



## **The Physiotherapy Pilot**

### **1.1 Purpose of the pilot**

The purpose of the physiotherapy pilot was to see if there were business benefits of fast tracking Network Rail employees who sustained injuries whilst at work to a BUPA off site physiotherapy service.

### **1.2 Pilot Scope**

The pilot, funded by Network Rail's Safety and Sustainable Development Team, enabled employee's access to fast and effective remedial treatment with the expected benefits of speedier recovery and reduced potential for the injury becoming more serious and recurring. The expected overall benefits to the company being; reduced costs resulting from sickness absence, litigation and claims, and a more engaged and healthy workforce.

The pilot was run over a twelve month period and enabled employee's working on Western and London North Eastern routes who sustained a work related acute musculoskeletal soft tissue injury or fracture, access to fast and effective remedial treatment. Up to 5 physiotherapy sessions were made available. Referral was made by the line manager to BUPA case management, where a health assessment was undertaken and an assessment of whether physiotherapy was appropriate. The employee was then fast tracked to BUPA physiotherapy services where physiotherapy was required.

### **1.3 Evaluation Criteria of the Pilot**

The pilot was evaluated against the following criteria:

- Reduction in length of sickness absence for the population receiving physiotherapy services
- Reduction in cost of sickness absence
- Improvement of the individual's functional ability by 80 % within a 5 session programme.

### **1.4 Pilot Constraints**

Physiotherapy services were only considered for staff who sustained accidents at work. The criteria defined for accessibility to physiotherapy excluded employees suffering from an existing or long-standing musculoskeletal condition, cancer, and rheumatic and degenerative diseases that may also result in discomfort and disability, and may require particular healthcare interventions. These were excluded as healthcare outcomes are likely to be different to those expected from musculoskeletal disorders. Employees in these cases were advised to consult their General Practitioner (GP).

BUPA, our existing contracted occupational health (OH) services provider delivered the offsite physiotherapy service during the pilot. It was decided to trial the service with BUPA because they were already working in accordance with our process and protocols on attendance management allowing the pilot to be facilitated quickly and efficiently.

### **1.5 Costs of the physiotherapy pilot**

The service fees below were agreed with BUPA:

- Initial Physiotherapy Assessment session (45 minutes) £63.57;
- Follow up physiotherapy session (30 minutes) £47.24; and

- Case Management Referral £240.30.

Prices were based upon c30% of employees being within the London area and c70% outside of London accessing the services within the pilot. Charges outside the London area were significantly lower and these ranged from £30 to £35. Costs were agreed based upon a model of 600 employees and a 5 session model (1 initial session and 4 further sessions).

The pilot was funded from the Safety and Sustainable Development budget for 2009/10 with a maximum operating expenses (OPEX) cost of £150,000.

## **1.6 Implementation of the Pilot**

### **1.6.1 Briefing of the Pilot**

Prior to commencement of the pilot on Western and London North Eastern (LNE) routes, senior management teams were briefed on the process through face to face presentations delivered by the internal Occupational Health team. This made certain that they understood how the service could help them, how to refer employees and what information and advice to expect. The briefing was then cascaded down to all line managers by the route representatives.

The BUPA staff, comprising of Occupational Health Physicians, Nurse Advisors, physiotherapists and finance teams were briefed on the pilot by the Chief Medical Adviser and were made fully aware of the remits, constraints and procedures to follow.

### **1.6.2 Referral to Physiotherapy Services**

Following a workplace accident, the line manager spoke with the employee on their first day of absence regarding the accident and injury sustained, as per the accident at work procedure. If appropriate, the line manager would then refer the employee to BUPA via a management referral form for case management (remote management by a qualified OH Adviser) and onward referral for physiotherapy services where appropriate. An appointment would then be made with the physiotherapist within 3 days of the referral receipt.

### **1.6.3 Treatment by Physiotherapist**

Treatment consisted of an initial 45 minute assessment, where a treatment plan was developed. There were then four 30 minute follow up sessions where treatment was given and the employee provided with advice and home based exercises, where appropriate.

