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Optimising GPs' communication of advice to facilitate patients' self-care and prompt follow-up when the diagnosis is uncertain: a realist review of 'safety-netting' in primary care

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ABSTRACT

Background Safety-netting has become best practice when dealing with diagnostic uncertainty in primary care. Its use, however, is highly varied and a lack of evidence-based guidance on its communication could be harming its effectiveness and putting patient safety at risk.

Objective To use a realist review method to produce a programme theory of safety-netting, that is, advice and support provided to patients when diagnosis or prognosis is uncertain, in primary care.

Methods Five electronic databases, web searches, and grey literature were searched for studies assessing outcomes related to understanding and communicating safety-netting advice or risk communication, or the ability of patients to self-care and re-consult when appropriate. Characteristics of included documents were extracted into an Excel spreadsheet, and full texts uploaded into NVivo and coded. A random 10% sample was independently double -extracted and coded. Coded data wasere synthesised and itstheir ability to contribute an explanation for the contexts, mechanisms, or outcomes of effective safety-netting communication considered. Draft context, mechanism and outcome configurations (CMOCs) were written by the authors and reviewed by an expert panel of primary care professionals and patient representatives.

Results 95 documents contributed to our CMOCs and programme theory. Effective safety-netting advice should be tailored to the patient and provide practical information for self-care and reconsultation. The importance of ensuring understanding and agreement with advice was highlighted, as was consideration of factors such as previous experiences with healthcare, the patient's personal circumstances and the consultation setting. Safety-netting advice should be documented in sufficient detail to facilitate continuity of care.

Conclusions We present 15 recommendations to enhance communication of safety-netting advice and map these onto established consultation models. Effective safety-netting communication relies on understanding the information needs of the patient, barriers to acceptance and explanation of the reasons why the advice is being given. Reduced continuity of care, increasing multimorbidity and remote consultations represent threats to safety-netting communication.

Key messages

What is already known on the topic?

⇒ Safety-netting was first formally described in 1987 and has since become best practice when dealing with diagnostic uncertainty in primary care as a means to support the patient to manage their symptoms when appropriate and reconsult when necessary. Its use, however, is highly varied and a lack of evidence-based guidance on its communication could be harming its effectiveness and putting patient safety at risk.

What this study adds?

⇒ This study presents an evidence-based theory of and recommendations for how effective safety-netting might be achieved.

How might this study affect research, practice or policy?

⇒ Effective safety-netting relies on general practitioner–patient understanding that should be built throughout the consultation and as such it should be incorporated into the whole of the consultation. We have highlighted a number of areas where further research is needed; not least what impact our recommendations will have on time-keeping within the consultation.

INTRODUCTION

Diagnostic uncertainty is a defining feature of primary care with the majority of consultations ending without a definitive diagnosis.[1] People attend primary care with undifferentiated symptoms and

signs that could represent benign self-limiting illness or serious disease. Primary care clinicians in many jurisdictions must balance identifying serious illness with the need not to overwhelm specialist services or subject patients to unnecessary, costly and potentially harmful investigations.[2 3] The 'test of time' is a useful consultation technique, allowing symptoms to develop or recede, or the suitability of treatment to become apparent. The test of time, however, risks harm to the patient if not used alongside safety-netting.

Safety-netting is regarded as best practice as a diagnostic strategy that involves monitoring patients with symptoms possibly indicative of serious illness until they are explained or resolved.[4 5] The term in this context was first coined in 1987 by Roger Neighbour who described it as a back-up process for dealing with uncertainty in primary care whereby the general practitioner (GP) asks themselves three questions when making a preliminary diagnosis: 'If I'm right, what do I expect to happen? How will I know if I am wrong? What would I do then?'[6] It has been described by the National Institute for Health and Care Excellence (NICE) for England and Wales as 'the provision of support for patients in whom the clinician has some uncertainty as to whether the patient has a self-limiting illness and is concerned that their condition may deteriorate'.[7] Internationally, although the term is less widely used, the importance of a form of discharge or follow-up information is widely recognised.[8 9] Safety-netting forms part of the assessment of new GPs,[10] and clinical guidelines make reference to NICE's safety-netting recommendations.[11] Safety-netting is also used widely and has been observed in 65% and 90% of consultations in England and Scotland, respectively, alongside reports from GPs that they use it at the end of every consultation.[12–14] As such, the opportunities for effective but also ineffective safety-netting are vast.

Research has documented varied understanding of safety-netting among GPs, varied use within consultations and inconsistent documentation of safety-netting in the clinical record.[12 15] Safety-netting varies depending on the clinical strategies of the GP, the patient's perceived ability to follow advice, the perceived risk of serious illness and in-consultation pressures.[12] Patients do not recognise safety-netting as an established part of the consultation, lack understanding of what the clinician was trying to relay and can feel dismissed by it.[16] The absence or incomplete provision of such information and advice also has implications for patient safety. Research exploring the reasons for delayed cancer diagnosis found that patients had felt dismissed in previous consultations when the GP had not provided an explanation of other possible causes for their symptom, or what to do next should the symptom persist.[17–21] A false sense of security resulting from a failure to communicate the potential severity of the undiagnosed illness and the need for follow-up has been called 'temporising' in the US literature.[19 22] A systematic review found many of the above factors to be barriers to patient engagement and highlighted safety-netting as a strategy through which these harms may be mitigated.[23] This situation suggests that guidance on how safety-netting should be practised is needed. A number of UK-based organisations have created guidelines but these are mostly related to specific conditions and based on expert consensus.[24–27] Crucially, as safety-netting is a widespread intervention for dealing with diagnostic *uncertainty*, the lack of guidance that can be applied across primary care settings and disease areas represents a significant knowledge and practice gap.

COVID-19 has introduced additional diagnostic uncertainty and complexity in communication by necessitating a large shift to remote consultation that is unlikely to be abandoned once the pandemic has abated.[28] This has affected non-verbal communication and reduced opportunities for clinical examination and investigation.[29 30] It is essential that we incorporate these lessons learnt from changes in clinical practice during the COVID-19 pandemic into safety-netting practice.

We conducted a realist review with the aim of providing information on how safety-netting may be effectively communicated to reduce the risks to patient safety outlined above. We did this with the input of an expert panel of professional and public volunteers who challenged and provided us with feedback and advice. The inclusion of stakeholder groups in research can improve the relevance of the topic, making outputs more valid and useful to user groups, and improve their implementation.[31 32] The question that we refined and answered was: *How and why does safety-netting facilitate appropriate self-care and reconsultation, for whom and under what circumstances?* In answering this question using a realist review approach, we aimed to produce a programme theory of safety-netting communication that can be applied across primary care settings, communication mediums, patients groups and disease areas.

METHODS

Realist review is a theory-driven approach to evidence synthesis that uses relevant and trustworthy data to answer questions around what, why, how, when and for whom complex interventions work.[33] A realist review methodology was chosen due to the complexity of safety-netting as an intervention, with the potential for variation at all stages from the provision of advice by the clinician to the interpretation and actioning of that advice by the patient. A benefit of realist review is its ability to produce a programme theory that can be transferred across contexts.[34] Evidence-based context, mechanism and outcome configurations (CMOCs) are statements detailing the contexts in which certain mechanisms, that is, causal and often hidden processes, are triggered to bring about the specific outcomes of

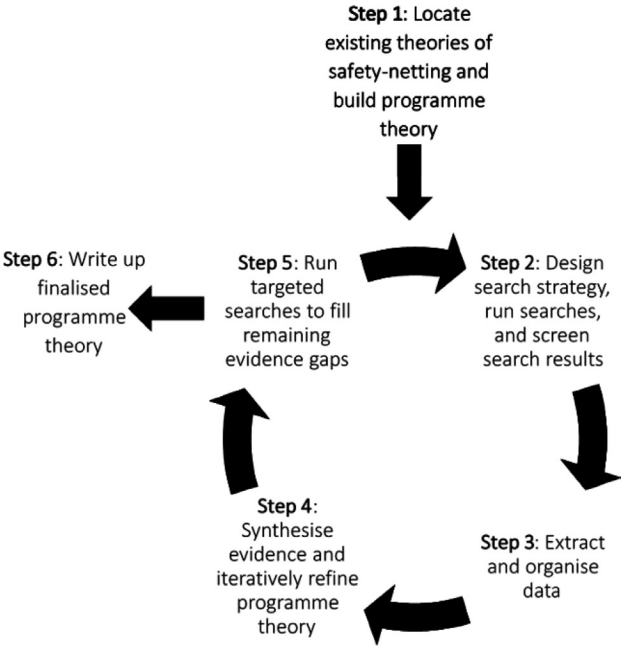


Figure 1 The realist review process.

an intervention.[33] A programme theory collates the individual CMOCs into an overall picture of how an intervention works.[35]

A protocol was registered with PROSPERO (CRD42019133194), we followed methods described by Pawson,[36] and adhered to RAMESES quality and reporting standards[37 38] (online supplemental appendix 1). We deviated from the protocol only in that we expanded the acceptable settings and participants from primary care settings and staff, to include any setting where discharge advice was being delivered and any staff involved, and acceptable interventions to include risk communication generally. Individuals receiving the advice included adult patients and adult carers or family members of patients unable to take responsibility for their own care.

We focused on the communication of safety-netting on the advice of our expert advisory panel (see below). This was to ensure the review would be feasible within the project timelines and because it was felt that the communication of safety-netting advice during the consultation was fundamental and further research could build on this work to examine its recording and follow-up. We carried out the review in six steps summarised in figure 1, described briefly below and in detail in online supplemental appendix 2.

An exploratory search was undertaken in PubMed and an initial programme theory developed and refined with the study team and expert panel (online supplemental appendix 3). Formal literature searches in five databases and Google were carried out in October 2019 (table 1). The searches were limited by publication date to papers published after 1987 as this was the year Neighbour first described safety-netting as we use the term today.[6] Our Medline search strategy is available in online supplemental appendix 4. A title and abstract screen, followed by a full-text screen against the inclusion criteria (table 1), was carried out with a random 10% sample reviewed in duplicate to ensure consistency. Any discrepancies were resolved through discussion. The reference lists of all included articles were screened for relevant papers.

The characteristics of included materials were extracted into a preprepared Excel spreadsheet and the full texts uploaded into NVivo and coded, again with a random 10% consistency check. Papers were assessed for their relevance and rigour of the methods used. Judgements were made on the plausibility and coherence of the emerging programme theory.[39] A description of each included study and its quality assessment is available in online supplemental appendix 5.

The coded data were synthesised and draft CMOCs were written. As the CMOCs were created and refined, we made judgements on how they related to each other, for example, whether it was necessary for one CMOC to precede another in the consultation. Following this process, we refined our initial programme theory into a realist programme theory (ie, one that contains realist causal explanations in the form of CMOCs). After each stage of evidence gathering and synthesis,

Table 1 The formal literature search

Intervention	Safety-netting advice given for symptoms where a diagnosis is not immediately apparent or illness is initially suspected to be self-limiting, risk communication.
Setting	Any healthcare setting where discharge advice is given, any setting where health risk is communicated, for example, public health messaging during a pandemic.
Participants	Any healthcare professional. Adult patients (≥18 years) of any gender, ethnicity or other demographic group. Adult carers or family members (≥18 years) of patients unable to take responsibility for their own care, for example, children or patients with developmental disorders, of any gender, ethnicity or other demographic group.
Study design	All study designs except case reports.
Outcome	Any outcome related to the understanding of the safety-netting advice or risk communication, or ability of the patient or carer to self-care when appropriate and reconsult when necessary.
Limits	1987–present. No limits on place or language of publication were used.
Databases searched	Medline, Embase, Health Management Information Consortium, Cumulative Index to Nursing and Allied Health Literature, PsychINFO. Targeted Google searches of charitable, professional and government bodies.

we met with the expert panel to discuss the developing programme theory and CMOCs, identify missing information and refine the CMOCs. Targeted, iterative literature searches were carried out between June 2020 and April 2021 to update the search and provide information where gaps were identified. At our final expert panel meeting, the programme theory and CMOCs were finalised. On agreement of the final programme theory, the research process was written up in detail as described herein.

