important to inform the research team whose contact details are included at the end of the document. All your personal information will be destroyed.

### **Confidentiality and data management**

The following measures will be applied to ensure your private information stays private:

- Your name will not be mentioned in any report;
- The various documents will be codified and only the investigator and his team will have access to the list of names and codes;
- Your individual results will never be shared;
- In the interest of scientific rigor, the electronic data will be kept in a folder with a password on the web server of the Canada Research Chair on Technology and Practices in Health at Université Laval. They will be destroyed only five years after the end of the research, in December 2024;
- This research will be published in scientific reviews and no one can able to identify you;
- A short summary of the research results will be sent to you if requested by indicating the address where you would like to receive the document, just after the blank space provided for your signature.

### **Acknowledgment**

Your collaboration is useful to achieve this study, thank you for your participation.

### **Additional information**

If you have any question on the research, the involvement of your participation or if you want to withdraw from this research, please contact: Mame Awa Ndiaye, research coordinator, Amélie Lampron, research coordinator or Marie-Pierre Gagnon, principal investigator at the following coordinates:

- Mame Awa Ndiaye: [mame-awa.ndiaye.ciusssc@ssss.gouv.qc.ca](mailto:mame-awa.ndiaye.ciusssc@ssss.gouv.qc.ca)
- Amélie Lampron: [amelie.lampron2.ciusssc@ssss.gouv.qc.ca](mailto:amelie.lampron2.ciusssc@ssss.gouv.qc.ca)
- Marie-Pierre Gagnon: [marie-pierre.gagnon@fsi.ulaval.ca](mailto:marie-pierre.gagnon@fsi.ulaval.ca)

### **Complaints and criticism**

Any complaint and criticism related to this research project will be addressed to the Ombudsman office at Université Laval:

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2325, rue de l'Université  
Université Laval  
Québec (Québec) G1V 0A6  
Information - Secretariat : (418) 656-3081

Research title: Personalize concerto: Patient usability experience optimized for embedded, coordinated, and efficient healthcare

Toll-free line: 1-866-323-2271

Email: [info@ombudsman.ulaval.ca](mailto:info@ombudsman.ulaval.ca)

## Signatures

I, the undersigned \_\_\_\_\_ freely consent to participate to the research entitled: «Personalize concerto: Patient usability experience optimized for embedded, coordinated, and efficient healthcare». I have read and understood the aim, type, advantages, risks and disadvantages of the research project. I'm satisfied with the explanations, further details and responses received from the investigator, where appropriate, about my participation to this project.

\_\_\_\_\_  
Participant signature

\_\_\_\_\_  
Date

A short summary of the search results will be sent to you if requested by indicating the address where you would like to receive the document. **The results will not be available before December 20th. If your address changes by that date, you are invited to inform the research team, the new address you wish to receive the document.**

I wish receive a short summary

No, I would prefer not to receive summary

I would like to receive the summary at the following email address or mailing address:

\_\_\_\_\_  
\_\_\_\_\_

I explained the aim, type of the study, advantages, risks and disadvantages of the research project I have answered to the best of my knowledge the questions asked and have verified the understanding of the participant.

\_\_\_\_\_  
Investigator or research coordinator signature

\_\_\_\_\_  
Date

**Copy of the participant.**

Research title: Personalize concerto: Patient usability experience optimized for embedded, coordinated, and efficient healthcare

List of the team members/ Names of project partners	Role in the project
Marie-Pierre Gagnon	Specialist of patient engagement and eHealth technology assessment
Christian Chabot	Patient partner, co-designer of the project
Guylaine Chabot, Alain Larouche	Technological partners
France Légaré, Anik Giguère, Annie LeBlanc	Experts in shared decision making
Samira Rahimi Abbasgholizadeh	Expert in decision aids tools
Jean-Paul Fortin, Aude Motulsky, Claude Sicotte	Experts in evaluation of health information systems
Holly Witteman	Expert in adaptation of user-centered technologies
Ronald Buyl	Expert in medical informatics and biostatistics
Carole Délétroz	Expert in health literacy
Erik Kavanagh, Frédéric Lépinay, Jacynthe Roberge	Specialists in application development and design
Amélie Lampron, Mame Awa Ndiaye	Research coordinators



Research title: Personalize concerto: Patient usability experience optimized for embedded, coordinated, and efficient healthcare

## **Supplementary File 8: Consent form (patients and informal caregivers) 2a**

This research entitled "Optimizing patient usability experience with an eHealth platform for embedded, coordinated and efficient healthcare" is conducted by Marie-Pierre Gagnon, from faculty of nursing at Université Laval.