During and at the end of treatment, an analysis of the improvement in symptoms was made by the physiotherapist. This was measured as the percentage of functional mobility they had after each treatment. The improvement target set as a successful outcome was over 80% functional ability after 5 sessions.

### **1.6.4 Monitoring of the Pilot**

During the pilot BUPA provided detailed management information reports every two weeks. Information included the number of employees taking physiotherapy, types of conditions, department, and numbers of sessions attended and the outcomes of intervention. BUPA allocated a project manager as a single point of contact to work with Network Rail.

### **1.6.5 Collection of Historical Information for Comparison**

Prior to starting the pilot each local Human Resource Manager on Western and LNE Routes provided historic long term sickness absence data of all employees with musculoskeletal conditions from Period 7 2008 to Period 13, 2009 (inclusive).

The duration of sickness absence per employee resulting from a musculoskeletal condition in Western ranged from 24 days to 487days, with an average of 153.8 days per employee. A

total of 4768 days lost. In LNE, it ranged from 2 days to 666 days per employee, with an average of 180.7 days per employee. A total of 6144 days lost.

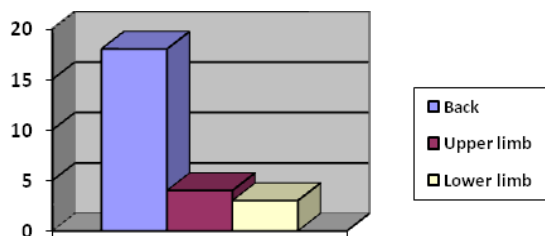
This information was used as a baseline for duration of sickness absence for a typical musculoskeletal injury without physiotherapy support and allowed for comparison at the end of the pilot.

## 2. Results

### 2.1 Pilot Results

A total of 46 employees accessed the service during the 12 month pilot with 25 (54.3%) accepted as suitable for the pilot. All had sustained an injury at work as a result of an accident. The injuries sustained were predominately back, lower limb (ankle and knee injuries) and upper limb (neck and shoulder) problems.

Figure 1 below demonstrates the distribution of musculoskeletal injuries by type for employees who had physiotherapy treatment.



15 (32.6%) employees declined treatment as they had been provided treatment through their GP and NHS hospital as a result of their emergency referral.

Two employee cases were cancelled by the manager as services were no longer required and 4 cases were non-compliant with the process and discharged because they failed to attend appointments.

The employees who took up the physiotherapy services were all from Infrastructure Maintenance and were predominately male (male 23, female 2) working on the track.

At the end of the pilot 15 cases were closed with a further 10 remaining in the pilot to continue their treatment.

Following the introduction of the early management referral physiotherapy services and where employees were case managed until fit for work; the duration of sickness absence has reduced. It ranged from 15 days to 149 days, with an average of 73 days per employee. Total sickness days lost for LNE was 137, and Western 300.

The employee from LNW, who sustained 149 days sickness absence, initially sustained their accident on the 18th November 2009, but was not actively managed and or referred to occupational health until the 22nd February, 2010. Following active case management by BUPA, they received physiotherapy for their back injury and returned to work 2 months later. They were able to undertake full duties and had a functional ability of greater than 80%, which is a very successful outcome. Further case studies can be read in Appendix 1.

Those employees who completed the physiotherapy sessions, 14 were fit for full duties with only one fit to return to work on restrictive duties.

Of the 25 cases accepted into the pilot 17 remained at work while undergoing treatment. Additional support was provided to them through reasonable adjustments made to their work organised by their line manager.

The average duration of sickness absence for 8 of the employee who received physiotherapy was 73 days with 1 employee sustaining only 15 days following a soft tissue back injury.

The duration of sickness absence as a result of physiotherapy services has significantly been reduced. In comparing duration of sickness absence for similar conditions prior to the pilot to those having received early intervention through early management referral and physiotherapy treatment, absence days has reduced by 60%.

## **2.2 Results of Functional Ability following physiotherapy**

Of the closed cases, 13 employees reported a significant recovery with over 80% improvement in functional ability following 5 sessions of treatment. Only 2 cases reported less than 80% functional ability after the 5 sessions; these were more complex injuries.

