

## Supplementary file 4. Delphi survey qualitative feedback

Feedback themes are presented alongside actions taken alongside statement progression

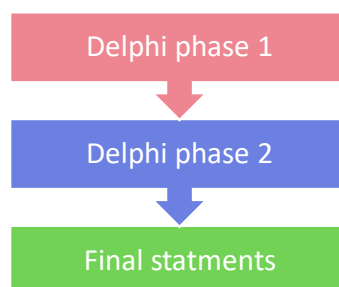
### General feedback

Theme	Actions taken
<i>Simplify wording &amp; frame messages more positively</i>	Messages reduced in length, statement wording simplified and standardised. Single sentence 'impact statements' added to headline statements to simplify messages and improve readability.
<i>Reduce medical language</i>	The use of 'patients' has been changed to 'people' or 'individuals'.  Medical language simplified, but since this is a medical statement and not aimed at the general public or fitness professionals some medical language remains where it has been felt to provide extra clarity.
<i>Remove the comment that there is 'no evidence' from several of the symptom statements</i>	Wording of symptom statements amended to better reflect the balance of evidence.
<i>Include more about benefits of physical activity in the symptom statements</i>	The benefits of physical activity are not the main focus of this paper, so are not emphasised in this consensus statement.

### Feedback on headline messages

Theme	Actions taken
<i>consider order of the messages: start with patient barriers, address these and then describe benefits/what can be offered by healthcare professionals</i>	this was not been changed, as consensus reached – however, bullet point headlines have added as suggested
<i>shorten headlines and then give further information in a paragraph underneath</i>	in response to overarching themes about safety considerations, we are now testing an additional 4th statement (see below) to directly address these concerns in the headline messages

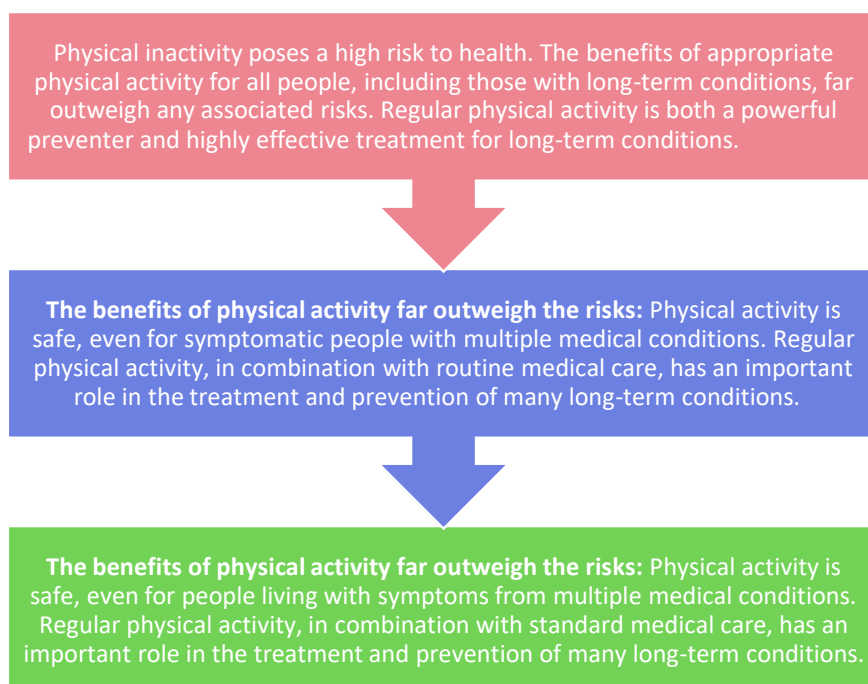
Evolution of each statement is subsequently presented in the following format:



## HEADLINE 1

	Feedback themes	Actions taken
Headline Message 1	this message reassures that physical activity is appropriate/beneficial to all	statement simplified to reflect feedback
	simplify language and use physical activity, rather than inactivity	mental health is not specifically included, as this is not commonly reported as a specific risk in physical activity interventions
	some long-term conditions may not be preventable, although physical activity can help in their management	
	include mental health	
	it is important to reassure healthcare professionals that physical activity in those with long-term conditions is not dangerous	
	message reinforces the importance of discussion about physical activity between healthcare providers & those with long-term conditions	

