



Lessons learned for preventing REDCap Pain:

The Breakthrough Pain Action Plan Study

Donna Kay Buna, Pharm D - Principle Investigator Christine Malmberg, Pharm D - Study Coordinator Kelsey Lautrup, BSc Pharm – Study Assistant

This study has been reviewed by and approved by the Island Health Research & Ethics Board.

Outline

- Study Background
- Design and Development Phase
- Study Management
- REDCap Benefits & Lessons Learned



Study Background



What is breakthrough pain?

- Chronic pain patients experience pain "flares" on top of their baseline pain
- These flares can be:
 - Spontaneous no particular reason
 - Incidental- related to activities or events



What are the concerns regarding drug use to manage pain flares?

- Takes time for the medication to "kick-in" & pain flare is often over by the time medication takes effect
- Most concern around `opioids' such as morphine, Dilaudid, Percocet, Tylenol #3
- Frequent or regular use can lead to:
 - Side effects
 - Tolerance
 - Dependence









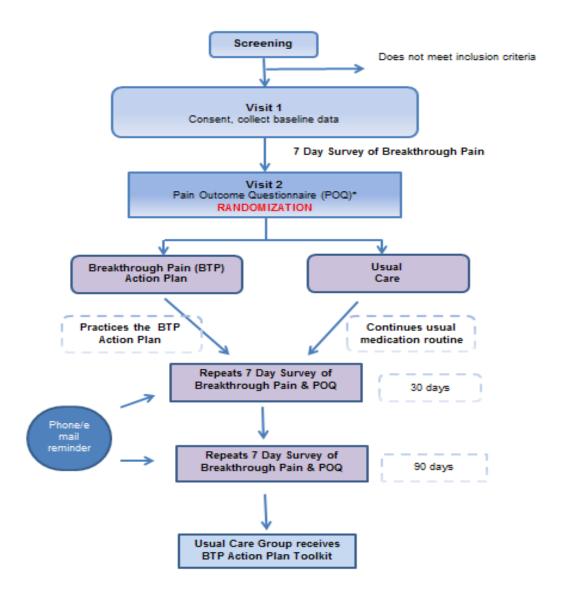
"Will a personalized non-drug
'Breakthrough Pain (BTP) Action Plan'
decrease the number of medication
doses required to manage pain flares
without decreasing overall pain
control?"



Design & Development Phase

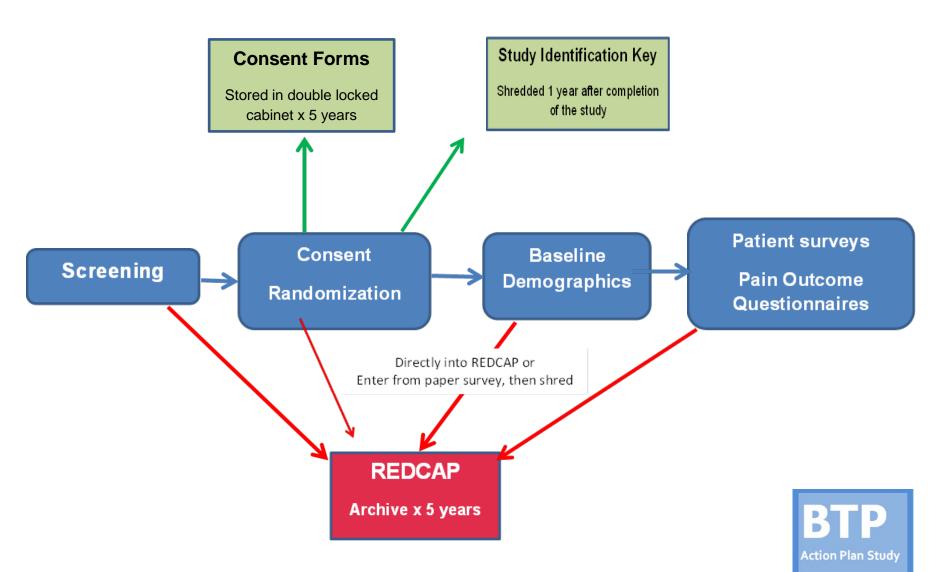


Study Design





Data Flow & Storage



Development phase

- 2 hour hands-on REDCap tutorial with Victor
- Started by converting the ethics approved case report forms into REDCap
- Used study flow to set up Study Events in REDCap
- Easy to set up basic stuff Victor assisted with the more complex forms and logic (eg., morphine equivalents and randomization)
- Entered data for several "test" patients and tested the email survey functionality
 - External emails only work in "Production"
- Continued to adjust even after first patient enrolled