Before you agree to take part in this research project, please take the time to read and understand the following information. This document will explain you the aim of this research project, his process, advantages, risks and disadvantages. We invite you to ask all questions you may deem necessary to the research staff. You can find their contact details at the end of the form.

### **Type of study**

This research project aims to develop, implement and evaluate a user-centered, multifunctional and personalized eHealth platform (CONCERTO+) to promote a more active patient role in chronic disease management and decision-making, satisfaction towards healthcare services and quality of life. Specific objectives are to:

- 1) develop a module of a multifunctional and personalized eHealth platform integrated to the CHP (Concerto Health Program) for patients and caregivers allowing them to engage in the follow-up and management of their chronic diseases;
- 2) test the integration of CONCERTO+ in monitoring care pathways of three frequent co-existing chronic diseases (diabetes, hypertension, dyslipidemia) and assess the usefulness and acceptability of the solution for patients with chronic diseases and their caregivers;
- 3) assess the scalability of the CONCERTO+ solution.

### **The course of the participation:**

#### **1) Validation of the prototype of the application CONCERTO+**

Your participation in this research will consist in using the application CONCERTO+ (intervention group) or to continue your usual health follow-up (control group). For the participants of the intervention group, the use of the application will be explained to you by the members of the research team. You will complete a short questionnaire at the beginning and at the end of a six months period use, which will focus on the following points:

- Health management
- Feelings in competency and self confidence in health management
- Impacts of CONCERTO+ use
- The use of CONCERTO+

#### **2) Focus group**

Your participation in this research consists in participating in a focus group composed of 8 -12 people. The discussion will last approximately two hours and will focus on conditions and factors related to the wide-scale dissemination of the solution CONCERTO+.

Research title: Personalize concerto: Patient usability experience optimized for embedded, coordinated, and efficient healthcare

### **Potential benefits and risks or disadvantages related to your participation**

There are no direct benefits for the participants. However, participating in this research enables improve the adaptation and value of the CHP in order to provide a multifunctional and personalized eHealth platform, to promote a more active patient and informal care givers role in chronic disease management.

### **Compensation**

If you accept to participate, a lump sum of 50 \$ will be offered to you for the time you have allocated for this activity. This sum will be returned to you during the focus group discussion.

### **Voluntary participation and right to withdraw**

You are free to participate to this research project. You may voluntarily withdraw at any time without any justification and with no adverse consequences or without prejudice. However If you decide so, It is important to inform the research team whose contact details are included at the end of the document. All your personal information will be destroyed.

### **Confidentiality and data management**

The following measures will be applied to ensure your private information stays private:

- Your name will not be mentioned in any report;
- The various documents will be codified and only the investigator and his team will have access to the list of names and codes;
- Your individual results will never be shared;
- In the interest of scientific rigor, the electronic data will be kept in a folder with a password on the web server of the Canada Research Chair on Technology and Practices in Health at Université Laval. They will be destroyed only five years after the end of the research, in December 2024;
- This research will be publicated in scientific reviews and no one can able to identify you;
- A short summary of the research results will be sent to you if requested by indicating the address where you would like to receive the document, just after the blank space provided for your signature.

### **Acknowledgment**

Your collaboration is useful to achieve this study, thank you for your participation.

