



Queen Margaret University
EDINBURGH

What is ‘physical rehabilitation’?

A model developed with stroke survivors,
carers and physiotherapists for a Cochrane
Review on stroke rehabilitation

29/31 March 2022

Trusted evidence.
Informed decisions.
Better health.



Webinar plan:



Welcome (*Richard*)

Cochrane review of physical rehabilitation for stroke (*Alex*)

- Introduction
- Why did we need stakeholder involvement?

Stakeholder involvement (*Gill*)

- What have we done?
- Stakeholder reflections

New model to describe physical rehabilitation for stroke (*Alex*)

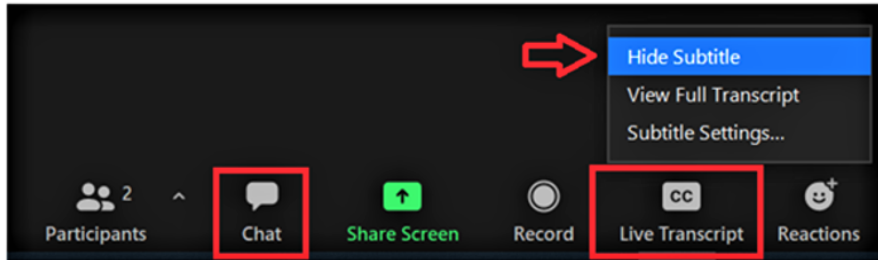
- How was it developed?
- What does it look like?
- How will it be used?

Your thoughts.....

Taking part in the webinar

Zoom

- Your microphone will be muted automatically to prevent background noise
- To ask a written question or make a comment, please type it in the chat box
- To turn subtitles on or off, click on “Live Transcript”



- The session will be recorded and the presentation will be shared afterwards

Presenters:

- Richard Morley – Cochrane Consumer Engagement Officer
- Alex Todhunter-Brown (formerly Pollock) – lead author on the Cochrane review of *‘physical rehabilitation for the recovery of function and mobility following stroke’*
- Gillian Baer - author on the Cochrane review of *‘physical rehabilitation for the recovery of function and mobility following stroke’*
- Julie Duncan-Millar – supporting consumer involvement in project

**Who are
you?**

**Why are you
here today?**

**Where are
you?**



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Your thoughts.....

Cochrane review of physical rehabilitation for stroke *(Alex)*

What is a Cochrane review?

What is this review about?

What is the role of the stakeholder group?

What is a Cochrane review?



Designed by Jessica Kaufman, Cochrane Consumers & Communication Review Group, Centre for Health Communication & Participation, La Trobe University, 2011. 

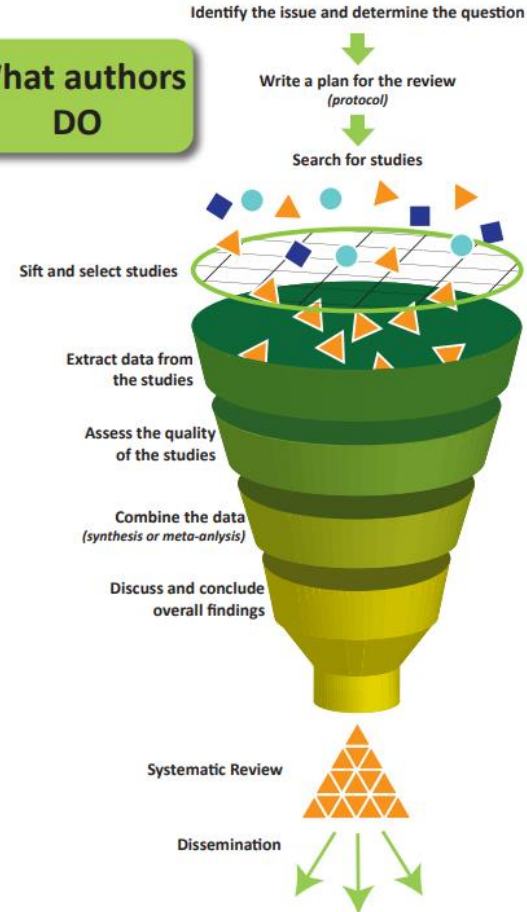


What is a Cochrane review?



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What authors DO



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What is this review about?

1998

- Physiotherapists' most “burning” question is “Does Bobath therapy work?”

1999

- Cochrane review comparing different physiotherapy treatment approaches.

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Physical rehabilitation

Nothing, placebo, control

Physical rehabilitation A

Physical rehabilitation B

What is this review about?

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2006

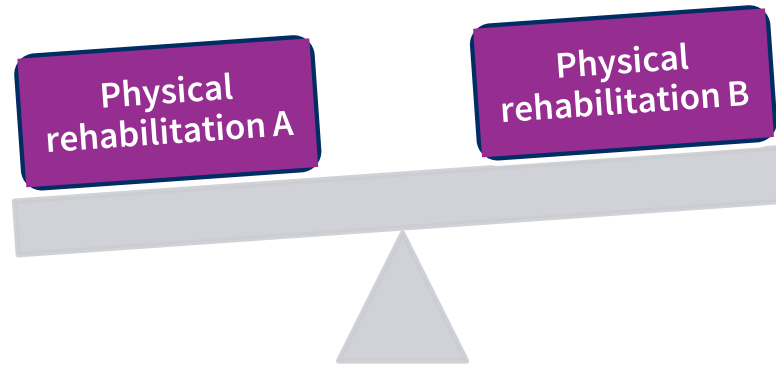
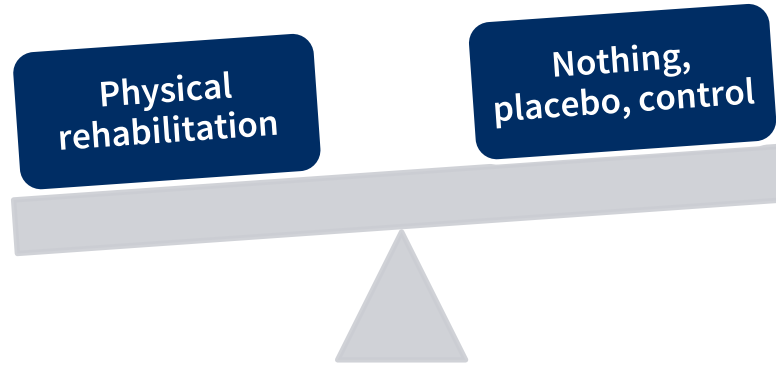
- Cochrane review updated but several Chinese trials not included.

2013

- Comprehensive update with stakeholder involvement. Categorisation of physiotherapy “treatment components” introduced.

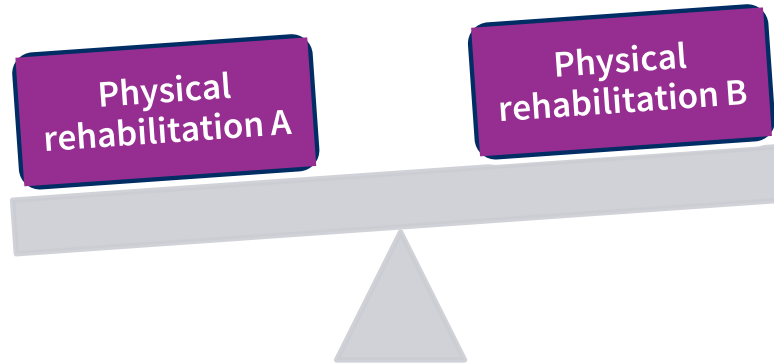
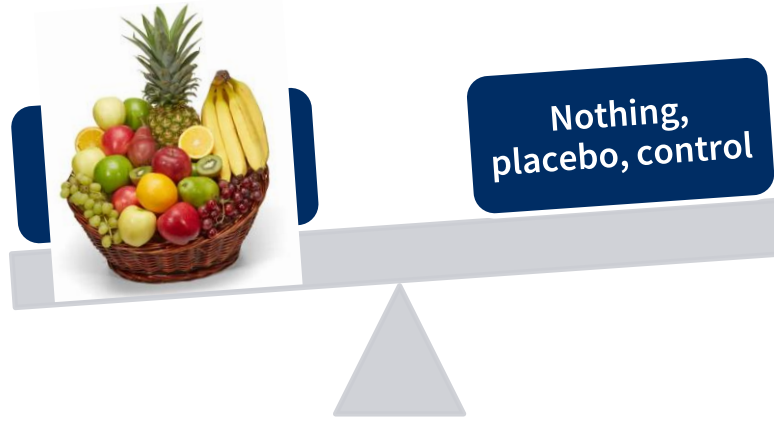
What is this review about?

What physical rehabilitation approaches are effective in recovery of function and mobility?



