

# On Your Marks – Are PDRU Patients Meeting Government Exercise Guidelines?

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## Introduction

The Physically Disabled Rehabilitation Unit (PDRU) at the Queen Elizabeth University Hospital (QEUH) is a regional rehabilitation unit and specialises in treating patients with complex neurological rehabilitation needs. Physiotherapy within the unit consists of one or two gym sessions per day where patients follow a personalised treatment programme tailored to their goals. The UK Government guidelines regarding exercise in a general population advise strength training of major muscle groups be carried out two or more times/week and 150 minutes of moderately intensive cardiovascular (CV) activity or 75 minutes of vigorous CV activity per week (Department of Health, 2011).

## Aim

The aim of the audit was to establish if patients were meeting the available exercise guidelines through their personalised exercise programmes in the PDRU gym. In addition, data was collected in relation to completion rate of 1 Repetition Maximum (1RM) and recording of BORG Rate of Perceived Exertion (BORG RPE) scores to determine if the intensity of treatment was appropriate.

## Method

The project ran from July 2017 until August 2018 and followed three phases. A reflective audit to review current practice in PDRU against government exercise guidelines was completed. Following this, criteria was established for a 4 week pilot study which ran from January to February 2018. Patients were included if they were able to give consent, had deficits in strength and were able to accurately express subjective measurement of exertion. Patients were excluded if they had significant cognitive impairment or a pre-existing medical condition for which prescribed exercise is contraindicated.

A protocol was developed to allow staff to measure patient 1RM and paperwork was adapted to standardise practice, and allow for documentation of intensity of exercise via the BORG RPE scale (as shown below). Based on these results further changes were then made to allow for easier documentation of both processes. A further 5 week project phase which ran from July to August 2018 was then carried out. The length of time of this phase was based on average length of stay within the unit.

Outcome measures used included a staff questionnaire, 1 Repetition Maximum and BORG RPE scores (see below).

This project was completed as part of the NHSGGC AHP Quality Improvement Programme, 2018.

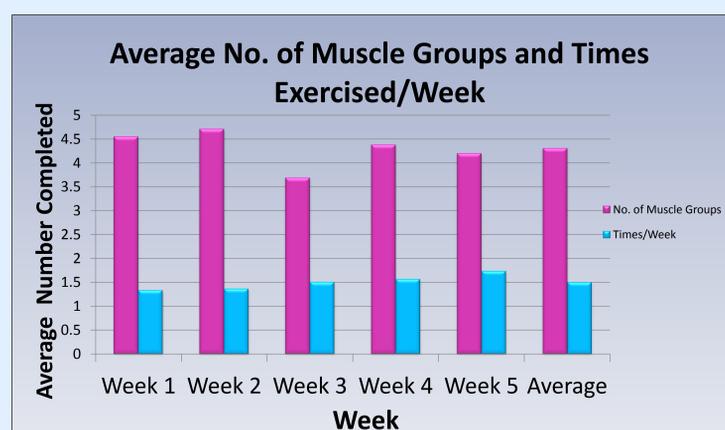
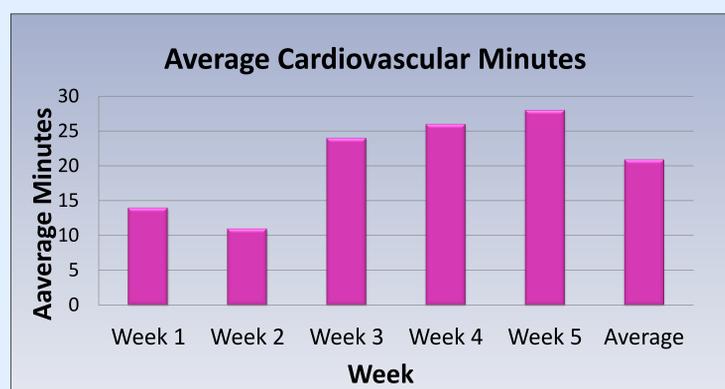
CV Exercise	Date	BORG Score	Time/speed/level

## Results

Thirty four patients met the inclusion criteria, one did not. On average, 21 minutes of CV exercise was completed per patient per week meaning no patient met the CV guideline. An average of four muscle groups were exercised 1.5 times per patient per week. Seven patients met the strengthening guidelines on one week.

When rating exercise intensity, 74% of patients had BORG RPE scores recorded for strengthening exercises and 63% recorded for CV exercises. 1RM's were completed by staff 94% of the time.

Self reported staff knowledge surrounding exercise guidelines improved from 6/10 to 8/10. All staff reported they would continue to use 1RM, three out of four reported they would continue to use BORG RPE score to measure intensity of exercise.



## Conclusion/Recommendations

The results of the project have shown that the PDRU client group struggle to meet government exercise guidelines for either strength or CV fitness through the gym programmes implemented. However, other factors impact on this as strength and CV exercises are often not the sole focus of their rehabilitation needs.

While completion of 1RM by staff was high, documentation of BORG RPE scores for strength and CV exercises was not and further work to improve this is needed. The use of 1RM and BORG RPE in the gym means we are now providing evidenced based practice towards strengthening and CV exercises which, in turn, improves patient care.

## References

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