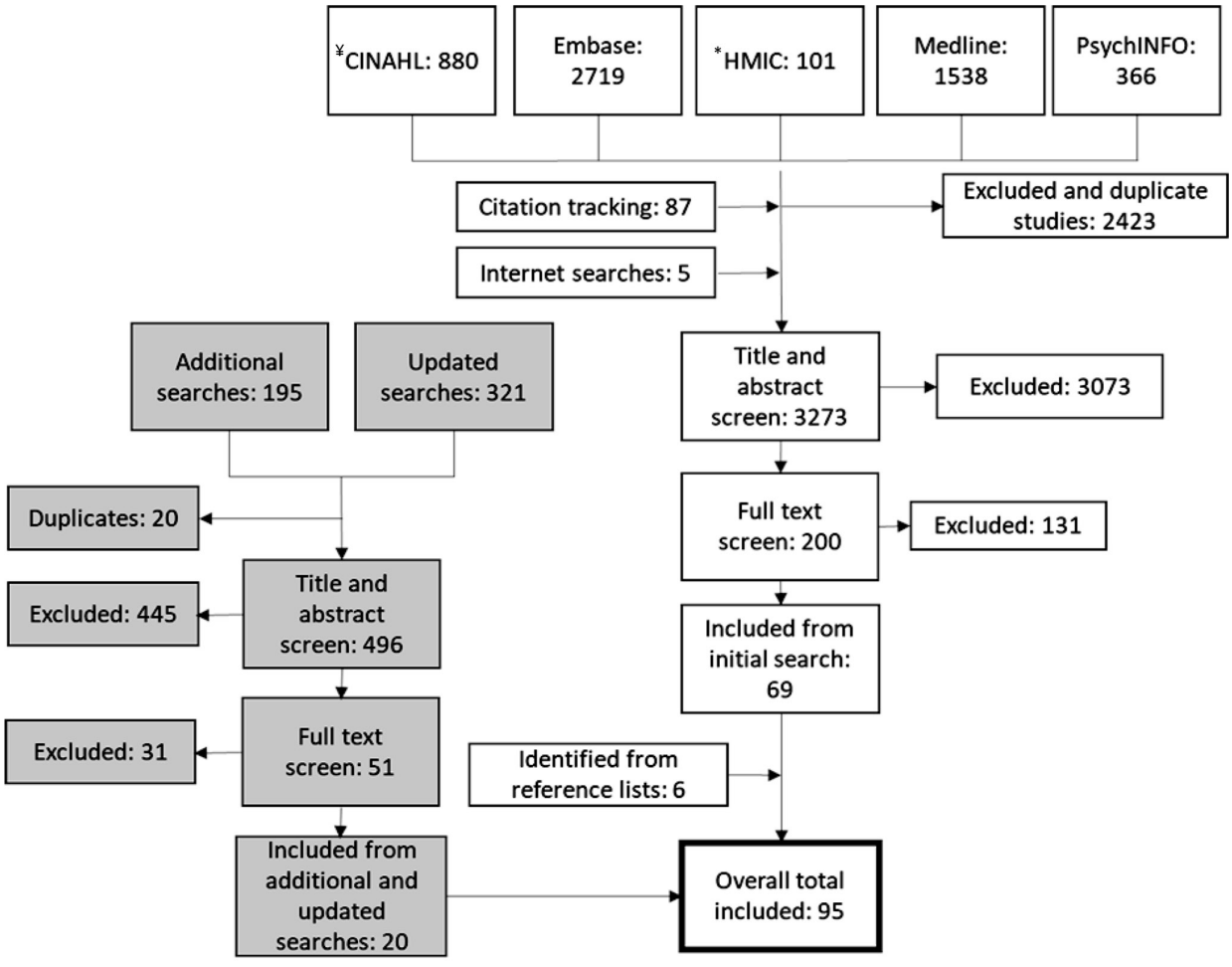
Stakeholder and patient and public involvement

An expert panel of six primary care professionals and five patient volunteers was formed at the beginning of this study in 2019 and contributed until its completion in 2021. The panel was recruited through advertisements placed in Involvement Matters (https://www.clahrc-oxford.nihr.ac.uk/public-involvement/public-involvement-newsletters/involvement-matters), a bulletin of opportunities for members of the public to get involved in research, and in newsletters published by Oxfordshire Clinical Commissioning Group. The panel met four times, initially to help focus the review, and subsequently provided feedback and advice on the programme theory, CMOCs and our interpretation of the data, and on the dissemination plan.

RESULTS

Document characteristics

Ninety-five documents published between 1996 and 2021 from 10 countries (58 (61%) from the UK) were included (figure 2). The main reasons for exclusion were that materials discussed 'safety net' healthcare facilities for uninsured patients or did not contain information that could elucidate the context, mechanisms or outcomes of effective safety-netting advice. In the included documents, healthcare settings included in-hours GP care (43 (45%)); urgent, walk-in and out-of-hours care (16 (17%)); the community (5 (5%)); specialist or secondary care (8 (8%)); public healthcare (7 (7%)) and a mix of settings (16 (17%)). Included documents were research articles (64 (67%)), opinion



¥CINAHL: Cumulative Index to Nursing and Allied Health Literature
*HMIC: Health Management Information Consortium

Figure 2 Flow of materials included in the review.

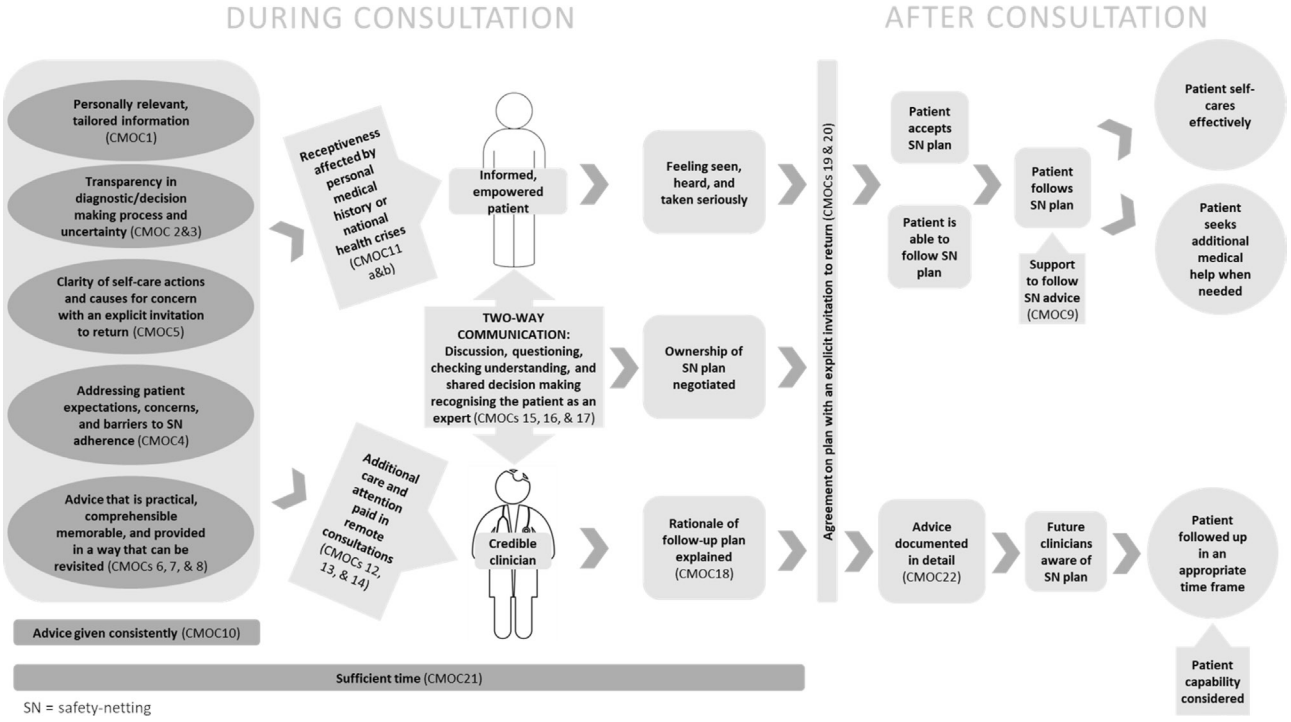


Figure 3 Programme theory of safety-netting. CMOC, context, mechanism and outcome configuration.

pieces or commentaries (13 (14%)), web sources (9 (10%)), reports (4 (4%)), editorials or letters to editor (2 (2%)), clinical guidelines (2 (2%)) and books (1 (1%)). Of the research articles, 36 (56%) were qualitative studies, 8 (13%) were cross-sectional studies, 6 (10%) used mixed methods, 4 (6%) were literature reviews, 4 (6%) were systematic reviews, 4 (6%) were cohort studies and 2 (3%) were randomised trials.

Nature of included data used to develop and support CMOCs and the programme theory

For each of the 95 included documents, global judgements were made (where possible) on: relevance of the data; appropriateness of methods used (if any) to support knowledge claims; plausibility of the findings and whether findings were supported by data in other documents. These global judgements were used to inform our judgement on the credibility of the explanations provided by the CMOCs we produced. Details of the included documents and our global judgements may be found in online supplemental appendix 5. The CMOCs alongside their explanatory credibility and supporting excerpts are presented in online supplemental appendix 6.

Context, mechanism and outcome configurations

The CMOCs detailed in online supplemental appendix 6 contributed to the final programme theory of safety-netting which is presented in figure 3. The evidence relating to some CMOCs or some aspects of the CMOCs was limited. Where this is the case, it is indicated in the narrative.

