National Institute for Health and Care Excellence

Safeguarding adults in care homes

[A] Indicators of abuse and neglect

NICE guideline NG189

Evidence reviews

February 2021

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Disclaimer

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or service users. The recommendations in this guideline are not mandatory and the guideline does not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Local commissioners and/or providers have a responsibility to enable the guideline to be applied when individual health professionals and their patients or service users wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with compliance with those duties.

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Contents

1 Indicators of abuse and neglect

2 Review questions

3 This evidence report contains information on 2 diagnostic reviews designed to identify 'signs
4 and symptoms' of abuse and neglect. The committee anticipated that relevant studies would
5 have an overlapping focus on abuse and neglect. For this reason, they agreed it would be
6 appropriate for the reviews to be analysed and reported together in a single evidence report.

7 The 2 review questions were:

8 • What indicators should alert people to abuse in care homes?

9 • What indicators should alert people to neglect in care homes?

10 Introduction

11 Recognising the indicators of abuse and neglect in care homes is important because they
12 may be different from indicators of abuse and neglect in other settings – such as in people's
13 own homes or in the community.

14 Abuse and neglect of adults in care homes can take many different forms and affect
15 residents in many different ways. Indicators that alert staff, residents and others to the
16 existence of abuse and neglect are diverse and may include not only direct disclosures but
17 also physical, behavioural, environmental and other markers. Local Safeguarding Adult
18 Boards normally include within their policy documents a section that outlines the 'signs and
19 symptoms' of abuse, but these vary from area to area. Nationally, SCIE has published a
20 useful overview called Safeguarding Adults: Types and indicators of abuse.

21 However, whilst the existing documents are useful, they do not focus specifically on
22 safeguarding adults in care homes. As a consequence, there is insufficient attention paid to
23 important issues – including the need to understand the separate aetiologies of individual
24 and organisational abuse, and the need to distinguish between neglect (omissions and
25 oversights on the part of carers) and self-neglect (extreme lack of self-care on the part of an
26 individual).

27 Summary of the protocol

28 Please see Table 1 and Table 2 for a summary of the Population, Indicators, Comparison
29 and Outcome (PICO) characteristics of this review.

30 **Table 1: Summary of the protocol (PICO table) – What indicators should alert people**
31 **to abuse in care homes?**

Population	Adults (aged over 18 years) accessing care and support in care homes
Indicators	Signs and symptoms of abuse (as defined by the Care Act 2014 and including organisational and individual abuse) within care homes. The review will be led by the signs and symptoms for which diagnostic accuracy data are located. Examples might include but will not be limited to: • Physical effects on the individual (such as bruising, weight changes, dehydration, malnutrition, sleep problems). • Emotional and psychological effects on the individual (such as behaviour changes, for example, withdrawal, mood changes, clinical depression, social isolation).

	• Effects on the care home environment (such as offensive odours, a lack of infection control measures, use of physical or chemical restraint, sharing or communal use of residents' personal items). • Effects on the performance of the care home (such as rates of emergency admission, the incidence of falls, financial mismanagement).
Comparison	The reference standard for identifying abuse cited in the included studies will be used, for example, the findings of a safeguarding review or a police report, which confirm abuse.
Outcomes	**Critical outcomes** • Sensitivity and specificity of signs and symptoms (as indicators of abuse). • Positive predictive value (of signs and symptoms). • Negative predictive value (of signs and symptoms). **Important outcomes** No important outcomes were identified by the guideline committee.

Table 2: Summary of the protocol (PICO table) – What indicators should alert people to neglect in care homes?

Population	Adults (aged over 18 years) accessing care and support in care homes.
Indicators	Signs and symptoms of neglect (as defined by the Care Act 2014 and including self-neglect) within care homes. The review will be led by the signs and symptoms for which diagnostic accuracy data are located. Examples might include but will not be limited to: • Physical effects on the individual (such as, weight changes, dehydration, malnutrition, dental caries, infection, skin damage, sleep problems, contractures, worsening of clinical frailty). • Emotional and psychological effects on the individual (such as behaviour changes, mood changes, clinical depression, social isolation/withdrawal, boredom). • Effects on the care home environment (such as offensive odours, a lack of infection control measures, sharing or communal use of residents' personal items). • Effects on the performance of the care home (such as rates of emergency admission, the incidence of falls, financial mismanagement).
Comparison	The reference standard for identifying neglect cited in the included studies will be used, for example, the findings of a safeguarding review or a police report, which confirm neglect.
Outcomes	**Critical outcomes** • Sensitivity and specificity of signs and symptoms (as indicators of neglect). • Positive predictive value (of signs and symptoms). • Negative predictive value (of signs and symptoms). **Important outcomes** No important outcomes were identified by the guideline committee.

For further details see the review protocol in appendix A.

1 Methods and process

2 This evidence review was developed using the methods and process described in
3 Developing NICE guidelines: the manual. Methods for this review question are described in
4 the review protocol in appendix A and the methods document.

5 Evidence

6 Included studies

7 A systematic review of the literature was conducted using a combined search but no studies
8 were identified which were applicable to these 2 review questions.

9 See the literature search strategy in appendix B and study selection flow chart in appendix C.

10 Excluded studies

11 Studies not included in this review with reasons for their exclusions are provided in appendix
12 K.

13 Summary of studies included in the evidence review

14 No studies were identified which were applicable to this review question (and so there are no
15 evidence tables in Appendix D). No meta-analysis was undertaken for this review (and so
16 there are no forest plots in Appendix E).

17 Quality assessment of outcomes included in the evidence review

18 No studies were identified which were applicable to this review question.

19 Economic evidence

20 Included studies

21 A systematic review of the economic literature was undertaken but no economic studies were
22 identified which were applicable to this review question.

23 Economic model

24 No economic modelling was undertaken for this review because the committee agreed that
25 the review question did not address decisions between competing courses of action.

26 The committee's discussion of the evidence

27 Interpreting the evidence

28 *The outcomes that matter most*

29 The protocols were designed to identify evidence in which the sensitivity and specificity, and
30 predictive values of discreet indicators was presented.

31 *The quality of the evidence*

32 No evidence was identified which met the criteria outlined in the protocols for review A. The
33 lack of evidence about the indicators of abuse and neglect in care homes prompted the
34 committee to discuss areas that need research to inform future guidelines. As a result of their
35 discussions, the committee identified self-neglect as a particularly important area for future

1   research. They therefore agreed to prioritise a research recommendation about identifying
2   the indicators that should alert people to self-neglect in care homes.

3   *Benefits and harms*

4   Because no evidence was identified for this review question, the committee agreed to look
5   for evidence about indicators of organisational abuse and individual abuse and neglect as
6   part of evidence review C: Tools to support recognition and reporting of safeguarding
7   concerns. Evidence review C used sector guidance (in the absence of research evidence)
8   and the committee were able to use this guidance to make recommendations that covered all
9   the signs and symptoms of abuse and neglect that had been identified as important in the
10   PICOs shown in table 1 and 2 for this review. The committee also agreed a number of
11   indicators using their own knowledge and experience about the identification of abuse and
12   neglect in care homes. The committee agreed it was particularly important to do this in the
13   area of organisational abuse as there was little guidance about indicators of this kind and
14   how to respond to them. As organisational level abuse is likely to affect a larger number of
15   residents the committee agreed that were significant potential harms resulting from failure to
16   recognise and respond to this type of abuse.

17   Details on how the sector guidance was used to write recommendations about potential
18   indicators of abuse and neglect and the committee's decision to draft number of consensus
19   recommendations can be found in evidence review C.

20   Because evidence about 'diagnosing' or 'identifying' abuse and neglect was presented in
21   review C, the committee therefore agreed that the absence of evidence in this review did not
22   in itself leave a 'gap' that warranted the need for a research recommendation. The exception
23   to this was the issue of identifying neglect, about which no data were reported in review C
24   either. The committee therefore made a research recommendation on this specific issue
25   (rather than on the broad question of 'diagnosing' or identifying abuse and neglect more
26   generally). This is described in appendix L.

27   **Cost-effectiveness and resource use**

28   Because no evidence was identified for this review question, the committee agreed to make
29   indicator recommendations based on evidence review C: Tools to support recognition and
30   reporting of safeguarding concerns, which used sector guidance as the basis for
31   recommendations, in the absence of research evidence. Considerations of cost effectiveness
32   and resource use are made in that evidence review.

1 Appendices

2 Appendix A – Review protocols

3 Review protocol for review question A: What indicators should alert people to abuse in care homes?

4 Table 3: Review protocol for indicators of abuse

ID	Field (based on PRISMA-P)	Content
0.	PROSPERO registration number	CRD42019128970
1.	Review title	Identification of abuse in care homes.
2.	Review question	What indicators should alert people to abuse in care homes?
3.	Objective	• To find out whether or not an adult in a care home is being abused or whether there is a possibility they are being abused. • To determine how well specific signs and 'symptoms' perform as indicators of abuse. This review will use the definition of abuse from the Care Act 2014, as set out in the guideline scope: • Physical abuse. • Domestic violence. • Sexual abuse. • Psychological abuse. • Financial or material abuse. • Modern slavery (such as forced labour). • Discriminatory abuse. • Organisational abuse.
4.	Searches	The following databases will be searched: • Cochrane Database of Systematic Reviews (CDSR) • Cochrane Central Register of Controlled Trials (CENTRAL) • MEDLINE & Medline in Process

ID	Field (based on PRISMA-P)	Content
		• Embase • ASSIA • IBSS • Social Policy and Practice • Social Services Abstracts • Sociological Abstracts. Searches will be restricted by: • date limit: 1990 onwards (see rationale under Section 10) • English language • human studies • diagnostic filter. Other searches: Additional searching may be undertaken if required (for example, reference or citation searching). With the agreement of the guideline committee the searches will be re-run 6 weeks before final submission of the review and further studies retrieved for inclusion. The full search strategies for MEDLINE database will be published in the final review.
5.	Condition or domain being studied	Abuse of adults in care homes.
6.	Population	Inclusion: Adults accessing care and support in care homes. Exclusion: The scope of the guideline is safeguarding adults in care homes. Therefore, people under 18 years of age who are visiting or accessing support in care homes are excluded.
7.	Intervention/Exposure/Test	Sign and symptoms of abuse (as defined by the Care Act 2014 and including organisational and individual abuse) within care homes. The review will be led by the signs and symptoms

ID	Field (based on PRISMA-P)	Content
		for which diagnostic accuracy data are located. Examples might include but will not be limited to: • Physical effects on the individual (such as bruising, weight changes, dehydration, malnutrition, sleep problems). • Emotional and psychological effects on the individual (such as behaviour changes, for example, withdrawal, mood changes, clinical depression, social isolation). • Effects on the care home environment (such as offensive odours, a lack of infection control measures, use of physical or chemical restraint, sharing or communal use of residents' personal items). • Effects on the performance of the care home (such as rates of emergency admission, the incidence of falls, financial mismanagement).
8.	Comparator/Reference standard/Confounding factors	The reference standard cited in the included studies will be used, for example, the findings of a safeguarding review or a police report, which confirm abuse.
9.	Types of study to be included	Studies of adults in care homes displaying certain signs or symptoms (or where signs have been identified in the care home's environment or performance) and which provide evidence of whether those people are actually experiencing abuse. • Cohort studies (prospective study designs will be prioritised over retrospective designs). • Cross-sectional studies. • systematic reviews and meta-analyses of these study types.
10.	Other exclusion criteria	A step-wise approach will be taken whereby studies conducted in the UK and high income countries (according to the World Bank) will be included on title and abstract and their full texts will be retrieved. If full text screening results in no UK data, then studies from high income countries will be included. Studies conducted in congregate care settings. Exclusion criteria:

ID	Field (based on PRISMA-P)	Content
		• Articles published before 1990. However, if a large volume of studies is located which were published after No Secrets guidance 2000, this will be discussed with the GC and a cut-off date of 2000 will be applied. • Conference abstracts will be excluded as they do not provide sufficient information to evaluate risk of bias/quality of study. • Non-English language articles.
11.	Context	No previous guidelines will be updated by this review question.
12.	Primary outcomes (critical outcomes)	We will extract the 2-by-2 tables from the studies where it is reported directly or calculate it from the reported data (for example, sensitivity, specificity, LR+, LR-) where possible in those studies that do not report the 2-by-2 data directly. From these data we will calculate and report: • Sensitivity and specificity of signs and symptoms (as indicators of abuse). • Positive predictive value (of signs and symptoms). • Negative predictive value (of signs and symptoms). Studies where we cannot extract or calculate the 2-by-2 table that report sensitivity and specificity and/or PPV and NPV will also be included.
13.	Secondary outcomes (important outcomes)	No secondary outcomes were identified by the GC.
14.	Data extraction (selection and coding)	Sifting, data extraction, appraisal of methodological quality and GRADE for DTA assessment will be performed by the systematic reviewer. Resolution of any disputes will be with the senior systematic reviewer and the Topic Advisor. Quality control will be performed by the senior systematic reviewer. Dual sifting will be undertaken for this question for a random 10% sample of the titles and abstracts identified by the search.
15.	Risk of bias (quality) assessment	The methodological quality of each study will be assessed using a preferred checklist. For full details please see section 6.2 of Developing NICE guidelines: the manual

ID	Field (based on PRISMA-P)	Content
16.	Strategy for data synthesis	If diagnostic accuracy measures are not reported but can be calculated, this will be done. Where 4 or more unbiased studies are included (for example, there is no suggestion that the estimates of accuracy are systematically incorrect) then diagnostic meta-analysis will be conducted using either the hierarchical summary ROC model (when multiple thresholds/different definitions of the presence of a given sign are used in the included studies) or the bivariate model (when the same threshold/definition of the presence of a sign is used in the included studies). Where fewer than 4 studies are included the univariate model will be conducted. We will calculate the PPVs and NPVs of the different signs and symptoms from the meta-analysed sensitivity and specificity estimates for different prevalences (low, medium, high) of abuse. These prevalence categories which will be determined from the literature (for example, by using the lowest, highest and median observed prevalences in the included studies) and/or in consultation with the GC. For a full description of methods see supplementary material A.
17.	Analysis of sub-groups	Subgroup analysis will be conducted wherever possible, for example if appropriate data are reported in relation to: • People with and without a dementia diagnosis. • Different age groups (younger adults and older old). • People with learning disabilities. • People with a 'high functioning' autistic spectrum condition. • Lesbian, gay, bi-sexual and transgender people. • People with severe physical disabilities. • People living in different types of care home (for example, with and without nursing care). • Care home residents and non-residents.
18.	Type and method of review	Diagnostic
19.	Language	English
20.	Country	England

ID	Field (based on PRISMA-P)	Content		
21.	Anticipated or actual start date	February 2019		
22.	Anticipated completion date	October 2020		
23.	Stage of review at time of this submission	Review stage	Started	Completed
		Preliminary searches	☐	☑
		Piloting of the study selection process	☐	☑
		Formal screening of search results against eligibility criteria	☐	☑
		Data extraction	☐	☑
		Risk of bias (quality) assessment	☐	☑
		Data analysis	☐	☑
24.	Named contact	**5a. Named contact** National Guideline Alliance **5b Named contact e-mail** SafeguardingAdults@nice.org.uk **5c Organisational affiliation of the review** National Institute for Health and Care Excellence (NICE) the National Guideline Alliance		
25.	Review team members	From the National Guideline Alliance: • Jennifer Francis [Technical lead] • Ted Barker [Technical analyst] • Fiona Whiter [Technical analyst] • Ifigeneia Mavranezouli [Health economist] • Elise Hasler [Information scientist]		
26.	Funding sources/sponsor	This systematic review is being completed by the National Guideline Alliance which receives funding from NICE.		

ID	Field (based on PRISMA-P)	Content
27.	Conflicts of interest	All guideline committee members and anyone who has direct input into NICE guidelines (including the evidence review team and expert witnesses) must declare any potential conflicts of interest in line with NICE's code of practice for declaring and dealing with conflicts of interest. Any relevant interests, or changes to interests, will also be declared publicly at the start of each guideline committee meeting. Before each meeting, any potential conflicts of interest will be considered by the guideline committee Chair and a senior member of the development team. Any decisions to exclude a person from all or part of a meeting will be documented. Any changes to a member's declaration of interests will be recorded in the minutes of the meeting. Declarations of interests will be published with the final guideline.
28.	Collaborators	Development of this systematic review will be overseen by an advisory committee who will use the review to inform the development of evidence-based recommendations in line with section 3 of Developing NICE guidelines: the manual. Members of the guideline committee are available on the NICE website: https://www.nice.org.uk/guidance/indevelopment/gid-ng10107
29.	Other registration details	
30.	Reference/URL for published protocol	https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42019128970
31.	Dissemination plans	NICE may use a range of different methods to raise awareness of the guideline. These include standard approaches such as: • Notifying registered stakeholders of publication. • Publicising the guideline through NICE's newsletter and alerts. • Issuing a press release or briefing as appropriate, posting news articles on the NICE website, using social media channels, and publicising the guideline within NICE.
32.	Keywords	[Not used]
33.	Details of existing review of same topic by same authors	
34.	Current review status	☐ Ongoing ☒ Completed but not published

ID	Field (based on PRISMA-P)	Content
		☐ Completed and published
		☐ Completed, published and being updated
		☐ Discontinued
35.	Additional information	[Provide any other information the review team feel is relevant to the registration of the review.]
36.	Details of final publication	www.nice.org.uk

1 CDSR: Cochrane Database of Systematic Reviews; CENTRAL: Cochrane Central Register of Controlled Trials; DARE: Database of Abstracts of Reviews of Effects; DTA:
2 diagnostic test accuracy; GC: guideline committee; HTA: Health Technology Assessment; LR: likelihood ratio; MID: minimally important difference; NGA: National Guideline
3 Alliance; NHS: National Health Service; NICE: National Institute for Health and Care Excellence; NPV: negative predictive value; PPV: positive predictive value; RCT:
4 randomised controlled trial; RoB: risk of bias; ROC: receiver operating characteristic; SD: standard deviation

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1   **Review protocol for review question A: What indicators should alert people to neglect in care homes?**

2   **Table 4: Review protocol for indicators of neglect**

ID	Field (based on PRISMA-P)	Content
0.	PROSPERO registration number	CRD42019128972
1.	Review title	Identification of neglect in care homes.
2.	Review question	What indicators should alert people to neglect in care homes?
3.	Objective	• To find out whether or not an adult in a care home is being neglected or whether there is a possibility they are being neglected. • To determine how well specific signs and 'symptoms' perform as indicators of neglect. This review will use the definition of neglect from the Care Act 2014, as set out in the guideline scope which includes neglect and acts of omission, including self-neglect and organisational neglect.
4.	Searches	The following databases will be searched: • Cochrane Database of Systematic Reviews (CDSR) • Cochrane Central Register of Controlled Trials (CENTRAL) • MEDLINE & Medline in Process • Embase • ASSIA • IBSS • Social Policy and Practice • Social Services Abstracts • Sociological Abstracts. Searches will be restricted by: • date limit: 1990 onwards (see rationale under Section 10) • English language • human studies

ID	Field (based on PRISMA-P)	Content
		• diagnostic filter. Other searches: Additional searching may be undertaken if required (for example, reference or citation searching). With the agreement of the guideline committee the searches will be re-run 6 weeks before final submission of the review and further studies retrieved for inclusion. The full search strategies for MEDLINE database will be published in the final review.
5.	Condition or domain being studied	Neglect of adults in care homes.
6.	Population	Inclusion: Adults accessing care and support in care homes. Exclusion: The scope of the guideline is safeguarding adults in care homes. Therefore, people under 18 years of age who are visiting or accessing support in care homes are excluded.
7.	Intervention/Exposure/Test	Sign and symptoms of neglect (as defined by the Care Act 2014 and including self-neglect) within care homes. The review will be led by the signs and symptoms for which diagnostic accuracy data are located. Examples might include but will not be limited to: • Physical effects on the individual (such as weight changes, dehydration, malnutrition, dental caries, infection skin damage, sleep problems, contractures, worsening of clinical frailty). • Emotional and psychological effects on the individual (such as behaviour changes, mood changes, clinical depression, social isolation/withdrawal, boredom). • Effects on the care home environment (such as offensive odours, a lack of infection control measures, sharing or communal use of residents' personal items). • Effects on the performance of the care home (such as rates of emergency admission, the incidence of falls, financial mismanagement).
8.	Comparator/Reference standard/Confounding factors	The reference standard cited in the included studies will be used, for example, the findings of a safeguarding review or a police report, which confirm neglect.

ID	Field (based on PRISMA-P)	Content
9.	Types of study to be included	Studies of adults in care homes displaying certain signs or symptoms (or where signs have been identified in the care home's environment or performance) and which provide evidence of whether those people are actually experiencing neglect. • Cohort studies (prospective study designs will be prioritised over retrospective designs). • Cross-sectional studies. • Systematic reviews and meta-analyses of these study types.
10.	Other exclusion criteria	A step-wise approach will be taken whereby studies conducted in the UK and high income countries (according to the World Bank) will included on title and abstract and their full texts will be retrieved. If full text screening results in no UK data then studies from high income countries will be included. Studies conducted in congregate care settings. Exclusion criteria: • Articles published before 1990. However, if a large volume of studies is located which were published after No Secrets guidance 2000, this will be discussed with the GC and a cut-off date of 2000 will be applied. • Conference abstracts will be excluded as they do not provide sufficient information to evaluate risk of bias/quality of study. • Non-English language articles.
11.	Context	No previous guidelines will be updated by this review question.
12.	Primary outcomes (critical outcomes)	We will extract the 2-by-2 tables from the studies where it is reported directly or calculate it from the reported data (for example, sensitivity, specificity, LR+, LR-) where possible in those studies that do not report the 2-by-2 data directly. From these data we will calculate and report: • Sensitivity and specificity of signs and symptoms (as indicators of neglect). • Positive predictive value (of signs and symptoms). • Negative predictive value (of signs and symptoms).