Study Management



Study Management

- 1. Screening for inclusion
- 2. Participant management
- 3. Data collection and entry



1. Screening

- Originally planned to screen directly into REDCap but...
 - For eligible participants wanted background information around medications to assist in coaching participants how to enter their information into REDCap and develop their action plan
 - Record Status Dashboard seemed messy
- Solution: Hybrid system
 - Screened on paper first room for participant specific notes
 - Entered in REDCap in batches easy to tell who is active/ eligible vs not eligible
 - 3. Mark ineligible participants yellow (incomplete)





Screening

Eligibility Screening

_ , ,			
Adding new Participant ID Number 30			
Event Name: Screening			
Participant ID Number		30	
Screening date			
* must provide value		31 Today D-M-Y	
		● Yes	
Diagnosis chronic non-cancer pain for at least 6 months?		O No	
* must provide value	9		reset
		Primary pain diagnosis must exclude headaches.	
Taking on average at least 2 breakthrough immediate acting opiods per day	\mathbb{H}		
* must provide value	9	○ No	reset
The participant demonstrates stable pain control by taking			reset
a stable regimen of regularly schedule pain medications	(H)	● Yes	
that have not changed in the last month. This may include		○ No	
regular opioids, non-opioids and/or pain adjunctives. * must provide value	,		reset
must provide value		®v	
Participant able to read and write English		● Yes ○ No	
* must provide value		ONO	reset
Participant 19 years of age or older?	(H)	● Yes	
* must provide value	ŏ	○ No	
max provide value	_		reset
		● Yes	
Participant willing to carry out requirements of study		○ No	reset
* must provide value		Up to 2 visits, 3 weeks of recording breakthrough pain and	
		medication use and 3 questionnaires evaluating pain and func	tion.
Has participant been hospitalized in the last year with depression, anxiety, psychosis, mania, schizophrenia or	(H)	O Yes	
substance abuse disorder?	ĕ	● No	reset
* must provide value		Hospitalized with mental illnesses last year	10301
Has the participant begun new medications or therapies in		○Yes	
the last 3 months for depression, anxiety, psychosis, mania, schizophrenia or substance abuse disorder.		● No	
mania, schizophienia of substance abuse disorder.	9	New therapies for mental illnesses last 3 months	reset
Participant is eligible			
Form Status			
Form Status			
Complete?		Incomplete	
·	P		
Lock this record for this form?		Lock	
If locked, no user will be able to edit this record on this form until someone wi Lock/Unlock privileges unlocks it.	th	LOCK	
		Save Record	
		Save and Continue	
		Cancel	

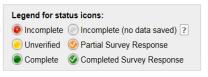


Record Status Dashboard

■ Record Status Dashboard (all records)

Displaying record "1" through "28" V of 28 records

Displayed below is a table listing all existing records/responses and their status for every data collection instrument (and if longitudinal, for every event). You may click any of the colored buttons in the table to open a new tab/window in your browser to view that record on that particular data collection instrument. Please note that if your form-level user privileges are restricted for certain data collection instruments, you will only be able to view those instruments, and if you belong to a Data Access Group, you will only be able to view records that belong to your group.