## **3. Issues of concern during the pilot**

Relatively few problems were encountered in the actual delivery of the physiotherapy pilot. Service level agreements were met by the provider that allowed early assessment and treatment of the individual.

The issue of our company not having sickness absence data available in a format to feed into a cost benefit model, is a concern and is an area that is being addressed by Human Resources. Measuring the cost benefit of any future projects with existing systems will make measurement of outcomes difficult and timely.

For all functions, we know from management information collected between October 2008 and end of October 2009, that there were a total of 2281 management referrals made to BUPA with 760 (33%) resulting from musculoskeletal conditions. Of the total musculoskeletal conditions, 88% of referrals were due to non-work related musculoskeletal conditions, 5% had a work related element and a further 5% resulting from a work related accident.

Considering the fact that 88% of employees were referred to BUPA as a result of sickness absence and/or performance issues resulting from non-work related musculoskeletal conditions, this has the potential of incurring significant direct and indirect costs to our company through long term sickness absence.

During the period of the pilot (Period 1 to 13 of 2009/2010), 8 cases from LNE and 10 cases from Western who had long term sickness absence as a result of a musculoskeletal injury and who did not receive physiotherapy, have departed the organisation through ill health retirement. Potentially, we have the ability to reduce these costs through better health risk management.

Managing the process through a BUPA management referral was a good decision, for many reasons. Firstly, it resulted in managers addressing the problem early and being given appropriate advice from BUPA to support the management of the employee. Secondly, by using case management as a method of occupational health support it enabled early assessment of the employee by a qualified practitioner through remote management and access to timely physiotherapy services and facilitation of a return to work programme for the employee through the line manager. By employing case management unnecessary delays was avoided, such as those frequently seen by employee's fitness to attend a face to face medical and also the waiting time for appointments at health centres, in addition to the additional costs to Network Rail of employee travel. Thirdly it prevented inappropriate self-referral for physiotherapy by the employee and finally it enabled all costs to be managed and monitored.

#### 4. Conclusion

Effective infrastructure delivery in Control Period 4, and beyond, will rely heavily on a healthy and productive workforce. Providing physiotherapy services within Network Rail could positively impact on the financial bottom line and contribute towards the company goal of effective Infrastructure delivery by:

- Reducing employee long term sickness absence,
- Reducing the level of litigation against the company through Employers Liability claims,
- Increasing employee engagement and thus improving employee retention, and;
- Decreasing the number of ill health retirement resulting from musculoskeletal injuries and illnesses.

Employees would benefit from earlier structured medical intervention and professional care to speed recovery, thus reducing the potential of their injury becoming more serious, disabling or recurring. There is clear evidence that the longer a person is off work with a musculoskeletal disorder, the less likely they are ever to return to their job after 6 months absence 50% will not return to their jobs and after 12 months around 80% will never regain full time employment.

The direct financial saving to the business (based solely on basic salary) through implementation of services based on one live case study is shown in the table below.

Table 1

Return to work (RTW)	RTW after 180 days (26 weeks) No Physiotherapy	Total cost to line manager of rehabilitation	RTW after 4 weeks with physiotherapy	Direct business saving if individual RTW 18 weeks earlier following physiotherapy
Trackman Basic salary £16000 (gross earnings can be in the region of £27000 and £30000 more than above	Cost to Network Rail £7888,84	£262 Based on an initial session and 4 further physiotherapy sessions and case management at £260.63	Cost to Network Rail £2984.06	£6036.88

When considering the overall cost saving that can be made, by including indirect costs in terms of overtime pay, training and recruitment of new staff the cost benefit of rehabilitative services makes good business sense.

Increasing evidence from available literature detailed below, supports our findings from this pilot indicating that investing in physiotherapy services does positively contribute to reducing sickness absence duration and long term disability.

The cost benefits of those organisations who have invested in physiotherapy services that have been able to provide data include the [Royal Mail](#) using the model we have piloted achieved a net average saving of £1.1m in direct absence costs per annum with a return on investment of more than 300%



## Appendix 1 Network Rail Case Studies

### ***Case 1: Off work for 149 days due to back pain – now back at work on full duties***

**PATIENT:** Mr. A, 34 year old trackman.

**PROBLEM:** Injured during a road traffic incident while at work in November 2009 and sustained a back injury with nerve involvement. Went immediately off work but was not immediately actively case managed by the line manager.