ID	Field (based on PRISMA-P)	Content
		Studies where we cannot extract or calculate the 2-by-2 table that report sensitivity and specificity and/or PPV and NPV will also be included.
13.	Secondary outcomes (important outcomes)	No secondary outcomes were identified by the GC.
14.	Data extraction (selection and coding)	Sifting, data extraction, appraisal of methodological quality and GRADE for DTA assessment will be performed by the systematic reviewer. Resolution of any disputes will be with the senior systematic reviewer and the Topic Advisor. Quality control will be performed by the senior systematic reviewer. Dual sifting will be undertaken for this question for a random 10% sample of the titles and abstracts identified by the search.
15.	Risk of bias (quality) assessment	The methodological quality of each study will be assessed using an appropriate checklist. For full details please see section 6.2 of Developing NICE guidelines: the manual •
16.	Strategy for data synthesis	If diagnostic accuracy measures are not reported but can be calculated, this will be done. Where 4 or more unbiased studies are included (for example, there is no suggestion that the estimates of accuracy are systematically incorrect) then diagnostic meta-analysis will be conducted using either the hierarchical summary ROC model (when multiple thresholds/different definitions of the presence of a given sign are used in the included studies) or the bivariate model (when the same threshold/definition of the presence of a sign is used in the included studies). Where fewer than 4 studies are included the univariate model will be conducted. We will calculate the PPVs and NPVs of the different signs and symptoms from the meta-analysed sensitivity and specificity estimates for different prevalences (low, medium, high) of abuse. These prevalence categories which will be determined from the literature (for example, by using the lowest, highest and median observed prevalences in the included studies) and/or in consultation with the GC. For a full description of methods see supplementary material A.

ID	Field (based on PRISMA-P)	Content		
17.	Analysis of sub-groups	Subgroup analysis will be conducted wherever possible, for example if appropriate data are reported in relation to: • People with and without a dementia diagnosis. • Different age groups (younger adults and older old). • People with learning disabilities. • People with a 'high functioning' autistic spectrum condition. • Lesbian, gay, bi-sexual and transgender people. • People with severe physical disabilities. • People living in different types of care home (for example, with and without nursing care). • Care home residents and non-residents.		
18.	Type and method of review	Diagnostic		
19.	Language	English		
20.	Country	England		
21.	Anticipated or actual start date	February 2019		
22.	Anticipated completion date	October 2020		
23.	Stage of review at time of this submission	Review stage	Started	Completed
		Preliminary searches	☐	☑
		Piloting of the study selection process	☐	☑
		Formal screening of search results against eligibility criteria	☐	☑
		Data extraction	☐	☑
		Risk of bias (quality) assessment	☐	☑

ID	Field (based on PRISMA-P)	Content		
		Data analysis	☐	☑
24.	Named contact	**5a. Named contact** National Guideline Alliance **5b Named contact e-mail** SafeguardingAdults@nice.org.uk **5c Organisational affiliation of the review** National Institute for Health and Care Excellence (NICE) the National Guideline Alliance		
25.	Review team members	From the National Guideline Alliance: • Jennifer Francis [Technical lead] • Ted Barker [Technical analyst] • Fiona Whiter [Technical analyst] • Ifigeneia Mavranezouli [Health economist] • Elise Hasler [Information scientist]		
26.	Funding sources/sponsor	This systematic review is being completed by the National Guideline Alliance which receives funding from NICE.		
27.	Conflicts of interest	All guideline committee members and anyone who has direct input into NICE guidelines (including the evidence review team and expert witnesses) must declare any potential conflicts of interest in line with NICE's code of practice for declaring and dealing with conflicts of interest. Any relevant interests, or changes to interests, will also be declared publicly at the start of each guideline committee meeting. Before each meeting, any potential conflicts of interest will be considered by the guideline committee Chair and a senior member of the development team. Any decisions to exclude a person from all or part of a meeting will be documented. Any changes to a member's declaration of interests will be recorded in the minutes of the meeting. Declarations of interests will be published with the final guideline.		
28.	Collaborators	Development of this systematic review will be overseen by an advisory committee who will use the review to inform the development of evidence-based recommendations in line with section 3 of Developing NICE guidelines: the manual. Members of the guideline committee are available on the NICE website: [NICE guideline webpage].		

ID	Field (based on PRISMA-P)	Content
29.	Other registration details	
30.	Reference/URL for published protocol	https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42019128972
31.	Dissemination plans	NICE may use a range of different methods to raise awareness of the guideline. These include standard approaches such as: • Notifying registered stakeholders of publication. • Publicising the guideline through NICE's newsletter and alerts. • Issuing a press release or briefing as appropriate, posting news articles on the NICE website, using social media channels, and publicising the guideline within NICE.
32.	Keywords	
33.	Details of existing review of same topic by same authors	[Give details of earlier versions of the systematic review if an update of an existing review is being registered, including full bibliographic reference if possible. NOTE: most NICE reviews will not constitute an update in PROSPERO language. To be an update it needs to be the same review question/search/methodology. If anything has changed it is a new review]
34.	Current review status	☐ Ongoing ☒ Completed but not published ☐ Completed and published ☐ Completed, published and being updated ☐ Discontinued
35.	Additional information	[Provide any other information the review team feel is relevant to the registration of the review.]
36.	Details of final publication	www.nice.org.uk

1 *CDSR: Cochrane Database of Systematic Reviews; CENTRAL: Cochrane Central Register of Controlled Trials; DARE: Database of Abstracts of Reviews of Effects; DTA:*
2 *diagnostic test accuracy; GC: guideline committee; HTA: Health Technology Assessment; LR: likelihood ratio; MID: minimally important difference; NGA: National Guideline*
3 *Alliance; NHS: National health service; NICE: National Institute for Health and Care Excellence; NPV: negative predictive value; NICE: National Institute for Health and Care*
4 *Excellence; PPV: positive predictive value; RCT: randomised controlled trial; RoB: risk of bias; ROC: receiver operating characteristic; SD: standard deviation*

Appendix B – Literature search strategies

Literature search strategies for review question A:

A combined search was conducted for the following 2 review questions:

- **What indicators should alert people to abuse in care homes?**

- **What indicators should alert people to neglect in care homes?**

Database: Medline & Embase (Multifile)
Last searched on **Embase Classic+Embase** 1947 to 2019 November 27, **Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily** 1946 to November 27, 2019
Date of last search: 2nd December 2019
Multifile database codes: emczd = Embase Classic+Embase; ppez= MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily

#	Searches
1	Physical Abuse/ use ppez
2	physical abuse/ use emczd
3	Restraint, Physical/ use ppez
4	*Violence/ use ppez
5	*violence/ use emczd
6	emotional abuse/ use emczd
7	Sex Offenses/ use ppez
8	Rape/ use ppez
9	sexual abuse/ use emczd
10	rape/ use emczd
11	neglect/ use emczd
12	Domestic Violence/ use ppez
13	domestic violence/ use emczd
14	Spouse Abuse/ use ppez
15	Intimate Partner Violence/ use ppez
16	partner violence/ use emczd
17	exp Human Rights Abuses/ use ppez
18	exp human rights abuse/ use emczd
19	self neglect/ use emczd
20	abuse/ use emczd
21	patient abuse/ use emczd
22	((physical$ or emotional$ or sexual$ or psychological$ or financial$ or organi?ational$ or institutional$ or discriminat$ or depriv$) adj abus$).ti,ab.
23	(domestic$ adj violen$).ti,ab.
24	(modern$ adj3 slave$).ti,ab.
25	(neglect or self-neglect or self neglect).ti,ab.
26	or/1-25
27	(*Aged/ or *"Aged, 80 and Over"/ or *Aging/ or *Geriatrics/) use ppez
28	(*Health Services for the Aged/ or *Homes for the Aged/) use ppez
29	(exp *aged/ or *aging/ or *geriatrics/) use emczd
30	exp *elderly care/ use emczd
31	exp *Dementia/ use ppez
32	exp *dementia/ use emczd
33	(dementia$ or alzheimer$).ti,ab.
34	*Vulnerable Populations/ use ppez
35	*vulnerable population/ use emczd
36	(vulnerable adj (adult$ or people$ or person$ or population$)).ti,ab.
37	*Disabled Persons/ use ppez
38	*disabled person/ use emczd
39	(disabl$ adj (adult$ or people$ or person$ or population$)).ti,ab.
40	*Intellectual Disability/ use ppez
41	*intellectual impairment/ use emczd
42	(intellectual adj (disabl$ or impair$)).ti,ab.
43	(*Cognition Disorders/ or *Cognitive Dysfunction/) use ppez

#	Searches
44	(*cognitive defect/ or *mild cognitive impairment/) use emczd
45	(cogniti$ adj (disorder$ or dysfunction$ or defect$ or impair$)).ti,ab.
46	*mental capacity/
47	((mental or cogniti$ or decision$ or reduce$) adj capacity).ti,ab.
48	(*Mentally Ill Persons/ or *Mental Health Services/ or *Hospitals, Psychiatric/) use ppez
49	(*mental patient/ or *mental health service/ or *mental hospital/) use emczd
50	((mental health or mental-health) adj (service* or setting* or facility*)).ti,ab.
51	*Mentally Disabled Persons/ use ppez
52	*mentally disabled person/ use emczd
53	((mentally-ill or mentally ill or mentally-disabl$ or mentally disabl$) adj (adult$ or people$ or person$ or population$)).ti,ab.
54	*Learning Disorders/ use ppez
55	*learning disorder/ use emczd
56	(learning adj (disabl$ or impair$ or disorder$)).ti,ab.
57	or/27-56
58	Elder Abuse/ use ppez
59	(elder abuse/ or elderly abuse/) use emczd
60	((elder$ or aged or old-age$ or older adult$ or old people$ or older people$ or geriatric$ or resident$) adj (abus$ or mistreat$ or neglect$ or self-neglect$)).mp.
61	((elder$ or aged or old-age$ or older adult$ or old people$ or older people$ or geriatric$ or resident$) adj3 (abus$ or mistreat$ or neglect$ or self-neglect$)).ti,ab.
62	58 or 59 or 60 or 61
63	*Long-Term Care/ use ppez
64	*long term care/ use emczd
65	((long term$ or long-term$) adj care).ti,ab.
66	Respite Care/ use ppez
67	respite care/ use emczd
68	(respite$ adj care).ti,ab.
69	institutional practice/ use ppez
70	institutional care/ use emczd
71	exp Nursing Homes/ use ppez
72	residential facilities/ use ppez
73	homes for the aged/ use ppez
74	Group Homes/ use ppez
75	(nursing adj home$1).tw.
76	(care adj home$1).tw.
77	((elderly or old age) adj2 home$1).tw.
78	((nursing or residential) adj (home$1 or facilit$)).tw.
79	(home$1 for the aged or home$1 for the elderly or home$1 for older adult$).tw.
80	residential aged care.tw.
81	("frail elderly" adj2 (facilit$ or home or homes)).tw.
82	(residential adj (care or facilit$ or setting$)).tw.
83	((long-term or long term) adj2 (facility or facilities)).tw.
84	or/63-83
85	26 and 57
86	26 and 84
87	62 or 85 or 86
88	exp "Sensitivity and Specificity"/ use ppez
89	"sensitivity and specificity"/ use emczd
90	"Predictive Value of Tests"/ use ppez
91	predictive value/ use emczd
92	(sensitivity or specificity).ti,ab.
93	((pre test or pretest or post test or posttest) adj probability).ti,ab.
94	(predictive value$ or PPV or NPV).ti,ab.
95	likelihood ratio$.ti,ab.
96	Likelihood Functions/ use ppez
97	statistical model/ use emczd
98	receiver operating characteristic/ use emczd
99	area under the curve/ use emczd
100	(ROC curve$ or AUC).ti,ab.
101	diagnos$.ti.
102	(diagnos* adj2 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).ti,ab.
103	gold standard.ab.
104	di.fs.
105	diagnostic accuracy/ use emczd
106	diagnostic test accuracy study/ use emczd
107	Mass Screening/ use ppez
108	screening/ use emczd
109	mass screening/ use emczd
110	screening.ti.

