



Cochrane Rehabilitation project: **RCTs in Rehabilitation Checklist (RCTRACK)**

Aim

To produce a checklist of items to be followed in the reporting of RCTs in rehabilitation
To identify areas of methodological research to fill gaps in the actual relevant knowledge



Education to research

Research financing

Study project

Epidemiologists

Study conducting
(judgement)

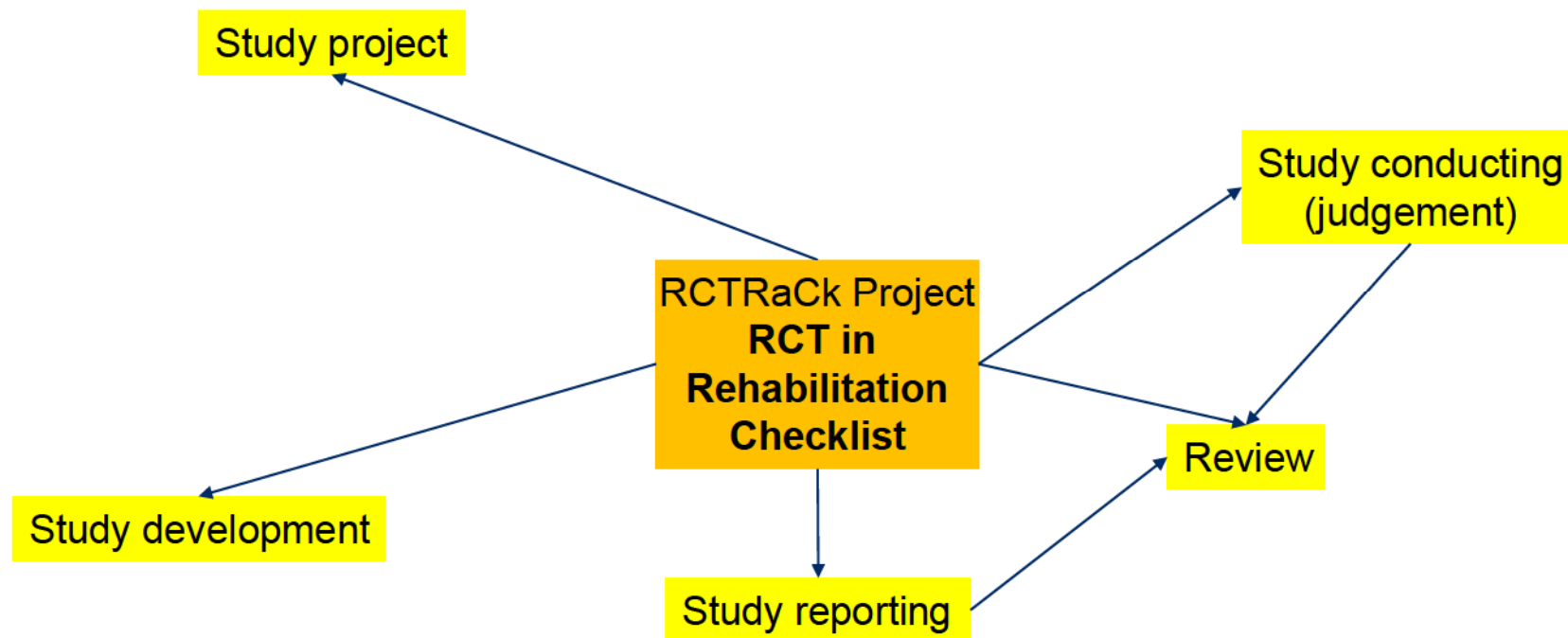
Review

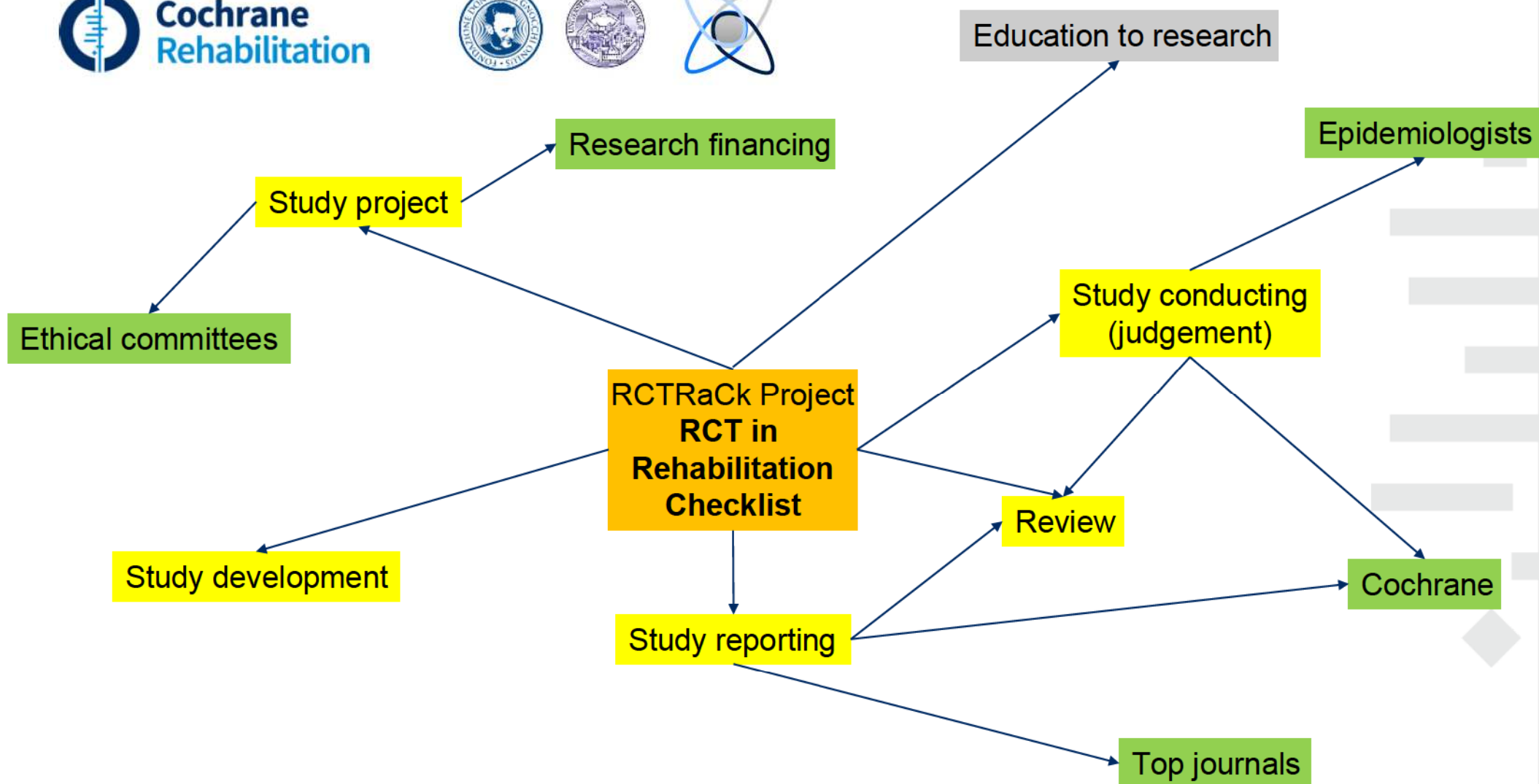
Study development

Study reporting

Cochrane









Preparation

Cochrane Rehabilitation **Methodology Meeting @ ISPRM 2018**

–EJPRM Special Issue

Systematic review on the existing methodological Checklists relevant to rehabilitation

–Armijo-Olivo S et al. Phys Ther 2014; 94(9), 1272-84

Scoping Review on methodological problems in rehabilitation research

–Arienti C et al. submitted

Clinical replicability of rehabilitation interventions in Randomized Controlled Trials reported in main journals is inadequate

–Negri S et al. J Clin Epidemiol (2nd revision submitted)

Database in Cochrane Rehabilitation website of all relevant methodological literature

1st Consensus Conference @ Kobe ISPRM 2019

Stefano Negrini (Ita)

Thorsten Meyer (Ger)

Antti Malmivaara (Fin)

Julia Patrick Engkasan (Mal)

Walter Roura Frontera (Usa)

Allen Heinemann (Usa)

Frane Grubisic (Cro)

Carlotte Kiekens (Bel)



William Levack (Nzl)

Wendy Machalich eck (Usa)

Aydan Oral (Tur)

Melissa Selb (Swi)

Gerold Stucki (Swi)

Will Taylor (Nzl)

Susan Armijo-Olivo (Can)

Chiara Arienti (Ita)

Topics under evaluation

Working group	Leader(s)
Patient selection (population)	Thorsten Mayer, Psy (Ger)
Blinding	Allen Heineman, Psy (Usa)
Treatment group	John Whyte, MD (Usa)
Control group & co-interventions	William Levack, PT (Nzl)
Attrition, follow up and protocol deviation	Susan Armijo-Olivo, PT (Can) Wendy Machalicek, BCBA (Usa)
Outcomes	Pierre Côté, DC (Can)
Statistical analysis and appropriate randomization	Dinesh Kumbhare, MD (Can)
Generalities on research (research question, effectiveness, etc)	Chiara Arienti, DO, MSc (Ita)

RCTRACK production

Consensus Conference 2020 @ ISPRM Orlando

- RCTRACK Executive Committee and Chief-Editor of the Special issue (Tbd)
- Technical Working Groups reporting: systematic/scoping reviews
- Definition of the preliminary items to be kept in the draft RCTRACK

Consensus procedure through Delphi Rounds (3/4 rounds)

- Cochrane Advisory Board, Rehabilitation Journals Chief-Editors
- Representatives of
 - Scientific Societies
 - groups dealing with evidence and methodology in rehabilitation
 - PEDrO, TIDieR, CERT
 - Cochrane methods groups
 - Patients groups
- Authors





State of research in rehabilitation

Trusted evidence.
Informed decisions.
Better health.



