

Supplementary methods 1. Medline search strategy

SI	Searches of MEDLINE on 28 Oct. 18	Results
1	exp Lung Diseases, Obstructive/	197888
2	pulmonary disease, chronic obstructive.mp. or exp Pulmonary Disease, Chronic Obstructive/	49651
3	emphysema\$.mp.	31795
4	(Chronic\$ adj3 bronchiti\$).mp.	10714
5	(obstruct\$ adj3 (pulmonary or lung\$ or airway\$ or airflow\$ or bronch\$ or respirat\$)).mp.	98543
6	COPD.mp.	34381
7	COAD.mp.	222
8	COBD.mp.	12
9	AECB.mp.	210
10	(obstruct* adj3 (pulmonary or lung* or airway* or airflow* or bronch* or respirat*)).mp.	98543
11	AECOPD.mp.	630
12	exp chronic bronchitis/	1688
13	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12	252449
14	REHABILITATION.mp. or exp REHABILITATION/	459193
15	Respiratory Therapy.mp. or exp Respiratory Therapy/	106770
16	Physical Therapy Modalities.mp. or exp Physical Therapy Modalities/	138907
17	(rehabilitat* or fitness* or exercis* or train* or physiotherap* or (physical* adj therap*)).mp.	968222
18	14 or 15 or 16 or 17	1197761
19	(Africa or Asia or Caribbean or "West Indies" or "South America" or "Latin America" or "Central America").mp.	220128
20	(Afghanistan or Albania or Algeria or Angola or Antigua or Barbuda or Argentina or Armenia or Armenian or Aruba or Azerbaijan or Bahrain or Bangladesh or Barbados or Benin or Byelarus or Byelorussian or Belarus or Belorussian or Belorussia or Belize or Bhutan or Bolivia or Bosnia or Herzegovina or Hercegovina or Botswana or Brasil or Brazil or Bulgaria or "Burkina Faso" or "Burkina Fasso" or "Upper Volta" or Burundi or Urundi or Cambodia or "Khmer Republic" or Kampuchea or Cameroon or Cameroons or Cameron or Camerons or "Cape Verde" or "Central African Republic" or Chad or Chile or China or Colombia or Comoros or "Comoro Islands" or Comores or Mayotte or Congo or Zaire or "Costa Rica" or "Cote d'Ivoire" or "Ivory Coast" or Croatia or Cuba or Cyprus or Czechoslovakia or "Czech Republic" or Slovakia or "Slovak Republic").mp.	436693
21	(Djibouti or "French Somaliland" or Dominica or "Dominican Republic" or "East Timor" or "East Timur" or "Timor Leste" or Ecuador or Egypt or "United Arab Republic" or "El Salvador" or Eritrea or Estonia or Ethiopia or Fiji or Gabon or "Gabonese Republic" or Gambia or Gaza or Georgia or Georgian or Ghana or "Gold Coast" or Greece or Grenada or Guatemala or Guinea or Guam or Guiana or Guyana or Haiti or Honduras or Hungary or India or Maldives or Indonesia or Iran or Iraq or "Isle of Man" or Jamaica or	516935