#	Searches
111	exp Risk/ use ppez
112	Odds Ratio/ use ppez
113	risk/ use emczd
114	risk assessment/ use emczd
115	risk factor/ use emczd
116	odds ratio/ use emczd
117	attributable risk/ use emczd
118	relative risk$.ti,ab.
119	odd$ ratio$.ti,ab.
120	risk$ differen$.ti,ab.
121	(sign or signs or symptom or symptoms or indicator$).ti.
122	or/88-121
123	87 and 122
124	(self-neglect or self neglect).ti,ab.
125	19 or 124
126	122 and 125
127	123 or 126
128	limit 127 to english language
129	limit 128 to yr="1990 -Current" General exclusions filter applied.

Database(s): Cochrane Library
Last searched on **Cochrane Database of Systematic Reviews**, Issue 12 of 12, Dec 2019,
Cochrane Central Register of Controlled Trials, Issue 12 of 12, Dec 2019
Date of last search: 2nd December 2019

#	Searches
#1	MeSH descriptor: [Physical Abuse] this term only
#2	MeSH descriptor: [Restraint, Physical] this term only
#3	MeSH descriptor: [Violence] this term only
#4	MeSH descriptor: [Sex Offenses] this term only
#5	MeSH descriptor: [Rape] this term only
#6	MeSH descriptor: [Domestic Violence] this term only
#7	MeSH descriptor: [Spouse Abuse] this term only
#8	MeSH descriptor: [Intimate Partner Violence] this term only
#9	MeSH descriptor: [Human Rights Abuses] explode all trees
#10	(((physical* or emotional* or sexual* or psychological* or financial* or organi?ational* or institutional* or discriminat* or depriv*) NEXT abus*)):ti,ab,kw
#11	((domestic* NEXT violen*)):ti,ab,kw
#12	((modern* NEAR/3 slave*)):ti,ab,kw
#13	((neglect or self-neglect or self neglect)):ti,ab,kw
#14	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13
#15	MeSH descriptor: [Aged] explode all trees
#16	MeSH descriptor: [Aged, 80 and over] this term only
#17	MeSH descriptor: [Aged] explode all trees
#18	MeSH descriptor: [Geriatrics] this term only
#19	MeSH descriptor: [Health Services for the Aged] this term only
#20	MeSH descriptor: [Homes for the Aged] this term only
#21	MeSH descriptor: [Dementia] explode all trees
#22	((dementia* or alzheimer*)):ti,ab,kw
#23	MeSH descriptor: [Vulnerable Populations] this term only
#24	((vulnerable NEXT (adult* or people* or person* or population*))):ti,ab,kw
#25	MeSH descriptor: [Disabled Persons] this term only
#26	((disabl* NEXT (adult* or people* or person* or population*))):ti,ab,kw
#27	MeSH descriptor: [Intellectual Disability] this term only
#28	((intellectual NEXT (disabl* or impair*))):ti,ab,kw
#29	MeSH descriptor: [Cognition Disorders] this term only
#30	MeSH descriptor: [Cognitive Dysfunction] this term only
#31	((cogniti* NEXT (disorder* or dysfunction* or defect* or impair*))):ti,ab,kw
#32	(((mental or cogniti* or decision* or reduce*) NEXT capacity)):ti,ab,kw
#33	MeSH descriptor: [Mentally Ill Persons] this term only
#34	MeSH descriptor: [Mental Health Services] this term only
#35	MeSH descriptor: [Hospitals, Psychiatric] this term only
#36	(((mental health or mental-health) NEXT (service* or setting* or facility*))):ti,ab,kw
#37	MeSH descriptor: [Mentally Disabled Persons] this term only
#38	(((mentally-ill or mentally ill or mentally-disabl* or mentally disabl*) NEXT (adult* or people* or person* or population*))):ti,ab,kw
#39	MeSH descriptor: [Learning Disorders] this term only
#40	((learning NEXT (disabl* or impair* or disorder*))):ti,ab,kw
#41	#15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40

Safeguarding adults in care homes: evidence reviews for indicators of abuse and neglect
FINAL (February 2021)

#	Searches
#42	#14 AND #41
#43	MeSH descriptor: [Long-Term Care] this term only
#44	(((long term* or long-term*) adj care)):ti,ab,kw
#45	MeSH descriptor: [Respite Care] this term only
#46	((respite* NEXT care)):ti,ab,kw
#47	MeSH descriptor: [Institutional Practice] this term only
#48	MeSH descriptor: [Nursing Homes] explode all trees
#49	MeSH descriptor: [Residential Facilities] explode all trees
#50	MeSH descriptor: [Group Homes] this term only
#51	((nursing NEXT home*)):ti,ab,kw
#52	((care NEXT home*)):ti,ab,kw
#53	(((elderly or old age) NEAR/2 home*)):ti,ab,kw
#54	(((nursing or residential) NEXT (home* or facilit*))):ti,ab,kw
#55	((home* for the aged or home* for the elderly or home* for older adult*)):ti,ab,kw
#56	(residential aged care):ti,ab,kw
#57	(("frail elderly" NEAR/2 (facilit* or home or homes))):ti,ab,kw
#58	((residential NEXT (care or facilit* or setting*))):ti,ab,kw
#59	(((long-term or long term) NEAR/2 (facility or facilities))):ti,ab,kw
#60	#43 or #44 or #45 or #46 or #47 or #48 or #49 or #50 or #51 or #52 or #53 or #54 or #55 or #56 or #57 or #58 or #59
#61	#14 AND #60
#62	#42 or #61
#63	MeSH descriptor: [Elder Abuse] this term only
#64	(((elder* or aged or old-age* or older adult* or old people* or older people* or geriatric* or resident*) NEAR/3 (abus* or mistreat* or neglect* or self-neglect*))):ti,ab,kw
#65	#62 or #63 or #64
#66	MeSH descriptor: [Sensitivity and Specificity] explode all trees
#67	MeSH descriptor: [Predictive Value of Tests] this term only
#68	((sensitivity or specificity)):ti,ab,kw
#69	(((pre test or pretest or post test or posttest) NEXT probability)):ti,ab,kw
#70	((predictive value* or PPV or NPV)):ti,ab,kw
#71	(likelihood ratio*):ti,ab,kw
#72	MeSH descriptor: [Likelihood Functions] this term only
#73	((ROC curve* or AUC)):ti,ab,kw
#74	(diagnos*):ti
#75	((diagnos* NEAR/2 (performance* or accurac* or utilit* or value* or efficien* or effectiveness))):ti
#76	(gold standard):ab
#77	MeSH descriptor: [Mass Screening] this term only
#78	(screening):ti
#79	MeSH descriptor: [Risk] explode all trees
#80	MeSH descriptor: [Odds Ratio] this term only
#81	(relative risk*):ti,ab,kw
#82	(odd$ ratio*):ti,ab,kw
#83	(risk* differen*):ti,ab,kw
#84	((sign or signs or symptom or symptoms or indicator*)):ti
#85	#66 or #67 or #68 or #69 or #70 or #71 or #72 or #73 or #74 or #75 or #76 or #77 or #78 or #79 or #80 or #81 or #82 or #83 or #84
#86	#65 AND #85 Publication Year from 1990 to current

Database: Cinahl Plus

Date of last search: 2nd December 2019

#	Searches
S87	S86 Limiters - Publication Year: 1990-2020; English Language
S86	S40 OR S64 OR S83 OR S85
S85	S39 AND S84
S84	TI (self neglect or self-neglect*)
S83	S41 AND S82
S82	S65 OR S66 OR S67 OR S68 OR S69 OR S70 OR S71 OR S72 OR S73 OR S74 OR S75 OR S76 OR S77 OR S78 OR S79 OR S80 OR S81
S81	TI ((long-term or long term) N2 (facility or facilities)) OR AB ((long-term or long term) N2 (facility or facilities))
S80	TI (residential N1 (care or facilit* or setting*)) OR AB (residential N1 (care or facilit* or setting*))
S79	TI ("frail elderly" N2 (facilit* or home or homes)) OR AB ("frail elderly" N2 (facilit* or home or homes))
S78	TI residential aged care OR AB residential aged care
S77	TI (home* for the aged or home* for the elderly or home* for older adult*) OR AB (home* for the aged or home* for the elderly or home* for older adult*)
S76	TI ((nursing or residential) N1 (home* or facilit*)) OR AB ((nursing or residential) N1 (home* or facilit*))
S75	TI ((elderly or old age) N2 home*) OR AB ((elderly or old age) N2 home*)
S74	TI (care N1 home*) OR AB (care N1 home*)
S73	TI (nursing N1 home*) OR AB (nursing N1 home*)
S72	(MH "Housing for the Elderly")

#	Searches
S71	(MH "Residential Facilities")
S70	(MH "Nursing Homes+")
S69	(MM "Institutionalization")
S68	TI (respite* N1 care) OR AB (respite* N1 care)
S67	(MH "Respite Care")
S66	TI ((long term* or long-term*) N1 care) OR AB ((long term* or long-term*) N1 care)
S65	(MM "Long Term Care")
S64	S41 AND S63
S63	S42 OR S43 OR S44 OR S45 OR S46 OR S47 OR S48 OR S49 OR S50 OR S51 OR S52 OR S53 OR S54 OR S55 OR S56 OR S57 OR S58 OR S59 OR S60 OR S61 OR S62
S62	TI (learning N1 (disabl* or impair* or disorder*)) OR AB (learning N1 (disabl* or impair* or disorder*))
S61	(MM "Learning Disorders")
S60	TI ((mental health or mental-health) N1 (service* or setting* or facility*)) OR AB ((mental health or mental-health) N1 (service* or setting* or facility*))
S59	(MM "Hospitals, Psychiatric")
S58	(MM "Mental Health Services")
S57	TI ((mentally-ill or mentally ill or mentally-disabl* or mentally disabl*) N1 (adult* or people* or person* or population*)) OR AB ((mentally-ill or mentally ill or mentally-disabl* or mentally disabl*) N1 (adult* or people* or person* or population*))
S56	(MM "Mentally Disabled Persons")
S55	TI ((mental or cogniti* or decision* or reduce*) N1 capacity) OR AB ((mental or cogniti* or decision* or reduce*) N1 capacity)
S54	TI (cogniti* N1 (disorder* or dysfunction* or defect* or impair*)) OR AB (cogniti* N1 (disorder* or dysfunction* or defect* or impair*))
S53	(MM "Cognition Disorders")
S52	TI (intellectual N1 (disabl* or impair*)) OR AB (intellectual N1 (disabl* or impair*))
S51	(MM "Intellectual Disability")
S50	TI (disabl* N1 (adult* or people* or person* or population*)) OR AB (disabl* N1 (adult* or people* or person* or population*))
S49	(MM "Mentally Disabled Persons")
S48	TI (vulnerable N1 (adult* or people* or person* or population*)) OR AB (vulnerable N1 (adult* or people* or person* or population*))
S47	(MM "Special Populations")
S46	TI (dementia* or alzheimer*) OR AB (dementia* or alzheimer*)
S45	(MM "Dementia") OR (MM "Alzheimer's Disease")
S44	(MM "Geriatrics")
S43	(MM "Aging")
S42	(MM "Aged") OR (MM "Aged, 80 and Over") OR (MM "Health Services for the Aged") OR (MM "Housing for the Elderly") OR (MM "Aged, Hospitalized") OR (MM "Gerontologic Nursing") OR (MM "Gerontologic Care")
S41	S14 AND S39
S40	S17 AND S39
S39	S18 OR S19 OR S20 OR S21 OR S22 OR S23 OR S24 OR S25 OR S26 OR S27 OR S28 OR S29 OR S30 OR S31 OR S32 OR S33 OR S34 OR S35 OR S36 OR S37 OR S38
S38	TI (sign or signs or symptom or symptoms or indicator*)
S37	TI risk* differen* OR AB risk* differen*
S36	TI odd* ratio* OR AB odd* ratio*
S35	TI relative risk* OR AB relative risk*
S34	(MH "Attributable Risk")
S33	(MH "Risk Factors")
S32	(MH "Risk Assessment")
S31	(MH "Odds Ratio")
S30	TI screening
S29	AB gold standard
S28	TI (diagnos* N2 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)) OR AB (diagnos* N2 (performance* or accurac* or utilit* or value* or efficien* or effectiveness))
S27	TI diagnos*
S26	TI (ROC curve* or AUC) OR AB (ROC curve* or AUC)
S25	(MH "ROC Curve")
S24	(MH "Models, Statistical")
S23	TI likelihood ratio* OR AB likelihood ratio*
S22	TI (predictive value* or PPV or NPV) OR AB (predictive value* or PPV or NPV)
S21	TI ((pre test or pretest or post test or posttest) N1 probability) OR AB ((pre test or pretest or post test or posttest) N1 probability)
S20	TI (sensitivity or specificity) OR AB (sensitivity or specificity)
S19	(MH "Predictive Value of Tests")
S18	(MH "Sensitivity and Specificity")
S17	S15 OR S16
S16	TI ((elder* or aged or old-age* or older adult* or old people* or older people* or geriatric* or resident*) N3 (abus* or mistreat* or neglect* or self-neglect*)) OR AB ((elder* or aged or old-age* or older adult* or old people* or older people* or geriatric* or resident*) N3 (abus* or mistreat* or neglect* or self-neglect*))
S15	(MH "Elder Abuse")