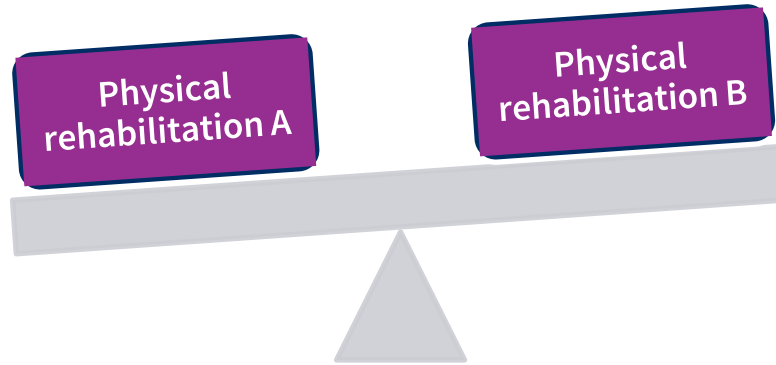
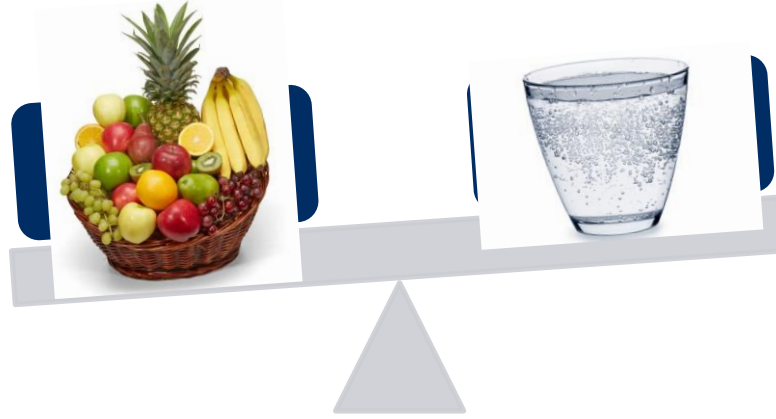
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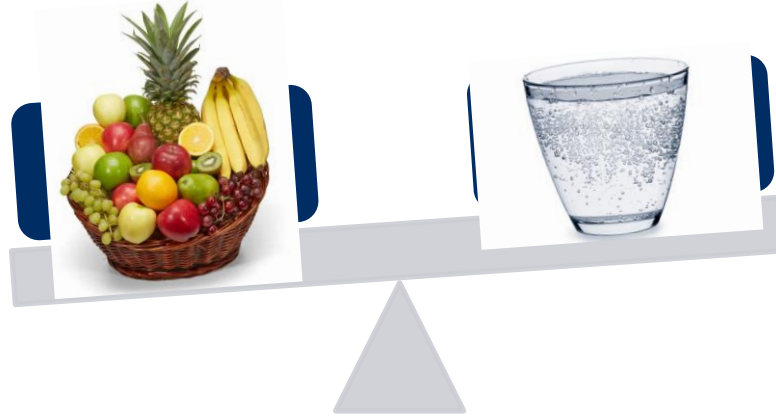
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What is this review about?

What physical rehabilitation approaches are effective in recovery of function and mobility?



What is this review about?



Which plate of fruit is best?

Which type / “approach” to physiotherapy is best?



What is this review about?

Physical rehabilitation included in this review:



Questions about the fruit bowl!

- “Real world” physiotherapy
- A programme of physiotherapy
- Treatment selected by a rehab professional
- A programme made up of different components or elements

Always more than one ‘fruit’!

Questions about individual treatment components are answered in other reviews



What is this review about?

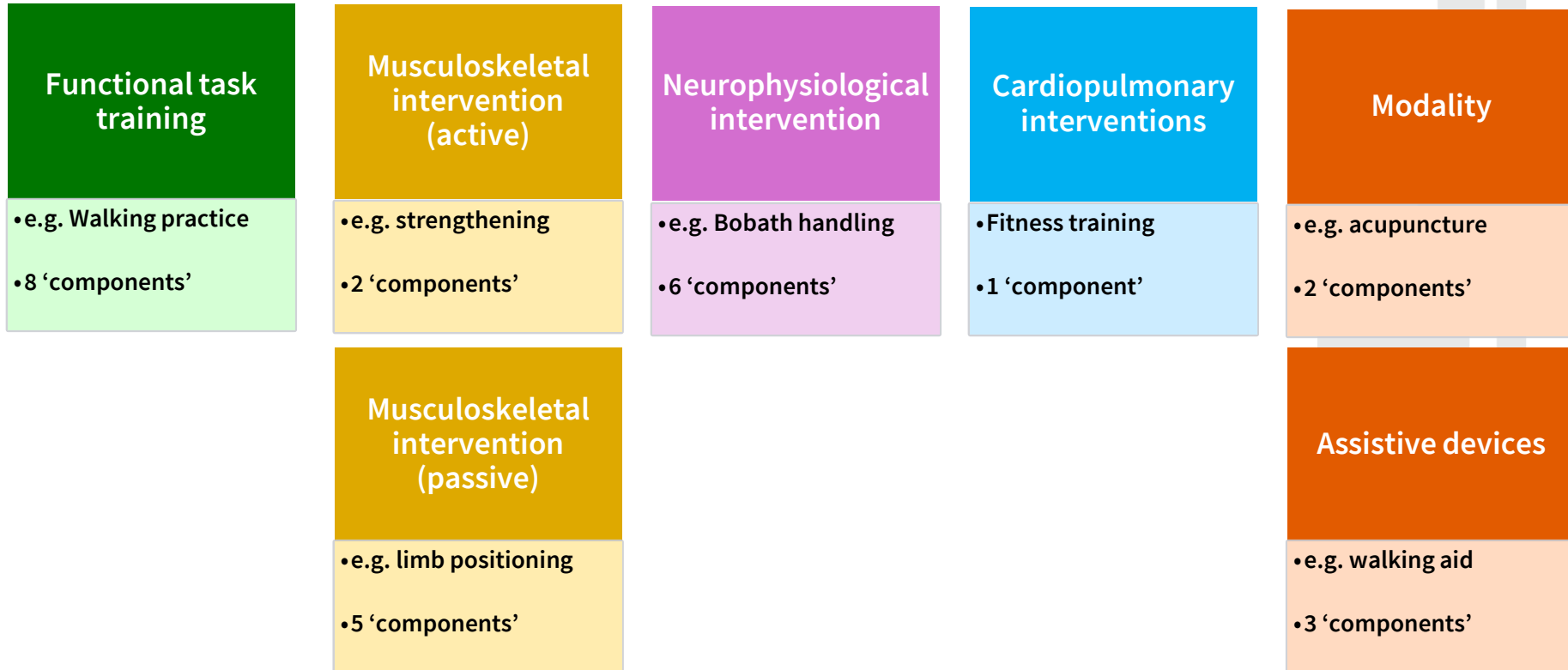
Need to define / describe the ‘fruit’:

- In 2013, a stakeholder group defined 27 “treatment components”.



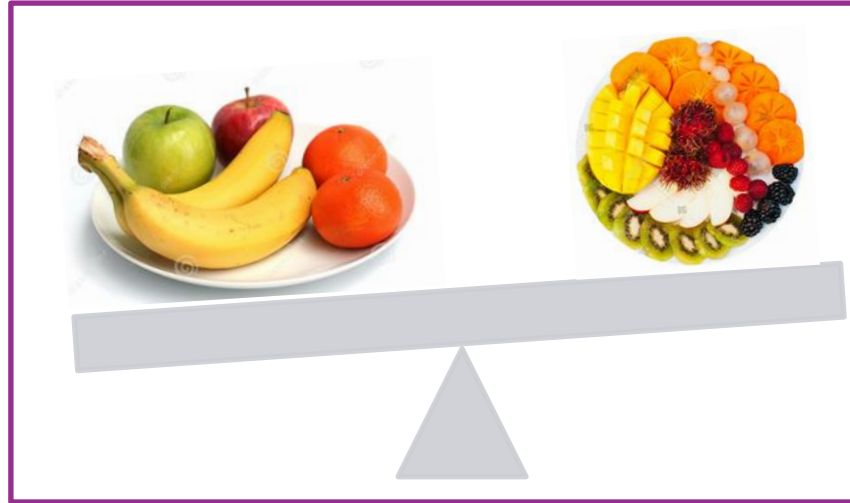
What is the role of the stakeholder group?

The 27 treatment 'components' were grouped into categories, and definitions agreed:



What is the role of the stakeholder group?

Need to define / describe the ‘fruit’:



- In 2013 Stakeholder group defined 27 “treatment components”.
- These were central to how the review was structured.
- For 2021 update – **stakeholder involvement to check whether the defined treatment components are still relevant & meaningful.**

What is this review about?

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- Physiotherapists' most “burning” question is “Does Bobath therapy work?”

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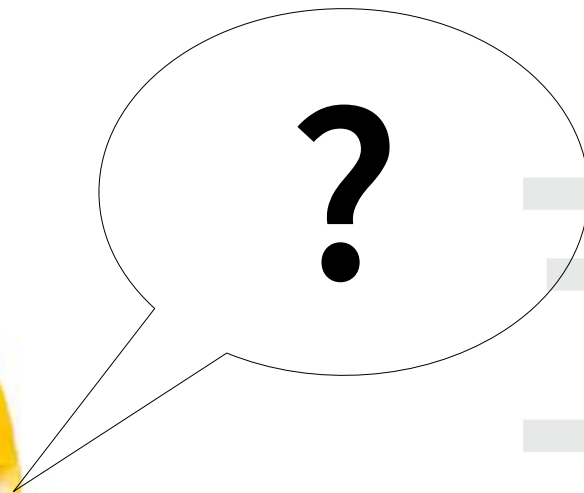
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- Comprehensive update with stakeholder involvement. Categorisation of physiotherapy “treatment components” introduced.

2021

- Another comprehensive update with stakeholder involvement



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Stakeholder involvement (*Gill*)

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Your thoughts.....

Who are the stakeholder group?

Initial stakeholder group

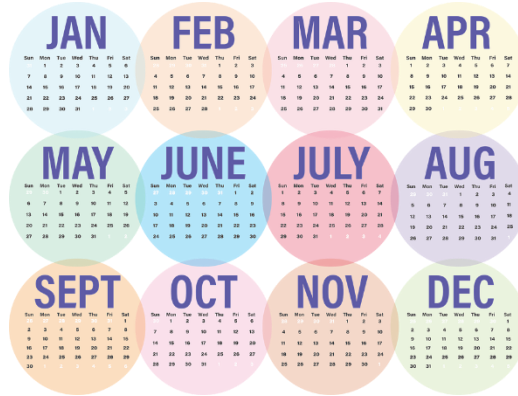
- 4 people living with stroke
- 4 people who are carers or relatives of someone living with stroke
- 7 physiotherapists



- How we recruited to the group
 - Publicised through variety of forums
 - Expressions of interest
 - Experience
 - Reasons to be involved
 - Other background (eg location, age)

What have we done?