	Jordan or Kazakhstan or Kazakh or Kenya or Kiribati or Korea or Kosovo or Kyrgyzstan or Kirghizia or "Kyrgyz Republic" or Kirghiz or Kirgizstan or "Lao PDR" or Laos or Latvia or Lebanon or Lesotho or Basutoland or Liberia or Libya or Lithuania).mp.	
22	(Macedonia or Madagascar or "Malagasy Republic" or Malaysia or Malaya or Malay or Sabah or Sarawak or Malawi or Nyasaland or Mali or Malta or "Marshall Islands" or Mauritania or Mauritius or "Agalega Islands" or Mexico or Micronesia or "Middle East" or Moldova or Moldavia or Moldovan or Mongolia or Montenegro or Morocco or Ifni or Mozambique or Myanmar or Myanma or Burma or Namibia or Nepal or "Netherlands Antilles" or "New Caledonia" or Nicaragua or Niger or Nigeria or "Northern Mariana Islands" or Oman or Muscat or Pakistan or Palau or Palestine or Panama or Paraguay or Peru or Philippines or Philipines or Phillipines or Phillippines or Poland or Portugal or "Puerto Rico").mp.	274812
23	(Romania or Rumania or Roumania or Russia or Russian or Rwanda or Ruanda or "Saint Kitts" or "St Kitts" or Nevis or "Saint Lucia" or "St Lucia" or "Saint Vincent" or "St Vincent" or Grenadines or Samoa or "Samoan Islands" or "Navigator Island" or "Navigator Islands" or "Sao Tome" or "Saudi Arabia" or Senegal or Serbia or Montenegro or Seychelles or "Sierra Leone" or Slovenia or "Sri Lanka" or Ceylon or "Solomon Islands" or Somalia or Sudan or Suriname or Surinam or Swaziland or Syria or Tajikistan or Tadjhikistan or Tadjikistan or Tadjhik or Tanzania or Thailand or Togo or "Togolese Republic" or Tonga or Trinidad or Tobago or Tunisia or Turkey or Turkmenistan or Turkmen or Uganda or Ukraine or Uruguay or USSR or "Soviet Union" or "Union of Soviet Socialist Republics" or Uzbekistan or Uzbek or Vanuatu or "New Hebrides" or Venezuela or Vietnam or "Viet Nam" or "West Bank" or Yemen or Yugoslavia or Zambia or Zimbabwe or Rhodesia).mp.	328981
24	((developing or "less* developed" or "under developed" or underdeveloped or "middle income" or "low* income" or underserved or "under served" or deprived or poor*) adj (countr* or nation* or population* or world)).mp.	127486
25	((developing or "less* developed" or "under developed" or underdeveloped or "middle income" or "low* income") adj (economy or economies)).mp.	351
26	(low* adj (GDP or GNP or "gross domestic" or "gross national")).mp.	203
27	(low adj3 middle adj3 countr*).mp.	8403
28	(LMIC or LMICs or "third world" or "LAMI country" or "LAMI countries").mp.	4711
29	("transitional country" or "transitional countries").mp.	131
30	(setting* adj2 (resource* or poor* or constrain* or low*)).mp.	12989
31	19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30	1629217
32	13 and 18 and 31	1370

Supplementary methods 2. Piloted data extraction form

Notes on using this data extraction form:

- Be consistent in the order and style used to describe the information for each included study
- Record any missing information as unclear or not described, to make it clear that the information was not found in the study report
- Include any instructions and decision rules on the data collection form, or in an accompanying document.

Study ID (<i>surname of first author and year first full report of study was published</i>)	
Notes:	

1. General information

Date of data extraction(<i>dd/mm/yyyy</i>)	
Name of reviewer	
Article title	
Reference (<i>journal, year, volume, issue, pages</i>)	
Country of origin	
Type of publication (<i>e.g. full report, conference abstract</i>)	
Notes:	

2. Specific information

Aim of study (<i>process & clinical objectives</i>)	
Study design	<input type="checkbox"/> RCT <input type="checkbox"/> CCT
Start date	
End date	
Duration of participation	
Number of centre(s) in study	
Notes:	

Population and setting

Health condition targeted	<input type="checkbox"/> COPD <input type="checkbox"/> Post TB <input type="checkbox"/> Remodelled asthma <input type="checkbox"/> Bronchiectasis <input type="checkbox"/> ILD <input type="checkbox"/> Undifferentiated CRD
Source/ setting of the population (<i>e.g. urban, rural, particular ethnic group</i>)	
Setting	
Notes:	

Patients	
Inclusion criteria	
Exclusion criteria	
Recruitment procedures used	
Number recruited	
Number randomised	
Number completed	
Age	
Sex	
Other relevant characteristics (<i>please specify</i>)	
Notes:	

Intervention & Control

Level 1: Components of PR	
Intervention summary	the Department of Pulmonary Medicine supervised the activities.
Components of PR	<input type="checkbox"/> xxxxx <input type="checkbox"/> xxxxx <input type="checkbox"/> xxxxx <input type="checkbox"/> xxxxx <input type="checkbox"/> other
Level2: Models of service delivery	
Brief name	
Why: rationale/theory/goal	
What: physical/informational materials used	
What: procedures/activities/processes used	

Who: provider(s), expertise, background, training	
How: modes of delivery	<input type="checkbox"/> face-to-face <input type="checkbox"/> telephone <input type="checkbox"/> internet <input type="checkbox"/> video/DVD <input type="checkbox"/> written materials <input type="checkbox"/> other (<i>specify</i>) individual <input type="checkbox"/> group <input type="checkbox"/>
Where: type(s) of location(s) where intervention occurred	
When and How Much	number of sessions: session schedule: session duration:
Tailoring (<i>if applicable: what, why, when, and how</i>)	
Modifications (<i>if applicable: what, why, when, and how</i>)	
How Well: intervention adherence/ fidelity assessment methods	
How Well: intervention adherence/ fidelity assessment results	
Notes:	
Level 3: Implementation strategies	
Type of intervention (<i>EPOC TAXONOMY</i>)	<input type="checkbox"/> audit & feedback <input type="checkbox"/> clinical incident reporting <input type="checkbox"/> monitoring the performance of the delivery of healthcare <input type="checkbox"/> communities of practice <input type="checkbox"/> continuous quality improvement <input type="checkbox"/> educational games <input type="checkbox"/> educational materials <input type="checkbox"/> educational meetings <input type="checkbox"/> educational outreach visits/academic detailing <input type="checkbox"/> clinical practice guidelines <input type="checkbox"/> inter-professional education <input type="checkbox"/> local consensus processes <input type="checkbox"/> local opinion leaders <input type="checkbox"/> managerial supervision <input type="checkbox"/> patient-mediated interventions <input type="checkbox"/> public release of performance data <input type="checkbox"/> reminders