All MeSH Categories

Analytical, Diagnostic and Therapeutic Techniques and Equipment Category

Therapeutics

Patient Care

Continuity of Patient Care

Aftercare

Rehabilitation

Activities of Daily Living

Animal Assisted Therapy

Equine-Assisted Therapy

Art Therapy

Bibliotherapy

Cardiac **Rehabilitation**

Correction of Hearing Impairment

Communication Methods, Total

Lipreading

Manual Communication +

Dance Therapy

Early Ambulation

Exercise Therapy

Motion Therapy, Continuous Passive

Muscle Stretching Exercises

Plyometric Exercise

Resistance Training

Music Therapy

Neurological **Rehabilitation**

Stroke **Rehabilitation**

Occupational Therapy

Recreation Therapy

Rehabilitation of Speech and Language Disorders

Language Therapy

Myofunctional Therapy

Speech Therapy

Speech, Alaryngeal +

Voice Training

Rehabilitation, Vocational

Telerehabilitation

Negrini S. Steady growth seen for research in physical and rehabilitation medicine: where our specialty is now and where we are going. Eur J Phys Rehabil Med. 2012 Dec;48(4):543-8.



All MeSH Categories

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Steady growth of research

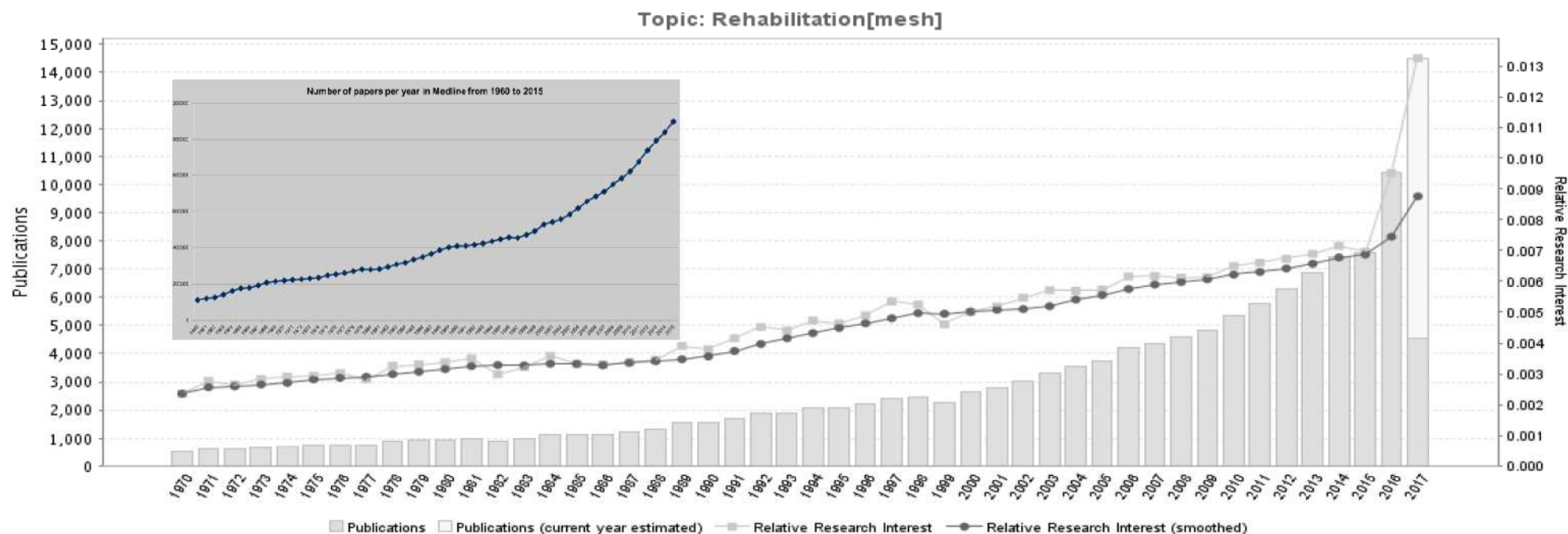
	Population	2000	2011	Change
PRM	PubMed	0.7%	1.5%	+114%
United States PRM	Country	1.7%	1.6%	+111%
United Kingdom PRM	Country	1.9%	1.7%	+113%
Germany PRM	Country	1.7%	1.1%	+150%
Canada PRM	Country	2.5%	1.9%	+128%
Australia PRM	Country	3.4%	1.8%	+195%
Italy PRM	Country	1.9%	0.9%	+207%
Netherlands PRM	Country	2.8%	1.8%	+155%
Japan PRM	Country	0.8%	0.6%	+138%
Sweden PRM	Country	3.4%	2.5%	+135%
France PRM	Country	1.2%	0.9%	+132%

Negrini S. Steady growth seen for research in physical and rehabilitation medicine: where our specialty is now and where we are going. Eur J Phys Rehabil Med. 2012 Dec;48(4):543-8.

Research interest in Rehabilitation is growing

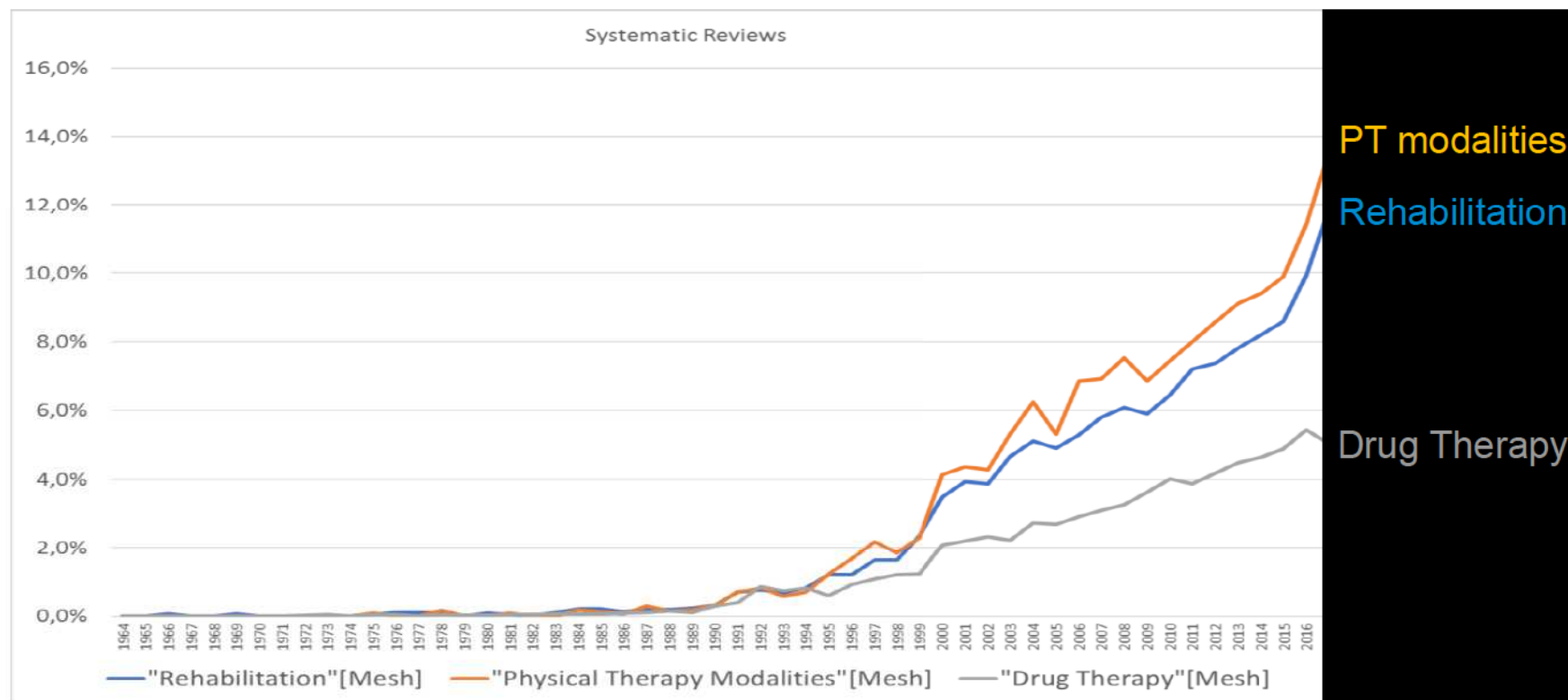
Search: Rehabilitation [Mesh]

