## **Risk Assessment**

Overall assessment of the risk of harm or ill health after control measures have been implemented:	$\boxtimes$	LOW		
(Tick the highest risk indicated in the Risk column below)		MEDIUM		
		HIGH		
Other risk assessments and/or COSHH related to this activity: (include links to relevant risk assessments, including risk assessments provided by visitors)				

What are the hazards?	Who might be harmed and	Control Measures	Risk	Is any further action needed?
(What could cause	how?	(i.e., What has been implemented to reduce the	(See matrix	(i.e., controls to be implemented to reduce the risk
harm?)	(People types and types of injury)	likelihood and impact of harm?)	below)	further)
Dizziness or light- headedness in participants when practicing breathing	COPD patients	<ul> <li>Be reminded in the animated exercise video of the developed software to put a chair or other leaning items available nearby before conducting the intervention</li> <li>Be educated to immediately stop exercising and return to normal breathing when participants feel uncomfortable</li> <li>Highly clinically experienced nurse will provide timely guidance and response measures to participants via telephone during the trial</li> </ul>	Low	No

What are the hazards?	Who might be harmed and	Control Measures	Risk	Is any further action needed?
(What could cause	how?	(i.e., What has been implemented to reduce the	(See matrix	(i.e., controls to be implemented to reduce the risk
harm?)	(People types and types of injury)	likelihood and impact of harm?)	below)	further)
Data breach of confidentiality	Participants	<ul> <li>Individual accounts and passwords will be created to avoid data breach</li> <li>Participants' authentication account names on the developed platform will only be numbers determined based on the order of patient enrolment. Therefore, the real identity of the participant cannot be identified through the data on the participant's platform</li> </ul>	Low	No
Researcher safety	Researcher Houqiang Huang	All interactions with participants will be within the hospital in rooms where assistance will be available at all times should it be required. No meetings with participants will take place at times when the researcher is the sole individual in the hospital clinic environment. Safe and security staff in the hospital will be on standby during the face-to-face communication for Houqiang Huang with participants	Low	No

What are the hazards?	Who might be harmed and	Control Measures	Risk	Is any further action needed?
(What could cause	how?	(i.e., What has been implemented to reduce the	(See matrix	(i.e., controls to be implemented to reduce the risk
harm?)	(People types and types of injury)	likelihood and impact of harm?)	below)	further)
Risk of inappropriate	Participants	<ul> <li>Participants will be asked not to post comments</li> </ul>	Low	No
comments on the peer		containing personal data, medical		
support platform		recommendations, and negative comments.		
		<ul> <li>The high-performance Java sensitive word tool</li> </ul>		
		framework based on DFA (Deterministic Fine		
		Automation) algorithm will serve as a filter for		
		screening participant comments, and those		
		comments with inappropriate comments will be		
		automatically filtered out and will not be posted on		
		the platform.		
		<ul> <li>Houqiang Huang will monitor all comments, and</li> </ul>		
		those comments that have personal data, medical		
		recommendations, and negative comments will be		
		deleted.		
		The participant information sheet and consent forms		
		include information and request participant		
		agreement to conduct themselves responsibly on		
		the platform		

What are the hazards?	Who might be harmed and	Control Measures	Risk	Is any further action needed?
(What could cause	how?	(i.e., What has been implemented to reduce the	(See matrix	(i.e., controls to be implemented to reduce the risk
harm?)	(People types and types of injury)	likelihood and impact of harm?)	below)	further)
Risk of participants	Participants	Participants will be asked not to post comments	Low	No
personal information		containing personal information and should		
being shared by others on		respect the confidentiality of other participants by		
the peer support		not sharing any of the conversations on the		
platform		platform with others.		
		The high-performance Java sensitive word tool		
		framework based on DFA (Deterministic Fine		
		Automation) algorithm will serve as a filter for		
		screening comments containing personal		
		information such as telephone numbers, names,		
		and those comments with personal information		
		will be automatically filtered out and will not be		
		posted on the platform.		
		<ul> <li>Hougiang Huang will monitor all comments, and</li> </ul>		
		those comments that contain personal data will be		
		deleted.		
		The participant information sheet and consent forms		
		include information and request participant agreement		
		to conduct themselves responsibly on the platform		

		Severity			
incide	s the likelihood of the ent occurring and the cy of the consequence.	Harm or injury is trivial or minor (e.g., minor cut, bruises)	Harm or injury is moderate (e.g., injury or ill health requires time off work)	Harm or injury is substantial (e.g., hospital treatment, fatality)	
ırring	Unlikely/never happened before	LOW	LOW	MEDIUM	
ikelihood of occurring	Likely/possible/has happened before	LOW	MEDIUM	HIGH	
Likeli	More likely/near certain/happens often	MEDIUM	HIGH	HIGH	

Risk Rating	Action
LOW	No further action but ensure controls are maintained and reviewed
MEDIUM	Look to improve at next review or in specified timescale, or if there is a significant change
HIGH	Stop the activity and take immediate action to maintain existing controls rigorously