

# Can a multi-condition rehabilitation class offer increased service capacity for pulmonary rehabilitation services in rural areas?

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## Background

Capacity and accessibility to Pulmonary rehabilitation (PR) in Scotland is reported to be at 20-30% of those who are eligible (SG 2024). Many PR attenders have multi-morbidity and may be on multiple disease specific rehabilitation waiting lists. Dumfries and Galloway PR service offers two blocks of PR annually in upper Nithsdale, when there are sufficient patient numbers for a class, resulting in long waiting times. Cardiac and Falls rehabilitation patients historically need to travel 30 miles to access specialist classes.

## Aim

To establish if sharing Pulmonary, Cardiac and falls service resources to create a multi-condition class, can result in positive outcomes for patients, aligning with the 6 principles of rehab and offer increase capacity and accessibility to classes in this remote area.



## Method

- Patients were pre-assessed and triaged to the multi-condition group, if met criteria of >2 co-morbidities and had stable respiratory symptoms.
- Outcome measures were recorded pre and post class -physical literacy scores, timed up and go and handgrip strength.
- 8 weekly sessions of 90 minutes.
- Sessions consisted of personalised group exercise (including weight training, cardio, balance and tai chi).
- Education was offered on planning for the future, managing breathlessness, falls prevention and how to maintain physical activity.
- Each patient received an individualised home programme.

## Results

- 10 patients commenced multi-condition rehab.
- 60% completed (n=6).
- Significant increases in the four and five item literacy scores (four item mean change +6.33,  $p=x$  ; five item mean change +7.17,  $p=x$ ).
- No significant changes in the timed up and go test or handgrip ( $p>0.05$ ).
- All 6 patients joined a local authority exercise group. ). Feedback was positive.

Outcome variable change summary table								
Question	Count	Mean before	Mean after	Mean change	Median before	Median after	Median change	Result
Four item physical literacy score	6	26.67	33	6.33	29	34	7.5	This increase was found to be statistically significant.
Five item physical literacy score	6	34.83	42	7.17	36.5	44	6.5	This increase was found to be statistically significant.

## Conclusions

Early indications, from this pilot study, suggest this model could work alongside traditional PR services to increase capacity and accessibility to rehabilitation. However, further research is required with larger groups.