splaying:	olaying: restrument status only Lock status only All status types											Enable floating table headers				
Partici ant ID Number	Eligibility Screening Screening	t aseline Data Consent/Demographics Baseline	Consent Form Consent/Demographics Baseline	Survey Of Breakthrough Pain Baseline Survey Baseline Day 1	Survey Of Breakthrough Pain Baseline Survey Baseline Day 2		Survey Of Breakthrough Pain Baseline Survey Baseline Day 4		Survey Of Breakthrough Pain Baseline Survey Baseline Day 6		Randomization 1 Week FU Assignment	Pain Outcome Questionnaire 1 Week FU Assignment	Withdrawal Form Withdrawal From Study	Survey Of Breakthrough Pain Survey Post Intervention Day 1	Pain Outcom Questionnain Survey Post Intervention Day 1	
1		•	•	Ø	Ø	Ø	Ø	②	②	②	•	Ø		Ø	Ø	
2		•	•					•	•	•	•					
<u>3</u>		•	•	Ø	Ø	Ø	Ø	②	②	②	•	•				
<u>4</u>		•	•					•	•	•	•	•				
<u>5</u>		•			0											
<u>6</u>		•	•	②	Ø	Ø	Ø	②	②	②	•					
7	0	0	0		0											
<u>8</u>	0	0	0													
9	0	0	0													
<u>10</u>	0															
<u>11</u>	0		0		0											
<u>12</u>	0															
<u>13</u>	<u></u>	0	0													
14	0	0	0													
<u>15</u>	0				0									_		

Action Plan Study

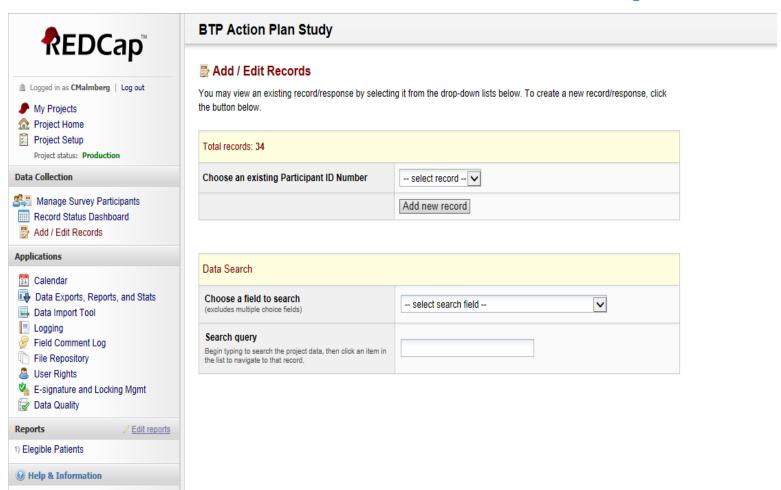
2. Participant Management

Patient is eligible... now what? A hybrid participant management system:

- "Add record" in REDCap (assigns Participant ID)
- Create a record of the participant (Excel)
 - Log dates for Visits 1 and 2
 - Pushes out dates for 30 and 90 day surveys and email and phone reminders
- Appointments for Visits 1, 2 and follow-up reminders (Outlook)
- Consent (paper and REDCap) and withdraw (REDCap)
- Randomize to intervention vs control (REDCap)
- View participants "at a glance" (REDCap)