Source: www.pubmed.org

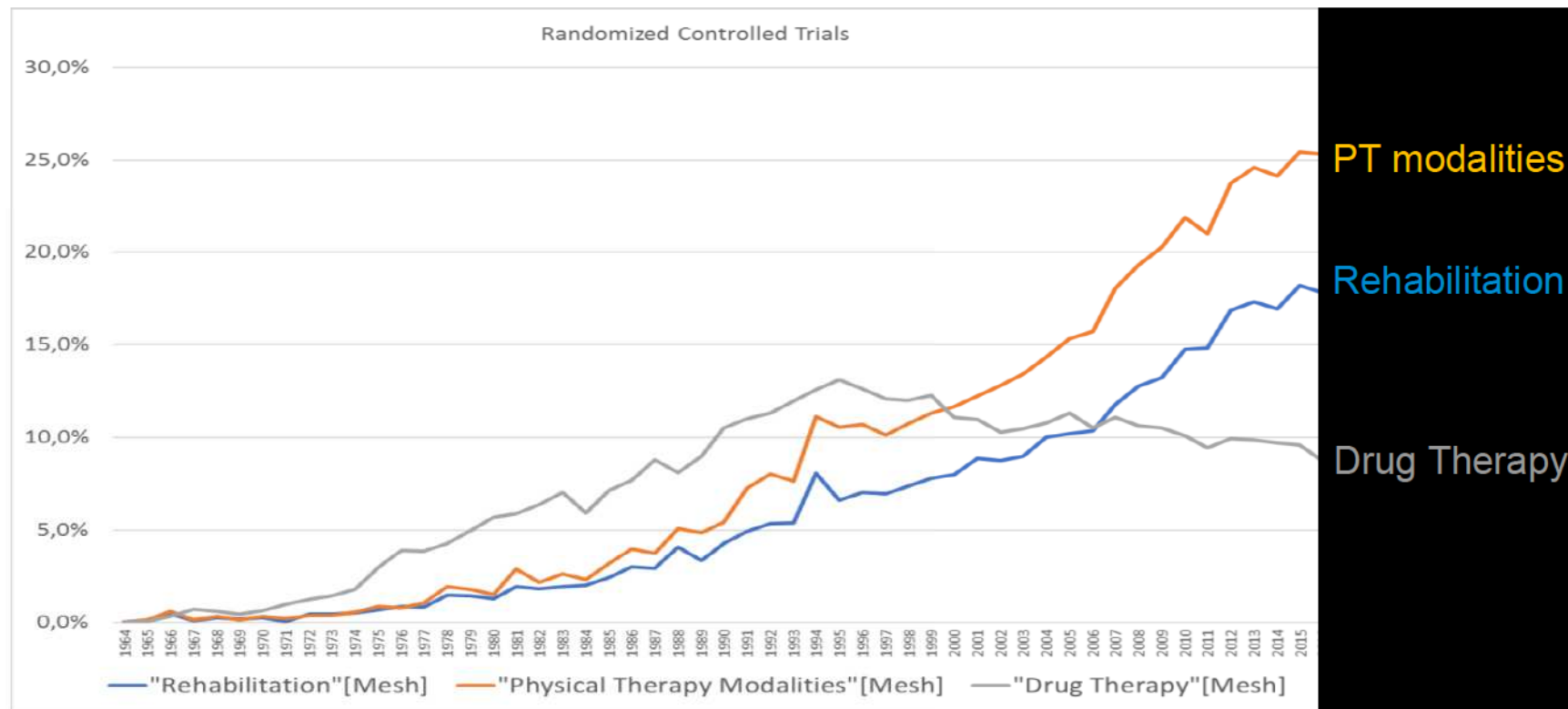


Negrini S. Steady growth seen for research in physical and rehabilitation medicine: where our specialty is now and where we are going. Eur J Phys Rehabil Med. 2012 Dec;48(4):543-8.

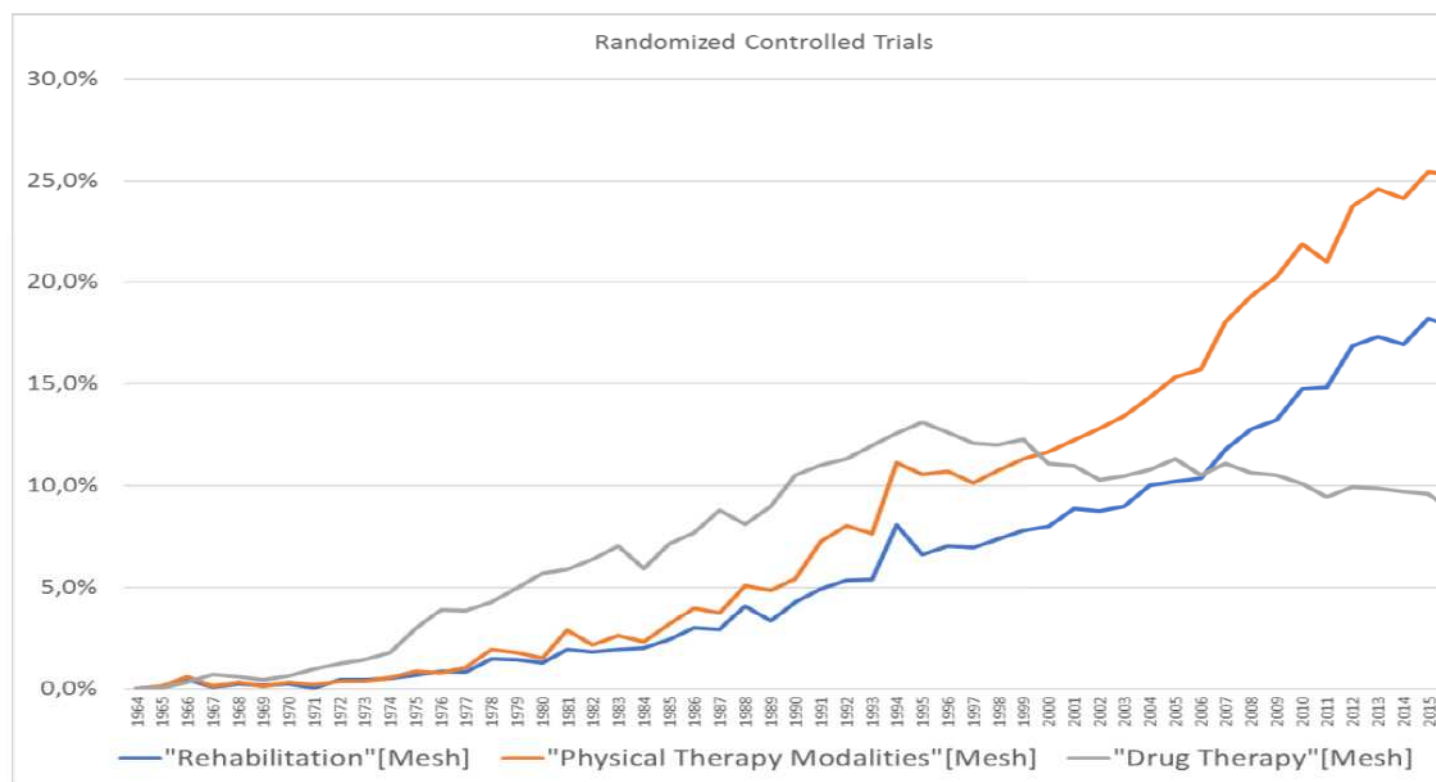
Relative research interest: SRs



Relative research interest: RCTs



What is Rehabilitation [Mesh] ?



Rehabilitation

[Activities of Daily Living](#)

[Animal Assisted Therapy](#)

[Equine-Assisted Therapy](#)

[Art Therapy](#)

[Bibliotherapy](#)

[Cardiac **Rehabilitation**](#)

[Correction of Hearing Impairment](#)

[Communication Methods, Total](#)

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[Speech Therapy](#)