**ACTION:** Was referred to BUPA for a face to face management referral on the 22<sup>nd</sup> February, 2010 where the Occupational Health Physician (OHP) made a recommendation for physiotherapy. The case thereafter was case managed with a physiotherapy appointment on the 5<sup>th</sup> March 2010. Initial assessment and subsequent 4 physiotherapy sessions, providing treatment and education on back care resulted in Mr. A. returning to work on full duties on the 16<sup>th</sup> April having improved functional ability but less than 80 %.

**LEARNING POINT:** Earlier referral by line manager through case management could have resulted in an earlier return to work.

In light of the length of absence (96 days) before intervention, some symptoms became chronic. Although significant improvement was made, Mr. A managed to return to full duties with decreased pain and improved function the likelihood of recurrence is medium to high risk. Mr. A would benefit from a bio psychosocial functional restoration programme for further education on the management of his condition, improve his muscle strength and endurance, coordination and work conditioning.

### ***Case 2: Remained at work with injury – now back working full duties***

**PATIENT:** Mr. B a 50 year old leading trackman

**PROBLEM:** On the 24<sup>th</sup> September 2009, whilst unloading old used stainless steel welding pots into a skip, P-way Mr. B trapped the third finger of his right hand when a pot fell onto it. Although painful at the time, Mr. B continued to work the remainder of his shift. However, the pain progressively became worse, with his finger becoming very bruised and swollen. Mr. B reported the injury the next day.

**ACTION:** The Manager on notification of injury referred employee to BUPA on the 12<sup>th</sup> October via case management, where physiotherapy assessment was made the same day and recommendation for recuperative duties provided. Initial assessment and subsequent 4 physiotherapy sessions, providing treatment and education were provided. Mr. B remained at work carrying out recuperative duties and returned on full duties on the 14<sup>th</sup> December 2009 having made a successful recovery with improved functional ability greater than 80 %.

**LEARNING POINT:** Early intervention through a management referral by the line manager instigated access to early physiotherapy and management advice on rehabilitation of the employee to facilitate a speedier return to work.

### ***Case 3: Off work for 149 days due to a slip trip and fall injury on ballast***

**PATIENT:** *Mr. C a 49 year old lineman.*

**PROBLEM:** Mr. C was walking in the cess when he lost his balance and went over on his right ankle twisting it. He was unable to put any weight on it and was taken to hospital on the 17<sup>th</sup> June where it was confirmed he had badly sprained it. Mr. C had previous injuries to his ankle that resulted in a weak ankle. The next day when his line manager visited him at home he stated he would be fit for the next restored shift (a few days away). Mr. C subsequently submitted a doctor's sick note.

**ACTION:** The manager referred him to BUPA for a management referral on the 13<sup>th</sup> July, nearly a month after the initial injury. The referral was not case managed initially and was seen by an OHP, where physiotherapy was recommended. The OHP managing this case was not aware of the physiotherapy pilot and recommended physiotherapy either privately or through his GP, and decided to further review the case in 4 to 6 weeks. In light of the case being a long term absence and no progress being made, the case was reviewed by local management and a request made to BUPA as to why he had not been referred to the pilot. On the 9<sup>th</sup> September he was seen by the physiotherapist and had a series of physiotherapy sessions and was actively case managed by an OHA. Mr. C returned to work on temporary recuperative duties on the 1<sup>st</sup> October, having had treatment and a recuperative duties programme agreed with his line manager. Mr. C was discharged back to full duties on the 24<sup>th</sup> November.

**LEARNING POINT:** Earlier referral by line manager through case management could have resulted in a speedier return to work, as the employee would have had access to treatment sooner.

The case should have been case managed from onset, rather than a face to face management referral requested by the manager. Additionally, BUPA should have guided the manager on the correct referral route at onset and should have made the OHP fully aware of the physiotherapy pilot.