Safety-netting advice content

Providing patients with personally relevant information (CMOC1)[40–56] that addresses their concerns and expectations (CMOC4)[27 40 49 53 57–74] was important for them to accept and follow safety-netting advice as personalising information increased relevance and usefulness. Additionally, risk communicated based on the individual's risk factors rather than population risk increased trust in the clinician giving the advice.[41] This was especially important during a health crisis or pandemic where too much focus on, for example, risk related to ethnicity could be perceived as stigmatising.[41]

Explaining management plans (CMOC2),[16 50 62 75–87] any diagnostic uncertainty (CMOC3),[4 16 25 42 46 55 62 64 75 87–91] and allowing patients to ask questions led to greater transparency, improved understanding, and avoided false reassurance, thereby increasing confidence to reconsult. Explanations should include what safety-netting is and its purpose[87] and the rationale for any actions taken (including no action).[84] Research conducted in emergency departments supported this and added that this explanation should include why the patient is being discharged, which diseases were considered and the results of any tests.[74] The need for the clinician to explain their diagnostic reasoning and logic behind their management strategy was particularly strong for parents or carers, whose tolerance of uncertainty was lower when consulting for someone under their care.[59 77] When explaining uncertainty, research suggested that parents react more positively to uncertainty framed as most

likely or differential diagnoses rather than explicit expressions of uncertainty.[91]

Appropriate reconsulting and self-care is facilitated if the clinician provides clarity about when the patient should be concerned (CMOC5)[4 12 16 25 27 47 49 50 53 55–57 59 64 66 72 75–77 79 82 83 88 89 92–104] and practical advice is offered by the clinician (CMOC6),[4 16 27 44 47 49 53 55 57 58 60 68–70 74 77–79 89 93 97 100 105 106] as the patients' sense of control and confidence in their own abilities is increased. Advice for managing symptoms, when to suspect treatment failure and concerning time frames were all important.[53 83 89 92 94 97] Assessing and recognising problematic symptoms was particularly important for situations where a parent or carer is making the decision of when to seek help.[72 77 93] Demonstrating signs and tests, for example, the tumbler test for meningococcal disease provided more clarity on what to look for than verbal or written information alone.[49 56 98]

Safety-netting advice should be comprehensible (CMOC7),[49 62 65 77 83 95 102 107] memorable (CMOC8),[14 57] accompanied by materials allowing the patient to revisit it (CMOC9),[26 27 47 49 53 55–57 59 62 63 65 77 88 89 98–100 103 107–112] and given consistently when there is uncertainty irrespective of the perceived risk of the clinical presentation (CMOC10).[27 63] Avoiding jargon, abbreviations and using language that could be easily understood were important but patients did not want their clinician to omit technical information that could facilitate understanding.[77] For patients who are less able to understand written information, using audio-visuals, illustrations and colour coding helped to improve understanding.[49 77] Strategies like 'chunking' and ordering verbal information according to priority were suggested[14 57] but providing materials that could be referred back to remove the need to memorise information. This was also true for telephone consultations and the clinician should have the ability to email advice leaflets or give the patient a website where they can access advice.[53] Information was deemed trustworthy if it was endorsed by organisations patients considered reputable (such as the National Health Service (NHS) in the UK) and this prevented internet searches that raised anxiety.[49 100] However, written safety-netting advice was not considered a substitute for verbal discussion.[56 99]

Additional considerations

Patients were more likely to act on safety-netting advice if the clinician integrated their wider knowledge of the patient and addressed potential sources of anxiety (CMOC11a).[41 42 62 73 100 102 113–120] Characteristics such as young age, being a first time or single parent, previous missed diagnoses, traumatic experiences with the healthcare system and alarming symptoms in children are potential causes of anxiety to address.[62 100 102 119 120] This was especially important when the patient was not known to the clinician.[62]

The COVID-19 pandemic highlighted additional factors that could impede patients' responsiveness to safety-netting advice. When the clinician shows that they are aware of and addresses concerns around a pandemic or ongoing health crisis, the patient is better equipped to assess how the safety-netting advice impacts their own risk, and so may view it as more actionable (CMOC11b).[41 42 102 113–119 121] Patients were more responsive if the risks of the illness being safety-netted were balanced against the risks of the pandemic,[121] the patient was informed of any disruption to services,[121] and follow-up consultations were pre-arranged with patients who were fearful or reticent to 'bother' the doctor.[113] Providing clear, detailed information was vital at a time when patients may be more easily confused,[42] exposed to misinformation, and experiencing increased fear and anxiety.[114 118] Patients should also be informed that they can change their mind if they decline investigations being offered.[121]

Recent documents explored communication during remote consultations. Important aspects to compensate for the impact of reduced non-verbal communication (CMOC12)[60 65 87 122] included ensuring careful listening and questioning,[60 122] and actively seeking feedback on whether information was understood.[87] The literature contributing to CMOCs 13 and 14 was limited and only of moderate relevance to this review but suggested that patient satisfaction with the consultation and information transfer was facilitated by factors such as minimised distractions, good lighting and attention to the screen.[122 123] These CMOCs were discussed with our expert panel who felt they were important to include.

Agreeing the plan

The safety-netting plan should be made through discussion with the patient (CMOC15).[55 70 109 124] This made the patient feel they had been taken seriously and ensured that the plan was manageable.[109 124] The expert panel further highlighted that ownership of the plan should be negotiated to avoid misunderstandings about who held the responsibility for follow-up, and that it be made clear how the safety-netting plan could change if the patient's situation evolves, for example, if new symptoms develop.

When giving safety-netting advice, the clinician should acknowledge the personal knowledge of the patient/parent/carer of their own or their charge's health (CMOC17).[93 106 125] Personal knowledge can include knowledge of their own body and of the usual behaviour of the person in their care.[125] Recognition of this expertise reduced the feeling of hierarchy between patient and clinician, reduced anxiety and increased confidence to reconsult.[59 93]

The rationale for the follow-up plan should be explained (CMOC18)[4 16 55 70 71 126] and the plan should be agreed between the clinician and patient

(CMOC19)[12 16 25 50 51 55 85 92 106 109 124 127 128] so the expectations for follow-up are explicit, any misunderstandings are reduced and the patient is followed up appropriately. That the clinician should check the patient's understanding of the safety-netting advice to reduce misunderstandings and promote appropriate reconsulting was supported by many data sources (CMOC16).[14 25 47 48 53 56 64 70 86 95 97 102 121 124] Again, our expert panel suggested that checking the patient understands that the advice may change as their illness evolves be included. Checking understanding is especially important when the consultation is not face-to-face. The literature highlighted the importance of active elicitation of patient questions as some patients will not initiate questioning.[129]

When the clinician explicitly invites the patient to return, even for the same symptoms, the patient is supported to seek further medical advice (CMOC20).[16 45 60 93 98 106 109 112] Receiving self-care advice could present a barrier to reconsultation and patients feared being labelled as time wasters if they came back with the same symptoms[93] and so the explicit invitation to return may legitimise a reconsultation.[45 60]

Finally, when sufficient time was allowed, safety-netting advice could be more fully explained, understood and discussed (CMOC21).[47 54] Although this CMOC had only a small number of documents supporting it, these were highly relevant and the findings that safety-netting under pressure can lead to it being delivered carelessly[47] were supported by our expert panel.

Documenting safety-netting

A range of documents supported CMOC22.[25 26 47 50 53 56 89 94 97 99 102 104 121 127] that when safety-netting advice is documented in sufficient detail in the patient's record, clinicians caring for the patient in the future are aware of what has been discussed and decided, so can continue care effectively. The data did not suggest that every detail should be recorded but rather that it should be sufficient for continuity of care.[26 127] Thorough recording of safety-netting advice was also highlighted as important from a medico-legal perspective.[56]

DISCUSSION

This realist review sets out the contexts of effective communication of safety-netting advice, the mechanisms that the contexts trigger, and the outcomes of adherence, self-care, and timely reconsultation or follow-up. We have drawn on the safety-netting, risk communication and care management literature to build a programme theory that has been extensively discussed and agreed by an expert panel of professional and public volunteers. Our findings can be divided into four domains: safety-netting advice content, additional considerations, agreeing the plan and documenting safety-netting. The thread running through these domains is that patients are more likely to follow safety-netting advice if they understand what safety-netting is, why it is being used, what the safety-netting actions are and who holds responsibility for the safety-netting actions. Based on our findings, we present recommendations for the effective communication of safety-netting in table 2.

Strengths and limitations

The major strength of this review lies in the range of materials used to build the CMOCs and the final programme theory. To date, the literature on safety-netting has been dominated by commentaries and although qualitative, observational and experimental research is starting to emerge, this still makes up a minority of the literature. Additionally, this review is strengthened by the inclusion of an expert panel of professional and public volunteers. This expert panel was involved for the duration of the study, and they have discussed each of the CMOCs and the final programme theory from the perspective of the individual providing, and the individual receiving the safety-netting advice. Finally, the included literature covers a wide range of disease areas and so our recommendations are not restricted to specific illnesses, which is a strength given safety-netting is most often used in the absence of a firm diagnosis.

Our aim was to create a programme theory that could be applied to all disease areas, patient groups, communication mediums and primary care settings. We aimed to make the output of this research applicable in all primary care settings including out of hours, urgent care, and pharmacy as the lack of continuity of care and reduced access to patient records suggests that careful safety-netting may be of even greater importance in these settings. However, most of the literature retrieved was linked to in-hours primary care meaning our findings should be applied with caution to other settings. Additionally, there was only a small amount of literature available for CMOCs for some communication mediums. As all of the CMOCs were discussed and agreed by our expert panel, we have included all CMOCs in our programme theory, highlighting areas for future research. We were unable to make recommendations specifically tailored to the communication of safety-netting during remote consultations due to the lack of data which weakened the explanatory credibility of a small number of the CMOCs. Although many of our recommendations will apply to remote consultations, future research should explore whether patient understanding of and adherence to safety-netting advice is affected by remote consultations and what measures should be taken to facilitate safety-netting communication. The included literature reported findings relevant to a range of groups, for example, parents, carers and patients with limited literacy. Of patient factors, ethnicity was the least well

Table 2 Recommendations for practice and illustrative links to established consultation models

Recommendations for clinicians using safety-netting*†	Stages of consultation models relating to recommendation		
	Pendleton *et al*[150]	Calgary-Cambridge[151]	Neighbour's checkpoints[6]
1. Consider providing safety-netting advice to all patients where there is uncertainty in the diagnosis or the potential for the diagnosis to evolve.	-	-	-
2. Offer safety-netting advice in simple terms and tailor it to the patient's presentation. Do not omit technical information that may improve understanding.	Task 4 (shared understanding)	Step 4 (explanation and planning)	Safety-netting
3. Offer patients the opportunity to discuss their expectations and concerns and ensure they are addressed in the safety-netting advice.	Task 1 (define reason)	Steps 1 and 2 (initiating the session and gathering information)	Summarising
4. Offer an initial diagnosis and describe the expected natural history with practical instructions for self-care and specific situations that should be cause for concern in the safety-netting advice.	Task 4 (shared understanding)	Step 4 (explanation and planning)	Handover
5. Offer resources that will allow the patient to revisit safety-netting information in their own time.	Task 6 (use time and resources appropriately)	Step 4 (explanation and planning)	Safety-netting
6. Consider using techniques such as 'chunking' to improve recall of the safety-netting information.	Task 4 (shared understanding)	Step 4 (explanation and planning)	Safety-netting
7. Offer a safety-netting plan that is sensitive to and addresses factors that may make the patient less receptive to safety-netting advice.	Task 3 (choose appropriate action with patient)	Steps 2 and 4 (gathering information and explanation and planning)	Connecting
8. Offer the patient the opportunity to discuss and share in the decision-making of the safety-netting plan.	Tasks 3 and 5 (choose appropriate action with patient and involve the patient)	Step 4 (explanation and planning)	Handover
9. Offer an explanation for the specific safety-netting plan and follow-up plan, and include a discussion of any uncertainty in the initial diagnosis.	Task 5 (involve the patient)	Step 4 (explanation and planning)	Handover
10. Consider actively checking that the patient understands the safety-netting plan.	Task 4 (shared understanding)	Steps 4 and 5 (explanation and planning, closing the session)	Handover
11. Consider explicitly acknowledging the patient's greater knowledge and ability to make judgements about their own health.	Task 5 (involve the patient)	Step 4 (explanation and planning)	Handover
12. Offer the patient an opportunity to explicitly agree to the follow-up plan.	Task 5 (involve the patient)	Step 4 (explanation and planning)	Handover
13. Offer the patient an explicit invitation to return for further medical advice, even if it is for the same symptom(s).	Task 4 (shared understanding)	Step 5 (closing the session)	Safety-netting
14. Consider building in elements of safety-netting throughout the consultation to avoid it being rushed at the end of the consultation.	All	All	All
15. Offer sufficient detail about the safety-netting advice in the patient's medical record that future clinicians are able to understand what care was given and continue it appropriately.	-	-	-

*Recommendations are worded as per the NICE wording convention where 'offer' signifies high explanatory credibility of the recommendation and 'consider' signifies moderate explanatory credibility.[152]
†Findings where the explanatory credibility of the CMOC was rated at low are not included in these recommendations.
CMOC, context, mechanism and outcome configuration; NICE, National Institute for Health and Care Excellence.

explored. While we do not urge the same caution in applying our recommendations across patient groups, we strongly advise that future safety-netting research specifically investigates the effect that ethnicity, cultural attitudes towards health and healthcare, and GPs' cultural competence[130] may have on the effectiveness of safety-netting advice.