Stakeholder activities



Meeting rules

Consider sharing emails to check up on each other

Please put camera on because easier to lip read

Confidentiality – what's said in the room stays in the room

Let everyone have their say

Please respect each other

Allow people to be quiet during meeting

'Parking' area – acknowledge issues this cannot address but may be able to take forward to other forums

Make sure someone is checking the chat box and can read out messages in chat box so that those without the chat function do not miss out

Ask questions – put your hands up or message in chat if you need to clarify anything

Things that were good:

- All given opportunities to express our views
- We were listened to
- Meeting was well managed
- Everyone wanted to help make this a success
- Good mix of participants.

What have we done?

Meeting 1

Topic
Welcome
Introductions and agree “rules”
Background <ul style="list-style-type: none">• <i>What is a Cochrane Systematic review?</i>• <i>What is this review about</i>• <i>What is the role of the stakeholder group</i>
DISCUSSION: What happens during physiotherapy?
DISCUSSION: What do we mean by physical rehabilitation approaches?
Summary, reflections and next steps
FINISH

Meeting 2

Topic
Welcome & introductions
Recap on meeting rules
Feedback from meeting 1
Recap on meeting 1 discussion
Group thoughts / feedback on new classification system
BREAK
How does the new classification system impact on the review comparisons
BREAK
Review title Definitions
Next steps Plans for emails / future meetings etc
FINISH



Working together

The stakeholder voice



Presentations



Discussions



Reflection



video





Take a
screen
break!



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- How was it developed?
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Your thoughts.....

How was it developed?

At our stakeholder group meetings we have:

- Discussed what makes up physical rehabilitation after stroke
- Looked at the ‘treatment components’ used to describe interventions in the last version of the review
- Discussed what might be missing from this

After the meetings some of the group have sent additional comments and suggestions



How was it developed?

3 main actions from discussions:

Identification of additional treatment components

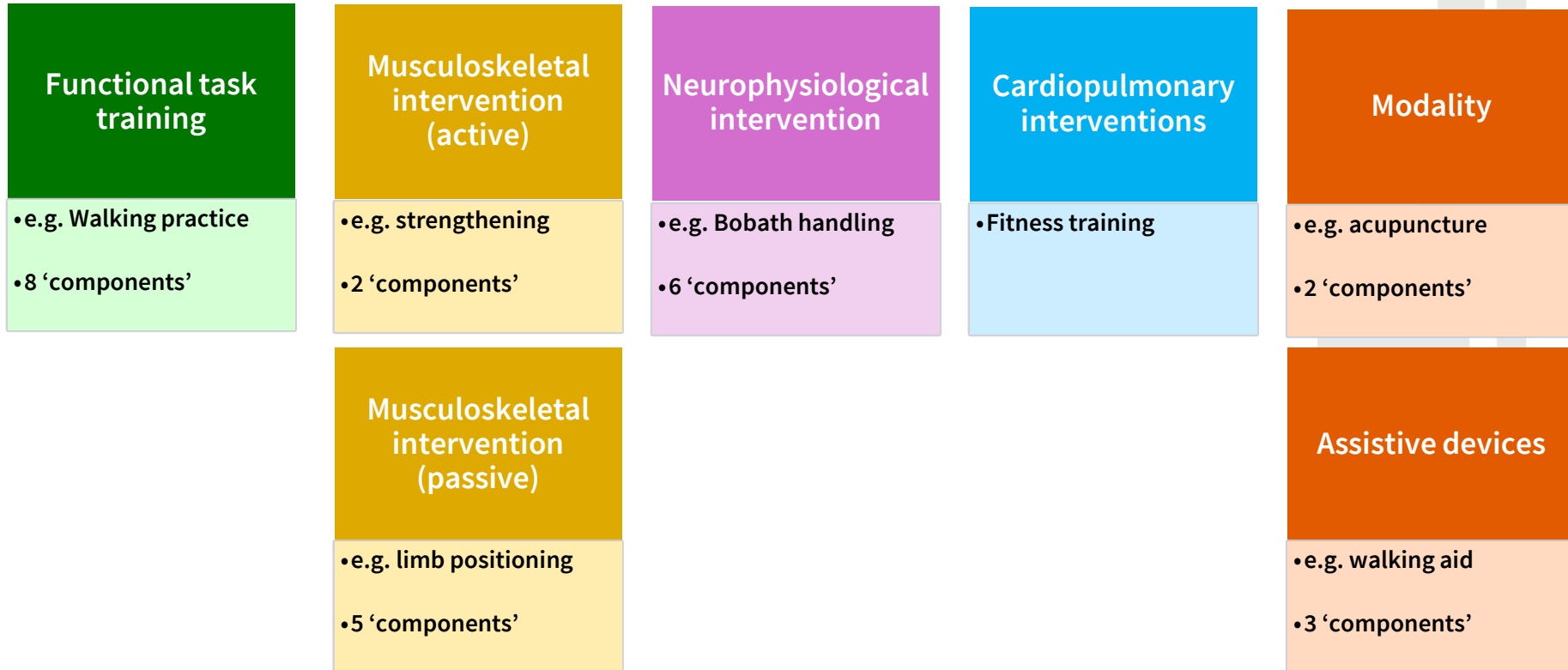
Identification of “adjuncts” to physical rehabilitation

Importance of mode of delivery



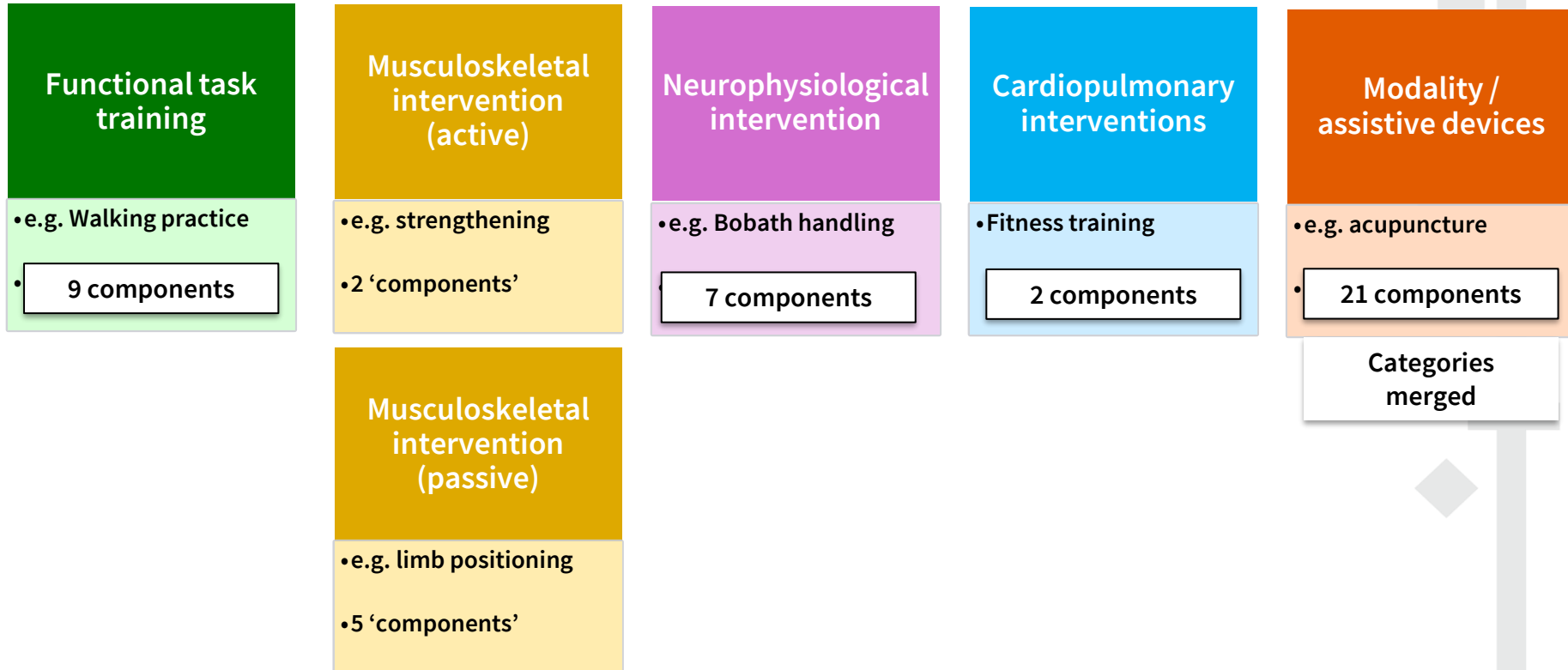
How was it developed?

The 'intervention components' used in the 2013 version of the review were added to:



How was it developed?

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How was it developed?

A number of 'adjuncts' to physical rehabilitation were identified:

Support &/or
practice of
activities by
patients when
away from
therapist

- e.g. Family / therapy assistant trained to supervise activities

- 7 categories identified

Cognitive
information
processing

- e.g. Goal setting, behavioural change techniques

- 8 categories identified

Interventions
addressing other
stroke-related
problems

- e.g. speech and language therapy, psychological support

- 6 categories identified

Assessment &
monitoring

- E.g. gathering & sharing of information

- 6 categories identified



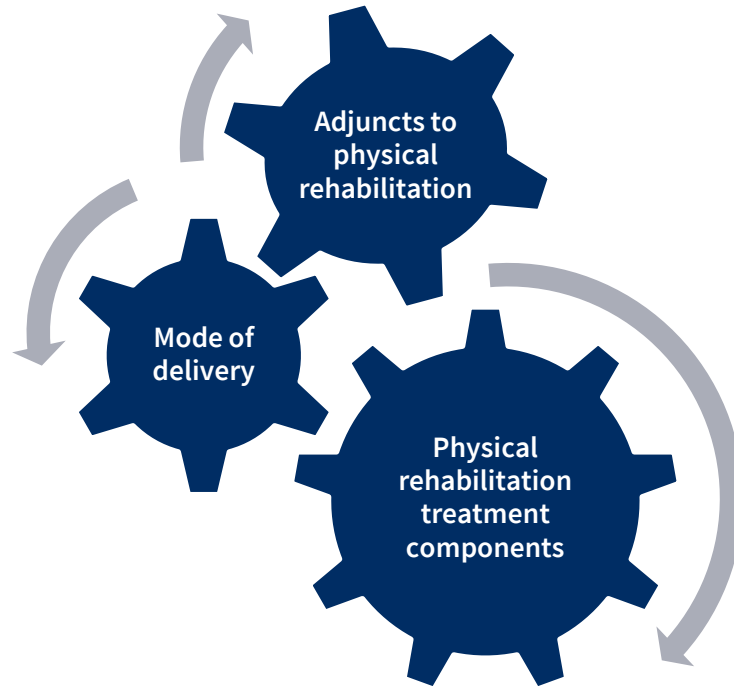
How was it developed?

