

## Interview Guide for Patients

### Online and Tablet Computer Data Entry by Calgary Rheumatology Patients & Clinicians: A pilot study at Richmond Road Diagnostic and Treatment Centre and South Health Campus

*Please note: the questions in this guide are suggested as preliminary.*

Thank you for consenting to be interviewed for this study. This interview will take 15 to 20 minutes.

#### INFORMED CONSENT for TELEPHONE Interviews Only:

Before proceeding with the questions, I would like to get your verbal consent for participating in this interview. I am audio-recording this conversation. Have you read the study information that we sent you? Do you have any questions or concerns about your participation, or about study procedures? Do you agree to participate in this study interview?

#### Interview Questions

1. Tell us about your experience of filling out the medical questionnaires online.
  2. How do you think filling out the questionnaires online affected your appointment?
  3. What other questions should be asked on the questionnaire?
  4. Were you able to understand the questions that you were being asked to fill out on the questionnaire?
  5. Were you comfortable with the questions that you were being asked to fill out on the questionnaire?
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## Interview Guide for Providers

### Online and Tablet Computer Data Entry by Calgary Rheumatology Patients & Clinicians: A pilot study at Richmond Road Diagnostic and Treatment Centre and South Health Campus

#### **Semi-Structured Interview Questions**

Thank you for consenting to be interviewed for this study. This interview will take 15 to 20 minutes.

#### Interview Questions

1. Can you tell me about your experience with having your patients fill out the medical questionnaires online?
  2. How do you think filling out the questionnaire online affected the patients' appointments?
  3. How do you think filling out the questionnaires online affected your patients' interactions with you and your team?
  4. What do you think should be changed with regards to the online process?
  5. What do you think should be changed with regards to the content of the online questionnaires?
  6. How can the online platform be improved? Can you speak to some of the advantages and disadvantages of the online platform?
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## Satisfaction Survey

1. How satisfied were you with completing the forms online? (Very dissatisfied, dissatisfied, unsure, satisfied, very satisfied)
  2. How would you compare the online data entry to paper data entry? (Much worse, somewhat worse, about the same, somewhat better, much better)
  3. How comfortable are you in using computer technology generally? (Very uncomfortable, uncomfortable, unsure, comfortable, very comfortable)
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## Qualitative Data Chart