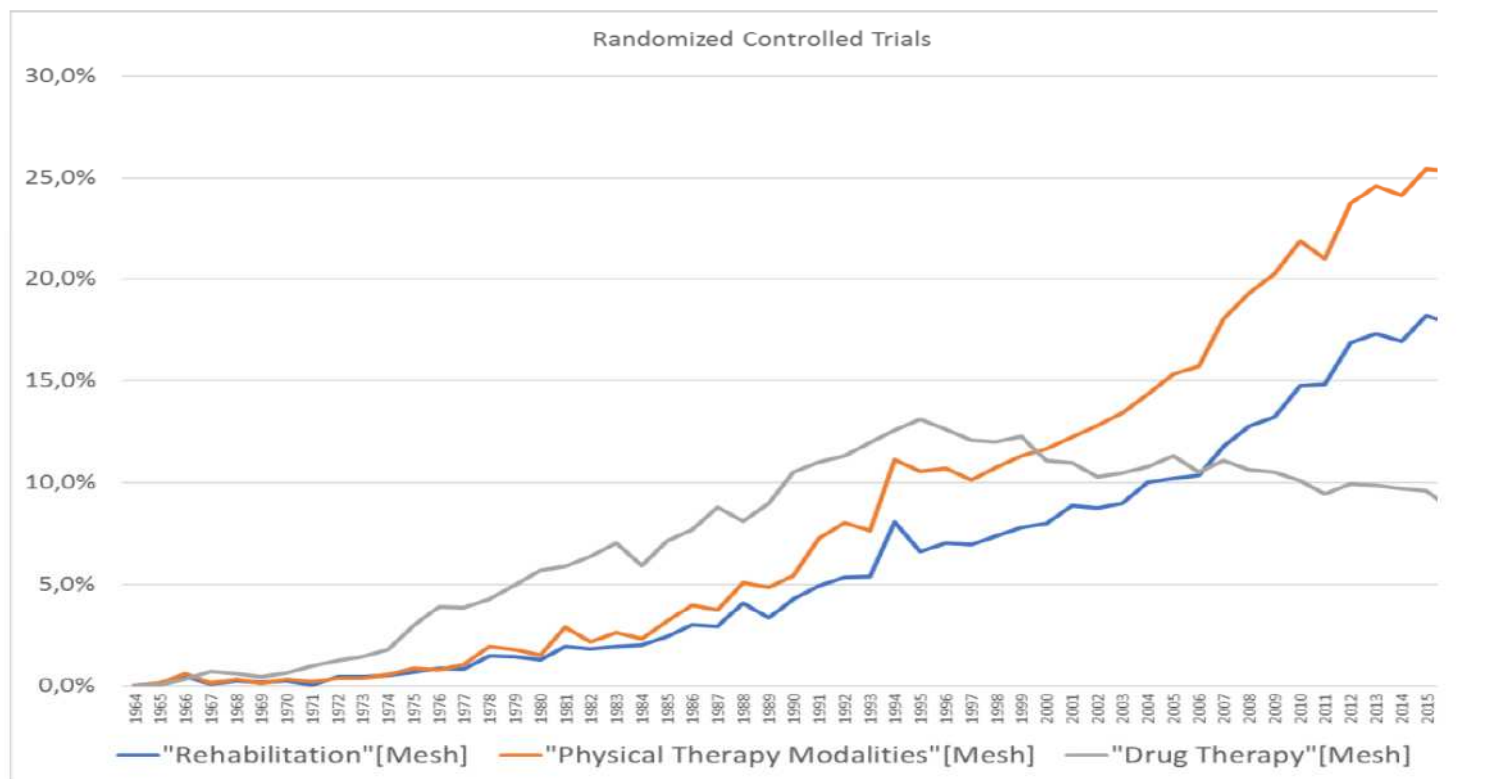
[Speech, Alaryngeal +](#)

[Voice Training](#)

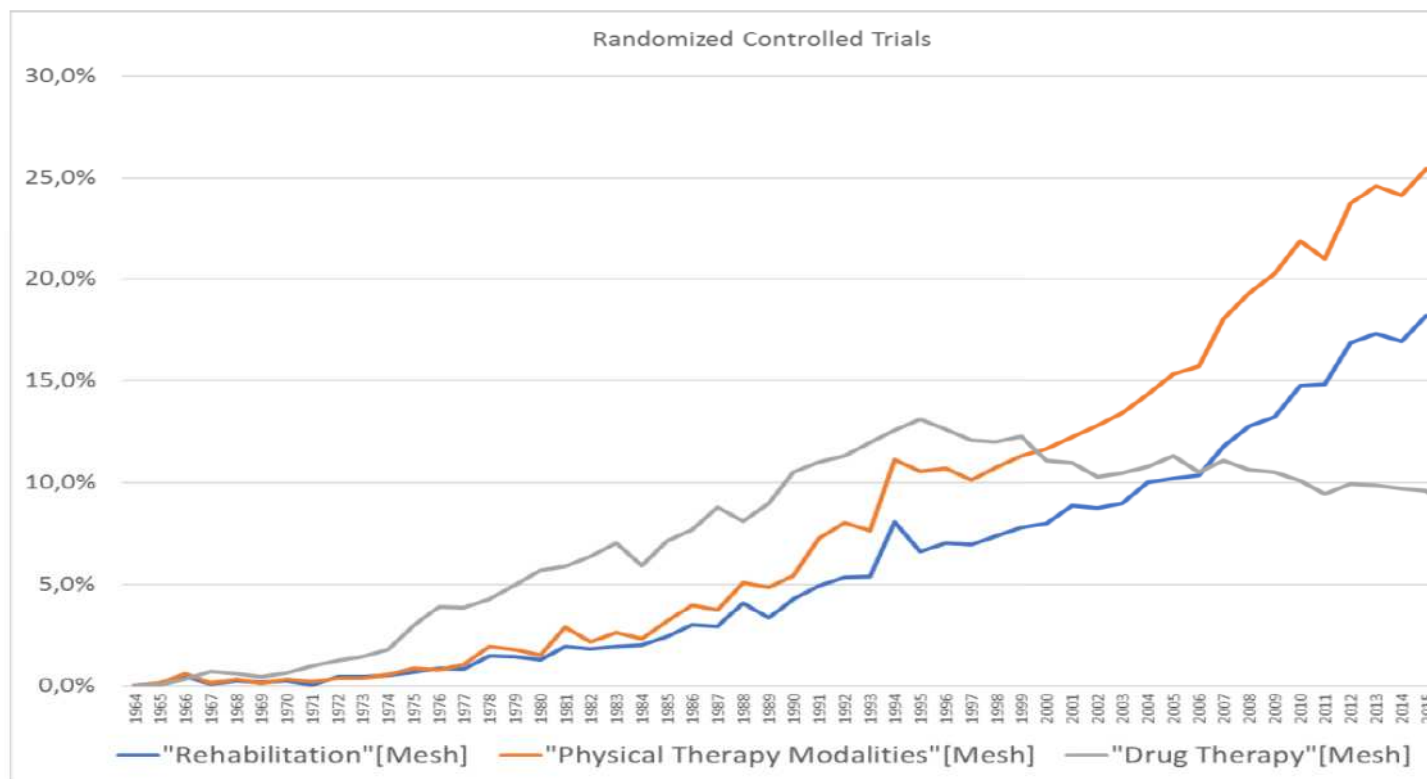
[Rehabilitation, Vocational](#)

[Telerehabilitation](#)

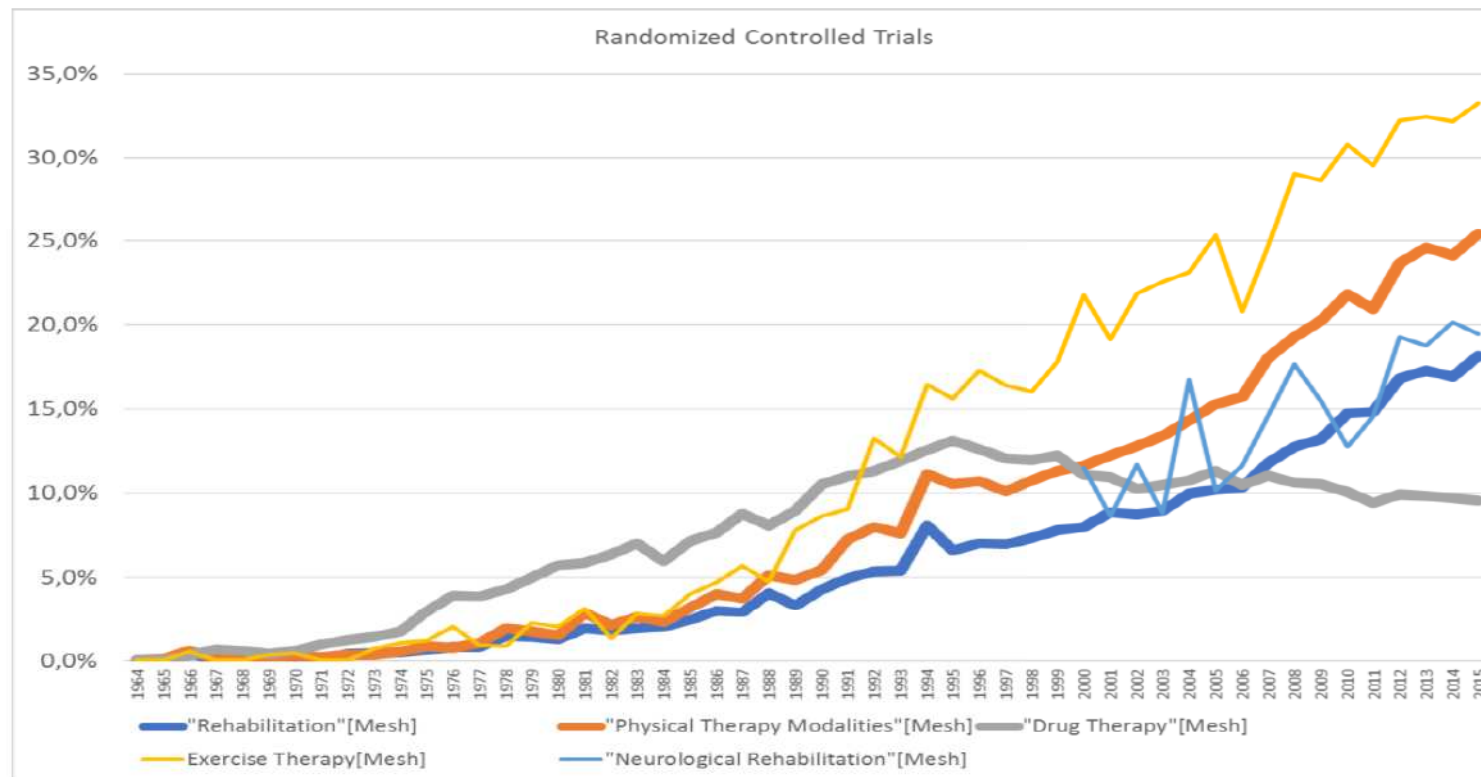
What is Rehabilitation [Mesh] ?



