A web based PROM collection system for monitoring and service evaluation in musculoskeletal patients: Care Response

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Patient Reported Outcome Measures (PROMS)
Patient Reported Outcome Measures (PROMS)

Help **improve patients care:**
- an aid to informed decision making
- supports communication and shared decision making
- flags areas for improving clinical practice
Patient Reported Outcome Measures (PROMS)

Help **improve patients care**
Help **develop services:**
- informs patients choice of a provider
- informs referrers of clinics results
- demonstrate outcomes to service purchasers
Patient Reported Outcome Measures (PROMS)

Help **improve** patients care
Help **develop** services
Help **develop** clinical evidence:
• contribute to outcome research

• The improvement of healthcare outcomes for all will be the primary purpose of the NHS.
• Patients and their choice will be at the heart of everything the NHS does
• Use of PROMs will be extended across the NHS wherever practicable
Research and our experience indicates there are considerable barriers to implementing routine collection of PROMs data using traditional paper based processes.

Barriers to collecting patients assessments include:

- Practical difficulties in asking patients to complete forms in a busy or short handed practice
- Incomplete forms (missing responses)
- Time for clinicians to analyse them
- Explaining meaning of results to patients
- Collating results
To remove barriers to collecting patient assessment we wanted to take as much of the work away from clinics & HCP’s as possible.

Using technology to -

- give patients choice in how/where to complete PROMs
- screen for incomplete forms
- score assessments
- present results immediately as simple graphs
- collate results & enable anonymised comparison of services for audit
Pragmatic collection of patients responses

Online

Paper forms

iPad & other Tablets

Computer terminals or laptops
**Patient Search/Creation**

<table>
<thead>
<tr>
<th>System Ref Id:</th>
<th>Address Line 1</th>
<th>Email</th>
<th><a href="mailto:david.jones@hotmail.com">david.jones@hotmail.com</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Client File No:</td>
<td>Address Line 2</td>
<td>No Email Circulars:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Address Line 3</td>
<td>Opted In To PHD Study:</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Address Line 4</td>
<td>Email Delivery Problems:</td>
<td></td>
</tr>
<tr>
<td>Mr</td>
<td>Address Line 5</td>
<td>Organisation</td>
<td>Back2Health</td>
</tr>
<tr>
<td>First Name</td>
<td>Address Line 6</td>
<td>Default Practice</td>
<td>Petersfield</td>
</tr>
<tr>
<td>David</td>
<td>Gender</td>
<td>Gender</td>
<td>Male</td>
</tr>
<tr>
<td>Last Name</td>
<td>County</td>
<td>Post Code</td>
<td></td>
</tr>
<tr>
<td>Jones</td>
<td>Mobile No.</td>
<td>Other No.</td>
<td></td>
</tr>
<tr>
<td>111964</td>
<td>Created Date:</td>
<td>Created By:</td>
<td></td>
</tr>
<tr>
<td>Created By:</td>
<td>Last Amended Date:</td>
<td>Last Amended By:</td>
<td></td>
</tr>
<tr>
<td>Paste Patient Data Here</td>
<td>Load Data From Paste Area</td>
<td>Patient Search Fields</td>
<td></td>
</tr>
</tbody>
</table>

No records to display.
Dear Mrs Sandy Durban,

I am writing to ask if you would kindly complete a short online form before your appointment. Information from this form is an important part of your assessment and completing this online now will save time during your appointment that may be used more productively when you come in. Your clinician will email you other forms throughout your treatment to monitor your progress and ensure you are recommended the most appropriate care. These forms will only take a few minutes to complete and will arrive 15, 30 and 90 days from now.

The initial form can be found by following this link:

Pre-examination form for Mrs Durban

A reminder email is sent after 2 days if we have not received a reply.

Yours sincerely,

Jonathan Field DC PGD FCC
Back2health

If the link does not work please copy the entire line below into the address bar of your internet browser:
Checking Your Identity

Your Name:  Mrs Sandy Durban

Thank you for helping with this form. Before we can display it for you we need to confirm your identity.

To confirm your identity, please enter your date of birth:   1 :   Jan :   2013 :

Continue

Anonymous data from our files is occasionally used for research and education purposes. If you would rather be excluded from this please indicate here:  

If you would prefer not to complete any further assessments please click here:  Stop Assessments

This site is for training and testing purposes only.
(Click anywhere on the images above to select an area of pain)
**Presentation Detail - Jacqueline Gray (06796)**

**Organisation:** Back2Health

**Practice:** Petersfield

**Practitioner:** Jonathan Field DC MSc FCC

**First Appointment:**

**Diagnosis:** Lower back: Non-specific pain (mechanical)

**Diagnosis Detail:**

**New Patient To This Clinic:**

**Patient Has Seen Practitioner Before:**

**Stop Assessment:**

**Outcome Format:** Bournemouth Questionnaire

**Email Delivery Status:** OK

**Presentation Status:** OUTCOME 30 COMP

**Created Date:** 04/03/2013 15:59:16

**Last Amended Date:** 04/03/2013 15:59:16

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**Progress**

<table>
<thead>
<tr>
<th>Date</th>
<th>BQ</th>
<th>BQ Change</th>
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</thead>
<tbody>
<tr>
<td>04/03/2013</td>
<td>62</td>
<td>70.97%</td>
</tr>
<tr>
<td>23/03/2013</td>
<td>18</td>
<td>88.71%</td>
</tr>
<tr>
<td>02/04/2013</td>
<td>7</td>
<td>88.71%</td>
</tr>
<tr>
<td>09/04/2013</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

**BQ/Pain Trend**

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**Statement from PGIC**

23/03/2013: Much improved

02/04/2013: Very much improved

09/04/2013: Much improved

**Satisfaction Statement**

09/04/2013: A very high level, I would recommend friends with similar problems to consider you.