Add Record to Create Participant ID

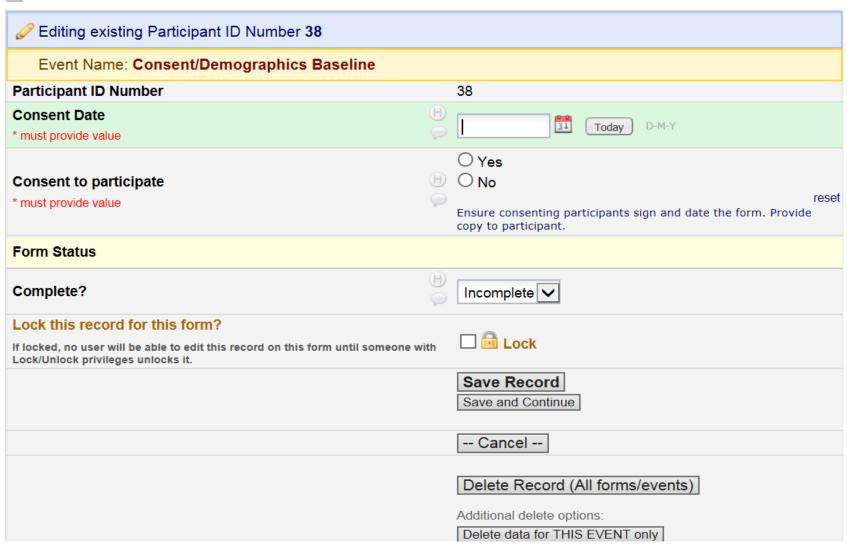


■ Help & FAQ

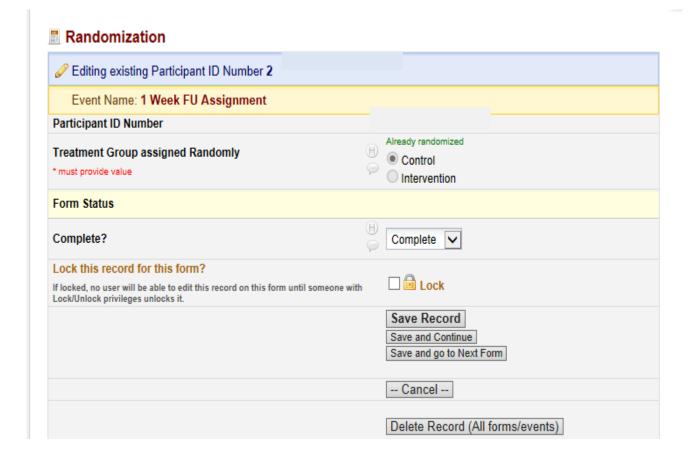


Consent Participant

Consent Form

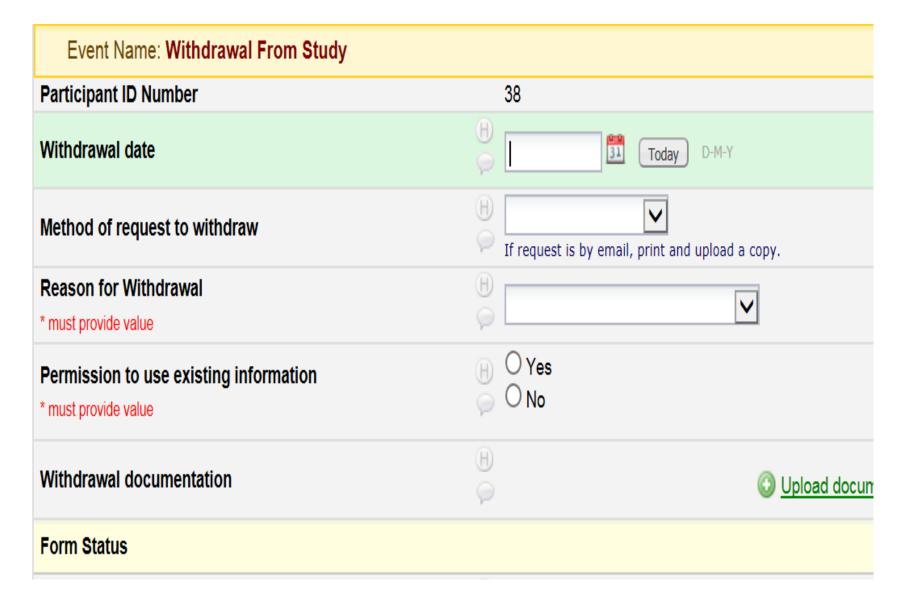


Randomize Participant





Withdraw Participants

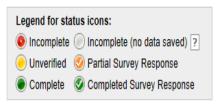


Record Status Dashboard

BTP Action Plan Study

Record Status Dashboard (all records)

Displayed below is a table listing all existing records/responses and their status for every data collection instrument (and if longitudinal, for every event). You may click any of the colored buttons in the table to open a new tab/window in your browser to view that record on that particular data collection instrument. Please note that if your form-level user privileges are restricted for certain data collection instruments, you will only be able to view those instruments, and if you belong to a Data Access Group, you will only be able to view records that belong to your group.