#	Searches
S14	S1 OR S2 OR S3 OR S4 OR S5 OR S6 OR S7 OR S8 OR S9 OR S10 OR S11 OR S12 OR S13
S13	TI (neglect or self-neglect or self neglect) OR AB (neglect or self-neglect or self neglect)
S12	TI (modern* N3 slave*) OR AB (modern* N3 slave*)
S11	TI (domestic* N1 violen*) OR AB (domestic* N1 violen*)
S10	TI ((physical* or emotional* or sexual* or psychological* or financial* or organi?ational* or institutional* or discriminat* or depriv*) N1 abus*) OR AB ((physical* or emotional* or sexual* or psychological* or financial* or organi?ational* or institutional* or discriminat* or depriv*) N1 abus*)
S9	(MH "Patient Abuse")
S8	(MH "Human Trafficking")
S7	(MH "Intimate Partner Violence")
S6	(MH "Domestic Violence")
S5	(MH "Neglect (Omaha)") OR (MH "Self Neglect")
S4	(MH "Rape")
S3	(MH "Sexual Abuse")
S2	(MH "Restraint, Physical")
S1	(MM "Violence")

Database(s): Social Policy and Practice, **PsycINFO** 1806 to Dec Week 1 2019
Date of last search: 2nd December 2019

#	Searches
1	(sensitivity or specificity).mp.
2	((pre test or pretest or post test or posttest) adj probability).mp.
3	(predictive value$ or PPV or NPV).mp.
4	likelihood ratio$.mp.
5	(ROC curve$ or AUC).mp.
6	diagnos$.ti.
7	(diagnos* adj2 (performance* or accurac* or utilit* or value* or efficien* or effectiveness)).mp.
8	gold standard.ab.
9	screening.ti.
10	relative risk$.mp.
11	odd$ ratio$.mp.
12	risk$ differen$.mp.
13	(sign or signs or symptom or symptoms or indicator$).ti.
14	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13
15	((physical$ or emotional$ or sexual$ or psychological$ or financial$ or organi?ational$ or institutional$ or discriminat$ or depriv$) adj abus$).mp.
16	(neglect or self-neglect or self neglect).mp.
17	15 or 16
18	((domestic$ or partner$) adj violen$).mp.
19	(modern$ adj3 slave$).mp.
20	((elder$ or aged or old-age$ or older adult$ or old people$ or older people$ or geriatric$ or resident$) adj (abus$ or mistreat$ or neglect$ or self-neglect$)).mp.
21	((elder$ or aged or old-age$ or older adult$ or old people$ or older people$ or geriatric$ or resident$) adj3 (abus$ or mistreat$ or neglect$ or self-neglect$)).ti,ab.
22	18 or 19 or 20 or 21
23	(adult$ or women or men).mp.
24	(dementia$ or alzheimer$).mp.
25	((vulnerable or disabl$ or mentally-ill or mentally ill or mentally-disabl$ or mentally disabl$) adj (adult$ or people$ or person$ or population$)).mp.
26	(intellectual adj (disabl$ or impair$)).mp.
27	(cogniti$ adj (disorder$ or dysfunction$ or defect$ or impair$)).mp.
28	((mental or cogniti$ or decision$ or reduce$) adj capacity).mp.
29	(learning adj (disabl$ or impair$ or disorder$)).mp.
30	((long term$ or long-term$) adj care).mp.
31	(respite$ adj care).mp.
32	(nursing adj home$1).mp.
33	(care adj home$1).mp.
34	((elderly or old age) adj2 home$1).mp.
35	((nursing or residential) adj (home$1 or facilit$)).mp.
36	(home$1 for the aged or home$1 for the elderly or home$1 for older adult$).mp.
37	residential aged care.mp.
38	("frail elderly" adj2 (facilit$ or home or homes)).mp.
39	(residential adj (care or facilit$ or setting$)).mp.
40	((long-term or long term) adj2 (facility or facilities)).mp.
41	((mental health or mental-health) adj (service$ or setting$ or facility$)).mp.
42	23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41
43	14 and 17 and 42
44	14 and 22
45	43 or 44
46	limit 45 to yr="1990 -Current"

Databases ASSIA, IBSS, Social Services Abstracts and Sociological Abstracts were also searched
Date of last search: 2nd December 2019

Economics Search

Database(s): Medline & Embase (Multifile)
Embase Classic+Embase 1947 to 2019 December 03, **Ovid MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily** 1946 to December 03, 2019
Date of last search: 4th December 2019
Multifile database codes: emczd = Embase Classic+Embase; ppez= MEDLINE(R) and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Daily

#	Searches
1	*Long-Term Care/ use ppez
2	*long term care/ use emczd
3	((long term$ or long-term$) adj care).tw.
4	Respite Care/ use ppez
5	respite care/ use emczd
6	(respite$ adj care).tw.
7	institutional practice/ use ppez
8	institutional care/ use emczd
9	exp Nursing Homes/ use ppez
10	Group Homes/ use ppez
11	nursing home/ use emczd
12	residential facilities/ use ppez
13	residential home/ use emczd
14	homes for the aged/ use ppez
15	home for the aged/ use emczd
16	(nursing adj home$1).tw.
17	(care adj home$1).tw.
18	((elderly or old age) adj2 home$1).tw.
19	((nursing or residential) adj (home$1 or facilit$)).tw.
20	(home$1 for the aged or home$1 for the elderly or home$1 for older adult$).tw.
21	residential aged care.tw.
22	("frail elderly" adj2 (facilit$ or home or homes)).tw.
23	(residential adj (care or facilit$ or institution$ or setting$ or service$ or provider$)).tw.
24	((long-term or long term) adj2 (facility or facilities)).tw.
25	((mental health or mental-health) adj (facilit$ or institution$ or setting$ or service$)).tw.
26	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25
27	Physical Abuse/ use ppez
28	physical abuse/ use emczd
29	Restraint, Physical/ use ppez
30	*Violence/ use ppez
31	*violence/ use emczd
32	emotional abuse/ use emczd
33	Sex Offenses/ use ppez
34	Rape/ use ppez
35	sexual abuse/ use emczd
36	rape/ use emczd
37	neglect/ use emczd
38	Domestic Violence/ use ppez
39	domestic violence/ use emczd
40	Spouse Abuse/ use ppez
41	Intimate Partner Violence/ use ppez
42	partner violence/ use emczd
43	exp Human Rights Abuses/ use ppez
44	exp human rights abuse/ use emczd
45	self neglect/ use emczd
46	abuse/ use emczd
47	patient abuse/ use emczd
48	((physical$ or emotional$ or sexual$ or psychological$ or financial$ or organi?tional$ or institutional$ or discriminat$ or depriv$) adj abus$).tw.
49	(domestic$ adj violen$).tw.
50	(modern$ adj3 slave$).tw.

#	Searches
51	(neglect or self-neglect or self neglect).tw.
52	((significant$ or persistent$ or deliberat$ or inflict$ or unexplained or non-accident$ or nonaccident$ or non-natural$) adj (injur$ or trauma$)).tw.
53	(safeguard$ or safe-guard$ or safe guard$).mp.
54	27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53
55	Elder Abuse/ use ppez
56	(elder abuse/ or elderly abuse/) use emczd
57	((elder$ or aged or old-age$ or older adult$ or old people$ or older people$ or geriatric$ or resident$) adj (abus$ or mistreat$ or neglect$ or self-neglect$)).mp.
58	((elder$ or aged or old-age$ or older adult$ or old people$ or older people$ or geriatric$ or resident$) adj3 (abus$ or mistreat$ or neglect$ or self-neglect$)).tw.
59	(adult$ social$ care$ or adult$ protective$ service$ or elder$ protective$ service$).mp.
60	(adult$ adj3 (safeguard$ or safe-guard$ or safe guard$ or protection$)).mp.
61	((vulnerable$ adult$ or vulnerable people$ or incompetent$ or incapacitat$ or older adult$ or older people$) adj3 protect$).mp.
62	((abuse$ or neglect$ or self-neglect$ or violen$ or safeguard$) adj5 (dementia$ or alzheimer$ or learning disab$ or learning impair$ or learning disorder$ or intellectual disab$ or intellectual impair$ or mentally-ill or mentally ill or mentally-disabl$ or mentally disabl$ or disabl$ adult$ or disabl$ people$ or disabl$ person$ or disabl$ population$)).tw.
63	(family adj violence$).tw,kw.
64	55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63
65	(elderly or old age or aged or older adult$ or frail or vulnerabl$ or mental health or mental-health or residential or institution$ or respite$ or long term$ or long-term$ or nursing home$1 or care home$1 or home care$).m_titl.
66	(abuse$ or restrain$ or violen$ or rape or neglect$ or selfneglect$ or self-neglect$ or slave$ or safeguard$ or safe-guard$ or mistreat$ or protect$ or harm$).m_titl.
67	Economics/ use ppez
68	Value of life/ use ppez
69	exp "Costs and Cost Analysis"/ use ppez
70	exp Economics, Hospital/ use ppez
71	exp Economics, Medical/ use ppez
72	Economics, Nursing/ use ppez
73	Economics, Pharmaceutical/ use ppez
74	exp "Fees and Charges"/ use ppez
75	exp Budgets/ use ppez
76	health economics/ use emczd
77	exp economic evaluation/ use emczd
78	exp health care cost/ use emczd
79	exp fee/ use emczd
80	budget/ use emczd
81	funding/ use emczd
82	budget*.ti,ab.
83	cost*.ti.
84	(economic* or pharmaco?economic*).ti.
85	(price* or pricing*).ti,ab.
86	(cost* adj2 (effective* or utilit* or benefit* or minimi* or unit* or estimat* or variable*)).ab.
87	(financ* or fee or fees).ti,ab.
88	(value adj2 (money or monetary)).ti,ab.
89	or/67-88
90	26 and 54 and 89
91	64 and 89
92	54 and 65 and 89
93	26 and 66 and 92
94	90 or 91 or 92 or 93
95	limit 94 to yr="2014 -Current"
96	Quality-Adjusted Life Years/ use ppez
97	Sickness Impact Profile/
98	quality adjusted life year/ use emczd
99	"quality of life index"/ use emczd
100	(quality adjusted or quality adjusted life year*).tw.
101	(qaly* or qal or qald* or qale* or qtime* or qwb* or daly).tw.
102	(illness state* or health state*).tw.
103	(hui or hui2 or hui3).tw.
104	(multiattibute* or multi attribute*).tw.
105	(utilit* adj3 (score*1 or valu* or health* or cost* or measur* or disease* or mean or gain or gains or index*)).tw.
106	utilities.tw.
107	(eq-5d* or eq5d* or eq-5* or eq5* or euroqual* or euro qual* or euroqual 5d* or euro qual 5d* or euro qol* or euroqol*or euro quol* or euroquol* or euro quol5d* or euroquol5d* or eur qol* or eurqol* or eur qol5d* or eurqol5d* or eur?qul* or eur?qul5d* or euro* quality of life or european qol).tw.
108	(euro* adj3 (5 d* or 5d* or 5 dimension* or 5dimension* or 5 domain* or 5domain*)).tw.
109	(sf36 or sf 36 or sf thirty six or sf thirtysix).tw.