## Evolution of statement



## HEADLINE 2

	Feedback themes	Actions taken
Headline Message 2	clarify 'tolerance'	statement simplified
	it is important to emphasise that increase in physical activity should be gradual	'tolerance' removed
	simplify language	
	this is a very important message emphasise low risk of physical activity	

### Evolution of statement

There is a very low risk of serious adverse events when physical activity is gradually increased, according to tolerance, in symptomatic individuals with long-term conditions. This risk is mitigated by appropriate, well informed conversations between patients and their healthcare provider, and subsequently, where applicable, by patients and physical activity providers.

**The risk of serious adverse events is very low, but that's not how people feel:**

People with long-term conditions are often fearful of potential undesired consequences from physical activity. However, when physical activity levels are gradually increased, the risk of serious adverse events is very low indeed. Well informed, person-centred conversations with healthcare professionals can reassure people and further reduce this risk.

**The risk of serious adverse events is very low, but that's not how people feel:**

People with long-term conditions are often fearful of worsening their condition or experiencing potentially undesired consequences from physical activity. In fact, when physical activity levels are increased gradually, the risk of serious adverse events is very low. Well informed, person-centred conversations with healthcare professionals can reassure people and further reduce this risk.

### HEADLINE 3

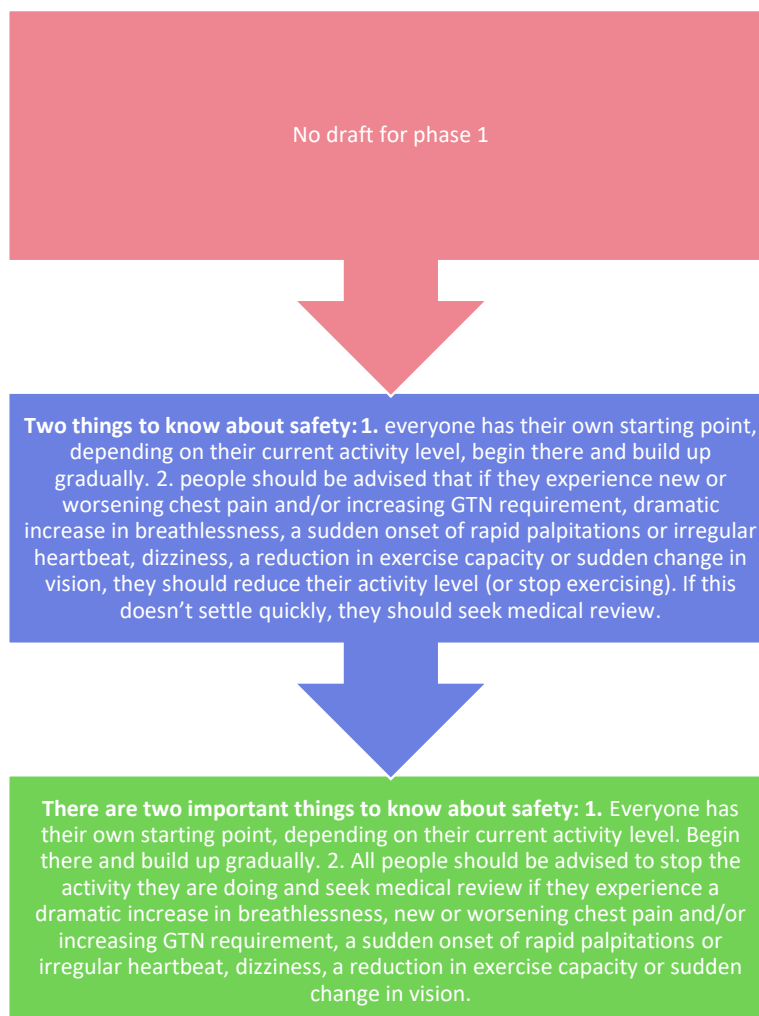
	Feedback themes	Actions taken
Headline 3	avoid use of 'non-compliance'	'non-compliance' removed
	simplify statement	message simplified
	a very important part of the overall message	
	important to emphasise the personalised/individualised aspects of conversations between healthcare professionals & individuals with long-term conditions	