HOW physical rehabilitation is delivered is important:

MODE of delivery		
One to one with therapist	Face to face	Individualised
OR	OR	OR
Group session	Remote (online or telephone)	Standardised (not individualised)
OR	OR	OR
Mixed	Mixed	Mixed

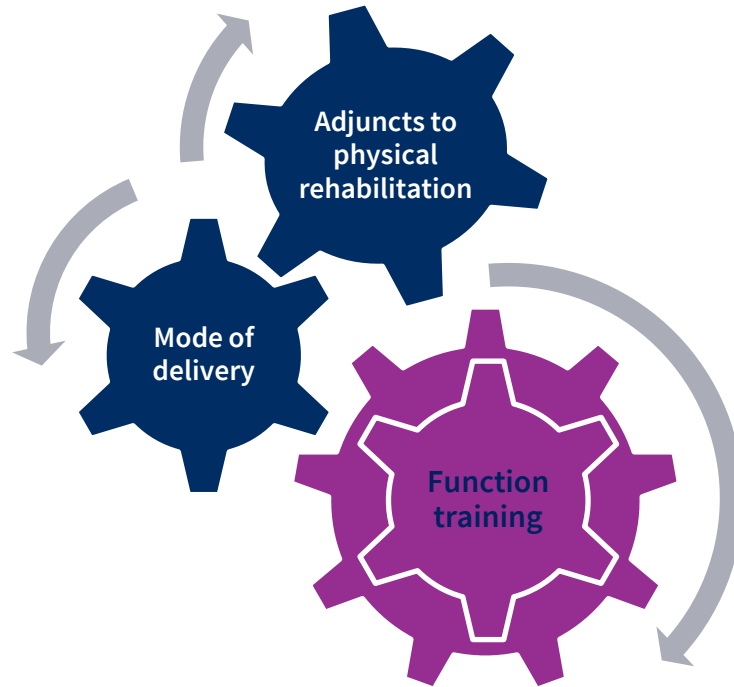
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This review needs to take into account:



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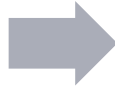


What does it look like?

Physical rehabilitation has the following elements:

Ingredients

- What the therapist does (or selects)