Displaying record "1" through "34" of 34 records

Displaying: Instrument status only | Lock status only | All status types

Enable floating table headers

Participant ID Number	Eligibility Screening Screening	Baseline Data Consent/Demographics Baseline	Consent Form Consent/Demographics Baseline		Survey Of Breakthrough Pain Baseline Survey Baseline Day 2							Pain Outcome Questionnaire 1 Week FU Assignment	Withdrawal Form Withdrawal From Study	Survey Of Breakthrough Pain Survey Post Intervention Day 1	Pa Qu S Ir
1		•	•	②	Ø	Ø	②	②	Ø	Ø		Ø		Ø	
2	•	•	•	•	•	•	•	•	•	•	•	•	0	•	
3	0	•	•	Ø	Ø	Ø	Ø	Ø	②	Ø	•	•	0	•	П
4		•	•	0	•	0	0	0	0	0	•	•			
<u>5</u>		•	•	Ø		0	0	0	0	0	0	0	BI	P	
<u>6</u>	•	•	•	Ø	Ø	②	Ø	Ø	Ø	②	•	•	ction Pla	n Study	
-	<u></u>			0	0	0	0	0					CGOIII IO	ii Stody	

3. Data Collection and Entry

Visit 1

- Enter Baseline Demographics into REDCap, then:
- For 7 Day Breakthrough Pain Survey customize participant decides based on computer literacy:
 - 1. REDCap directly OR 2. Paper \rightarrow REDCap

Visit 2

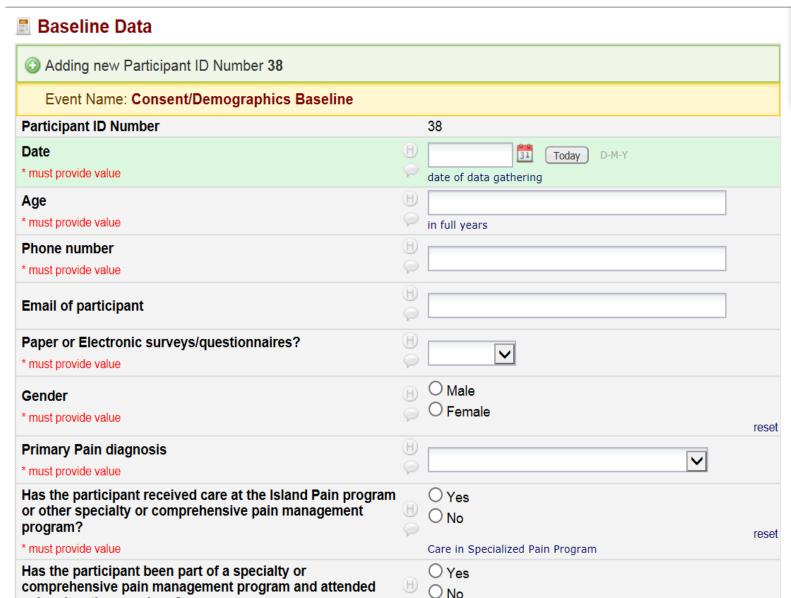
- Evaluate whether to continue electronically
- Completes POQ with patient in REDCap

Breakthrough Pain Surveys and POQ at Day 30 and 90

- Participant enters data into REDCap from email link <u>OR</u>
- Mailed in paper surveys are entered by study personnel.



Baseline Demographics





Participant Email Link to Survey

From: BTPActionPlanStudy@viha.ca [mailto:BTPActionPlanStudy@viha.ca]

Sent: July-24-15 7:01 AM

To:

Subject: Baseline Survey of Breakthrough Pain - Day 3 of 7

Dear Study Participant,

On behalf of the Breakthrough Pain Action Plan Study, thank you for taking the time to complete all the questionnaires and surveys. Your participation will help us gather more complete and accurate results for the study.