What is Rehabilitation [Mesh] ?



Relative research interest: RCTs



Exercise Therapy

PT modalities

Neurological rehabilitation
Rehabilitation

Drug Therapy



Negrini S, Levack W, Gimigliano F, Arienti C, Villafañe JH, Kiekens C. The struggle for evidence in physical and rehabilitation medicine: publication rate of randomized controlled trials and systematic reviews is growing more than in other therapeutic fields. Am J Phys Med Rehabil. 2018 Oct 1. doi: 10.1097/PHM.0000000000001058.

Rehabilitation is comparatively producing a lot of good research (RCTs and SRs)





Cochrane Rehabilitation project: prioritisation of future Cochrane Reviews

Aim

To identify the current research gaps in Cochrane Review production and define the priorities for research among these gaps

13 Chapters: Rehabilitation approach to ... health conditions	Paragraphs	Reviews
Musculoskeletal	24	294
Neurological	28	246
Pain	16	134
Cardiovascular and Pulmonary	4	79
Internal medicine	9	4
Cancer- Organ Transplant and Immune-compromised	6	34
Pelvic floor	7	42
Psychiatric	6	20
Sport medicine	1	5
Pediatric	5	74
Geriatric	6	55
Rehabilitation management	8	47
General prophylaxis approach using rehabilitation interventions	6	25



Methodology

First Delphi Round: Identification of the priorities

- does the number of reviews correspond to the importance of the topic?

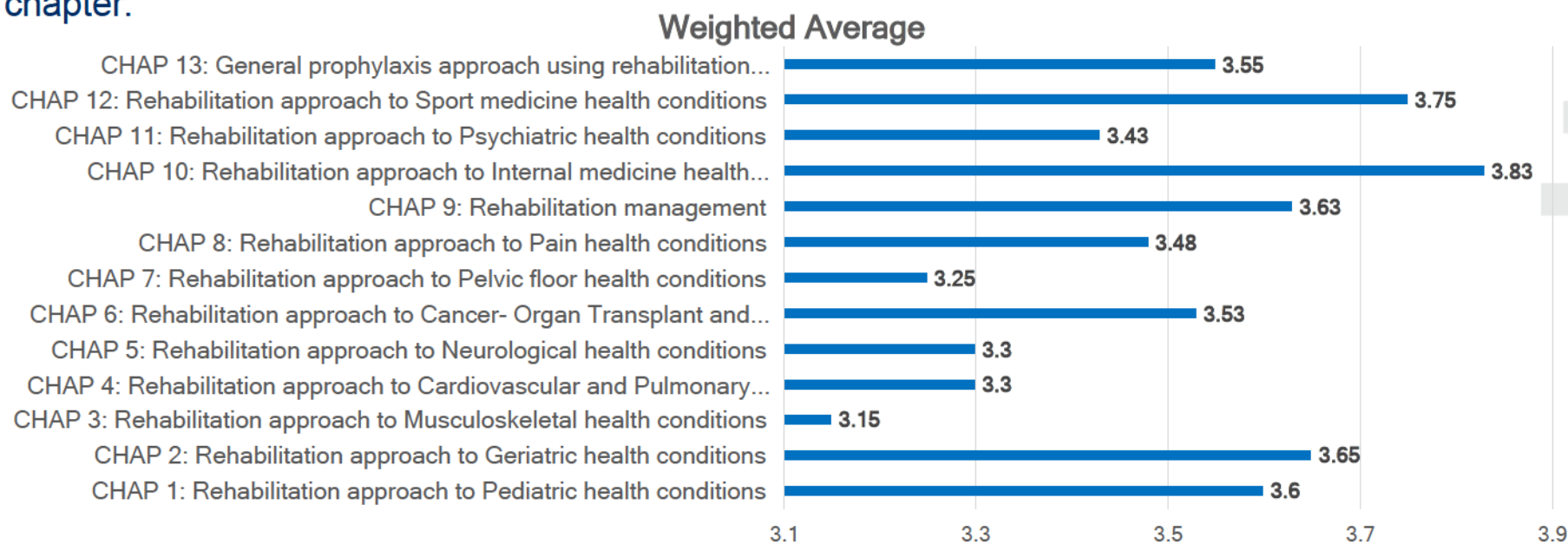
Second Delphi Round (under way): identification of the final list of priorities

- which list is the best?



Fourth Survey

According to the number of Cochrane Systematic Reviews and Protocols that have already been produced on every chapter, please rate how important is the need to produce more reviews for each chapter.