### Evolution of statement



## HEADLINE 4

### Evolution of statement



## MUSCULOSKELETAL PAIN

	Feedback themes	Actions taken
Musculoskeletal Pain	consider bullet points/reduce length of statement	the statement has been adapted to reflect feedback, and simplified to negate the need for bullet points
	emphasise the potential short-term side effects such as increased pain	specific conditions are included in evidence summary
	reconsider use of 'no evidence'	
	Add in specific conditions such as arthritis, back pain, osteoarthritis	

### Evolution of statement



## FATIGUE

	Feedback themes	Actions taken
Fatigue	emphasise that physical activity can improve sleep, and evidence for reduced fatigue and improved wellbeing/psychological benefits specifically mention cancer-related fatigue & associated factors	cancer related fatigue is listed separately in the supporting evidence section but not separated in headline statement
	ME/CFS patients will feel strongly against this statement	specific reference is included in the supporting evidence about ME/CFS, suggesting that people are directed to specialist services for this group, as published literature is inconclusive

### Evolution of statement

There is no evidence to suggest that increasing physical activity causes increasing fatigue in the medium or long term in patients already suffering from fatigue. Some short-lived fatigue is common after increasing physical activity in all populations. Chances of significantly increased fatigue can be reduced by gradually increasing levels of activity.

Appropriate regular physical activity helps reduce fatigue and improves wellbeing and sleep. A temporary increase in fatigue is commonly experienced when starting a new physical activity, until the body adapts. People should be counselled to expect this and advised to build up activity gradually. People experiencing fatigue related to chronic fatigue syndromes may benefit from specialist advice.

Regular physical activity helps reduce fatigue and improves wellbeing and sleep. A temporary increase in fatigue is commonly experienced when starting a new physical activity, until the body adapts. People should be counselled to expect this and advised to build up activity gradually. People experiencing fatigue related to chronic fatigue syndromes may benefit from specialist advice.

## SHORTNESS OF BREATH

	Feedback themes	Actions taken
Shortness of Breath	patients should be advised to do what they can, rather than stop being physically active during an exacerbation or hospitalisation	specific disease recommendations have been included in supporting evidence – physical activity risk is sufficiently generic to maintain a symptom-based approach.
	reference the fear that people experience and the psychological impact	safety considerations are now addressed in Headline Statement 4
	distinguish between being physically active and doing physical activities	reference to recognising fear has been included in updated statement
	change 'no evidence' to 'balance of evidence' to improve credibility	the role of pulmonary rehabilitation has been referenced in the evidence statement, but is not within the scope of the symptom statement
	improve safety netting advice for this high-risk group	
	reference pulmonary rehabilitation	

### Evolution of statement

There is no evidence to suggest increased risk of adverse events in breathless patients undertaking physical activity programmes. Feeling more breathless than usual is normal with increased physical activity in both patients who are breathless at rest and those who are not. Physical activity should be recommended dependent on severity of symptoms and gradually increased according to tolerance. Patients should be counselled regarding concerning features such as chest pain or dizziness.

It is normal for all people to feel more breathless than usual when increasing their activity level. The balance of evidence suggests that the increased risk of adverse events in breathless people when doing physical activity is very low. People should be counselled individually to gradually increase physical activity, taking into account their severity of symptoms and fear of breathlessness.

It is normal for all people to feel more breathless when increasing their activity level. The balance of evidence suggests that the increased risk of adverse events in breathless people when doing physical activity is very low. People should be counselled individually to gradually increase physical activity, taking into account their severity of symptoms, and fear of breathlessness



## CARDIAC CHEST PAIN

	Feedback themes	Actions taken
Cardiac Chest Pain	quantify the risks of adverse events, including the temporary short-term increased risk during exercise	It is not possible to accurately quantify risk from available evidence regarding individuals with long term medical conditions – this will be highlighted as an area for future work
	make language more accessible	published incidence data on complications from exercise in individuals with known ischaemic heart disease is derived from supervised cardiac rehabilitation programmes, therefore not generalisable to the target population for this consensus statement, and has not been included
	clarify differences between physical activity and exercise	safety statement has been removed as it is now in headline statement 4