Links to existing research

This review highlights both relational and informational continuity of care as important for effective safety-netting. This is supported in the literature examining the effects of continuity of care in that greater continuity has been linked to decreased use of out-of-hours services, acute hospital admissions and mortality.[131 132] The reasons proposed for this effect mirror the mechanisms reported herein, in that greater continuity is suggested to lead to greater patient trust, better communication and so greater adherence to medical advice.[131 133]

Safety-netting shares commonalities with the personalised care planning, shared decision-making, risk communication and communications training literature.[134–137] The safety-netting literature reflects that of shared decision-making in that both emphasise the importance of addressing the information needs of the patient and that the patient is given the opportunity to question the management plan.[138] More collaborative

styles of consulting are, however, likely to have implications for timekeeping and clinicians are reported to be less likely to engage with shared decision-making if they perceive it as an additional demand on their time.[139 140] The literature reports an average increase of 2.6 min in the length of consultations that include shared decision-making.[141] Although this increase is reportedly not *statistically significant*, the cumulative effect of even small increases could make safety-netting infeasible for many.[142 143]

It is likely that the extent to which safety-netting is integrated into the consultation will impact its feasibility. Table 2 maps our safety-netting recommendations onto three primary care consultation models selected for their popularity and relative patient-centeredness (Pendleton *et al*, Calgary-Cambridge and Neighbour[144]), to demonstrate where safety-netting actions overlap with or are integrated into the 'model' consultation. While taught consultation models and clinical practice may markedly differ, and often do, this mapping provides an indication that safety-netting should not be thought of as an additional task but rather the result and summation of existing recognised components of the consultation. Only two of our recommendations did not map to all consultation models. These recommendations concerned the communication of safety-netting advice in all cases of diagnostic uncertainty and the documentation of advice in the record. These aspects of communication may become integrated into future iterations of consultation models based on the findings of this review.[145]

Implications for practice and research

Conceptualising safety-netting as something that happens in the last 30 seconds of the consultation runs counter to our findings. The safety-net should be considered the product of a shared understanding between the doctor and patient that develops throughout the consultation and which is supported by in-depth knowledge of patients built by GPs over time. Lack of time is given as a reason why safety-netting is often poorly practised,[12 23] and continuity of care is declining in primary care.[146] Research is required to understand the impact of integrating these recommendations on consultation length and the amount of additional time that is likely to be required, and to establish how clinician–patient relationships can be fostered by safety-netting systems in circumstances where continuity of care is limited.

We found no materials which included advice for safety-netting patients with multiple issues. This is important as the average number of issues dealt with per consultation is reported to be 2.5,[147] and likely to increase as the consulting population ages. A recent study found that when multiple issues are raised during the consultation, the likelihood of GPs providing safety-netting advice and recording advice in the patient's record decreased with each additional issue.[15] Addressing safety-netting in the context of multimorbidity should be a priority for future research.

Our review focused on the communication of safety-netting advice within the consultation. Future research should investigate how follow-up of safety-netting advice is best implemented. Often clinicians prefer the responsibility of follow-up to rest with the patient (so long as they are deemed able) and that while some patients accept this (so long as they have been given enough information), other patients prefer more active follow-up.[16 55] What effective follow-up looks like, and whether there is a role to play for electronic safety-netting solutions should be established.[148 149]

Finally, training and continuing professional development of primary care clinicians might be updated to include these findings. Changes in patient demographics and illness profiles, the use of technology in the consultation, and workforce pressures mean that the practice and importance of safety-netting will continue to evolve. It is important that training and research keep pace with this.

CONCLUSION

We present a theory and set of recommendations for effective safety-netting communication but acknowledge that at first glance, these may seem daunting in an already crowded consultation, of which safety-netting is usually considered only a small part. Patients are more likely to follow safety-netting advice if they understand what safety-netting is, why it is being used, what the safety-netting actions are and who holds responsibility for safety-netting actions. We propose that these elements of effective safety-netting, with few exceptions, are already incorporated into the 'model' consultation.

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Appendix 1: RAMESES Publication Standards Checklist

TITLE			**PAGE NUMBER**
1		In the title, identify the document as a realist synthesis or review	1
ABSTRACT			
2		While acknowledging publication requirements and house style, abstracts should ideally contain brief details of: the study's background, review question or objectives; search strategy; methods of selection, appraisal, analysis and synthesis of sources; main results; and implications for practice.	3
INTRODUCTION			
3	Rationale for review	Explain why the review is needed and what it is likely to contribute to existing understanding of the topic area.	4
4	Objectives and focus of review	State the objective(s) of the review and/or the review question(s). Define and provide a rationale for the focus of the review.	4
METHODS			
5	Changes in the review process	Any changes made to the review process that was initially planned should be briefly described and justified.	5
6	Rationale for using realist	Explain why realist synthesis was considered the most appropriate method to use.	5

TITLE			PAGE NUMBER
	synthesis		
7	Scoping the literature	Describe and justify the initial process of exploratory scoping of the literature.	6
8	Searching processes	While considering specific requirements of the journal or other publication outlet, state and provide a rationale for how the iterative searching was done. Provide details on all the sources accessed for information in the review. Where searching in electronic databases has taken place, the details should include, for example, name of database, search terms, dates of coverage and date last searched. If individuals familiar with the relevant literature and/or topic area were contacted, indicate how they were identified and selected.	6
9	Selection and appraisal of documents	Explain how judgements were made about including and excluding data from documents, and justify these.	6&7
10	Data extraction	Describe and explain which data or information were extracted from the included documents and justify this selection.	7
11	Analysis and synthesis processes	Describe the analysis and synthesis processes in detail. This section should include information on the constructs analyzed and describe the analytic process.	7
RESULTS			
12	Document flow	Provide details on the number of documents assessed for eligibility and included in the review with reasons for	8

TITLE			PAGE NUMBER
	diagram	exclusion at each stage as well as an indication of their source of origin (for example, from searching databases, reference lists and so on). You may consider using the example templates (which are likely to need modification to suit the data) that are provided.	
13	Document characteristics	Provide information on the characteristics of the documents included in the review.	9
14	Main findings	Present the key findings with a specific focus on theory building and testing.	15-17
DISCUSSION			
15	Summary of findings	Summarize the main findings, taking into account the review's objective(s), research question(s), focus and intended audience(s).	18
16	Strengths, limitations and future research directions	Discuss both the strengths of the review and its limitations. These should include (but need not be restricted to) (a) consideration of all the steps in the review process and (b) comment on the overall strength of evidence supporting the explanatory insights which emerged. The limitations identified may point to areas where further work is needed.	18
17	Comparison with existing literature	Where applicable, compare and contrast the review's findings with the existing literature (for example, other reviews) on the same topic.	18&19
18	Conclusion and recommendations	List the main implications of the findings and place these in the context of other relevant literature. If appropriate, offer recommendations for policy and practice.	19&20

TITLE			PAGE NUMBER
19	Funding	Provide details of funding source (if any) for the review, the role played by the funder (if any) and any conflicts of interests of the reviewers.	23

Wong, G., Greenhalgh, T., Westhorp, G. et al. RAMESES publication standards: realist syntheses. *BMC Med* 11, 21 (2013). https://doi.org/10.1186/1741-7015-11-21

Appendix 2: Detailed description of the Realist Review method used

Step 1: Locate existing theories and build initial programme theory

[Figure 1 about here]

An exploratory search was undertaken in PubMed to locate existing theories of safety-netting and the gathered literature was discussed by the study team. The initial programme theory was developed by CFS, and shared with the research team for comment and feedback. This process was repeated until the study team agreed on the draft initial programme theory, at which point it was discussed with the expert panel at a face-to-face meeting. Amendments were made following this meeting, and the initial programme theory is available in Appendix 3.

Step 2: Run formal searches and screen results

A formal literature search was piloted, refined, and then carried out with the assistance of a librarian using key words identified in our exploratory search. Medline, Embase, Health Management Information Consortium (HMIC), Cumulative Index to Nursing and Allied Health Literature (CINAHL), PsychInfo, as well as targeted Google searches of charitable, professional, and government bodies were searched from 1987 to October 2019. We limited our searches to papers published from 1987 onwards as this was the year that Neighbour first described safety-netting as we use the term today (6). Our Medline search strategy is available in Appendix 4**,** searches in other databases used the same terms but were adapted to each database. Relevant documents were identified through a title and abstract screen, followed by a full text screen against the inclusion criteria (Table 1) by CFS with a random 10% sample of materials reviewed in duplicate by either BDN or HL to ensure consistency. Any discrepancies were resolved through discussion. The reference lists of all included articles were also screened for potentially relevant papers.

Intervention	Safety-netting advice given for symptoms where a diagnosis is not immediately apparent or illness is initially suspected to be self-limiting, risk communication.
Setting	Any healthcare setting where discharge advice is given, any setting where health risk is communicated, for example public health messaging during a pandemic.
Participants	Any healthcare professional. Adult patients (≥18 years) of any gender, ethnicity, or other demographic group. Adult carers or family members (≥18 years) of patients unable to take responsibility for their own care, for example, children or patients with developmental disorders, of any gender, ethnicity, or other demographic group.
Study design	All study designs except case reports
Outcome	Any outcome related to the understanding of the safety-netting advice or risk communication, or ability of the patient or carer to self-care when appropriate and re-consult when necessary.
Limits	1987 – present. No limits on place or language of publication were used.

Table 1. Inclusion criteria

Step 3: Extract data

The characteristics of included materials were extracted into a pre-prepared Excel spreadsheet. The full texts of included materials were uploaded into NVivo and coded by CFS, with a random 10% consistency check carried out by HL. At this stage, the inclusion of papers was based on the relevance of the paper (whether the paper contained data that was judged to be relevant to the programme theory), and the rigour of the methods used (where possible). Judgements were also made of the

plausibiliy and coherence of the emerging programme theory (40). A description of each included study and its quality assessment can be found in Appendix 5.