#	Searches
110	(time trade off*1 or time tradeoff*1 or tto or timetradeoff*1).tw.
111	Quality of Life/ and ((quality of life or qol) adj (score*1 or measure*1)).tw.
112	Quality of Life/ and ec.fs.
113	Quality of Life/ and (health adj3 status).tw.
114	(quality of life or qol).tw. and Cost-Benefit Analysis/ use ppez
115	(quality of life or qol).tw. and cost benefit analysis/ use emczd
116	((qol or hrqol or quality of life).tw. or *quality of life/) and ((qol or hrqol* or quality of life) adj2 (increas* or decreas* or improv* or declin* or reduc* or high* or low* or effect or effects or worse or score or scores or change*1 or impact*1 or impacted or deteriorat*)).ab.
117	Cost-Benefit Analysis/ use ppez and cost-effectiveness ratio*.tw. and (cost-effectiveness ratio* and (perspective* or life expectanc*)).tw.
118	cost benefit analysis/ use emczd and cost-effectiveness ratio*.tw. and (cost-effectiveness ratio* and (perspective* or life expectanc*)).tw.
119	*quality of life/ and (quality of life or qol).ti.
120	quality of life/ and ((quality of life or qol) adj3 (improv* or chang*)).tw.
121	quality of life/ and health-related quality of life.tw.
122	Models, Economic/ use ppez
123	economic model/ use emczd
124	care-related quality of life.tw,kw.
125	((capability$ or capability-based$) adj (measure$ or index or instrument$)).tw,kw.
126	social care outcome$.tw,kw.
127	(social care and (utility or utilities)).tw,kw.
128	96 or 97 or 98 or 99 or 100 or 101 or 102 or 103 or 104 or 105 or 106 or 107 or 108 or 109 or 110 or 111 or 112 or 113 or 114 or 115 or 116 or 117 or 118 or 119 or 120 or 121 or 122 or 123 or 124 or 125 or 126 or 127
129	26 and 54 and 128
130	64 and 128
131	54 and 65 and 128
132	26 and 66 and 128
133	129 or 130 or 131 or 132
134	95 or 133

Database(s): CRD: NHS Economic Evaluation Database (NHS EED), HTA Database
Date of last search: 4th December 2019

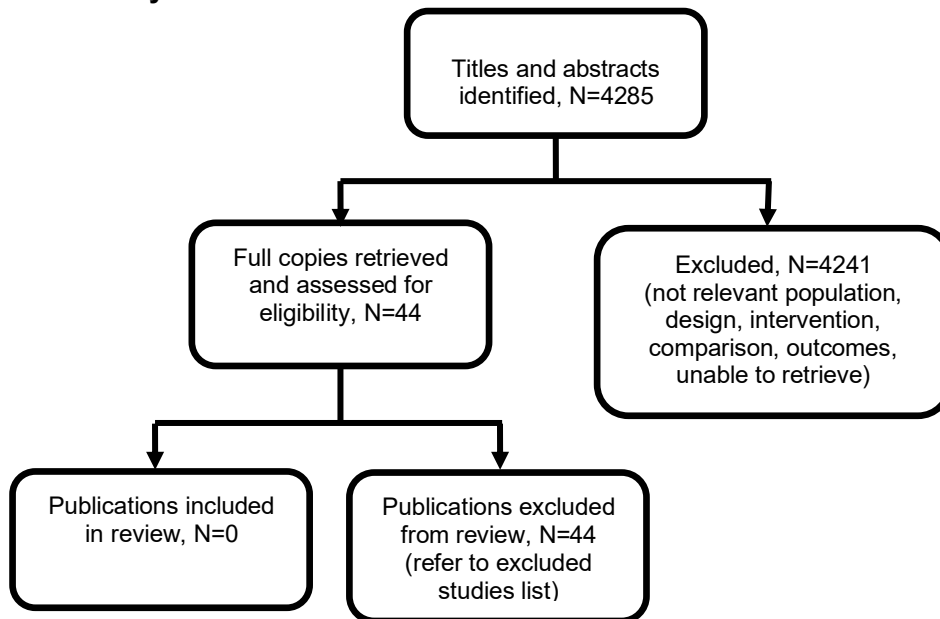| Line	Search
1	MeSH DESCRIPTOR Long-Term Care EXPLODE ALL TREES
2	((((long term* or long-term*) NEAR1 care)))
3	MeSH DESCRIPTOR Respite care EXPLODE ALL TREES
4	((respite* NEAR1 care))
5	MeSH DESCRIPTOR institutional practice EXPLODE ALL TREES
6	MeSH DESCRIPTOR Nursing Homes EXPLODE ALL TREES
7	MeSH DESCRIPTOR Group Homes EXPLODE ALL TREES
8	MeSH DESCRIPTOR residential facilities EXPLODE ALL TREES
9	MeSH DESCRIPTOR homes for the aged EXPLODE ALL TREES
10	((nursing NEAR1 home*))
11	((care NEAR1 home*))
12	(((elderly or old age) NEAR2 home*))
13	(((nursing or residential) NEAR1 (home* or facilit*)))
14	((home* for the aged or home* for the elderly or home* for older adult*))
15	(residential aged care)
16	(("frail elderly" NEAR2 (facilit* or home or homes)))
17	((residential NEAR1 (care or facilit* or institution* or setting* or service* or provider*)))
18	(((long-term or long term) NEAR2 (facility or facilities)))
19	(((mental health or mental-health) NEAR1 (facilit* or institution* or setting* or service*)))
20	#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16 OR #17 OR #18 OR #19
21	MeSH DESCRIPTOR Physical Abuse EXPLODE ALL TREES
22	MeSH DESCRIPTOR Restraint, Physical EXPLODE ALL TREES
23	MeSH DESCRIPTOR Violence EXPLODE ALL TREES
24	MeSH DESCRIPTOR Sex Offenses EXPLODE ALL TREES
25	MeSH DESCRIPTOR Rape EXPLODE ALL TREES
26	MeSH DESCRIPTOR Domestic Violence EXPLODE ALL TREES
27	MeSH DESCRIPTOR Spouse Abuse EXPLODE ALL TREES
28	MeSH DESCRIPTOR Intimate Partner Violence EXPLODE ALL TREES
29	MeSH DESCRIPTOR Human Rights Abuses EXPLODE ALL TREES
30	(((physical* or emotional* or sexual* or psychological* or financial* or organisational* or organizational* or institutional* or discriminat* or depriv*) NEAR1 abus*))
31	((domestic* NEAR1 violen*))
32	((modern* NEAR3 slave*))
33	((neglect or self-neglect or self neglect))

Line	Search
34	(((significant* or persistent* or deliberat* or inflict* or unexplained or non-accident* or nonaccident* or non-natural*) NEAR1 (injur* or trauma*)))
35	((safeguard* or safe-guard* or safe guard*))
36	#21 OR #22 OR #23 OR #24 OR #25 OR #26 OR #27 OR #28 OR #29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35
37	MeSH DESCRIPTOR Elder Abuse EXPLODE ALL TREES
38	(((elder* or aged or old-age* or older adult* or old people* or older people* or geriatric* or resident*) NEAR3 (abus* or mistreat* or neglect* or self-neglect*)))
39	((adult* social* care* or adult* protective* service* or elder* protective* service*))
40	((adult* NEAR3 (safeguard* or safe-guard* or safe guard* or protection*)))
41	(((vulnerable* adult* or vulnerable people* or incompetent* or incapacitat* or older adult* or older people*) NEAR3 protect*))
42	(((abuse* or neglect* or self-neglect* or violen* or safeguard*) NEAR5 (dementia* or alzheimer* or learning disab* or learning impair* or learning disorder* or intellectual disab* or intellectual impair* or mentally-ill or mentally ill or mentally-disabl* or mentally disabl* or disabl* adult* or disabl* people* or disabl* person* or disabl* population*)))
43	((family NEAR1 violence*))
44	#37 OR #38 OR #39 OR #40 OR #41 OR #42 OR #43
45	((elderly or old age or aged or older adult* or frail or vulnerabl* or mental health or mental-health or residential or institution* or respite* or long term* or long-term* or nursing home* or care home* or home care*)):TI
46	((abuse* or restrain* or violen* or rape or neglect* or selfneglect* or self-neglect* or slave* or safeguard* or safe-guard* or mistreat* or protect* or harm*)):TI
47	#20 AND #36
48	#20 AND #46
49	#36 AND #45
50	#44 OR #47 OR #48 OR #49
51	* IN NHSEED, HTA
52	#50 AND #51
53	((care-related quality of life)) IN NHSEED, HTA
54	((((capability* or capability-based*) NEAR1 (measure* or index or instrument*)))) IN NHSEED, HTA
55	((social care outcome*)) IN NHSEED, HTA
56	((social care NEAR (utility or utilities))) IN NHSEED, HTA
57	#52 OR #53 OR #54 OR #55 OR #56

Appendix C – Evidence study selection

Study selection for review question A:

- **What indicators should alert people to abuse in care homes?**

- **What indicators should alert people to neglect in care homes?**

Figure 1: Study selection flow chart

```
            ┌──────────────────────┐
            │  Titles and abstracts │
            │  identified, N=4285   │
            └──────────┬───────────┘
            ┌──────────┴───────────────────────┐
            ▼                                   ▼
┌──────────────────────┐        ┌──────────────────────────┐
│  Full copies retrieved│        │  Excluded, N=4241         │
│  and assessed for     │        │  (not relevant population,│
│  eligibility, N=44    │        │  design, intervention,    │
└──────────┬───────────┘        │  comparison, outcomes,    │
           │                     │  unable to retrieve)      │
    ┌──────┴───────┐            └──────────────────────────┘
    ▼              ▼
┌─────────────┐ ┌──────────────────┐
│ Publications│ │ Publications      │
│ included    │ │ excluded          │
│ in review,  │ │ from review, N=44 │
│ N=0         │ │ (refer to excluded│
│             │ │ studies list)     │
└─────────────┘ └──────────────────┘
```

Appendix D – Evidence tables

Evidence tables for review question A:

- **What indicators should alert people to abuse in care homes?**

- **What indicators should alert people to neglect in care homes?**

No evidence was identified which was applicable to these 2 review questions.