### **Additional information**

If you have any question on the research, the involvement of your participation or if you want to withdraw from this research, please contact: Mame Awa Ndiaye, research coordinator, Amélie Lampron, research coordinator or Marie-Pierre Gagnon, principal investigator at the following coordinates:

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### Signatures

I, the undersigned \_\_\_\_\_ freely consent to participate to the research entitled: «Personalize concerto: Patient usability experience optimized for embedded, coordinated, and efficient healthcare». I have read and understood the aim, type, advantages, risks and disadvantages of the research project. I'm satisfied with the explanations, further details and responses received from the investigator, where appropriate, about my participation to this project.

\_\_\_\_\_  
Participant signature

\_\_\_\_\_  
Date

Do you wish to participate in the first step of this research involving the use of application CONCERTO+ and the completion of two questionnaires on the active involvement?

Yes, i accept to participate  No, i would prefer not to participate

Do you wish to participate in the second step of the project involving the participation in a focus group on factors and conditions related to the wide-scale dissemination of the solution CONCERTO+?

Yes, i accept to participate  No, i would prefer not to participate

A short summary of the search results will be sent to you if requested by indicating the address where you would like to receive the document. **The results will not be available before December 20th. If your address changes by that date, you are invited to inform the research team, the new address you wish to receive the document.**

I wish receive a short summary  No, I would prefer not to receive summary

I would like to receive the summary at the following email address or mailing address:

\_\_\_\_\_  
\_\_\_\_\_

I explained the aim, type of the study, advantages, risks and disadvantages of the research project I have answered to the best of my knowledge the questions asked and have verified the understanding of the participant.

\_\_\_\_\_  
Investigator or research coordinator signature

\_\_\_\_\_  
Date

**Copy of the participant.**

Research title: Personalize concerto: Patient usability experience optimized for embedded, coordinated, and efficient healthcare

### **Supplementary File 9: Consent form (interviews)**

This research entitled "Optimizing patient usability experience with an eHealth platform for embedded, coordinated and efficient healthcare" is conducted by Marie-Pierre Gagnon, from faculty of nursing at Université Laval.

Before you agree to take part in this research project, please take the time to read and understand the following information. This document will explain you the aim of this research project, his process, advantages, risks and disadvantages. We invite you to ask all questions you may deem necessary to the research staff. You can find their contact details at the end of the form.

#### **Type of study**

This research project aims to develop, implement and evaluate a user-centered, multifunctional and personalized eHealth platform (CONCERTO+) to promote a more active patient role in chronic disease management and decision-making, satisfaction towards healthcare services and quality of life. Specific objectives are to:

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- 2) test the integration of CONCERTO+ in monitoring care pathways of three frequent co-existing chronic diseases (diabetes, hypertension, dyslipidemia) and assess the usefulness and acceptability of the solution for patients with chronic diseases and their caregivers;
- 3) assess the scalability of the CONCERTO+ solution.

#### **The course of the participation:**

Your participation to this research consists in participating in one-on-one semi-structured interview with a member of the team. This interview will last approximately 30 minutes and will focus on the following points:

- Factors facilitating the use of CONCERTO+
- Factors limiting the use of CONCERTO+
- Support to the use of CONCERTO+ by health professionals
- Expansion of CONCERTO+

Research title: Personalize concerto: Patient usability experience optimized for embedded, coordinated, and efficient healthcare

### **Potential benefits and risks or disadvantages related to your participation**

There are no direct benefits for the participants. However, participating in this research enables improve the adaptation and value of the CHP in order to provide a multifunctional and personalized eHealth platform, to promote a more active patient and informal care givers role in chronic disease management.

### **Compensation**

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- Amélie Lampron: [amelie.lampron2.ciussscn@ssss.gouv.qc.ca](mailto:amelie.lampron2.ciussscn@ssss.gouv.qc.ca)
- Marie-Pierre Gagnon: [marie-pierre.gagnon@fsi.ulaval.ca](mailto:marie-pierre.gagnon@fsi.ulaval.ca)

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Information - Secretariat : (418) 656-3081

Project approved by the sectorial committee of research ethics in health science of Université Laval (**Approval number 2018-067**), June 1<sup>st</sup> 2018. MPG

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Participant signature

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Date

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Investigator or research coordinator signature

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Date

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