Step 4: Synthesise evidence and refine programme theory

The coded data was synthesised and the outcomes of safety-netting considered. This was done by considering what the data described as the important outcomes of safety-netting, what conditions or actions as part of safety-netting were needed to bring about those outcomes (contexts), whether any explanations were given or could be inferred for what caused the outcome (mechanisms). Additionally, relevant data was drawn from across the included documents to develop and refine the draft CMOCs so that they were able to provide causal explanations for different settings and patient groups. Draft CMOCs were written by CFS and discussed and refined with GW and BDN in the first instance. As the CMOCs were created and refined, we made judgements, based on relevant data from within included materials, on how the CMOCs related to each other, for example, whether it was necessary for one CMOC to precede another in the consultation. Following this process we refined our initial programme theory into a realist proramme theory (i.e. one contains realist causal explanations in the form of CMOCs). After each stage of evidence synthesis following the formal search and the subsequent targeted searches (see step 5) we met either face-to-face or virtually with an expert panel made up of primary care professionals and patient representatives. At each meeting the developing programme theory and CMOCs were discussed, missing information identified, and (where needed) CMOCs refined based on their feedback and advice.

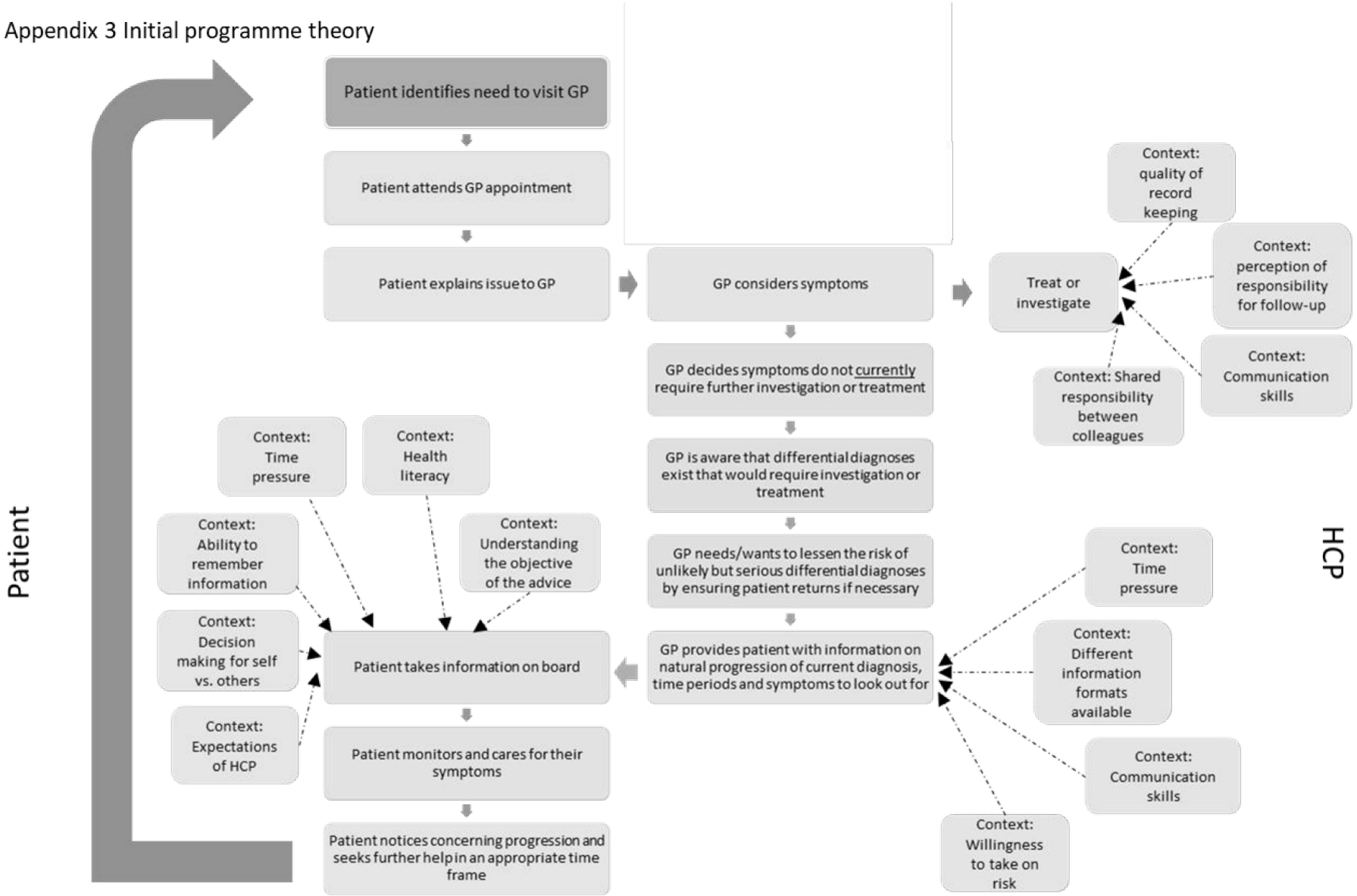
Step 5: Targeted searches

Targeted, iterative literature searches were carried out between June 2020 and April 2021 following the discussion of the programme theory and CMOCs with the research team and expert panel. The aim of these searches was to update our initial search and provide information where gaps were identified. The literature found through these searches was screened, data extracted, and synthsised as described above. For example, in the early stages of the COVID-19 pandemic it was decided that safety-netting during remote consultations and health crises was important to include but insufficient data on these topics had been found. As such, targeted searches on safety-netting when the consultation is not face-to-face, and health risk communication during health crises or pandemics were carried out. At our final expert panel meeting, the programme theory and CMOCs were agreed and finalised.

Step 6: Write up finalised programme theory

On agreement of the final programme theory the research process was written up in detail as described herein.

Appendix 3 Initial programme theory



Appendix 4: Medline search strategy

# ▲	Searches
1	safety netting.mp.
2	safety net*.ti,ab.
3	(((talk* or communicat* or explain* or decision making) adj5 (uncertain* or risk* or concern*)) and (re-consult* or reconsult* or re-assess* or reassess* or plan* or referral* or escalat*)).ti,ab.
4	(((talk* or communicat* or explain* or decision making) adj5 (uncertain* or risk* or concern*)) and ((follow up or future or further or additional or extra or seek*) adj5 (appointment* or consult* or help or advice))).ti,ab.
5	(((talk* or communicat* or explain* or decision making) adj5 (uncertain* or risk* or concern*)) and patient safety).ti,ab.
6	(((talk* or communicat* or explain* or decision making) adj5 (uncertain* or risk* or concern*)) and (information adj3 need*)).ti,ab.
7	((diagnos* adj3 uncertain*) and (re-consult* or reconsult* or re-assess* or reassess* or plan* or referral* or escalat* or return*)).ti,ab.
8	((diagnos* adj3 uncertain*) and ((follow up or future or further or additional or extra or seek*) adj5 (appointment* or consult* or help or advice))).ti,ab.
9	((diagnos* adj3 uncertain*) and patient safety).ti,ab.
10	((diagnos adj3 uncertain*) and (information adj3 need*)).ti,ab.
11	(red flag* and (re-consult* or reconsult* or re-assess* or reassess* or plan* or referral* or escalat* or return*)).ti,ab.
12	(red flag* and ((follow up or future or further or additional or extra or seek*) adj5 (appointment* or consult* or help or advice))).ti,ab.
13	(red flag* and patient safety).ti,ab.
14	(red flag* and (information adj3 need*)).ti,ab.
15	(((worr* or concern*) adj3 (symptom* or sign* or feature*)) and (re-consult* or reconsult* or re-assess* or reassess* or plan* or referral* or escalat* or return*)).ti,ab.
16	(((worr* or concern*) adj3 (symptom* or sign* or feature*)) and ((follow up or future or further or additional or extra or seek*) adj5 (appointment* or consult* or help or advice))).ti,ab.
17	(((worr* or concern*) adj3 (symptom* or sign* or feature*)) and patient safety).ti,ab.
18	(((worr* or concern*) adj3 (symptom* or sign* or feature*)) and (information adj3 need*)).ti,ab.
19	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
20	Ambulatory Care/
21	exp Ambulatory Care Facilities/
22	general practice/ or family practice/
23	general practitioners/ or physicians, family/ or physicians, primary care/
24	Primary Health Care/
25	Office Visits/
26	exp Emergency Service, Hospital/
27	Emergency Medical Services/
28	(ambulatory adj3 (care or setting? or facilit* or ward? or department? or service?)).ti,ab.
29	((general or family) adj2 (practi* or physician? or doctor?)).ti,ab.
30	(primary care or primary health care or primary healthcare).ti,ab.

31	(community adj3 (practitioner? or nurse? or pharmac*)).ti,ab.
32	(emergency adj3 (care or setting? or facilit* or ward? or department? or service?)).ti,ab.
33	(after hour? or afterhour? or "out of hour?" or ooh).ti,ab.
34	(clinic? or visit?).ti,ab.
35	((health* or medical or walk-in or walkin) adj2 (center? or centre?)).ti,ab.
36	(first contact or "first point of contact").ti,ab.
37	(general practi* or primary care or primary health* or family pract* or family physician?).in,jw.
38	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
39	19 and 38
40	1 or 39
41	(uninsured or "no insurance" or "lack of insurance" or medicare or Medicaid or "affordable care act").ti,ab.
42	(safety net adj3 (hospital? or clinic? or program* or provider* or system? or center? or institute*)).ti,ab.
43	(US adj2 safety net).ti,ab.
44	41 or 42 or 43
45	40 not 44
46	((gene* adj3 (risk or screen*)) or screening or proband).ti,ab.
47	45 not 46
48	Terminal Care/ or Terminally Ill/ or (terminal* ill* or terminal care or "end of life care" or palliative care).ti.
49	47 not 48
50	limit 49 to yr="1987 -Current"
51	("31468890" or "31439453" or "31354078" or "30376908" or "21249820" or "27441326" or "30429203" or "31027482" or "31515421" or "31468848" or "30728187").ui.
52	50 and 51

Appendix 5. Included papers

First author (date)	Title	Country	Source type	Participant type	Setting category	Setting	Study design (Disease area)	Number of participants	Is the paper relevant to the question?	Are the methods used appropriate	Are the findings plausible?	Do the conclusions of the study support those of other studies?
Ackermann (2016)	Discharge Communication in Patients Presenting to the Emergency Department With Chest Pain: Defining the Ideal Content	Switzerland	Journal article	Physicians and patients	Specialist/ secondary	Hospital	Mixed (Chest pain)	47 ED physicians 51 patients with chest pain	Highly - covers what needs to be communicated on discharge from ED and how.	Yes - data is collected from physicians and patients and combined to reach conclusions, qualitative methods are also used to gain deeper insight into findings.	Yes - the findings are based on appropriate methods and reflect what has been reported elsewhere	Yes
Akanuwe (2020)	Communicating cancer risk in the primary care consultation when using a cancer risk assessment tool: Qualitative study with service users and practitioners	UK	Journal article	GPs, practice nurses and patients	In hours	Primary care	Qualitative (Cancer)	17 GPs and practice nurses 19 patients	Moderately - the paper looks at cancer risk communication specifically when a tool (Qcancer) has been used.	Yes - data is collected from multiple perspectives and using qualitative methods which allow in depth exploration of viewpoints. Interview schedules were based on a theoretical framework.	Yes - themes come from the perspectives of multiple participants and data to support them are provided.	Yes