Mechanisms of action

- How the treatment is expected to work



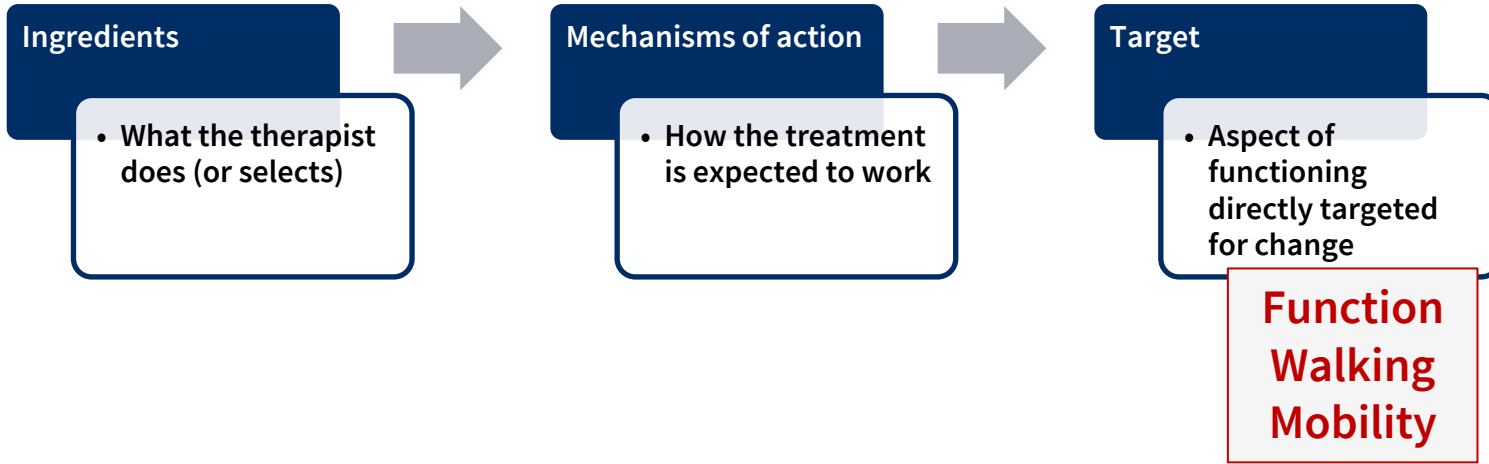
Target

- Aspect of functioning directly targeted for change



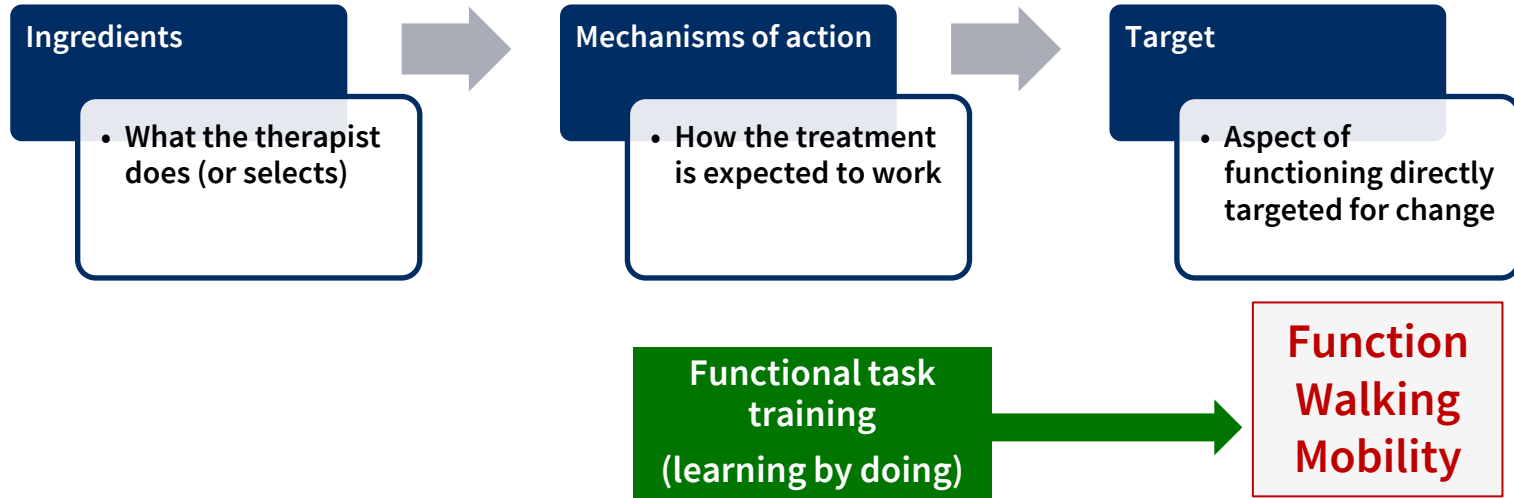
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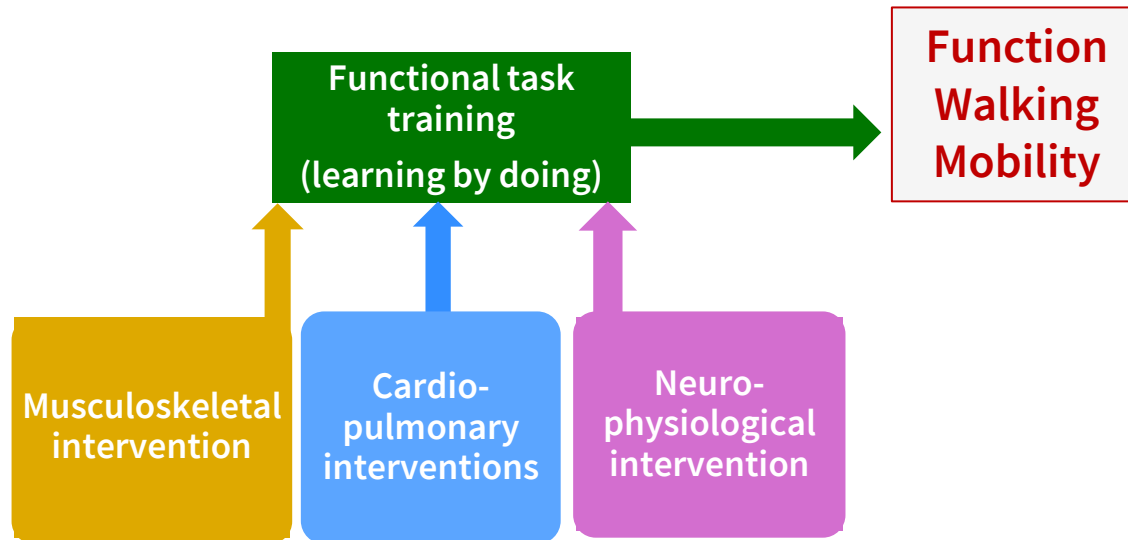
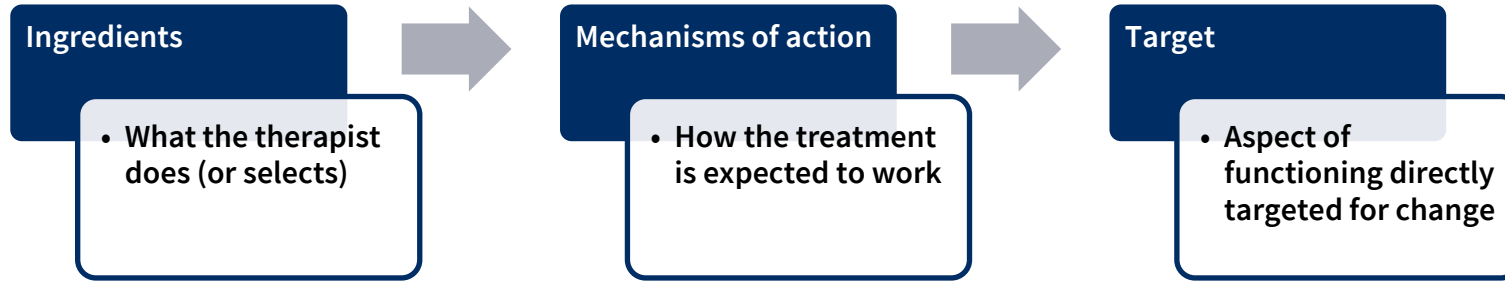
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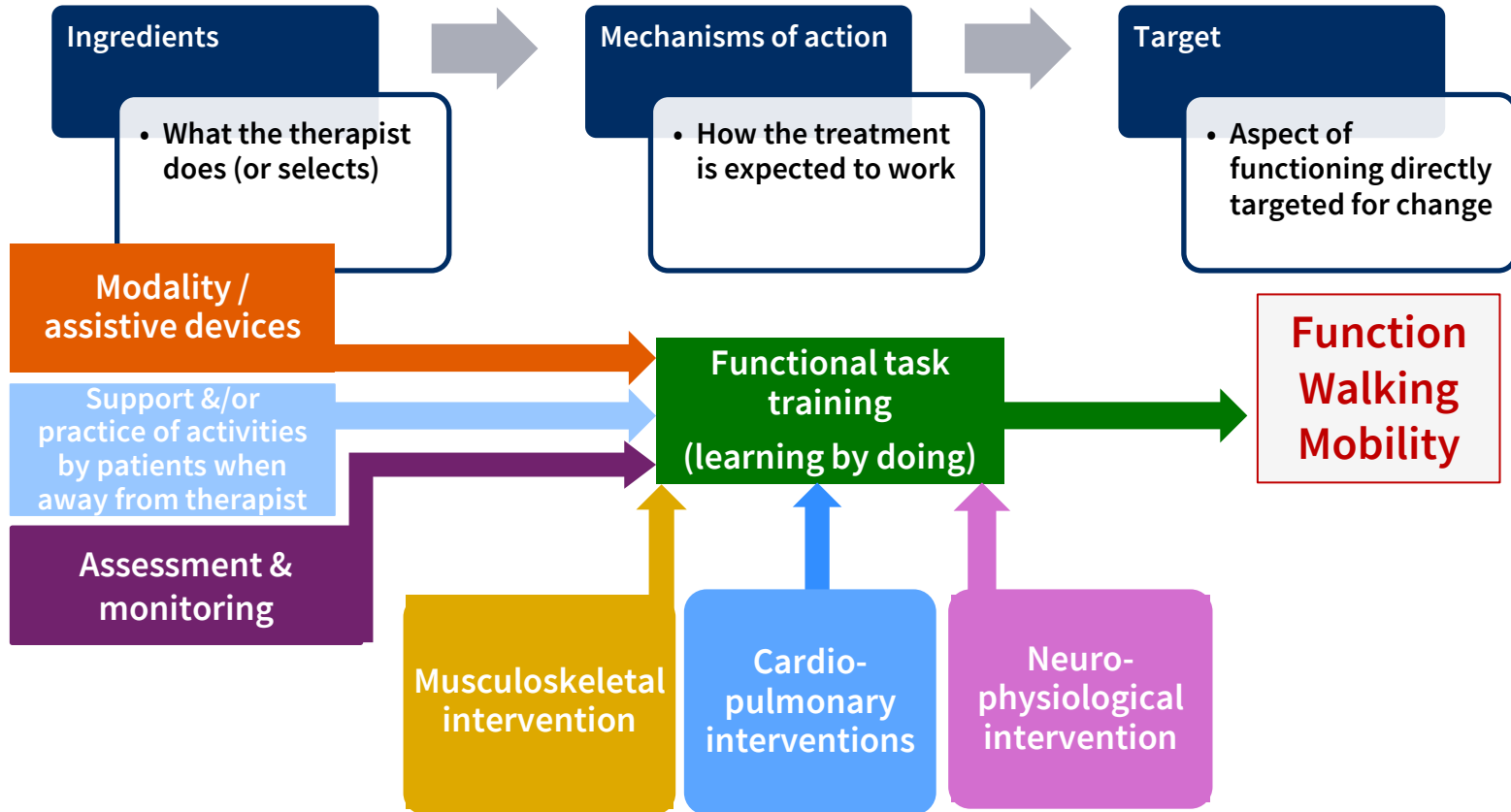
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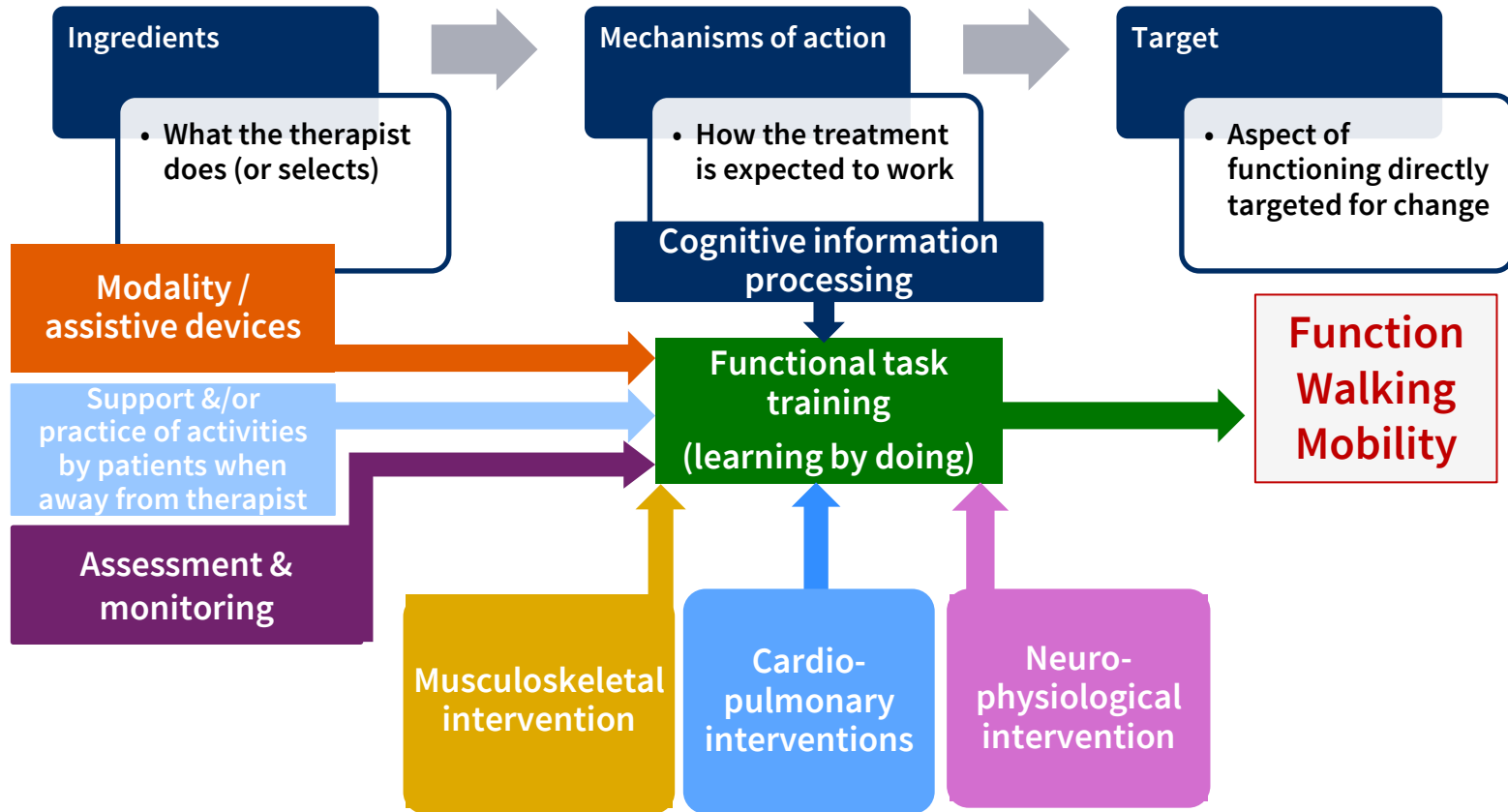
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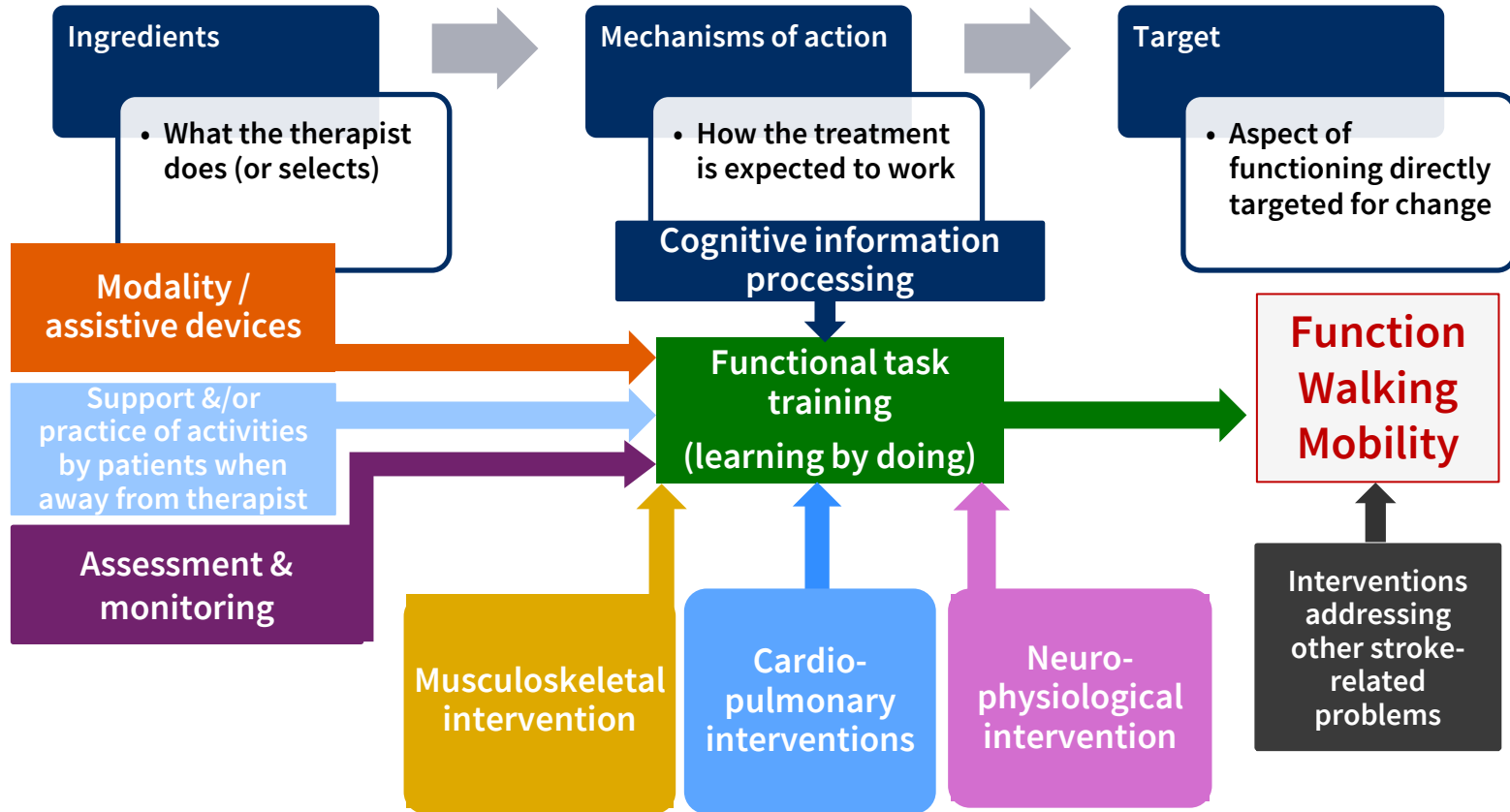
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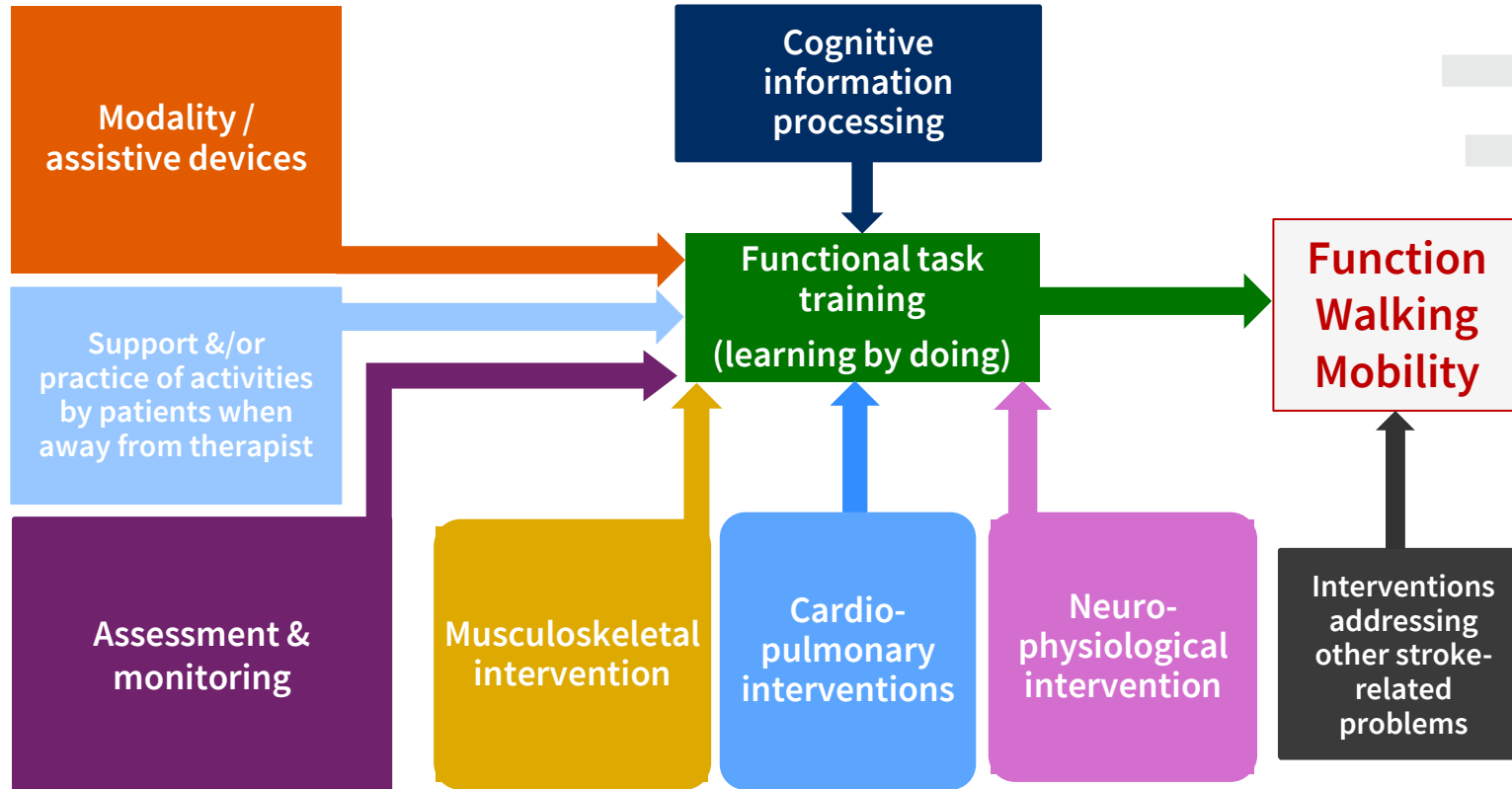
New model to describe physical rehabilitation for stroke (*Alex*)