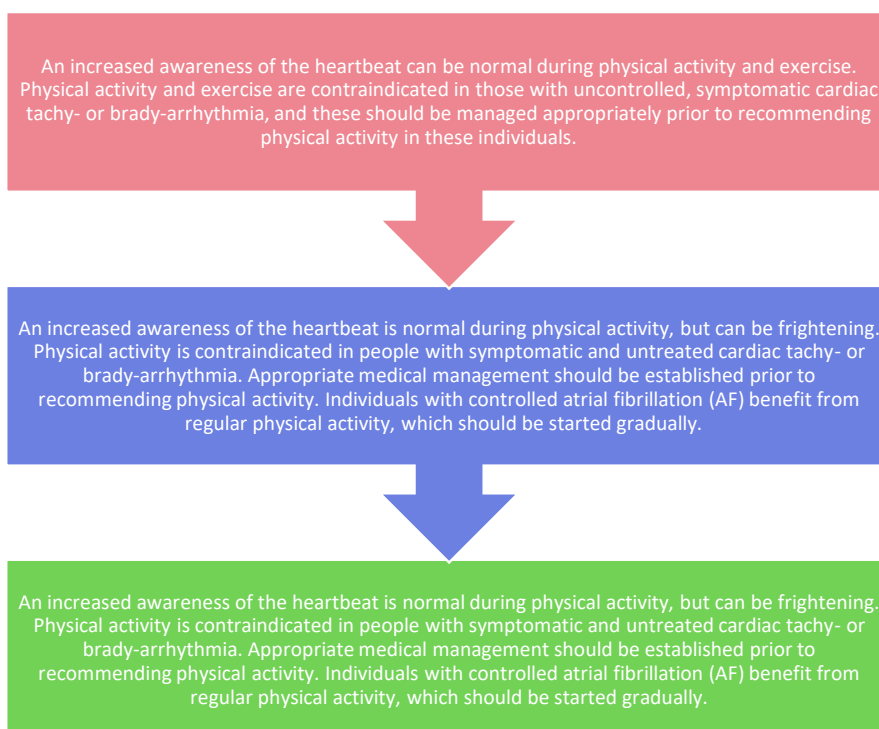
### Evolution of statement



## PALPITATIONS

	Feedback themes	Actions taken
Palpitations	mention new palpitations that occur during activity	comment about new palpitations has been added to Headline Statement 4
	refer to atrial fibrillation specifically	atrial fibrillation is directly addressed in statement and supporting documentation
	consider including other triggers for palpitations, such as anxiety and thyroid disease	