Alam (2017)	Managing diagnostic uncertainty in primary care: a systematic critical review	UK	Journal article	Clinicians, mix of primary and secondary care	Mix	Mix of primary and secondary care	Systematic review (All)	Mix - total = 2434	Highly - paper covers the management of diagnostic uncertainty	Yes	To a degree - the review includes a relatively small number of studies (10) and the authors do not rate the quality of the included studies particularly highly.	Yes and no - the authors do not arrive at any unifying conclusions, but the findings of the individual studies do support each other and the literature.
Alaszewski (2005)	Risk communication: identifying the importance of social context	UK	Editorial /letter to editor	NA	Government level communication	NA	Editorial (All)	NA	Moderately - discusses risk communication generally	Yes - this is an editorial	Yes - sums up the findings in the papers in recent issues of the journal	Yes - individuals are not passive recipients of information is discussed elsewhere.
Almond (2009)	Diagnostic safety-netting	UK	Commentary	NA	In hours	NA	Commentary/opinion piece (All)	NA	Highly - paper discusses safety-netting in first contact situations	Yes - essay is mainly based on an earlier Delphi study conducted by the authors	To a degree - there are no new findings as such presented, rather the findings of the previous Delphi. This study did not involve patient participants so the points on where safety-netting goes wrong are purely from the clinician's perspective. These findings are similar to	Yes.

											those reported elsewhere though	
Almond (2009b)	DIAGNOSIS IN GENERAL PRACTICE: Test of time	UK	Comme ntary	NA	In hours	Primary care	Commentar y/opinion piece (All)	NA	Highly - paper discusses safety-netting and how it functions	Yes - although this is an essay/literature review	Yes - the findings come from published studies with some analysis from the authors	Yes
Aronson (2020)	Development of an App to Facilitate Communicati on and Shared Decision making With Parents of Febrile Infants ≤ 60 Days Old	USA	Journal article	Parents and clinicians	Specialist/ secondary	Urban quaternar y-care academic medical centre with a paediatric ED	Mixed (Fever)	Interviews: 27 parents, 23 clinicians App testing: 6 parents, 2 physicians, 1 nurse	Moderately - covers some ways of communicatin g and parents' information needs but is primarily around lumbar puncture	yes	Yes	Yes - the conclusions/findings around communication support those of other studies.
Ashdown (2016)	Prescribing antibiotics to 'at-risk' children with influenza-like illness in primary care:	UK	Journal article	GPs	In hours	Primary care	Qualitative (Acute respiratory illness)	41	Moderately - contains some information on how patient characteristics influence GP	Yes	Yes	Yes - similar influences mentioned

	qualitative study								decision making			
Balla (2012)	Clinical decision making in a high-risk primary care environment: a qualitative study in the UK	UK	Journal article	GPs	Urgent. OOH, walk in	Out of hours primary care	Qualitative (All)	21	Moderately - GPs discuss how they deal with patients in a setting with high levels of uncertainty	Yes	Yes	Only a small part of this study was relevant and this is not part of the conclusions. The parts that are relevant to support other studies.
Bankhead (2011)	Safety netting to improve early cancer diagnosis in primary care: development of consensus guidelines.	UK	Report	Primary care cancer experts, GPs, GP cancer leads	In hours	Primary care	Mixed (Cancer)	54	Highly - covers what should be included in safety-netting and how it should be delivered including for those with language and literacy barriers to communication. Is only from the perspective of the clinician though.	Yes but lacks patient input	Yes	Yes
Barratt (2018)	Nurse practitioner consultations in primary health care: patient, carer, and nurse	UK	Journal article	Patients, carers, nurse practitioners	In hours	Primary care	Qualitative (All)	9 patients, 2 carers, 3 nurse practitioners	Highly - covers communication and how/why it is effective including from the patients' perspective	Yes - only reservation is over the small numbers of participants in each category. Only 3 nurses and 2 carers.	Yes - they seem to be but again the small number of participants in some categories is a limitation	Yes

	practitioner qualitative interpretations of communication processes											
Bertheloot (2016)	How do general practitioners use 'safety netting' in acutely ill children?	Belgium	Journal article	GPs	In hours	Primary care	Qualitative (All)	37	Highly - covers how GPs safety-net children but only from the perspective of the clinician	Yes but lacks patient input	Yes	Yes - for the most part but GPs also say that they have no need for SN guidance or support which has not come up elsewhere
Bhise (2018)	Patient perspectives on how physicians communicate diagnostic uncertainty: An experimental vignette study	USA	Journal article	Parents	Specialist/ secondary	Paediatric academic centre	Cross-sectional (Stomach pain)	71	Moderately - sheds light on how uncertainty communication styles can change perceptions of clinician trustworthiness and competence	Yes - groups are randomised but could have had a larger sample (25, 25, 21 per group)	Yes - implicit communication of uncertainty scores better on trust, competence, and confidence	Yes
Birt (2014)	Responding to symptoms suggestive of lung cancer: a qualitative interview study	UK	Journal article	Patients	Specialist/ secondary	Specialist respiratory clinics	Qualitative (Cancer)	35	Highly - covers help seeking from the patient's perspective	Yes	Yes	Yes

Black (2015)	Patients' Experiences of Cancer Diagnosis as a Result of an Emergency Presentation: A Qualitative Study	UK	Journal article	Patients	Urgent. OOH, walk in	Emergency departments	Qualitative (Cancer)	27	Moderately - covers how patients make the decision to reattend and follow-up	Yes	Yes - emphasises the multiple attendances often to different settings of patients diagnosed as an emergency	Yes
Boase (2012)	Tinkering and tailoring individual consultations: how practice nurses try to make cardiovascular risk communication meaningful	UK	Journal article	Primary care nurses	In hours	Primary care	Qualitative (Cardiovascular disease)	28	Moderately - discusses CVD risk communication with patients in general rather than safety-netting specifically	Yes	Yes - presents the way nurses try to make information useful for patients in varying ways which are plausible	Yes - again the importance of tailored information is highlighted.

Brach (2012)	Ten Attributes of Health Literate Health Care Organizations	USA	Commentary	NA	Mix	Health care organisations in general	Commentary/opinion piece (All)	NA	Slightly - focus is on health literacy which is relevant but only a small part of safety-netting. Also is a US paper so contains information about payment for health care which is not relevant.	Unclear - the methods used are not described. This appears to be a literature review and if this is the case a systematic review would arguably have been better.	Yes - contains a lot of plausible and common sense information about health literacy and supporting health literacy.	Yes - much of the points raised are common sense and support other studies.

Buntinx (2011)	Dealing with low-incidence serious diseases in general practice.	Netherlands, UK, Germany (authors)	Commentary	NA	In hours	Primary care	Commentary/opinion piece (All)	NA	Moderately - discusses a range of ways that low incidence serious disease should be catered for in primary care, including a section on safety-netting.	This is a discussion piece so uses a literature review. A systematic review would have been more robust but this is appropriate as a starting point.	There are not any findings as such - presents some from other papers but is mainly raising questions and the gaps in the literature.	Yes - the conclusions are mainly a call for further research but the suggestions are appropriate.

Byrne (2016)	'Brief, Superficial' ED Interactions Spur Litigation	USA	Web page	NA	Urgent. OOH, walk in	Emergency departments	Web magazine opinion piece (All)	NA	Moderately - describes the issues that can arise with poor communication, including of uncertainty. Gives some strategies to improve communication.	This is an expert opinion piece which is not inappropriate but could be better researched using different methods.	Yes - the advice given is fairly standard good communication advice	Yes - the advice given is fairly standard good communication advice
Cabral (2014)	''They just say everything's a virus''—Parent's judgment of the credibility of clinician communication in primary care consultations for respiratory tract infections in children: A qualitative study	UK	Journal article	Parents	In hours	Primary care	Qualitative (Respiratory tract infection)	30	Highly - parents are discussing what makes clinician communication credible in an illness area where safety-netting is likely to be frequently used	Yes	Yes - parents' expectations of the consultation and their concerns shape the credibility of care recommendations, as well as the effectiveness of clinician communication	Yes - the expectations and concerns of the patient can be a barrier to the acceptance of the clinician's advice and patients value specific and practical advice.
Campion-Smith (2017)	Primary care: 10 Top Tips	UK	Web page	NA	In hours	Primary care	Web page (Cancer)	NA	Highly - directly discusses ways to improve safety-netting	Unclear - this is a webpage of tips for safety-netting, methods are not detailed but it is likely expert opinion.	Yes - author and Macmillan who produced the piece are trustworthy.	Yes - recommendations/tips are similar to those in other literature.

Cancer Research UK (2020)	Safety netting patients during the COVID-19 pandemic	UK	Web page	NA	In hours	Primary care	Web page (Cancer)	NA	Highly - directly discusses safety-netting	Unclear - no discussion of methods	Yes - good source and plausible recommendations	Yes - recommendations are supported by other literature
Cancer Research UK (2020)	Safety netting: Coronavirus (COVID-19)	UK	Web page	NA	In hours	Primary care	Web page (Cancer)	NA	Highly - CRUK summarises the advice on safety-netting	Yes - it is a basic literature review so not comprehensive but the information is based on the main papers on the topic.	Yes - based on the main papers on the topic.	Yes.
Carter (2020)	A systematic review of the organizational, environmental, professional and child and family factors influencing the timing of admission to hospital for children with serious infectious illness	UK	Journal article	Parents of child patients and first contact health care professionals	Mix	Primary, urgent, and emergency care in high income countries	Systematic review (Serious infectious illness)	12 papers 6380 papers	Moderately - discusses the factors that can lead to delayed presentations of serious illness in children so useful for things safety-netting should try to address	Yes - aim of the paper is well met by SR method	Yes - the factors described are plausible particularly in relation to parent and clinician factors. The authors note weak evidence around the organisational factors reported.	Yes - the authors suggest how parents and clinicians can be supported to avoid delays that are in line with other research.

Chen (2019)	Improving assessment of children with suspected respiratory tract infection in general practice	UK	Journal article	GPs	In hours	Primary care	Trial of an EMIS template following Plan Do Study Act cycles (Respiratory tract infection)	NS (1 practice)	Slightly - paper mainly discusses the development of the tool, relevant part are around what information should be given and how safety-netting should be recorded.	Yes - methods seem appropriate but study is limited to 1 practice.	Yes - the study was iterative and took feedback into account at each stage to form the results.	Yes - that a template will improve documentation.
Colliers (2020)	Understanding General Practitioners' Antibiotic Prescribing Decisions in Out-of-Hours Primary Care: A Video-Elicitation Interview Study	Belgium	Journal article	GPs	Urgent. OOH, walk in	Out of hours primary care	Qualitative (Bacterial and viral infections)	21	Moderately - paper has a section on safety-netting in OOH which is relevant	Yes - recorded consultations and interviews using the consultations as prompts	Yes - describes the SN behaviours of GPs which are similar to those reported previously.	Yes - paper fits in with the rest of the literature.
Conti (2016)	Informal caregivers' needs on discharge from the spinal cord unit: analysis of perceptions and lived experiences	Italy	Journal article	Carers	Community	Community	Qualitative (Spinal cord injury)	11	Slightly - gathers the views of carers of adults with spinal injuries but mainly on their changing identity and coping strategies. Only a small part on information	Yes	Yes - describes the impact and adjustment of the carer to their new caring role plausibly	Yes - but with limited usefulness for this study.

									needs.			
de Bont (2014)	A separate 'traffic light' for every child with a fever?	The Netherlands	Commentary	NA	Mix	Primary and secondary care	NA (Fever)	NA	Moderately - cover how the need for information can affect how a parent consults and briefly how SN can help.	NA	Yes - discusses a traffic light tool to help gauge how serious the child's illness is.	Yes - from an evidence based guideline.
de Vos-Kerkhof (2016)	Tools for 'safety netting' in common paediatric illnesses: a systematic review in emergency care	The Netherlands	Journal article	Child patients	Urgent. OOH, walk in	Emergency departments	Systematic review (All)	58 articles median 1371 children	Moderately - Discusses the evidence for safety-netting strategies for children attending ED but only very broadly, is more concerned with whether safety-netting can reduce ED reattendance.	Moderately - the use of a systematic review is appropriate but the range of ages included is large (one study has an upper quartile of 21 years) and results are generalised across ages. Breaking down by age groups may have been better.	Yes - mostly discusses the conflicting evidence for safety-netting preventing reattendance.	Moderately - the conclusions around the characteristics of children that lead to reattendance are in line with other studies. On safety-netting the authors suggest that a high-risk group in need of safety-netting advice is hard to identify, whereas much of the literature suggests that safety-netting should be done consistently.

