

Background

COVID-19 has had a devastating impact on people living in care homes. Almost half of all global COVID-19 deaths up to October 2020 occurred in care homes [1]. Alongside vaccination, current methods to prevent COVID-19 infection in care home residents and reduce transmission within care homes rely on infection control measures such as the use of isolation and visiting restrictions.

Developing effective interventions to prevent COVID-19 transmission in this vulnerable population is one of the current targets of urgent public health research. Pharmacological interventions, such as prophylactic treatments, are in the early stages of testing. However, selecting outcome measures can be complex in these trials due to the range of potential outcomes and uncertainty surrounding a novel disease. Poor choice of outcomes can limit the ability to meta-analyse between studies and leads to the use of outcomes that those affected do not consider to be the most important [2]. A core outcome set (COS) is a minimum set of outcomes to be measured in all trials in a particular condition. COS use can reduce heterogeneity of outcome reporting across trials [3].

Aim

Building on a previous COS for the evaluation of interventions to prevent COVID-19 in general populations [4], the aim of this study was to develop a context-specific COS for the prevention of COVID-19 in care homes.

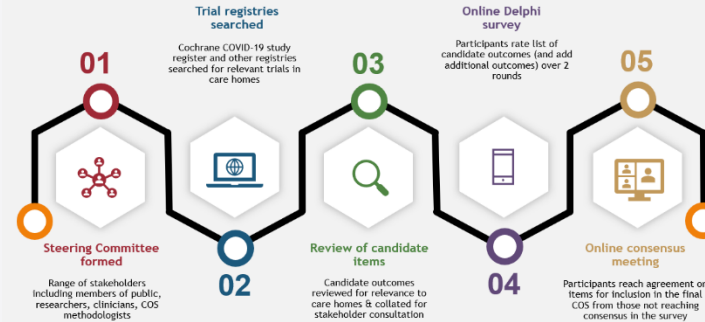
Methods

Due to the rapid development of strategies to prevent COVID-19, this COS used a rapid response approach. It was developed using established COS methodology [3] and was registered on the COMET (Core Outcome Measures in Effectiveness Trials) initiative database [5].

The process is shown in **Figure 1**. A list of candidate items was identified through a review of registered trials for the prevention of COVID-19 in care homes. Stakeholders were recruited, including researchers, clinicians, care home staff, and those with personal experience (e.g. relatives). They ranked the candidate items during two rounds of a Delphi survey, followed by an online consensus meeting to agree on the final COS (**Figure 2**).

Methods (cont'd)

Figure 1. COS development process



Results

Table 1. Participant characteristics

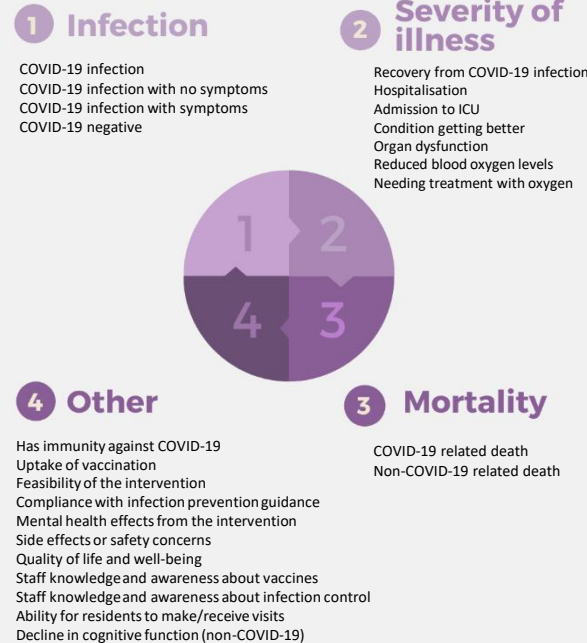
	Participant registered (n=70)	Participated in round 1 (n=64)*	Participated in round 2 (n=41) [†]
Stakeholder Group			
Care home provider or staff	19	15	11
Clinician or healthcare professional	20	19	9
Personal experience e.g. family member	7	7	6
Researcher	15	15	12
Other (e.g. in social care policy)	9	8	3 [‡]
Country			
England	37	32	17
Scotland	5	5	4
Wales	27	26	19
Other	1	1	1
Main group of interest			
Older people	53	50	33
Younger people with disabilities	1	0	1
More than one group	14	12	6
Other	2	2	1

* Participants in round 1 who provided incomplete data n=6

[†] Participants in round 2 who provided incomplete data n=2

[‡] One participant from the 'other' group identified as both a healthcare professional and having personal experience

Figure 2. Core outcome set



Conclusion

This project established the items to be included in a core outcome set (COS) for evaluating interventions to prevent transmission of COVID-19 in care homes. The majority (n=13) relate to clinical improvement and/or survival, with considerable overlap with items on the WHO ordinal scale for clinical improvement [6], with the remainder (n=11) considered to be intervention-specific.

There is considerable heterogeneity between care home settings, residents, and interventions. Therefore, there is considerable contextuality around the outcomes in these different contexts. In practice, prevention interventions may be used in combination e.g. vaccination may be supplemented with infection control measures and pharmacological interventions during an outbreak in a care home. Limitations include the challenges of engaging with care home staff and residents due to COVID-19 restrictions. These groups are under-represented as a result.

Future work should determine the most appropriate methods for measuring the outcomes included. The COS has implications for other infections in care homes and may inform the development of similar COS in future pandemics.

References

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For more information

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