Appendix E – Forest plots

Forest plots for review question A:

- **What indicators should alert people to abuse in care homes?**

- **What indicators should alert people to neglect in care homes?**

No evidence was identified which was applicable to these 2 review questions.

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Appendix F – GRADE tables

GRADE tables for review question A:

- **What indicators should alert people to abuse in care homes?**

- **What indicators should alert people to neglect in care homes?**

No evidence was identified which was applicable to these 2 review questions.

Appendix G – Economic evidence study selection

Economic evidence study selection for review question A:

- **What indicators should alert people to abuse in care homes?**

- **What indicators should alert people to neglect in care homes?**

A global economic literature search was undertaken for safeguarding adults in care homes. This covered all 16 review questions, which were reported in 9 evidence reports in this guideline. As shown in Figure 2 below, no economic evidence was identified which was applicable to this evidence review.

Figure 2: Economic study selection flow chart

Appendix H – Economic evidence tables

Economic evidence tables for review question A:

- **What indicators should alert people to abuse in care homes?**

- **What indicators should alert people to neglect in care homes?**

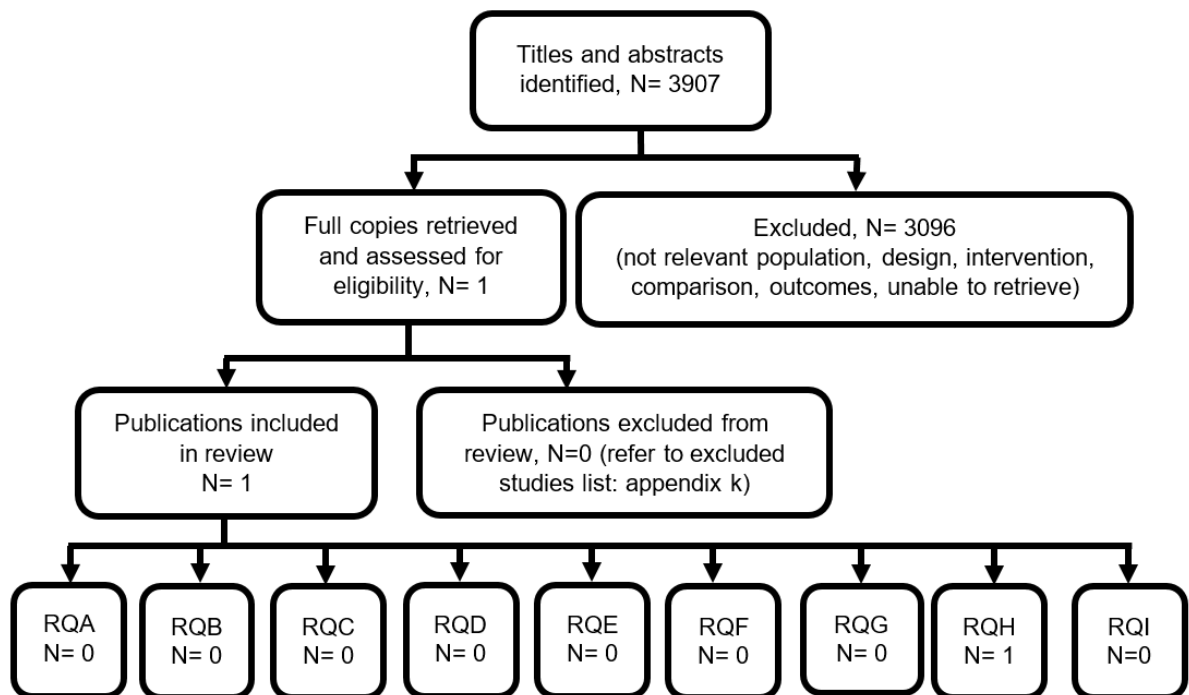No evidence was identified which was applicable to these 2 review questions.

Appendix I – Economic evidence profiles

Economic evidence profiles for review question A:

- **What indicators should alert people to abuse in care homes?**

- **What indicators should alert people to neglect in care homes?**

No evidence was identified which was applicable to these 2 review questions.

Appendix J – Economic analysis

Economic evidence analysis for review question A:

- **What indicators should alert people to abuse in care homes?**

- **What indicators should alert people to neglect in care homes?**

No economic analysis was conducted for these 2 review questions.

Appendix K – Excluded studies

Excluded studies for review question A:

- **What indicators should alert people to abuse in care homes?**

- **What indicators should alert people to neglect in care homes?**

Table 5: Excluded studies and reasons for their exclusion

Study	Reason for exclusion
Beach, S. R., Liu, P. J., DeLiema, M., Iris, M., Howe, M. J. K., Conrad, K. J., Development of short-form measures to assess four types of elder mistreatment: Findings from an evidence-based study of APS elder abuse substantiation decisions, Journal of elder abuse & neglect, 29, 229-253, 2017	Assesses psychometric properties of tools - it doesn't meet the eligibility criteria for inclusion.
Bigala, Paul, Ayiga, Natal, Prevalence and predictors of elder abuse in mafikeng local municipality in South Africa, African population studies / Etude de la population Africaine, 28, 463-474, 2014	Prevalence/predictors.
Burnett, J., Coverdale, J. H., Pickens, S., Dyer, C. B., What is the association between self-neglect, depressive symptoms and untreated medical conditions?, Journal of Elder Abuse and Neglect, 18, 25-34, 2007	Outcome data do not match those specified in protocol.
Caldwell, H. K., Gilden, G., Muelle, M., Elder abuse screening instruments in primary care: An integrative review, 2004 to 2011, Clinical Geriatrics, 21, 20-25, 2013	Secondary review (not a systematic review or meta-analysis) of instruments.
Cohen, M., The process of validation of a three-dimensional model for the identification of abuse in older adults, Archives of Gerontology & GeriatricsArch Gerontol Geriatr, 57, 243-9, 2013	Reports secondary data but is not a systematic review/meta-analysis. Validation of tools.
Conrad, K. J., Iris, M., Liu, P. J., Elder Abuse Decision Support System: Field test outcomes, abuse measure validation, and lessons learned, Journal of elder abuse & neglect, 29, 134-156, 2017	Tool - will be considered for evidence review C.
Cooper, C., Maxmin, K., Selwood, A., Blanchard, M., Livingston, G., The sensitivity and specificity of the Modified Conflict Tactics Scale for detecting clinically significant elder abuse, International Psychogeriatrics, 21, 774-8, 2009	Validation of a psychometric tool.
Curry, S. J., Krist, A. H., Owens, D. K., Barry, M. J., Caughey, A. B., Davidson, K. W., Doubeni, C. A., Epling, J. W., Grossman, D. C., Kemper, A. R., Kubik, M., Kurth, A., Landefeld, C. S., Mangione, C. M., Silverstein, M., Simon, M. A., Tseng, C. W., Wong, J. B., Screening for Intimate Partner Violence, Elder Abuse, and Abuse of Vulnerable Adults: US Preventive Services Task Force Final Recommendation Statement, JAMA - Journal of the American Medical Association, 320, 1678-1687, 2018	Reports secondary data but is not a systematic review/meta-analysis.
Dong, X. Q., Elder abuse: Systematic review and implications for practice, Journal of the American Geriatrics Society, 63, 1214-1238, 2015	Prevalence and risk factors.
Dong, X., Simon, M. A., Vulnerability risk index profile for elder abuse in a community-dwelling population, Journal of the American Geriatrics Society, 62, 10-15, 2014	Outcome data do not match those specified in protocol
Elvik, S. L., Berkowitz, C. D., Nicholas, E., Lipman, J. L., Inkelis, S. H., Sexual abuse in the developmentally disabled: dilemmas of diagnosis, Child Abuse and Neglect, 14, 497-502, 1990	Prevalence.

Study	Reason for exclusion
Ernst, J. S., Smith, C. A., Adult protective services clients confirmed for self-neglect: Characteristics and service use, Journal of Elder Abuse and Neglect, 23, 289-303, 2011	Outcome data do not match those specified in protocol
Feltner, C., Wallace, I., Berkman, N., Kistler, C. E., Middleton, J. C., Barclay, C., Higginbotham, L., Green, J. T., Jonas, D. E., Screening for Intimate Partner Violence, Elder Abuse, and Abuse of Vulnerable Adults: Evidence Report and Systematic Review for the US Preventive Services Task Force, JAMA - Journal of the American Medical Association, 320, 1688-1701, 2018	Does not fit criteria outlined in protocol. Relevant studies will be reference harvested.
Feltner, C., Wallace, I., Berkman, N., Kistler, C., Middleton, J. C., Barclay, C., Higginbotham, L., Green, J. T., Jonas, D. E., Agency for Healthcare Research and Quality Agency for Healthcare Research and Quality (US), 10, 2018	Does not fit criteria outlined in protocol. Relevant studies will be reference harvested.
Ferrah, N., Murphy, B. J., Ibrahim, J. E., Bugeja, L. C., Winbolt, M., LoGiudice, D., Flicker, L., Ranson, D. L., Resident-to-resident physical aggression leading to injury in nursing homes: a systematic review, Age & Ageing Age Ageing, 44, 356-64, 2015	Does not fit PICO outlined in protocol. Relevant studies will be reference harvested.
Frazao, S. L., Silva, M. S., Norton, P., Magalhaes, T., Domestic violence against elderly with disability, Journal of Forensic and Legal Medicine, 28, 19-24, 2014	Prevalence and risk factors.
Friedman, L., Avila, S., Friedman, D., Meltzer, W., Association between Type of Residence and Clinical Signs of Neglect in Older Adults, Gerontology., 2018	Outcome data do not match those specified in protocol.
Gironda, M. W., Nguyen, A. L., Mosqueda, L. M., Is This Broken Bone Because of Abuse? Characteristics and Comorbid Diagnoses in Older Adults with Fractures, Journal of the American Geriatrics Society, 64, 1651-1655, 2016	Outcome data do not match those specified in protocol.
Ilhan, B., Bahat, G., Saka, F., Kilic, C., Merve Oren, M., Karan, M. A., A new screening tool for self-neglect in community-dwelling older adults: IMSelf-neglect questionnaire, Aging Male., 2018	Measures effectiveness of a tool - will be considered for evidence review C.
Kelly, P. A., Dyer, C. B., Pavlik, V., Doody, R., Jogerst, G., Exploring self-neglect in older adults: Preliminary findings of the self-neglect severity scale and next steps, Journal of the American Geriatrics Society, 56, S253-S260, 2008	Measures effectiveness of a tool - will be considered for evidence review C.
Lai, D. W. L., Abuse and neglect experienced by aging Chinese in Canada, Journal of Elder Abuse and Neglect, 23, 326-347, 2011	Prevalence and risk.
Lam, K., Kwan, J. S. K., Wai Kwan, C., Chong, A. M. L., Lai, C. K. Y., Lou, V. W. Q., Leung, A. Y. M., Liu, J. Y. W., Bai, X., Chi, I., Factors Associated With the Trend of Physical and Chemical Restraint Use Among Long-Term Care Facility Residents in Hong Kong: Data From an 11-Year Observational Study, Journal of the American Medical Directors Association, 18, 1043-1048, 2017	Prevalence and risk.
Lee, J. L., Burnett, J., Dyer, C. B., Frailty in self-neglecting older adults: A secondary analysis, Journal of elder abuse & neglect, 28, 152-162, 2016	Prevalence and risk factors.
Lindbloom, E. J., Brandt, J., Hough, L. D., Meadows, S. E., Elder mistreatment in the nursing home: a systematic review, Journal of the American Medical Directors Association, 8, 610-6, 2007	Descriptive, does not report data that can be used in a diagnostic review.
Mc, Carthy Louise, Campbell Susan, Penhale Bridget, Elder abuse screening tools: a systematic review, Journal of Adult Protection, 19, 368-379, 2017	Descriptive, does not report data that can be used in a diagnostic review.