Themes	Description	Quotation
<b>Main theme:</b> <i>Feasibility and ease of use</i>	Overall, both patients and health providers found that the online platform was easy to use.	Patient: 1 “It was great. I, it was much easier to do I think than sitting in an office somewhere doing it on a clipboard. So, yeah.” Health Provider: 1 “And the patients find it easy to use. Like I mean it’s really easy to use.”
<b>Sub-theme:</b> <i>Functionality</i>	Barriers to platform functionality, from the patient perspective, regarding online form completion from home: found the platform was not intuitive enough, as it required having to press the save and submit button after completing each page. The saving of the online forms should be automatic.  Another patient, who completed their online forms in the clinic using the iPad, found the justification was off and they had to continue scrolling up or down to access the section of the ClinHAQ form they were completing.  Immediate barriers to functionality experienced by health providers: being logged-out of the system and the arrangement of the assessment page.	Patient: 2 “I had help figuring out to push the Enter button because it was not intuitive I didn’t think that part of it. And I think that especially if you’re dealing with older people you want it to be completely intuitive.”  Patient: 3 “The, I thought it was very good, the only difficulties I did encounter were I had to keep scrolling up or scrolling down to see where my, where the scale was.”  Health Provider: 2 “And I think I, did I mention the logout, well so it happened again. So I’ve been logged out again and that, that’s just a bit of a pain, yeah.”
<b>Sub-theme:</b> <i>Internet connectivity</i>	Another major barrier to the feasibility of the online platform, included, Internet connectivity issues experienced at Richmond Road Diagnostic and Treatment Centre.	Health Provider: 1 “I think it would help to have the comfort of knowing that the data will be saved regularly. Right now I don’t feel that’s the case which can, which can create some difficulties, right, because if the patient shows up in the clinic and that’s the only way we collect the data if it doesn’t get saved then we don’t have the data, which is not good. So we gotta have it somewhere, which means do we stop using the iPads, we do work on the connection issue”
<b>Main theme:</b> <i>Efficiency</i>	Looking at the efficiency of the online platform and its impact on clinic flow.	Patient: 4 “Not other than the fact that I like the flexibility with regards to the time required to fill them out, being able to fill them out any time I want in advance of the appointment rather than going to the appointment and feeling like I have to do paperwork before I go and see the, the doctor.”  Health Provider: 4 “Yeah, no, it’s been good. They, the biggest advantage is I have their information readily available when I see the patient. Often time I actually am on time for my clinics and people haven’t had a time to fill out the, the paperwork so yeah, it actually helps with that.”  Health Provider: 3 “Certainly were more efficient, they were quicker and we’re able to get to the point in a more timely fashion.”
<b>Sub-theme:</b> <i>Form completeness</i>	Research Coordinators, observed and timed 10 patients at the Rheumatology clinic at the Richmond Road Diagnostic and Treatment Centre as they completed the paper ClinHAQ forms. Paper forms are time consuming and often referred to as, “homework,” by patients.  Subsequently, the patients that completed the online forms, found the process to be more relaxing, as they were able to complete their forms prior to their scheduled visit. Some patients perceived that this even saved them time.  In turn, health providers found that the patient was able to provide them with a more complete document.	Patient: 5, “I really did prefer the process because I could take my time in that completion and historically when, when I go to my rheumatologist’s office sometimes it’s a little rushed or you’re not really centered, or just even in contemplating what your response is, what you really want to think about in terms of symptoms and what you’re feeling I found it much more preferable to be sitting at my own computer on my own time.”  Health Provider: 5 “So it’s just, well it’s not hard to calculate the DAS 28, we have the calculators but it’s one step less, it’s just fill in that [Homunculus] and it’s automatically populated. Yeah, and I mean I think it’s just important. We’ve got paper and EMR and there’s a possibility for errors, things being forgotten or whatever so I think to have everybody on the same interface I think would be really helpful...”
<b>Sub-theme:</b> <i>Dual data entry</i>	One of the main barriers towards the efficiency of the online platform, experienced by health providers, was dual data entry: Health information, for each study patient, had to be entered into the EMR, or the paper chart, as well as the online platform. Health providers perceived this to be very slow, time-consuming process.	Health Provider: 6 “I find that time consuming. And yeah, time consuming and, which takes away if I’m having to write things down more than once, double entries, or double charting, which again that takes me away from the flow of the clinic.”  Health Provider: 7 “It hasn’t affected my patient appointments, it’s caused me though to have to, to work later in the day to sort of put the information I need that’s in Rheum4U into my own record. So I have to duplicate that [and...]. The issue being that the nurses usually do that stuff for me and put it in Sunrise...”

Themes	Description	Quotation
<b>Main theme:</b> <b>Acceptability</b>	<p>Patient experiences with the online platform was</p> <p>Health provider experiences were mixed, but generally very positive towards acceptance of the online platform. However, patients and health providers identified areas in which the online platform could be improved.</p>	<p>Patient: 5 “No, everything was smooth, I was really happy with it. I would, largely positive. I would enjoy doing it all the time.”</p> <p>Health Provider: 2 “So my, my personal experience has been very good. I like it. I do have some comments about the system that we’ll probably get to but, but my own experience has been, yeah, quite positive, yeah.”</p>
<b>Sub-theme:</b> <b>Future functionality and integration</b>	<p>Both patients and health providers identified, long-term functionality changes for future iterations of the online platform.</p> <p>For patients, future functionality changes included a comments section to record topics they would like to focus on during their visit. Move away from the paper chart completely and have everything electronic, so that they can submit their forms electronically.</p> <p>For health providers, future functionality changes included: Integration into the existing EMR and the ability to graph trends.</p>	<p>Patient: 6 “Yeah, absolutely. I mean, I think that we kind of live in a society now where we can start getting rid of using paper forms, especially with our medical records and our medical forms, if we implemented a process where they went from directly from the iPad or a computer form right into the system then it saves time and we’re not wasting trees and ink to print that paper, and there’s no sense, there’s no possibility of that paper being lost or that person having to fill it out again because it just goes straightaway.”</p> <p>Health Provider: 7 “...I know that was talked about originally when, when [Rheum4U] was brought, the whole concept came about but I don’t see any graphing capacity and, and again that would be useful from the point of view of being able to do it and also being able to print it out because if I print it out and then incorporate it in my record then I have something to refer back to.”</p>
<b>Sub-theme:</b> <b>Medications</b>	<p>Patients: Noted medications were missing from the online forms. Would like the ability to enter their medications.</p> <p>Health providers: Questions regarding who enters the medications, types of medications to include, and integration with the biologic clinic.</p>	<p>Patient: 7 “Well I noticed actually that online it didn’t ask about what medication I’m on and so then I hadn’t filled that out and then they ended up asking me a couple questions over again.”</p> <p>Patient: 8 “So I, and I would think for other people too you can just pull out all your pills, you have ‘em right there, you can enter that data into the information online. Perhaps it would be more convenient...”</p> <p>Health Provider: 8 “I think that might be a reasonable thing to do and also that they then become more, more familiar with the medications, they’ve looked it up, they make sure they’ve got the correct information. It might be a helpful thing.”</p> <p>Health Provider: 6 “Oh, I was gonna say maybe we do the medication, that it’s only rheumatological medications, but sometimes, just because sometimes there’s interaction between medication... it’s maybe good to have a list of all medications maybe. I don’t know.”</p>