What does it look like?

INGREDIENTS

MECHANISMS OF ACTION

TARGET



INGREDIENTS

MECHANISMS OF ACTION

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Modalities / assistive devices (adjuncts to support desired mechanism of action)

Orthoses for walking	Walking aids
Rehabilitation splints	Resting splints
Kinesiology taping	Lycra orthotics
Electrical muscular stimulation	Robotics
	Hydrotherapy
Botulinum toxin injection	Acupuncture
Electrical shock wave therapy	Standing frame
	Brain stimulation
Brain computer interface	Treadmill training
Biofeedback devices (EMG, force, position)	Exercise bikes or cycle machines
Functional electrical stimulation	Hyperbaric oxygen therapy
Physical agents (including hot, cold, TENS – Transcutaneous electrical nerve stimulation)	

Support &/or practice of activities when away from therapist

Family/therapy assistant/nurses trained to supervise activities
Therapist-directed independent practice
Self practice
Activities supported through use of technology
Exercise classes
Risk assessment / management (e.g. environmental modifications)
Stimulating ward environment

Assessment & monitoring

Assessment of progress / gathering information
Treatment plan
Use of tools & models to predict prognosis (including biomarkers)
Sharing of information on assessment / progress with patient / family
Sharing of information on assessment / progress with healthcare team
Risk assessment / management

Cognitive information processing

Behavioural change techniques
Goal setting
Supported self-management
Motivational & emotional support of patient / carers / family
Telephone or online contact with therapist to provide support
Information provision to enhance understanding
Education / training family & carers to enhance understanding
Conductive education

Learning by doing / Functional task training

Practice of activities of daily living (ADL)
Practice of activities relating to return to work / hobbies
Practice of balance during sitting &/or standing
Sit-to-stand practice
Transfer practice
Walking practice
Stair climbing practice
On and off floor practise
Upper limb activities

Musculoskeletal

Muscle strengthening
Active & active-assisted movement (joint mobility, muscle length & strength)
Increasing angle of upright sitting, to promote sitting
Tilt table, to promote limb loading
Passive movement, to maintain muscle length
Body & limb positioning, to maintain optimal alignment
Massage, to maintain muscle length, reduce pain
Specific joint mobilization (e.g. Maitland), to maintain joint movement
Soft tissue mobility work (e.g. myofascial release), to maintain soft tissue length

Neurophysiological

Hands on facilitation of ('normal') movement
Inhibition of abnormal muscle tone
Trunk mobilisations / postural reactions
Proprioceptive neuromuscular facilitation (PNF)
Sensorimotor facilitation
Bobath therapy
Voita therapy

Cardiopulmonary

Aerobic/fitness/ endurance training
Breathing exercises

**Function
Walking
Mobility**

Interventions – addressing other stroke-related problems

Speech & language therapy
Cognitive rehabilitation
Vision rehabilitation
Psychological / emotional support interventions
Signposting or referral to appropriate professionals or activities