Study	Reason for exclusion
Naik, A. D., Burnett, J., Pickens-Pace, S., Dyer, C. B., Impairment in instrumental activities of daily living and the geriatric syndrome of self-neglect, Gerontologist, 48, 388-93, 2008	Risk factors/prevalence.
Naughton, C., Drennan, J., Lyons, I., Lafferty, A., The relationship between older people's awareness o. The term elder abuse and actual experiences of elder abuse, International Psychogeriatrics, 25, 1257-1266, 2013	Prevalence and risk factors.
Neale, Anne V., Hwalek, Melanie A., Scott, Richard O., Sengstock, Mary C., Stahl, Carolyn, Validation of the Hwalek-Sengstock Elder Abuse Screening Test, Journal of Applied Gerontology, 10, 406-418, 1991	Tool - does not report outcomes of interest to review.
Nelson, H. D., Bougatsos, C., Blazina, I., Agency for Healthcare Research and Quality Agency for Healthcare Research and Quality (US), 05, 2012	Descriptive, tools.
Nelson, H. D., Nygren, P., McInerney, Y., Klein, J., U. S. Preventive Services Task Force, Screening women and elderly adults for family and intimate partner violence: a review of the evidence for the U. S. Preventive Services Task Force, Annals of Internal Medicine, 140, 387-96, 2004	Descriptive, tools.
Nelson, H., Nygren, P., McInerney, Y., Agency for Healthcare Research and Quality Agency for Healthcare Research and Quality (US), 03, 03, 2004	Does not match review PICO - reference harvest.
Pellfolk, T., Sandman, P. O., Gustafson, Y., Karlsson, S., Lovheim, H., Physical restraint use in institutional care of old people in Sweden in 2000 and 2007, International Psychogeriatrics, 24, 1144-52, 2012	Prevalence and risk factors.
Phillips, L. R., Guo, G., Mistreatment in assisted living facilities: complaints, substantiations, and risk factors, The Gerontologist, 51, 343-353, 2011	Risk factors.
Pickens, S., Burnett, J., Naik, A. D., Holmes, H. M., Dyer, C. B., Is pain a significant factor in elder self-neglect?, Journal of Elder Abuse and Neglect, 18, 51-61, 2007	Risk factors/prevalence.
Pickering, C. E. Z., Ridenour, K., Salaysay, Z., Reyes-Gastelum, D., Pierce, S. J., Identifying elder abuse & neglect among family caregiving dyads: A cross sectional study of psychometric properties of the QualCare scale, International journal of nursing studies, 69, 41-46, 2017	Tool - will be considered for evidence review C.
Platts-Mills, T. F., Dayaa, J. A., Reeve, B. B., Krajick, K., Mosqueda, L., Haukoos, J. S., Patel, M. D., Mulford, C. F., McLean, S. A., Sloane, P. D., Travers, D., Zimmerman, S., Development of the Emergency Department Senior Abuse Identification (ED Senior AID) tool, Journal of elder abuse & neglect, 30, 247-270, 2018	Tool - will be considered for evidence review C.
Reis, M., Nahmiash, D., Validation of the indicators of abuse (IOA) screen, Gerontologist, 38, 471-480, 1998	Outcome data do not match those specified in protocol.
Reyes-Ortiz, C. A., Ocampo-Chaparro, J. M., Campo-Arias, A., Holmes, H., Halphen, J., Association Between History of Abuse and Falling in Older Adults, Journal of the American Geriatrics Society, 66, 1603-1607, 2018	Outcome data do not match those specified in protocol.
Ruelas-Gonzalez, M. G., Pelcastre-Villafuerte, B. E., Monterrubio-Flores, E., Alcalde-Rabanal, J. E., Ortega-Altamirano, D. V., Ruano, A. L., Saturno Hernandez, P. J., Development and validation of a Screening Questionnaire of Family Mistreatment against Older Adults for use in primary care	Tool - will be considered for evidence review C.

Study	Reason for exclusion
settings in Mexico, Health & social care in the community, 26, 102-112, 2018	
Sequeira, H., Howlin, P., Hollins, S., Psychological disturbance associated with sexual abuse in people with learning disabilities. Case-control study, British Journal of Psychiatry, 183, 451-6, 2003	Data reported do not match those specified in protocol.
Sharipova, M., Hogh, A., Borg, V., Individual and organizational risk factors of work-related violence in the Danish elder care, Scandinavian Journal of Caring Sciences, 24, 332-40, 2010	Risk factors to care workers.
Tinetti, M. E., Liu, W. L., Ginter, S. F., Mechanical restraint use and fall-related injuries among residents of skilled nursing facilities, Annals of Internal Medicine, 116, 369-74, 1992	Restraint as a risk factor for falls.
Wiglesworth, A., Mosqueda, L., Mulnard, R., Liao, S., Gibbs, L., Fitzgerald, W., Screening for abuse and neglect of people with dementia, Journal of the American Geriatrics Society, 58, 493-500, 2010	Risk factors.
Yaffe, M. J., Wolfson, C., Lithwick, M., Weiss, D., Development and validation of a tool to improve physician identification of elder abuse: The Elder Abuse Suspicion Index (EASI), Journal of elder abuse & neglect, 20, 276-300, 2008	Tool - will be considered for evidence review C.

Economic studies

No economic evidence was identified for these 2 review questions.

Appendix L – Research recommendations

Research recommendations for review question A:

- **What indicators should alert people to abuse in care homes?**

- **What indicators should alert people to neglect in care homes?**

Why this is important

There is evidence from the UK and internationally that identifies self-neglect as an important safeguarding issue for older people.[1] Self-neglect is known to have negative impacts on health and wellbeing and in some cases can contribute to care home admission. However, there are no published studies of self-neglect amongst care home residents and no guidance on how to identify this. The gap in evidence reflects a wider lack of research evidence about the indicators of abuse and neglect in care homes, which was identified by this review.

Studies of how to identify self-neglect in care homes are needed because the causes and consequences of self-neglect in care homes are likely to be different from the causes and consequences of self-neglect that occurs in the individuals' own home.

All self-neglect poses challenges in relation to the balance between an individual's right to make (unwise) choices and their mental capacity. Self-neglect within a care home may also (i) raise additional questions about the balance between individual choice and the service providers' duty of care; (ii) have implications for the safety, health and wellbeing of other residents, staff and visitors; (iii) expose service providers and their staff to false allegations of abuse and neglect.

The views of a wide range of stakeholders are needed. A study with an emphasis on identifying indicators, could begin to provide the evidence on which to develop future practice guidelines.

Research recommendation in question format:

What are the indicators of self-neglect among care home residents?

Table 6: Research recommendation rationale

Research question	What are the indicators of self-neglect among care home residents?
Why is this needed	
Importance to 'patients' or the population	Self-neglect is both a cause and a consequence of poor physical and mental health; it is often associated with social isolation. A better understanding of how best to identify self-neglect in care homes is needed. This is because the causes and consequences of self-neglect in care homes are likely to be different from the causes and consequences of self-neglect that occurs in the individuals' own home. It is known (anecdotally) that people may be placed in care homes as a result of self-neglect in their own homes.

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[1] Braye, S., Orr, D., Preston-Shoot, M., The governance of adult safeguarding: findings from research, The Journal of Adult Protection, 14, 55-72, 2012

Research question	What are the indicators of self-neglect among care home residents?
Relevance to NICE guidance	The research will inform improved guidance about how best to identify self-neglect in care home settings. The current guideline on Safeguarding adults in care homes has only been able to make 1 recommendation on this issue because of a lack of evidence.
Relevance to social care and the NHS	The Care Act 2014 creates statutory duties in relation to adult safeguarding; self-neglect is included within the definition of abuse and neglect which should trigger enquiries. The response to a safeguarding referral involving self-neglect may be complicated by questions of mental capacity (or lack thereof – see NICE guideline 108) and, where self-neglect occurs in a care home setting, this is further confounded by the need to consider the safety and wellbeing of other residents. Self-neglect can have serious physical and mental health consequences, leading to hospital admissions. A better understanding of how to identify self-neglect could reduce such hospital admissions.
National priorities	The importance of this issue is reflected in the following legislation and national guidance: Care Act 2014: Care and support statutory guidance. Part 14: Safeguarding (Updated 26 October 2018) https://www.gov.uk/government/publications/care-act-statutory-guidance/care-and-support-statutory-guidance#safeguarding-1 Mental health and wellbeing: JSNA toolkit. *Part 7: Living well in older years* (Updated 25 October 2019) https://www.gov.uk/government/publications/better-mental-health-jsna-toolkit/7-living-well-in-older-years Hoarding disorders: NHS Health A to Z https://www.nhs.uk/conditions/hoarding-disorder/
Current evidence base	This review demonstrated a lack of evidence about the indicators which should alert people to neglect in care homes. Although there is a small evidence base about self-neglect in people's own homes, no studies have yet explored the phenomenon of self-neglect in care homes, though it is known to occur. Safeguarding adults reviews report provide a potentially valuable source of evidence.
Equality	The group thought to be most at risk of self-neglect are older people, particularly those who are socially isolated. However, other people who use adult social care services may also be affected, including people living with dementia, people with learning disabilities and people with mental health problems.

Research question	What are the indicators of self-neglect among care home residents?
Feasibility	The key challenge will be to *identify and gain access to* care homes which have experienced the phenomenon of residents who self-neglect and/or residents who have been placed in the home because of self-neglect in their own home. There are ethical considerations as this is a highly sensitive topic. Any study would need ethical approval from the Social Care Research Ethics Committee or local ethics committees (for example in universities or local authorities).
Other comments	

Table 7:   Research recommendation modified PICO table

Criterion	Explanation
Population	People living in registered care homes displaying signs or symptoms of self-neglect.
Intervention/ exposure/ test	Signs and symptoms for which diagnostic accuracy data are located might include but will not be limited to: • Physical effects on the individual (such as weight changes, dehydration, malnutrition, sleep problems). • Emotional and psychological effects on the individual (such as behaviour changes, for example, withdrawal, mood changes, clinical depression, social isolation). • Effects on the care home environment (such as offensive odours, use of physical or chemical restraint, sharing or communal use of residents' personal items). • Effects on the performance of the care home (such as rates of emergency hospital admission).
Comparator/ reference standard	The findings of a safeguarding review which confirms self-neglect.
Outcomes	• Sensitivity and specificity of signs and symptoms (as indicators of self-neglect). • Positive predictive value (of signs and symptoms). • Negative predictive value (of signs and symptoms). •
Study design	Prospective or retrospective cohort design
Timeframe	No specified timeframe for the conduct of this proposed research.
Additional information	None