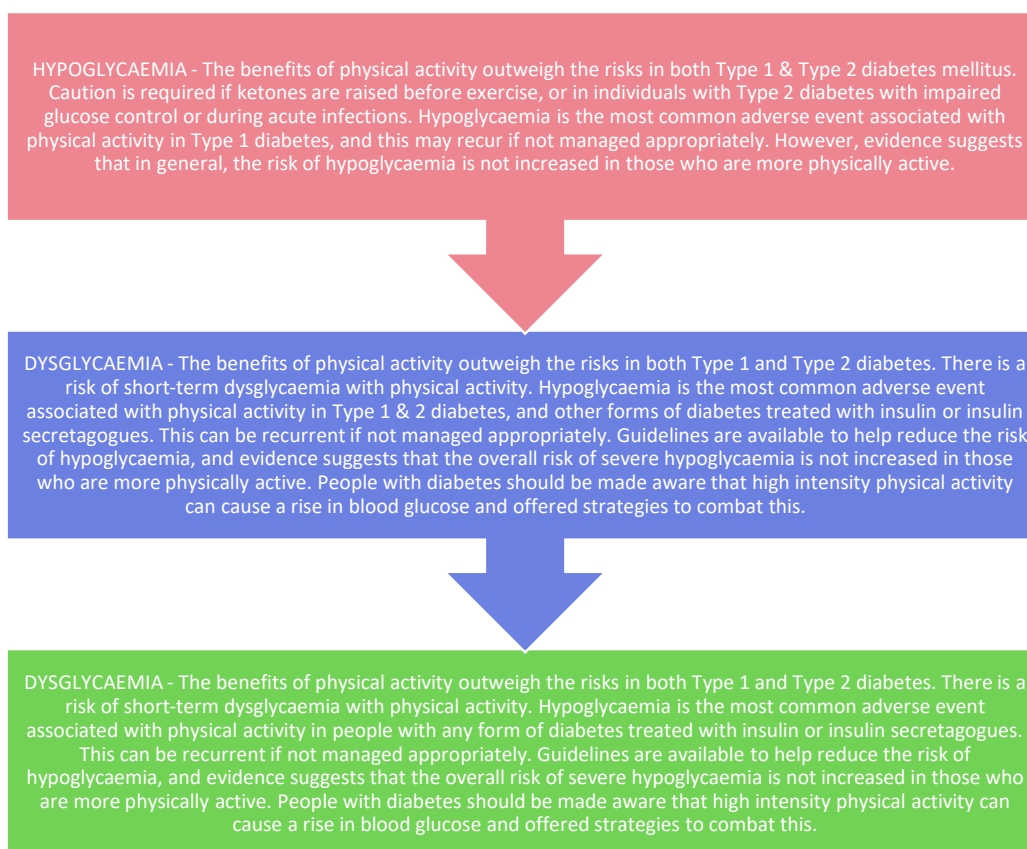
### Evolution of statement



## DYSGLYCAEMIA

	Feedback themes	Actions taken
Hypoglycaemia	emphasise the long-term benefits of physical activity, including for decreased medication use and improved glycaemic control	significant changes have been made to the content and structure of this statement, so it has been included in Phase 2 (despite meeting consensus agreement in Phase 1)
	consider renaming to 'dysglycaemia'	title of statement has been changed to dysglycaemia
	reconsider reference to ketones in the main symptom statement	references to ketones have been removed from the Symptom Statement (included in supporting evidence)
	intensity of exercise is important, particularly in young people	comment on intensity of exercise is outside of the scope of this consensus statement
	increased risk of hypoglycaemia in those over 45y - more care is needed in this group	specific risks have been addressed in the evidence statement
	include complications of diabetes such as foot ulcers	diabetic complications have not been included in the symptom statement but have been included in the supporting evidence statement

### Evolution of statement



## COGNITIVE IMPAIRMENT

	Feedback themes	Actions taken
Cognitive Impairment	emphasise available support	title of statement has been kept as 'cognitive impairment' as the statement is following a symptom-based approach and is not limited to dementia
	consider the range of possible impairments and comorbidities in this broad group	statement has been updated to reflect other feedback
	consider changing the name of the statement to 'dementia'	
	address environmental considerations	

### Evolution of statement

There is no evidence that physical activity may worsen cognitive impairment, and there are no general contraindications to recommendation of physical activity in this population. Strategies to maintain motivation, engagement and safety are important. Appropriate support is generally beneficial and physical activity should be individualised depending on level of function, communication ability, stage of disease and comorbidities. Individuals with cognitive impairment are at increased risk of falls and associated injury, and approaches to mitigate this should be considered.



The balance of evidence suggests that the benefits of physical activity in people with cognitive impairment far outweigh the associated risks. Strategies to maintain motivation, engagement and safety are important. These should be individualised, depending on level of function, stage of disease, communication ability (including visual and hearing impairment), preferred environment and other medical conditions. People with cognitive impairment have an increased risk of falling so support from others is often beneficial.



The benefits of physical activity in people with cognitive impairment far outweigh the associated risks. Strategies to maintain motivation, engagement and safety are important and people will often benefit from support from others. Strategies should take into account level of function, stage of disease, communication ability (including visual and hearing impairment), preferred environment, risk of falling and other medical conditions.

## FALLS AND FRAILITY

	Feedback themes	Actions taken
Falls & Frailty	a strong and positive statement	osteoporosis is now mentioned in the statement, and included in the supporting evidence
	include osteoporosis	wording updates have been amended as recommended
	change wording from 'the most' ('Frail, inactive patients have the most to gain...') as other groups also have a lot to gain from increasing physical activity levels	
	emphasise the importance of strength and balance	

### Evolution of statement

