



Introducing Health Sciences: COPD

Pulmonary Rehabilitation

Nurse

Pulmonary rehabilitation is a general life programme that we work on to help improve people's physical capabilities and also educate them about their condition. So we work on their endurance for their muscles as well and also their muscle strength. We work at improving their ability to cope with their disease; their understanding of their disease and also to help with their – their social requirements as well because people can become quite isolated. Um – also we work towards helping them manage their condition so that we reduce - aim to reduce admissions to hospital and hospital stay and also try and erm – really give them – motivate them to continue exercise once we've actually finished and improve their functional activities as well.

Doctor

When I go along as a doctor and talk to people, people always expect me to talk about drugs and pills and potions and they are important and they are helpful but there are much important things and they're things to do with exercise and lifestyle choices. And if you're talking about how somebody's going to be in two years time, three years time or four years time the number one thing that's going to be important is whether the smoke or not. Number two is going to be things like exercise and diet and only after that – number three - are going to be drugs, pills and potions. And it's really important to understand that.

Nurse

Before they actually start the programme we'll do a series of tests to see how fit they are at the beginning. And the first test is the incremental shuttle walk test and that's a test over a ten metre course and what they do is they do consecutive runs and they'll progressively get faster. And what we do is we measure how far the patient has managed on an incremental scale. From that test we can get an idea of how they'd manage on an endurance test so we'll do the endurance shuttle walk test then and we'll time them and see how far they are able to go.

We will also do a series of quality of life questionnaires as well to see how people are coping with their lives and their functional abilities before they've started the course.

Doctor

Patients with COPD who are breathless tend to try to avoid breathlessness by doing less and because they do less they get less fit. The muscles get less fit; the heart and the circulation gets less fit and because they get less fit they can do less still and you get a downward cycle – downward spiral of 'I'm breathless. I do less. I do less. I'm less fit. When I do try and do things it makes me more breathless so I do less still.' And on top of that there's a specific wasting of the muscles. It's quite often found in particular with emphysema and the muscles can become severely wasted and the actual metabolic activity of the muscles changes as well and again that limits patient's activity.

'Three, two one and off we go.'

Nurse

The exercise rehabilitation sessions involve a series of exercises where we go round in a circuit so it depends on their initial assessment but we'll base an individualised exercise programme around them so if they're getting too breathless on an exercise we'll adapt it for them. If they're not getting breathless enough then we'll adapt it as well to make it a little bit harder.

There's generally an improvement in exercise capacity and also certainly quality of life as well.

Well what we are actually aiming to do is make the patients breathless and learn to cope with their breathlessness. It makes them feel better. It can help with other problems as well, you know, they have a reduced risk of having heart attacks, diabetes, strokes, all those kinds of things. And we aim to try and keep people motivated to continue exercising once they've finished.

Doctor

It's very easy for patients to get depressed about their condition when they're socially isolated, very anxious. They worry that they're going to get so breathless one day that it's going to really harm them. They're maybe even going to keel over and die. And it's really important to try and enable people to make the best use of lung power that they've got and to try and break that cycle of decline and try and break that cycle of building up more and more anxiety about the disease and getting more and more focused in it – on it. If they do try and break the cycle then they can do more and they can feel better for it.

Nurse

After each exercise programme we also have a speaker come in so there is a big educational component as well. So that might range from a dietician to a pharmacist so somebody

coming in to talk to them about their social welfare benefits that they're entitled to. We also look at diet and the occupational therapist comes in to talk about relaxation and stress management.

Whilst they're doing the course we do routine obs. We'll measure oxygen levels before their start, respiratory rate and just as a general guide as to how they manage from day to day if they've got any infections and things like that. Patients can have huge, huge problems clearing their sputum and it can be quite embarrassing and they won't often ask about this aspect of things when they go to the doctors but that again we can help them deal with the sputum clearance to make sure that they're clearing effectively and that can help with infections as well.

At the end of the course then we will repeat the incremental shuffle walk test, the endurance test and the quality of life questionnaire to give us an idea as to validly as to whether they've improved.

After the sessions are finished patients are all encouraged to continue exercising and they're given a booklet when they first come with all the exercises in: the warm ups, and every exercise that they might undertake here. And they're also encouraged to keep a diary of the sort of exercises they're doing and when. So we try and really encourage people to continue and the best way of doing that is actually to show people the improvement they've had. So we let people know what they were before with their exercise targets and what they were after and the improvements they've made and what we encourage is that they don't stop them because they'll start to decline.

'Very good. Well done!'

Presenter

Exercise rehabilitation doesn't reduce disease progression or improve long term survival but it does improve the quality of life for COPD sufferers.

'Well I certainly feel a lot better for coming here – yeah.'

'It's given me much more confidence. Um - because you get into a situation where you feel afraid to - to go out if there's a hill involved because you know you're going to get out of breath so you don't do it.'

'Rehab is really fantastic. I mean I didn't think I'd be able to do exercises.'

'I was surprised at the erm small exercise what they've give us how er it brings you out of yourself.'

'It makes you feel better. It just feels you know I do quite a few exercises from being to here.'

'I said to the wife I'm feel champion.'

'I feel much better now than I have for years.'