					TOT. This list of priorities has been achieved comparing all the previous lists and averaging the level of priority that each Paragraph received in the previous lists (3 points for priorities level 1 - 2 points for priorities level 2 and 1 point for priorities level 3)
Semplici	Pesati	Pesati+review	Ordinali pesati	Per capitolo	Value
10.1. Rehabilitation of patients with burns (0)	10.1. Rehabilitation of patients with burns (0)	10.1. Rehabilitation of patients with burns (0)	10.1. Rehabilitation of patients with burns (0)	10.1. Rehabilitation of patients with burns (0)	3
9.5. Intervention protocols treatment (0)	9.5. Intervention protocols treatment (0)	9.5. Intervention protocols treatment (0)	9.5. Intervention protocols treatment (0)	9.5. Intervention protocols treatment (0)	3
9.8. Goal setting in rehabilitation (2)	9.8. Goal setting in rehabilitation (2)	9.8. Goal setting in rehabilitation (2)	9.8. Goal setting in rehabilitation (2)	9.8. Goal setting in rehabilitation (2)	2,8
5.2. Spinal Cord Injury (5)	5.2. Spinal Cord Injury (5)	5.2. Spinal Cord Injury (5)	5.2. Spinal Cord Injury (5)	5.2. Spinal Cord Injury (5)	2,4
10.8. Obesity (1)	10.8. Obesity (1)	10.8. Obesity (1)	10.8. Obesity (1)	10.8. Obesity (1)	2,4
13.4. Rehabilitation as Secondary prevention in stroke (2)	13.4. Rehabilitation as Secondary prevention in stroke (2)	13.4. Rehabilitation as Secondary prevention in stroke (2)	13.4. Rehabilitation as Secondary prevention in stroke (2)	13.4. Rehabilitation as Secondary prevention in stroke (2)	2,4
2.5. Independence and technical aids in the elderly (3)	2.5. Independence and technical aids in the elderly (3)	2.5. Independence and technical aids in the elderly (3)	2.5. Independence and technical aids in the elderly (3)	2.5. Independence and technical aids in the elderly (3)	2,4
5.14. Neurogenic Bowel (0)	5.14. Neurogenic Bowel (0)	5.14. Neurogenic Bowel (0)	5.14. Neurogenic Bowel (0)	5.14. Neurogenic Bowel (0)	2,2
8.12. Pain in older people (0)	8.12. Pain in older people (0)	8.12. Pain in older people (0)	8.12. Pain in older people (0)	8.12. Pain in older people (0)	2,2
3.3. Compression Fractures of the Spine (0)	3.3. Compression Fractures of the Spine (0)	3.3. Compression Fractures of the Spine (0)	3.3. Compression Fractures of the Spine (0)	3.3. Compression Fractures of the Spine (0)	2
9.2. Rehabilitation Setting (0)	9.2. Rehabilitation Setting (0)	9.2. Rehabilitation Setting (0)	9.2. Rehabilitation Setting (0)	9.2. Rehabilitation Setting (0)	2
6.3. Palliative care (0)	6.3. Palliative care (0)	6.3. Palliative care (0)	6.3. Palliative care (0)	6.3. Palliative care (0)	2
9.1. Rehabilitation assessment strategies (3)	9.1. Rehabilitation assessment strategies (3)	9.1. Rehabilitation assessment strategies (3)	9.1. Rehabilitation assessment strategies (3)	9.1. Rehabilitation assessment strategies (3)	2
13.1. Prevention of obesity with rehabilitation interventions (1)	13.1. Prevention of obesity with rehabilitation interventions (1)	13.1. Prevention of obesity with rehabilitation interventions (1)	13.1. Prevention of obesity with rehabilitation interventions (1)	13.1. Prevention of obesity with rehabilitation interventions (1)	2
2.3. Depression (1)	2.3. Depression (1)	2.3. Depression (1)	2.3. Depression (1)	2.3. Depression (1)	1,8
8.15. Adverse effects of pain management (0)	8.15. Adverse effects of pain management (0)	8.15. Adverse effects of pain management (0)	8.15. Adverse effects of pain management (0)	8.15. Adverse effects of pain management (0)	1,8
5.15. Neurogenic Bladder (2)	5.15. Neurogenic Bladder (2)	5.15. Neurogenic Bladder (2)	5.15. Neurogenic Bladder (2)	5.15. Neurogenic Bladder (2)	1,6
1.4. Physical Activity in children with reduced function or disabilities (2)	1.4. Physical Activity in children with reduced function or disabilities (2)	1.4. Physical Activity in children with reduced function or disabilities (2)	1.4. Physical Activity in children with reduced function or disabilities (2)	1.4. Physical Activity in children with reduced function or disabilities (2)	1,6
12.1. Muscle injuries in sports (1)	12.1. Muscle injuries in sports (1)	12.1. Muscle injuries in sports (1)	12.1. Muscle injuries in sports (1)	12.1. Muscle injuries in sports (1)	1,4
3.16. Polytrauma (0)	3.16. Polytrauma (0)	3.16. Polytrauma (0)	3.16. Polytrauma (0)	3.16. Polytrauma (0)	1,4
13.6. Physical Activity in the Prevention of Chronic Disease (6)	13.6. Physical Activity in the Prevention of Chronic Disease (6)	13.6. Physical Activity in the Prevention of Chronic Disease (6)	13.6. Physical Activity in the Prevention of Chronic Disease (6)	13.6. Physical Activity in the Prevention of Chronic Disease (6)	1,4
4.4. Deconditioning (4)	4.4. Deconditioning (4)	4.4. Deconditioning (4)	4.4. Deconditioning (4)	4.4. Deconditioning (4)	1,2
7.4. Sexuality and Disability (1)	7.4. Sexuality and Disability (1)	7.4. Sexuality and Disability (1)	7.4. Sexuality and Disability (1)	7.4. Sexuality and Disability (1)	1,2
2.1. Geriatric Frailty Syndrome (4)	2.1. Geriatric Frailty Syndrome (4)	2.1. Geriatric Frailty Syndrome (4)	2.1. Geriatric Frailty Syndrome (4)	2.1. Geriatric Frailty Syndrome (4)	1,2
8.9. Complex regional pain syndrome (CRPS) (3)	8.9. Complex regional pain syndrome (CRPS) (3)	8.9. Complex regional pain syndrome (CRPS) (3)	8.9. Complex regional pain syndrome (CRPS) (3)	8.9. Complex regional pain syndrome (CRPS) (3)	1,2
3.21. Amputation (3)	3.21. Amputation (3)	3.21. Amputation (3)	3.21. Amputation (3)	3.21. Amputation (3)	1
1.2. Musculoskeletal health conditions (7)	1.2. Musculoskeletal health conditions (7)	1.2. Musculoskeletal health conditions (7)	1.2. Musculoskeletal health conditions (7)	1.2. Musculoskeletal health conditions (7)	1
6.5. Transplant Rehabilitation (0)	6.5. Transplant Rehabilitation (0)	6.5. Transplant Rehabilitation (0)	6.5. Transplant Rehabilitation (0)	6.5. Transplant Rehabilitation (0)	1
9.3. Rehabilitation Team (3)	9.3. Rehabilitation Team (3)	9.3. Rehabilitation Team (3)	9.3. Rehabilitation Team (3)	9.3. Rehabilitation Team (3)	1
10.9. Metabolic syndrome (0)	10.9. Metabolic syndrome (0)	10.9. Metabolic syndrome (0)	10.9. Metabolic syndrome (0)	10.9. Metabolic syndrome (0)	1
11.2. Functional neurological disorders (1)	11.2. Functional neurological disorders (1)	11.2. Functional neurological disorders (1)	11.2. Functional neurological disorders (1)	11.2. Functional neurological disorders (1)	0,8
13.5. Biomechanical evaluation for prevention of chronic pain (1)	13.5. Biomechanical evaluation for prevention of chronic pain (1)	13.5. Biomechanical evaluation for prevention of chronic pain (1)	13.5. Biomechanical evaluation for prevention of chronic pain (1)	13.5. Biomechanical evaluation for prevention of chronic pain (1)	0,8
13.3. Sport injury prevention with rehabilitation intervention (3)	13.3. Sport injury prevention with rehabilitation intervention (3)	13.3. Sport injury prevention with rehabilitation intervention (3)	13.3. Sport injury prevention with rehabilitation intervention (3)	13.3. Sport injury prevention with rehabilitation intervention (3)	0,6
5.12. Nutrition in neurological patients (1)	5.12. Nutrition in neurological patients (1)	5.12. Nutrition in neurological patients (1)	5.12. Nutrition in neurological patients (1)	5.12. Nutrition in neurological patients (1)	0,6
5.21. Vestibular Diseases and Vertigo (1)	5.21. Vestibular Diseases and Vertigo (1)	5.21. Vestibular Diseases and Vertigo (1)	5.21. Vestibular Diseases and Vertigo (1)	5.21. Vestibular Diseases and Vertigo (1)	0,6
8.10. Psychological pain components and Post-traumatic stress (2)	8.10. Psychological pain components and Post-traumatic stress (2)	8.10. Psychological pain components and Post-traumatic stress (2)	8.10. Psychological pain components and Post-traumatic stress (2)	8.10. Psychological pain components and Post-traumatic stress (2)	0,6
4.3. Prevention and rehabilitation of pulmonary aspiration (1)	4.3. Prevention and rehabilitation of pulmonary aspiration (1)	4.3. Prevention and rehabilitation of pulmonary aspiration (1)	4.3. Prevention and rehabilitation of pulmonary aspiration (1)	4.3. Prevention and rehabilitation of pulmonary aspiration (1)	0,6
5.17. Spasticity (10)	5.17. Spasticity (10)	5.17. Spasticity (10)	5.17. Spasticity (10)	5.17. Spasticity (10)	0,6
1.3. Pediatric syndromes (2)	1.3. Pediatric syndromes (2)	1.3. Pediatric syndromes (2)	1.3. Pediatric syndromes (2)	1.3. Pediatric syndromes (2)	0,4
5.28. Myalgic encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) (2)	5.28. Myalgic encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) (2)	5.28. Myalgic encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) (2)	5.28. Myalgic encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) (2)	5.28. Myalgic encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) (2)	0,4
11.5. Mourning process after loss of health (0)	11.5. Mourning process after loss of health (0)	11.5. Mourning process after loss of health (0)	11.5. Mourning process after loss of health (0)	11.5. Mourning process after loss of health (0)	0,4
7.2. Fecal incontinence (3)	7.2. Fecal incontinence (3)	7.2. Fecal incontinence (3)	7.2. Fecal incontinence (3)	7.2. Fecal incontinence (3)	0,4
9.4. Vocational and professional rehabilitation (12)	9.4. Vocational and professional rehabilitation (12)	9.4. Vocational and professional rehabilitation (12)	9.4. Vocational and professional rehabilitation (12)	9.4. Vocational and professional rehabilitation (12)	0,4
9.6. Education of patients, relatives and caregivers (7)	9.6. Education of patients, relatives and caregivers (7)	9.6. Education of patients, relatives and caregivers (7)	9.6. Education of patients, relatives and caregivers (7)	9.6. Education of patients, relatives and caregivers (7)	0,4
9.7. Orthosis, prosthesis, devices and technical aids (20)	9.7. Orthosis, prosthesis, devices and technical aids (20)	9.7. Orthosis, prosthesis, devices and technical aids (20)	9.7. Orthosis, prosthesis, devices and technical aids (20)	9.7. Orthosis, prosthesis, devices and technical aids (20)	0,4
10.2. HIV (0)	10.2. HIV (0)	10.2. HIV (0)	10.2. HIV (0)	10.2. HIV (0)	0,4

14 priorities #1

10.1. Rehabilitation of patients with burns (0)	3
9.5. Intervention protocols treatment (0)	3
9.8. Goal setting in rehabilitation (2)	2,8
5.2. Spinal Cord Injury (5)	2,4
10.8. Obesity (1)	2,4
13.4. Rehabilitation as Secondary prevention in stroke (2)	2,4
2.5. Independence and technical aids in the elderly (3)	2,4
5.14. Neurogenic Bowel (0)	2,2
8.12. Pain in older people (0)	2,2
3.3. Compression Fractures of the Spine (0)	2
9.2. Rehabilitation Setting (0)	2
6.3. Palliative care (0)	2
9.1. Rehabilitation assessment strategies (3)	2
13.1. Prevention of obesity with rehabilitation interventions (1)	2



16 priorities #2

2.3. Depression (1)	1,8
8.15. Adverse effects of pain management (0)	1,8
5.15. Neurogenic Bladder (2)	1,6
1.4. Physical Activity in children with reduced function or disabilities (2)	1,6
12.1. Muscle injuries in sports (1)	1,4
3.16. Polytrauma (0)	1,4
13.6. Physical Activity in the Prevention of Chronic Disease (6)	1,4
4.4. Deconditioning (4)	1,2
7.4. Sexuality and Disability (1)	1,2
2.1. Geriatric Frailty Syndrome (4)	1,2
8.9. Complex regional pain syndrome (CRPS) (3)	1,2
3.21. Amputation (3)	1
1.2. Musculoskeletal health conditions (7)	1
6.5. Transplant Rehabilitation (0)	1
9.3. Rehabilitation Team (3)	1
10.9. Metabolic syndrome (0)	1



16 priorities #3

11.2. Functional neurological disorders (1)	0,8
13.5. Biomechanical evaluation for prevention of chronic pain (1)	0,8
13.3. Sport injury prevention with rehabilitation intervention (3)	0,6
5.12. Nutrition in neurological patients (1)	0,6
5.21. Vestibular Diseases and Vertigo (1)	0,6
8.10. Psychological pain components and Post-traumatic stress (2)	0,6
4.3. Prevention and rehabilitation of pulmonary aspiration (1)	0,6
5.17. Spasticity (10)	0,6
1.3. Pediatric syndromes (2)	0,4
5.28. Myalgic encephalomyelitis/Chronic Fatigue Syndrome (ME/CFS) (2)	0,4
11.5. Mourning process after loss of health (0)	0,4
7.2. Fecal incontinence (3)	0,4
9.4. Vocational and professional rehabilitation (12)	0,4
9.6. Education of patients, relatives and caregivers (7)	0,4
9.7. Orthosis, prothesis, devices and technical aids (20)	0,4
10.2. HIV (0)	0,4





Cochrane Rehabilitation project (with WHO): **Best Evidence for Rehabilitation (be4rehab)**

Aim

To identify the best evidence in rehabilitation to
develop the WHO Package of Rehabilitation
Interventions

Trusted evidence.
Informed decisions.
Better health.