	<input type="checkbox"/> routine patient-reported outcome measures <input type="checkbox"/> tailored interventions
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Outcomes	
Primary	
Functional exercise capacity	<input type="checkbox"/>
Health-Related Quality of Life (HRQoL)	<input type="checkbox"/>
Secondary	
Symptom control	<input type="checkbox"/>
Psychological status	<input type="checkbox"/>
Health care burden	<input type="checkbox"/>
Uptake of the service, completion rates	<input type="checkbox"/>
Adverse effects	<input type="checkbox"/>

Full primary outcome description	Method(s) of measurement	Time points measured (e.g. 6 months)	Time points reported (e.g. 6 months)
Functional exercise capacity			
HRQoL			
Notes:			

Full secondary outcome description	Method(s) of measurement	Time points measured (e.g. 6 months)	Time points reported (e.g. 6 months)
Symptom control			
Notes:			

Analysis	
Sample size/power calculation	
Method(s) of analysis (<i>statistical analysis and approach, e.g. ITT/per protocol</i>)	
Missing data and how addressed	
Drop-out rate	
Notes:	

Results

Complete Excel Doc
Notes:

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3. Other information

Limitations	
Key conclusions of study authors	
Generalisability	
Potentially relevant references	
Funding	
Ethical approval	
Corresponding author contact details	
Other	
Notes:	

4. Risk of bias assessment

Source: Higgins JPT, Green S (editors). *Cochrane Handbook for Systematic Reviews of Interventions*. Version 5.1.0 [updated March 2011]. The Cochrane Collaboration, 2011. Available at: www.cochrane-handbook.org

See guidance notes.

Domain	Risk of bias				Support for judgment
	Low	High	Unclear	Not applicable	
Random sequence generation <i>(selection bias)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Allocation concealment <i>(selection bias)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Blinding of participants and personnel <i>(performance bias)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Blinding of outcome assessment <i>(detection bias)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Incomplete outcome data <i>(attrition bias)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Selective outcome reporting <i>(reporting bias)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other bias	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Overall risk of bias	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Notes:					

Supplementary results 1. Risk of Bias assessment

Article	Random	Concealed	Personnel blinded	Outcomes blinded	Attrition	Selective reporting	Other bias	Overall
Akinci 2011								
de Grass 2014								
Deepak 2014								
De Souto Araujo 2012								
Duruturk 2015								
Elci 2008								
Farias 2014								
Ghanem 2010								
Karapolat 2007								
Mohammadi 2013								
Paz-Diaz 2007								
Pradella 2015								
Singh 2003								



High risk



Moderate risk



Low risk

Supplementary results 2. GRADE assessment

Clinical effectiveness and models of care of Low-Resource Pulmonary Rehabilitation						
Population: Adults with Chronic Respiratory Diseases including undiagnosed condition that cause chronic respiratory symptoms						
Intervention: Pulmonary Rehabilitation						
Settings: Low-resource settings						
Comparison: Usual care						
Outcomes	Illustrative comparative risks* (95% CI)		Relative effect (95% CI)	No of Participants (studies involved)	Quality of the evidence (GRADE)	Comments
	Assumed risk	Corresponding risk				
	Usual care	Pulmonary rehabilitation				
Functional exercise capacity	See comment	See comment	Not estimable	509 (11)	See comment	The effect is uncertain. Nine of the studies had high risk of bias and two had moderate risk of bias. All the studies did not have same scale of outcome measurement. Four studies measured effectiveness by between group comparison whereas seven studies measured within group comparison.
Health-Related Quality of Life	See comment	See comment	Not estimable	506(12)	See comment	The effect is uncertain. Eleven of the studies had high risk of bias and one had moderate

						<p>risk of bias. All the studies did not have same scale of outcome measurement. Five studies measured effectiveness by between group comparison whereas seven studies measured within group comparison.</p>
Breathlessness	See comment	See comment	Not estimable	455(11)	See comment	<p>The effect is uncertain. Nine of the studies had high risk of bias and two had moderate risk of bias. All the studies did not have same scale of outcome measurement. Four studies measured effectiveness by between group comparison whereas seven studies measured within group comparison.</p>