Dekker (2018)	Parents' attitudes and views regarding antibiotics in the management of respiratory tract infections in children: a qualitative study of the influence of an information booklet	The Netherlands	Journal article	Parents of child patients	In hours	Primary care	Qualitative (Respiratory tract infections)	18	Moderately - specifically relevant to the information needs of parents consulting with children but also covers attitudes to antibiotic prescribing which is less relevant.	Yes	Yes - support provided to parents in the form of a leaflet made them more confident about a watch and wait approach and the particularly valued information on when to re-contact the GP.	Yes - other studies have reported that parents value information on when to come back to the GP and the support that additional information materials provide.
Derkx (2008)	Quality of clinical aspects of call handling at Dutch out of hours centres: cross sectional national study	Netherlands	Journal article	Triagists at out of hours call centres	Urgent. OOH, walk in	Out of hours call centres	Cross-sectional (All)	17 out of hours centres, 357 calls	Moderately - a small amount of discussion about the quality of safety-netting advice given in this setting.	Yes - calls were made to call centres with standardised patient scenarios and the type and quality of advice and triage were measured.	Yes - a good number of calls were made and the findings are across patient scenarios.	Moderately - the quality of safety-netting advice is rarely measured but these conclusions are supportive of the literature.

Driedger (2013)	Communicating Risk to Aboriginal Peoples: First Nations and Metis Responses to H1N1 Risk Messages	Canada	Journal article	First nations and Metis adults	Community	Community	Qualitative (Pandemic flu)	20 interviewees 193 in focus groups	Moderately - it discusses health risk communication during a pandemic with people from an ethnic minority. Although these ethnic groups are not common in the UK the paper discusses useful points around communicating risk with underserved populations and groups who may a different view or mistrust of the health care system.	Yes - key informants and community leaders were used to recruit participants and a qualitative method allows for the views of the participants to be explored in depth.	Yes - they recruited a large sample of men and women and presented plausible findings with supporting quotes.	Yes - although this study is in a very specific ethnic group, the findings are supported by those involving other groups.
Edwards (2004)	Patient-based outcome results from a cluster randomized trial of shared decision making skill development	UK	Journal article	GPs	In hours	Primary care	Randomised trial (Non-valvular atrial fibrillation; prostatism; menorrhagia; and menopause-	20	Moderately - specifically relevant to the process of negotiating what is decided in the consultation.	Unclear - the methods section does not have a lot of detail and references an online appendix that is not available.	Yes - although the study found no effect of the intervention, the provision of more time and a protected environment for consultations improved confidence and	Yes - that shared decision making and risk communication is important

	and use of risk communication aids in general practice.						related problems)				expectations of adhering to the GP's advice.	
Engel (2012)	Patient understanding of emergency department discharge instructions: where are knowledge deficits greatest?	USA	Journal article	Adult patients	Urgent. OOH, walk in	Emergency departments	Cohort (Ankle sprain, back pain, head injury, kidney stone, and laceration)	159	Highly - discusses the self-care information needs and deficits of patients after discharge including dealing with lower health literacy and reading skills	Yes - patients were interviewed 24-36 hours after discharge about whether they could recall and understand key pieces of information and recollections were compared with patient notes.	Yes - knowledge deficits were common and more likely in home care and return to ED instructions. Deficits were reduced when the patient had read their discharge instructions.	Yes - supports that patients can find it difficult to retain all information on discharge particularly when it is not related to the diagnosis itself and that take-away information can help this.
Evans (2018)	GPs' understanding and practice of safety netting for potential cancer presentations: a qualitative study in primary care	UK	Journal article	GPs	In hours	Primary care	Qualitative (Cancer)	25	Highly - discusses the practice of SN with UK GPs	Yes - in depth interviews are appropriate for gathering information about personal experiences and understanding	Yes - the findings summarize the views of a number of GPs	Yes - supported by previous research and subsequent research.

Evans (2019)	How do GPs and patients share the responsibility for cancer safety netting follow-up actions? A qualitative interview study of GPs and patients in Oxfordshire, UK	UK	Journal article	GPs and adult patients	In hours	Primary care	Qualitative (Cancer)	25 GPs 23 patients	Highly - discusses safety-netting specifically and particularly follow-up	Yes - qualitative allows participants to discuss their views more deeply	Yes - responsibility for follow is generally shared and moves from GP to patient depending on needs	Yes
Filler (2020)	Multi-level strategies to tailor patient-centred care for women: qualitative interviews with clinicians	Canada	Journal article	Clinicians, mix of primary and secondary care	Mix	Primary and secondary care	Qualitative (Cardiovascular disease, depression, contraception)	37	Moderately - does not discuss safety-netting specifically but discusses how communication can be facilitated between the clinician and female patient.	Yes - the authors state that the views of clinicians in this area are uncommon so a qualitative method for an exploratory study is appropriate.	Yes - the findings discuss building trust, dealing with uncertainty, and tailoring information to the patient context so are plausible.	Yes - the findings are supported by and support other studies.
Frame (2016)	Safety Netting	UK	Web page	NA	In hours	Primary care	Web page (All)	NA	Moderately - from a medico legal perspective	Unclear - this is a commentary piece and very few references are cited. The recommendations are in line with what is usually recommended regarding safety-netting though.	Yes - most of the commentary mirrors what is often discussed. The information given from the risk management perspective seems plausible	Yes

											since the author is a risk advisor at MDDUS but his claims are not supported by evidence.	
Gol (2019)	Symptom management for medically unexplained symptoms in primary care: a qualitative study	Netherlands	Journal article	GPs and adult patients	In hours	Primary care	Cross-sectional (Medically unexplained symptoms)	18 GPs 39 Patients 39 consultations	Moderately - the uncertainty involved in medically unexplained symptoms and the strategies to manage that uncertainty is useful here.	Yes - coding was also carried out by a diverse team in terms of their gender and specialties	Yes - themes reported are plausible.	Yes - the different strategies for managing the uncertainty and the shortfalls in advice given have been more widely reported.
Gray (2018)	Augmenting the safety netting process & reducing unnecessary re-presentations	UK	Web page	Health-care professionals (HCPs) Parents and carers attending PAU Parents and carers re-presenting to PAU	Specialist/ secondary	Hospital paediatric assessment units	Web page (All)	NS	Highly - improvements that could be made to the safety-netting process were explored and the changes made. Changes in unnecessary re-presentations are reported. Considers communication strategies	Unclear - this is a short summary of the work and little detail is given on the methods. From the information that is given, the methods seem to be appropriate.	Moderately - little detail is given on the findings of the different stages of the work. The main finding seems to be that if patients are given written information to take with them they are less likely to represent unnecessarily	Yes - written information is recommended often so yes.

									for those with low literacy.		which is plausible.	
Gray (2019)	Fifteen-minute consultation: Safety netting effectively	UK	Commentary	Parents/ child patient	In hours	Primary care	Commentary/opinion piece (All)	NA	Highly - paper discusses the way safety-netting of child patients should be done and the common pitfalls	Unclear - this is a commentary piece and the authors have drawn on a range of studies, it is possible though that it could have been made more robust of a systematic review was done.	Yes - all the recommendations are common sense and based on cited evidence.	Yes - conclusions are supported by the cited research and are in line with what is considered to be how safety-netting should be done.
Greenhalgh (2020)	Safety netting; best practice in the face of uncertainty	UK	Commentary	NA	Specialist/ secondary	Musculoskeletal physiotherapy	Commentary/opinion piece (Musculoskeletal issues)	NA	Highly - discusses what should be included in safety-netting advice in a non-GP setting	Unclear - this is a literature review where the majority of the cited work will have been conducted in general practice so there may be something relevant to physiotherapy that is not captured.	Yes - it is plausible that the content of safety-netting in physiotherapy will be similar to that in general practice.	Yes - GP safety-netting literature supports this.

Gustafsson (2018)	Need for reassurance in self-care of minor illnesses	Sweden	Journal article	Adult patients	Community	Community	Qualitative ("Minor" illness)	12	Highly - investigates how patients can be helped to care for themselves and what their specific needs are.	Yes - Patients were recruited through the Swedish Healthcare Direct which is similar to NHS 111 and efforts were made to get a diverse sample. Qualitative methods are appropriate to explore patients' needs. The sample size is fairly small for a qualitative study.	Yes - reassurance, self-care information, and feeling able to return were among the factors highlighted as important.	Yes - the needs and concerns of these patients echo those reported previously.
Halls (2017)	Qualitative interview study of parents' perspectives, concerns and experiences of the management of lower respiratory tract infections in children in primary care	UK	Journal article	Parents of child patients	In hours	Primary care	Qualitative (Lower respiratory tract infections)	25	Moderately - has some findings around the information that parents need when caring for a child with chest infection but a lot of the paper is also about understanding antibiotics/ antimicrobial resistance	Yes - parents were recruited through practices based on having attended with their child suffering from a LRTI. Interviews were done face to face. Only reservation is how memorable the circumstances were if the parent was interviewed over 2 years previously.	Yes - LRTI can be concerning for parents and they expect symptomatic relief from the GP. Parents often did not recall advice given about infection duration and natural history.	Yes - findings support those of other studies looking at LRTI and other disease areas.