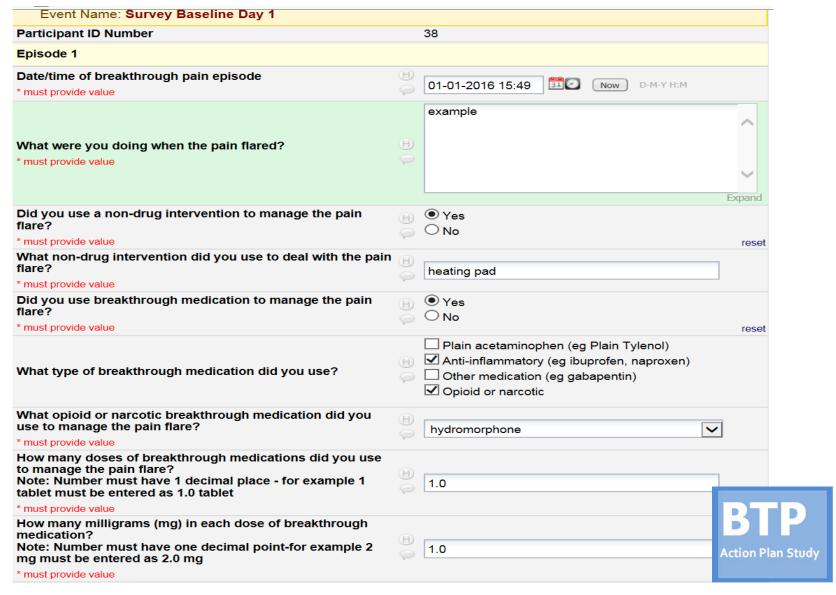
You may open the survey in your web browser by clicking the link below: Survey Of Breakthrough Pain Baseline

If the link above does not work, try copying the link below into your web browser: https://redcap.viha.ca/redcap/surveys/?s=ylqDi5kB7M

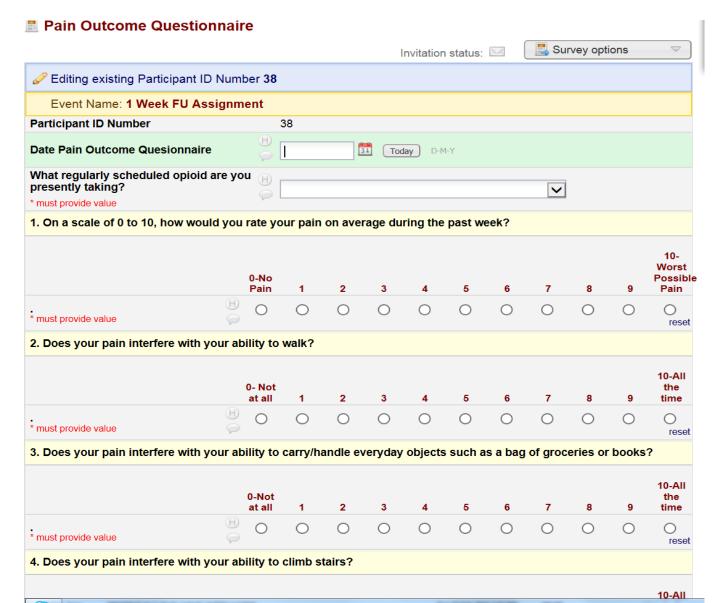
This link is unique to you and should not be forwarded to others.



Breakthrough Pain Episode Survey



Pain Outcome Questionnaire







of Breakthrough Pain

Participants can enter their own data in REDCap:

- Advantages :
 - Daily surveys sent directly to participants with link
 - Can set-up reminders if survey not done
 - Participants enter directly into system
 - Nice system of drop-downs; expansion of information
- Disadvantages:
 - Participants have to be computer-savvy
 - Participants must have a reliable computer system
 - (Very) occasionally server is down



REDCap Benefits & Lessons Learned



Benefits of using REDCap

- Web-enabled database-capacity
- Support IHA supported
- Victor likes it!
- Electronic data-gathering- eliminate steps, especially if participants can enter their own data
- Assists with participant management
- Ease of statistical analysis
- Data storage in the REDCAP cloud



Lessons Learned for Preventing REDCap Pain!

- Test, test, test, and when you think you are done testing → test some more
- 2. Coach participants how to enter information into REDCap
- 3. Anticipate challenges and be <u>flexible</u>
- Customize and adapt the use of REDCap to make it suitable to the unique needs of your study.

Help Us Recruit!

- We are looking for eligible participants!
- Do you know someone with chronic pain who is:
 - Taking a short-acting opioid or narcotic medication AND
 - 2. Using 2 or more doses per day
- Please share our study information brochures with your patients and colleagues!



Thank you!

Please contact us if you have any questions...

Donna, Christine, Kelsey

www.facebook.com/BTPactionplanstudy

Email: BTPActionPlanStudy@viha.ca.

Call: 1-250-519-5300-ext 16882