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The Bournemouth Questionnaire (BQ) is a validated patient reported outcome measure. For more details see [http://www.aecc.ac.uk/research](http://www.aecc.ac.uk/research)

**Patient Comments**

04/03/2013: I have scoliosis in my spine as a result of my polio. I have had extensive physio over the years the last period was in August 2012 and I am aware that I need to do the exercises on a regular basis. I have been experiencing lower back pain for the last 10 days, normally this will subside after a few days, but this time the pain continues. Sleeping is not a problem, as once I am able to lay down flat the pain is much less. Lifting my legs to dress causes a pull on my back and more pain. When the spasm is bad the spasm seem to travel up my back and down the front of my legs. GP has prescribed anti inflammatory/ pain relief, but the problem does not seem to be any better.
Satisfaction with reception services

<table>
<thead>
<tr>
<th>Satisfaction Level</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>0.00</td>
</tr>
<tr>
<td>Very Good</td>
<td>10.57</td>
</tr>
<tr>
<td>Good</td>
<td>65.71</td>
</tr>
<tr>
<td>Fair</td>
<td>21.45</td>
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<tr>
<td>Poor</td>
<td>2.11</td>
</tr>
<tr>
<td>Very Poor</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Reception services here is a summary of questions enquiring about patients satisfaction with:
- The way they have been treated by reception
- Opening hours
- How quickly an appointment is available
- Waiting time in clinic

662 assessments found

Satisfaction with care provided

<table>
<thead>
<tr>
<th>Satisfaction Level</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>75.38</td>
</tr>
<tr>
<td>Very Good</td>
<td>19.64</td>
</tr>
<tr>
<td>Good</td>
<td>1.96</td>
</tr>
<tr>
<td>Fair</td>
<td>0.00</td>
</tr>
<tr>
<td>Poor</td>
<td>0.15</td>
</tr>
<tr>
<td>Very Poor</td>
<td>2.87</td>
</tr>
</tbody>
</table>

Care provided here is a summary of questions enquiring about patients satisfaction with:
- How thoroughly they feel they have been asked about their symptoms
- How well they have been listened to
- How well they were put at ease during examination
- How well they were involved in decisions about their care

User experience:

- 79% of clinicians satisfied using the system
- 84% say they are likely to continue to use it
- 62% discuss results with patients in clinic
Additional Stakeholders

Data has been used to inform stakeholders at other levels in addition to patients and clinicians

- Engaging and informing the profession
- Informing local CCG commissioning
- Clinical research community

We have explored large data sets generated by this system to answer particular clinical research questions

1. Identifying patient subgroups based on outcomes
2. Clinometric analysis of outcome measures
3. Exploring utility of screening tools (STarT Back)
4. Service provision research including cost evaluation
5. Comparing patient populations (NHS v Private)
Chart 1: Improvement rate (unadjusted scores by procedure and measure) NHS PROMs 2013-14

AECC

Collecting musculoskeletal PROMs: Does it have to be a pain in the neck?

Emily Diment, David Newell and Jennifer Bolton
Anglo-European College of Chiropractic, July 2014

A research study funded by the BCA and the AECC

Figure 13 – PROMs Survey – The cost per patient and their resulting QALY gained during 3 months in 544 patients

“We had to use the phone line for support and did need help with a few things but got there in the end – fear of doing bigger than actually doing this!”

“It is great that patients can do this on an iPad rather than on paper!”

“I think the most useful advantage of Care-response is the ability of the patient to make little comments… probably the most valuable feedback that Care-Response provides.”
Large data sets have enabled detailed descriptions of the patients journey going though care for MSK conditions.

The data here represents a cohort of 3339 patients over the course of 12 months.

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**SBT Risk Group: Low**

**GROUP**
- 1 q symptom
  - 2 yrs

**SBT Risk Group: Medium**

**GROUP**
- 2 q symptom
  - 1 yrs

**SBT Risk Group: High**

**GROUP**
- 2 q symptom
  - 2 yrs

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**Self-Induced Patients**

**GROUP**
- Low
- High
- No data

**MSK Patients**

**GROUP**
- Low
- High
- Moderate
- High

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**SBT Risk Group: High**

% of patients for:
- Moderate improvement
- High improvement
- Slight improvement
- No improvement
3. FIELD J and NEWELL D (2010) Preliminary study into the components of the fear avoidance model of LBP: Change after an initial chiropractic visit and influence on outcome. Chiropractic and Osteopathy 18:21
8. DIMENT E, NEWELL D and BOLTON J (2014) Collecting PROMs; Does it have to be a pain in the neck? Survey of clinicians’ perceptions of using an E-PROMs data collection tool. ECU convention, Dublin
12. FIELD J and NEWELL D (2010) Preliminary study into the components of the fear avoidance model of LBP: Change after an initial chiropractic visit and influence on outcome. Chiropractic and Osteopathy 18:21
17. DIMENT E, NEWELL D and BOLTON J (2014) Collecting PROMs; Does it have to be a pain in the neck? Survey of clinicians’ perceptions of using an E-PROMs data collection tool. ECU convention, Dublin
Care Response is cloud based - there is no software to install

It is free for clinics to use.

150 practices in the UK

33,000 sets of data