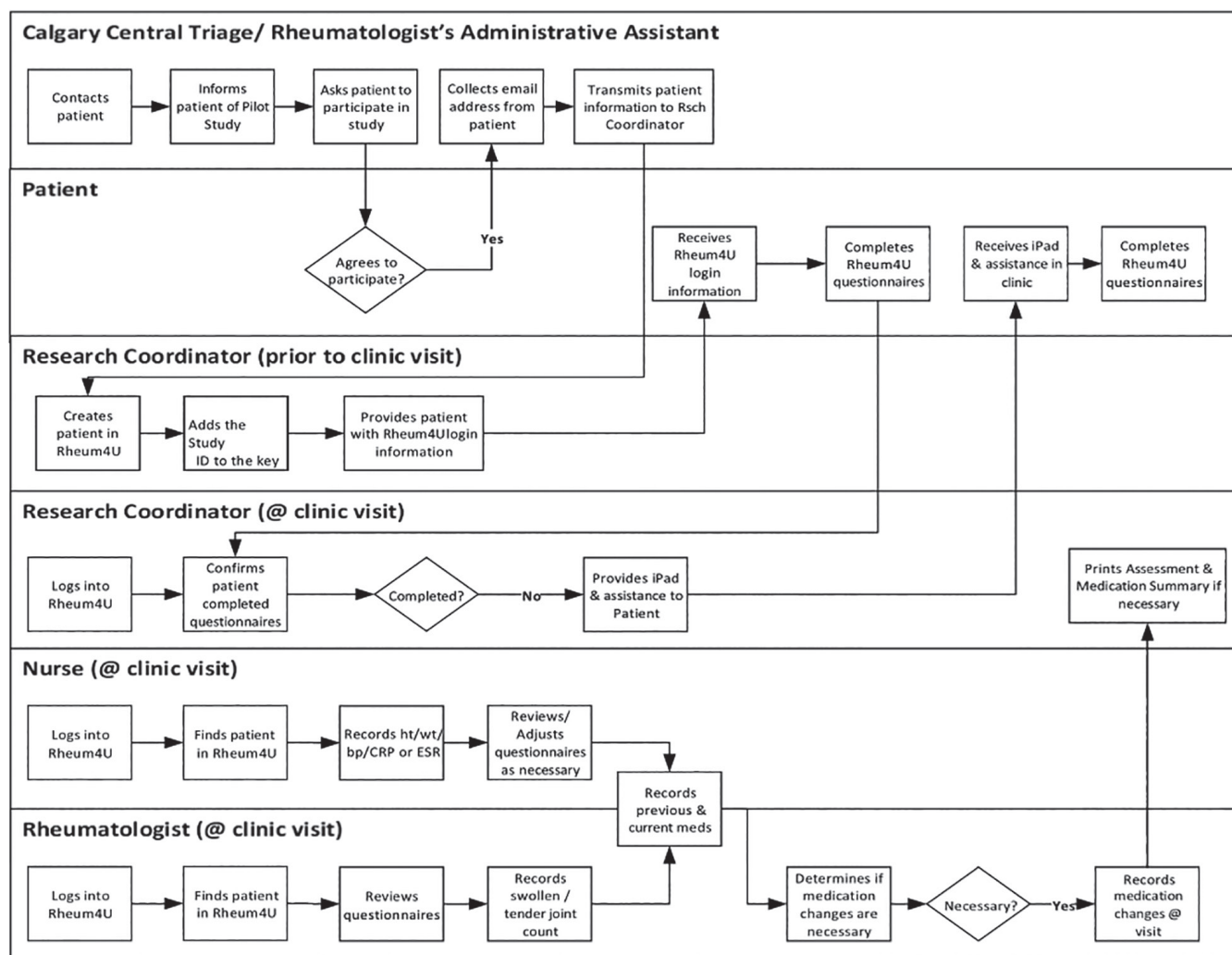


Fig. 1. Clinic flow diagram.