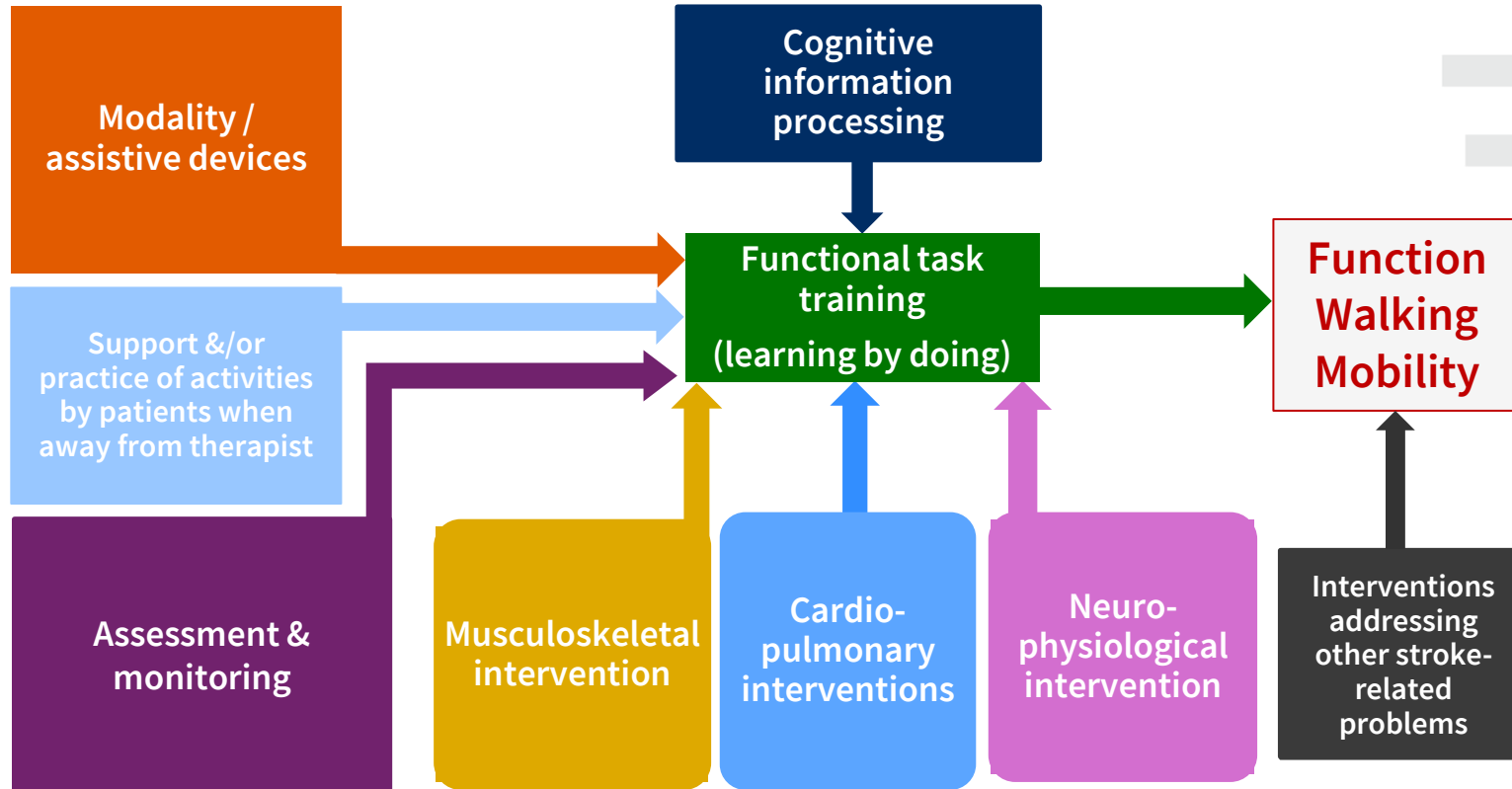
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How will we use this?

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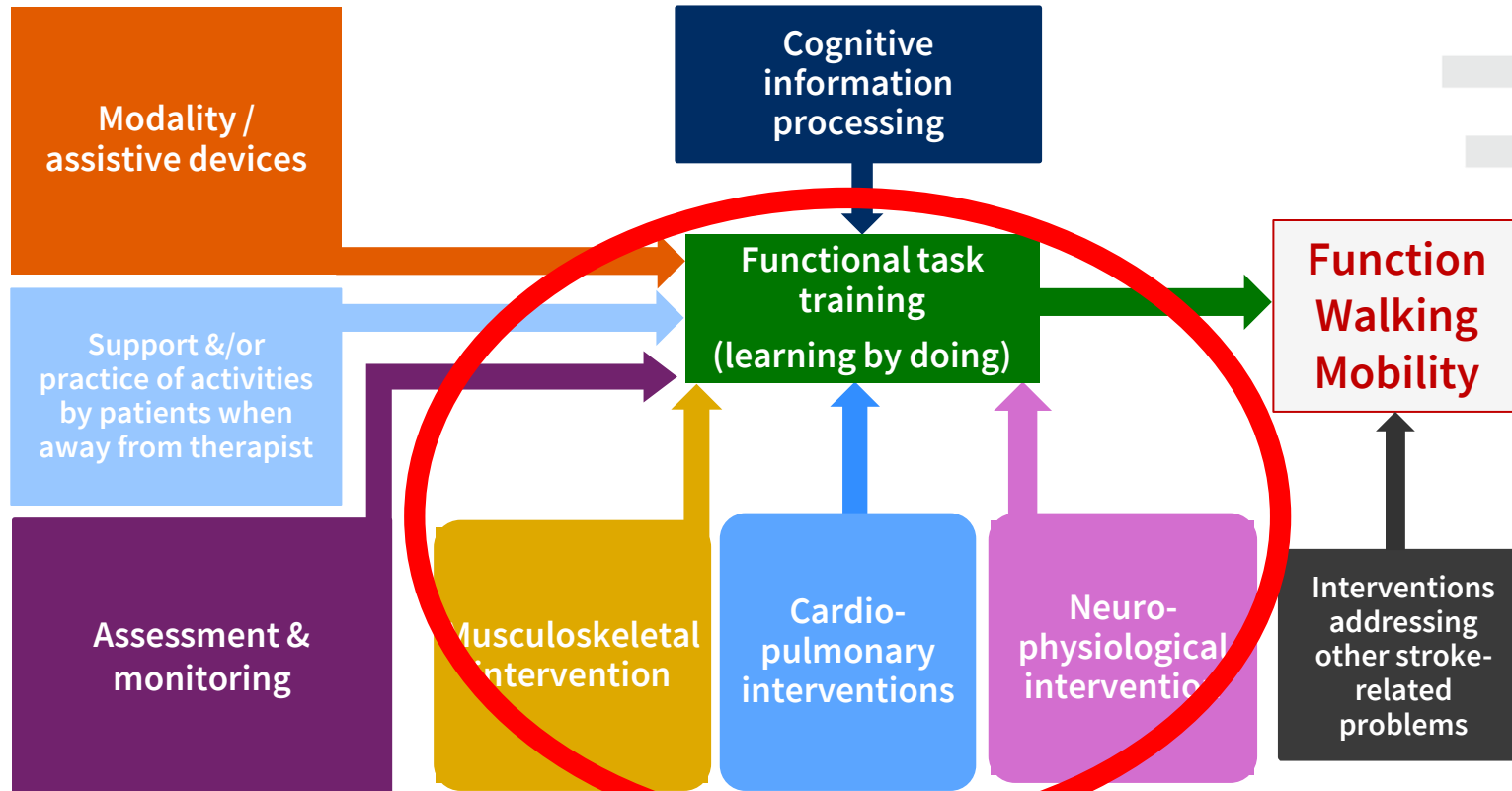
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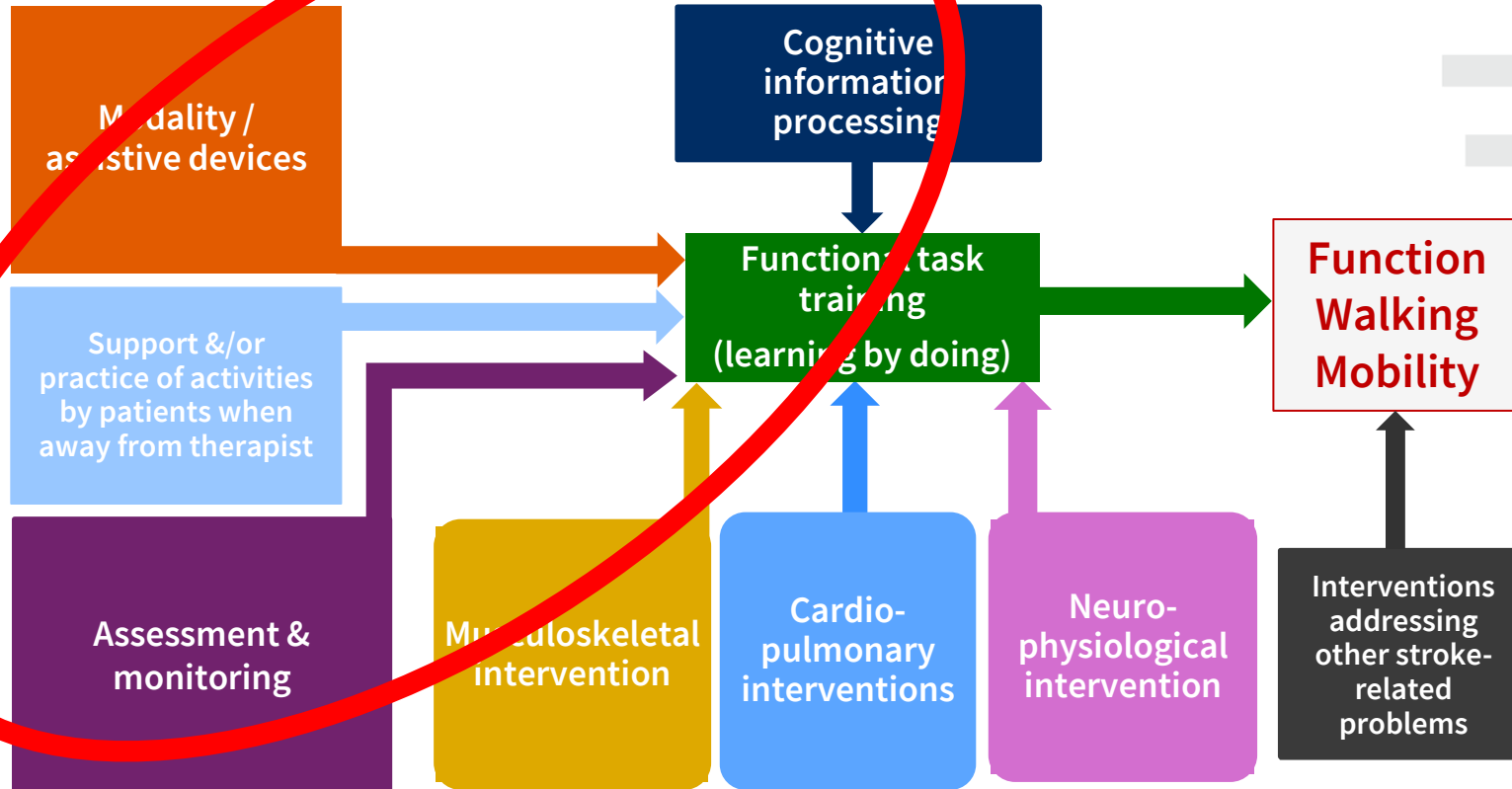
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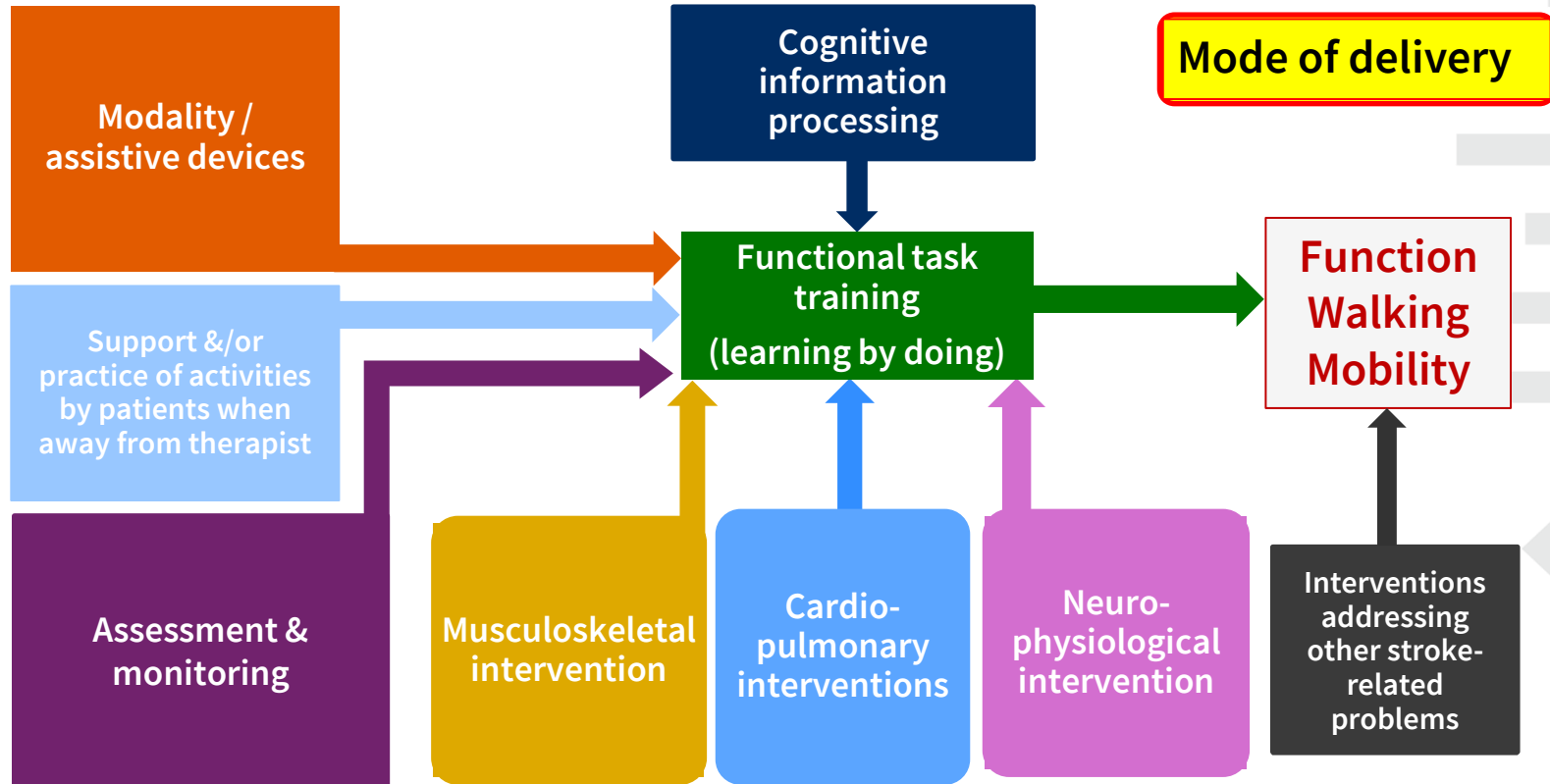
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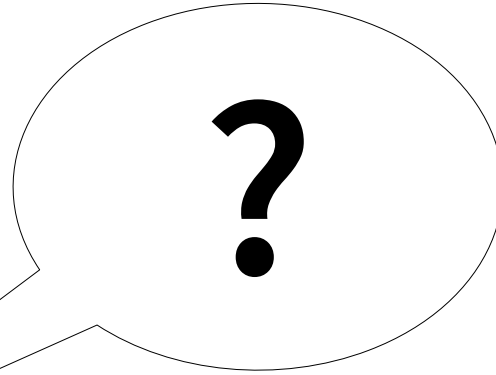