WHO Rehabilitation 2030: a call for action

REHABILITATION
— 2030 —
a call for action

Rehabilitation is essential in addressing the full scope of health needs of a population: **ensure healthy lives and promote well-being for all at all ages.**

Health systems need to be equipped to provide services that optimize functioning in light of impairments, injuries or health conditions, acute or chronic.

The benefits of rehabilitation are realized beyond the health sector.

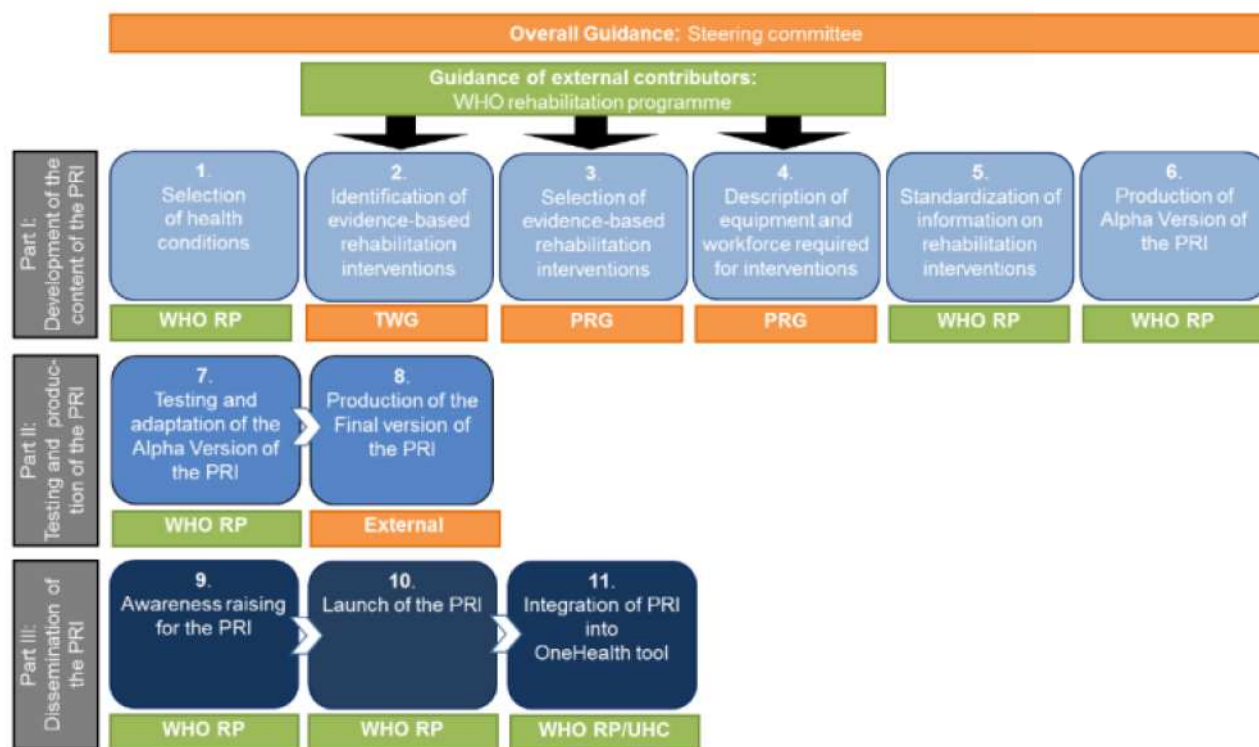
Rehabilitation must be integrated into national health plans and budgets. Current epidemiological trends, demographic shifts and expanded access to health care make **scaling up rehabilitation services imperative** for health systems in the 21st century.



World Health
Organization

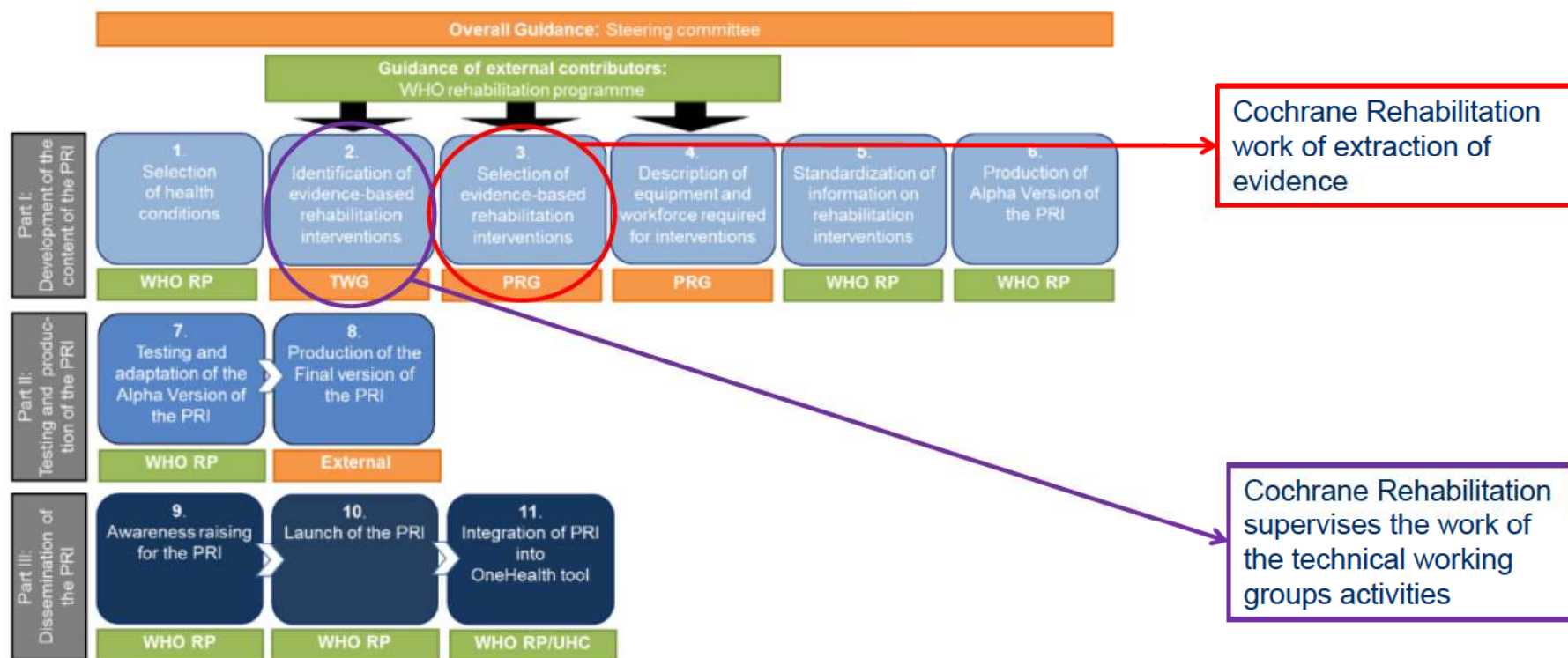


WHO Package of Rehabilitation Interventions (PRI)



Rauch A, Negrini S, Alarcos A. Toward Strengthening Rehabilitation in Health Systems: Methods Used to Develop a WHO Package of Rehabilitation Interventions. Arch Phys Med Rehabil. 2019 Nov;100(11):2205-2211.

WHO Package of Rehabilitation Interventions (PRI)



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be4rehab: WHO-Cochrane Rehabilitation

be4rehab: Best Evidence for Rehabilitation

Data from selected **best Guidelines (expertise and evidence)** and from **Cochrane Reviews (evidence)** on 20 health conditions to produce the Minimum Package of Rehabilitation Interventions for Ministries of Health

Cochrane rehabilitation role:

- co-responsible of the methodology
- recruitment and methodological overview of 10 out of 20 existing review groups
- Extraction of the best available evidence from Cochrane Systematic Reviews

Rauch A, Negrini S, Alarcos A. Toward Strengthening Rehabilitation in Health Systems: Methods Used to Develop a WHO Package of Rehabilitation Interventions. Arch Phys Med Rehabil. 2019 Nov;100(11):2205-2211.



Knowledge translation efforts of Cochrane Rehabilitation

Trusted evidence.
Informed decisions.
Better health.

Different audiences



Consumers and the public

Those seeking
health care, their
families and carers,
and the public



Practitioners

of health care
including clinicians
and public health
practitioners



Policy-makers & healthcare managers

making decisions
about health policy
within all levels of
management



Researchers & Research Funders

who need
information
regarding important
gaps in the evidence

Cochrane Knowledge Translation Strategy

April 2017

Trusted evidence.
Informed decisions.
Better health.