**Do you agree
that this model
makes sense?**



**Do you agree
that this model
appears
comprehensive?**



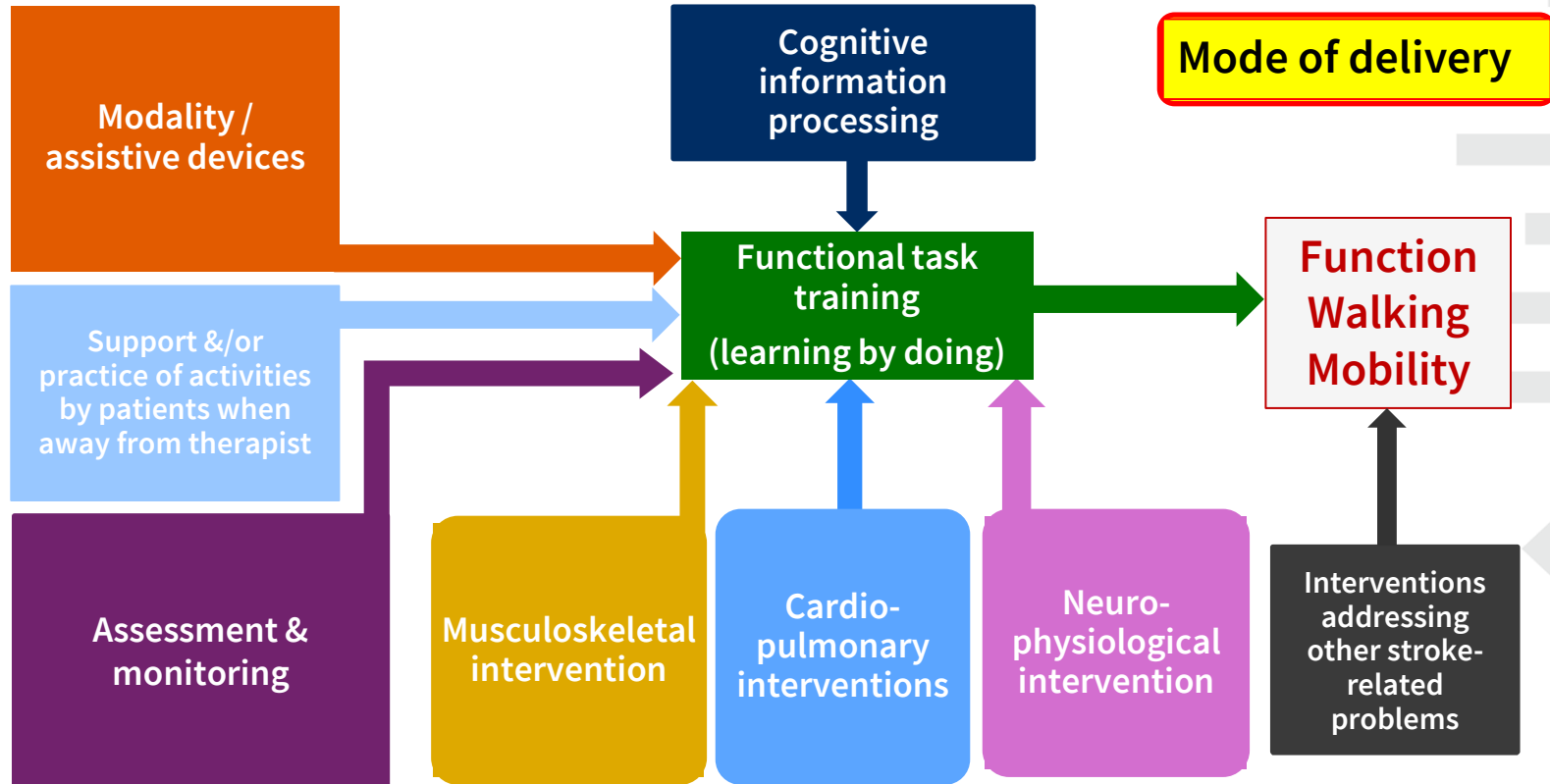
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EDINBURGH

Thank you for attending this webinar.

Are you pleased you joined this webinar?

**Please send additional comments to
alex.todhunterbrown@gcu.ac.uk**

**Trusted evidence.
Informed decisions.
Better health.**





Thanks for taking part

- **Ongoing support:**
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 - or send an e-mail to training@cochrane.org
- **Upcoming events:**
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- **Interested in joining Cochrane?**
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