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Cochrane News

- ◆ New learning opportunities in evidence-based health care for medical students in Sweden
- ◆ Cochrane seeks Knowledge Translation Project Manager - Flexible location
- ◆ Cochrane Sweden seeks Fellow - Lund, Sweden
- ◆ New National License Agreement Provides Brazil with Unlimited Access to the Cochrane Library
- ◆ New on the Cochrane Library: Best of 2017 Special Collection



Weekly Evidence in Rehabilitation

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Some other future solutions for EBM in rehabilitation

Trusted evidence.
Informed decisions.
Better health.

What else can we do to face these challenges?

There is a general «agreement» that **rehabilitation has low evidence**

- We are struggling to produce sound (and meaningful) research
- In reality, we are not missing methodologically sound research (RCTs)
- But this good research does not relieve us: we still feel that we are missing evidence

Probably we are **stuck by the RCT gold standard**, that is not the best methodological approach due to the intrinsic limitation of rehabilitation:

- Rehabilitation process
- Black box



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It's time to think out of the box !



Parachute use to prevent death and major trauma related to gravitational challenge: systematic review of randomised controlled trials

Gordon C S Smith, Jill P Pell

BMJ VOLUME 327 26-27 DECEMBER 2003 bmj.com

1459

The Parachute Systematic Review of RCTs

Objectives. To determine whether parachutes are effective in preventing major trauma related to gravitational challenge.

Material and Methods. Design: Systematic review of RCTs. Data sources: Medline, Web of Science, Embase, and the Cochrane Library databases; appropriate internet sites and citation lists. Study selection: Studies showing the effects of using a parachute during free fall. Main outcome measure: Death or major trauma, defined as an injury severity score > 15.

Results. We were unable to identify any randomised controlled trials of parachute intervention.

Conclusions. As with many interventions intended to prevent ill health, the effectiveness of parachutes has not been subjected to rigorous evaluation by using randomised controlled trials.





Equipoise

The **ethics** of clinical research requires equipoise – **a state of genuine uncertainty** ... regarding the comparative therapeutic merits of each arm in a trial...

- Individual level
- **Expert medical community**

What the consequences in rehabilitation ?



Let's imagine **gait rehabilitation** for stroke

Is an RCT about making the patient walk like a **parachute RCT**?

Would an **ethical committee** consider unethical a control group without treatment ?

- Yes !
- **Rehabilitation** in this topic **has evidence** without RCTs

What are not parachutes (ethical committees would allow the studies)?

- **Who** makes him walk ?
- **How** he/she makes him walk ?
- **How** we increase the **recovery** speed ?
- **How** we reduce inherent **costs** ?

Parachute Evidence Based Ethical List in rehabilitation

What is this ?

- A proposal to **systematically list all rehabilitation treatments** that
 - are like parachutes,
 - would be unethical to stop providing,
 - do not need any scientific study to prove their evidence

Methods

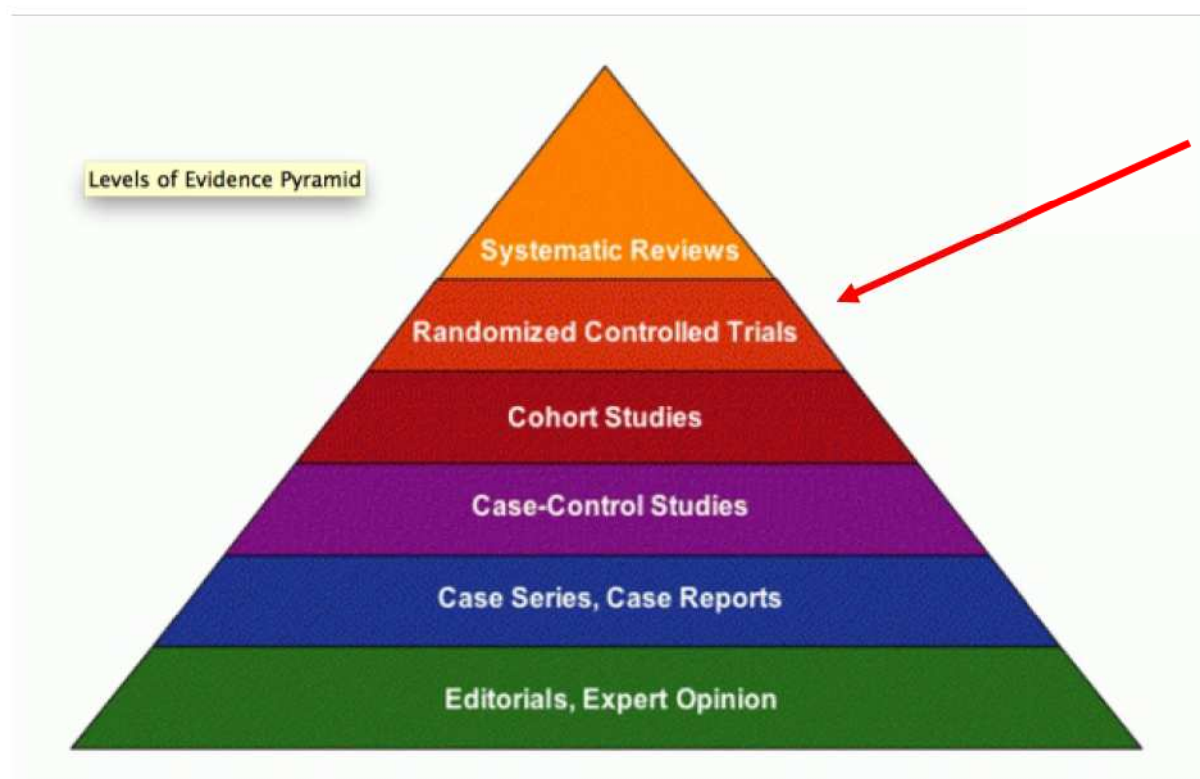
- **Consensus** procedures
- **Partners**

Limits

- **Conflict of interest** (?): but, who else if not us ?

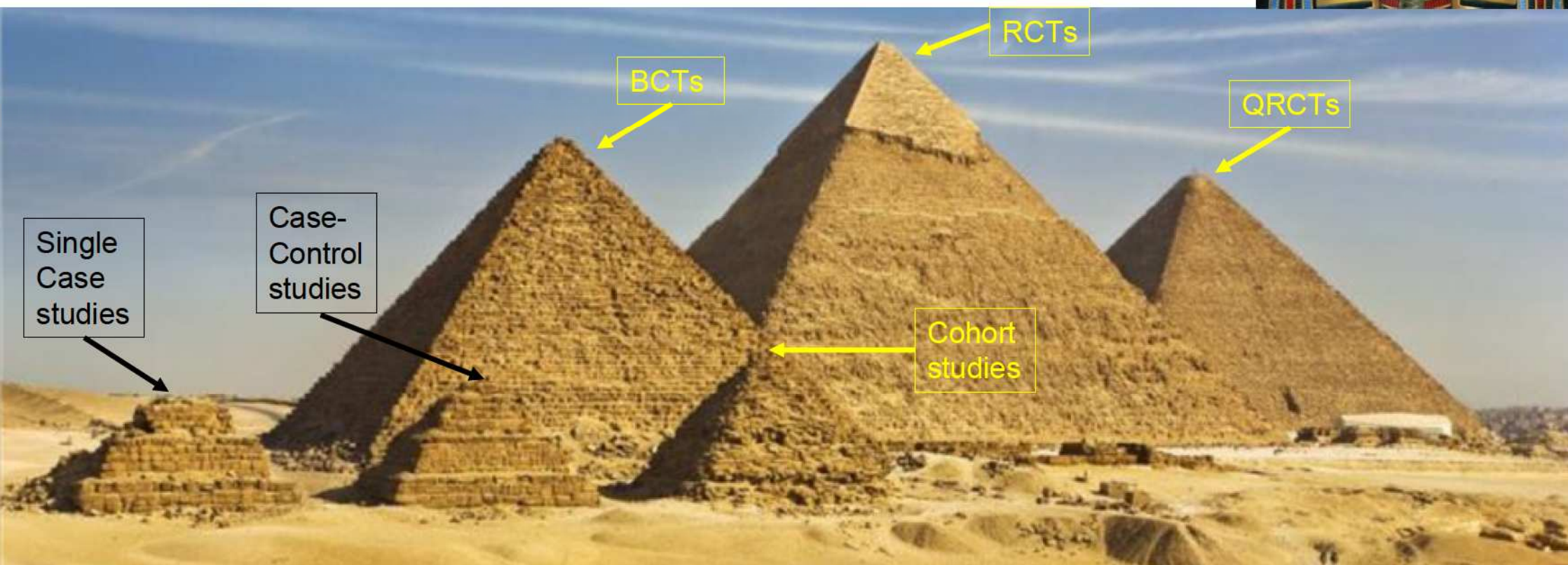


The Pyramid of Evidence



2. The Pyramids of Evidence in rehabilitation

Task of
Cochrane
Rehabilitation



**In rehabilitation
there is
no EVIDENCE**

A constant **boulder
on rehabilitation
shoulders**



In rehabilitation
there is
no EVIDENCE



Perhaps it is only
a **pebble**
in the shoe of
rehabilitation





Thank you!

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