Healthy London Partnership 2016	Pan-London suspected cancer safety netting guide	UK	Web page	ALL	Mix	Primary care and dentists	Web page (Cancer)	NA	Highly - provides aspects that should be included in safety-netting but nothing about why although this is not unusual.	Yes - the tips were gathered from resources put out but bodies like NICE and CRUK so for the type of resource this is it is appropriate.	No findings as such but the tips are from good sources	Yes - the tips are taken from other sources and are in line with the wider literature
Henry (2018)	Canadian Pandemic Influenza Preparedness : Communications strategy	Canada	Journal article	NA	Government level communication	All health communication settings	NA (Pandemic flu)	NA	Moderately - discusses risk communication during a pandemic	Unclear - article summarises a report but how the report was created is not discussed.	Yes - the article is the result of a government report which should be a trustworthy source	Yes - stresses the need for information to avoid anxiety and misinformation which has support in the literature.
Heyhoe (2020)	The early diagnosis of cancer in primary care: A qualitative exploration of the patient's role and acceptable safety-netting strategies.	UK	Journal article	GPs and adult patients	In hours	Primary care	Qualitative (Cancer)	10 HCPs 5 patients 18 stakeholders	Highly - gathers views on and assesses 3 safety-netting strategies (verbal discussion and plan, written information, prompt)	Yes - interviews are appropriate for understanding something complex although 5 patient interviews is a low number. Workshopping is appropriate for finding the pros and cons of different strategies.	Yes - from a range of sources	Yes - the themes around safety-netting are similar to what has been reported and the stakeholders' concerns about prompts are supported and support previous findings.
Hirst (2018)	Acceptability of text messages for safety netting patients with low-risk cancer symptoms: a qualitative	UK	Journal article	GPs	In hours	Primary care	Qualitative (Cancer)	22	Moderately - discusses a different way to safety-net patients using text messages	Yes - assessing the feasibility of text message safety-netting through discussion	Yes - text messaging was not recommended in all circumstances but where it was is plausible	Yes - not the specific findings about text messaging as a communication tool but around the need for additional and reinforced information

	study											
Holmes (2008)	Communicating about emerging infectious disease: The importance of research	Canada	Journal article	All	Government level communication	All health communication settings	Literature review (Emerging infectious disease)	NA	Moderately - discusses the role of assessing risk and trust in the patient accepting information which is relevant.	Unclear - this is a literature review, it is unclear why a systematic review was not done.	Yes - findings are broad to infectious disease generally but plausible.	Yes - supported elsewhere
Holmes (2009)	Communicating with the public during health crises: experts' experiences and opinions	Canada	Journal article	Public health officials, scientists, and communications professionals	Government level communication	Local government and health authorities	Qualitative (Health crisis/ pandemic disease)	22	Moderately - although it doesn't discuss safety-netting it does discuss risk communication during a health crisis which is relevant to part of our question.	Yes - qualitative interviews	Yes - the factors of effective communication reported are plausible	Yes - the conclusions highlight the importance trust, knowing what needs to be achieved, and two-way communication which are concepts that are supported in the literature.
Houston (2000)	'Do I don't I call the doctor': a qualitative study of parental perceptions of calling the GP out-of-hours.	UK	Journal article	Parents of child patients	Urgent. OOH, walk in	Out of hours primary care	Qualitative (All)	29 families	Moderately - discusses the factors that prevent a parent caring for their child in the wider context of OOH use.	Yes - In depth interviews are appropriate for gathering perceptions	Yes - discusses the illness and psychological factors at play in parents' decisions to consult OOH.	Yes - knowledge and confidence are important in self-care

Jackson (2005)	Communication About Symptoms in Primary Care: Impact on Patient Outcomes	USA	Journal article	Adult patients (excluding those presenting with URTI symptoms) Clinicians	Urgent. OOH, walk in	Walk in clinic Walter Reed Army Medical Centre	Cohort (All)	Patients: 500 Clinicians: 28	Moderately - discusses communication during the consultation and satisfaction, worries, and unmet expectations with it.	Yes - the study explored correlations between what was communicated in the consultation from the perspective of the patient and the clinician and the resulting satisfaction with the consultation using validated tools.	Yes - agreement between patients and clinicians was high on concrete aspects of the consultation such as prescribing but lower on aspects of communication such as diagnosis or prognosis. When these discussions happened satisfaction with the consultation was higher.	Yes - that good communication is linked to greater satisfaction, less so that good communication impacts outcomes.
Jarvis (2016)	Playing it safe - safety netting advice	UK	Web page	NA	In hours	Primary care	Web page (All)	NA	Moderately - the commentary is more related to the medico legal concerns around safety-netting but this is a relevant aspect to consider.	Unclear - this is a commentary and gives the author's thoughts on the topic. Arguably the topic could have been more comprehensively discussed if a SR was done.	Yes - in line with the research	Yes - concludes with top tips that echo the research.

Jones (2013)	The safety netting behaviour of first contact clinicians: a qualitative study	UK	Journal article	Doctors and nurses	Mix	Primary and secondary care	Qualitative (All)	16	Highly - discusses safety-netting in primary and secondary care with doctors and nurses including with patients with ow literacy or ability to understand English.	Yes - qualitative is appropriate to explore behaviour in depth. The study only has 16 participants but has a range of professionals	Yes - findings are corroborated by the range of professionals and supporting quotes are provided	Yes - many of the findings are supported and support other research
Jones (2014)	Information needs of parents for acute childhood illness: determining 'what, how, where and when' of safety netting using a qualitative exploration with parents and clinicians	UK	Journal article	Parents of child patients	Mix	First contact care settings, community centres, children's centres and nurseries in the Midlands, UK	Qualitative (All)	27	Highly - directly discusses the best content for safety-netting advice including how to present it for recipients with low literacy, language skills, and cultural backgrounds.	Yes - qualitative study that includes the views of parents from a range of backgrounds and clinicians	Yes - many of the recommendations are common to communication research and safety-netting research.	Yes - conclusions are similar to other studies
Jones (2019)	Safety netting for primary care: evidence from a literature review	Conducted in the UK, includes international papers	Journal article	Patients, carers, health care professionals	Mix	Any health care setting	Systematic review (All)	NS	Highly - systematic review of the safety-netting literature.	Yes	Yes - findings summarised the literature and echo what has been published since	Yes - that SN is more than communication of uncertainty but should also include follow-up plans and admin details.

Kai (1996)	Parents' difficulties and information needs in coping with acute illness in preschool children: a qualitative study	UK	Journal article	Parents	Mix	Primary care and the community	Qualitative (Acute bacterial/ viral illness)	95	Highly - covers parents' information needs with acutely ill children	Yes	Yes - describes parents' information needs, the difficulties in making sense and coping with an ill child as well as the difficulties experienced in doctor communication both of which affect how satisfied the parent is with the consultation	Yes - results that parents want to be able to understand their child's illness and that information should be provided in a variety of formats are supported by other studies, as is the finding that the doctor-patient relationship and the perceived professionalism of the doctor can affect parents' willingness to follow advice.
Kai (1996b)	What worries parents when their preschool children are acutely ill, and why: a qualitative study	UK	Journal article	Parents	Mix	Primary care and the community	Qualitative (Acute bacterial/ viral illness)	95	Highly - covers what concerns parents when presenting with an acutely ill child and their information needs	Yes	Yes - feeling lack of control when parents' understanding of the illness is lacking and fear of serious illness is supported by later literature	Yes - clinicians need to understand parents' concerns and try to address them by acknowledging them and providing information.
Lass (2018)	Contact to the out-of-hours service among Danish parents of small children – a qualitative interview study	Denmark	Journal article	Parents of child patients	Urgent. OOH, walk in	Out of hours primary care	Qualitative (All)	9	Moderately - paper does not discuss safety-netting specifically but has information on what causes worry for parents. The Danish health care system is also	Moderately - qualitative methods are appropriate to meet the aims of the study but the sample is limited in terms of number and gender of the participants.	Yes - and are supported by quotes from the parents but a wider breadth of experience may have added value.	Yes - the conclusions fit with previous and subsequent research.

									relatively similar to the UK.			
Lecky (2020)	Optimising management of UTIs in primary care: a qualitative study of patient and GP perspectives to inform the development of an evidence-based, shared decision-making resource	UK	Journal article	Patients and GPs	In hours	Primary care	Qualitative (Urinary tract infections)	Patients: 29 GPs: 20	Moderately - paper covers safety-netting of UTIs which are common and usually dealt with by the patient although antibiotics may sometimes be needed which is an area that patients need information on.	Yes	Yes and the inclusion of patients as well as GPs provides balance	Yes - shared decision making and tailored information help to empower the patient to self-care
Lemal (2013)	Health risk communication	USA (published)	Book	All	Government level communication	All	NA (All)	NA	Moderately - this book explores health risk communication in general and so there are some relevant general concepts	Yes - each book chapter explores a different aspect of risk communication mostly in the form of a literature review	Yes	Yes - the chapters agree with other research

Leslie (2006)	Fear and Coughing in Toronto: SARS and the Uses of Risk.	Canada	Journal article	NA	Government level communication	All risk communication specifically around the SARS outbreak in Toronto in 2003	Qualitative (Pandemic flu)	NA	Moderately - discusses risk communication during a pandemic	Yes - analysis of the discourse in the news media	Yes - plausible discussion of the different ways risk was framed	To a degree - the conclusions are applicable during the COVID outbreak but are very narrow.
MacArtney (2017)	Patients' initial steps to cancer diagnosis in Denmark, England and Sweden: what can a qualitative, cross-country comparison of narrative interviews tell us about potentially modifiable factors?	Denmark, UK, Sweden	Journal article	Adult patients diagnosed with cancer	Specialist/ secondary	Secondary care	Qualitative (Cancer)	155	Highly - discusses the experiences of recently diagnosed cancer patients of consulting and getting a diagnosis including safety-netting.	Yes - qualitative good for exploring experiences and the inclusion of different countries with varying cancer survival rates provides interesting comparisons.	Yes - uncertainty about whether and when to reattend was higher in UK and Denmark and clear action plans are needed.	Yes - it has been reported in other papers that clear action plans are important for timely reconsulting.
Maguire (2011)	Which urgent care services do febrile children use and why?	UK	Journal article	Parents of child patients	Urgent. OOH, walk in	Urgent and emergency care services	Mixed (Fever)	220 (questionnaire) 29 (interview)	Moderately - discusses experiences in urgent and emergency care services but also discusses safety-netting in these services briefly	Yes - wide range of perspectives gathered with the survey and then in depth information gathered through the interviews.	Yes - high levels of safety-netting advice given and a need and preference for written information to help remember it.	Yes - reinforces the need for clear consistent and symptoms based advice.

McKelvey (2010)	The consultation hill: a new model to aid teaching consultation skills.	UK	Commentary	NA	In hours	Primary care	Commentary/opinion piece (All)	NA	Highly - specifically discusses safety-netting	Unclear - this is a commentary/opinion piece, it is unclear how the recommendations were arrived at	Yes - seem to be led largely by Neighbour's work	Yes - supported by previous research and subsequent research.
McKelvie (2019)	Challenges and strategies for general practitioners diagnosing serious infections in older adults: a UK qualitative interview study	UK	Journal article	GPs	In hours	Primary care	Qualitative (Serious infection)	28	Highly - the paper specifically discusses safety-netting	Yes - the aim was to explore in depth so qualitative approach is appropriate.	Yes	Yes - the safety-netting findings are supported by and support many other studies.
McKinstry (2011)	Comparison of the accuracy of patients' recall of the content of telephone and face-to-face consultations: an exploratory study.	UK	Journal article	GPs and adult patients	In hours	Primary care	Cohort (All)	10 GPs 175 patients	Moderately - contains some information useful to improve recall.	Yes - mix of interviews and questionnaires with recordings of the consultation so that aspects of it could be verified.	Yes - patients generally recalled GPs' advice with only minor inaccuracies. GPs seldom used memory aid techniques.	Yes and no - this study disagrees with a similar one conducted in EDs but agrees with others. Anxiety is thought to decrease recall and it may be that the unfamiliar environment and maybe more anxiety provoking reasons for attending in ED harmed recall.
Mitchell (2012)	Improving diagnosis of cancer: A toolkit for general practice	UK	Report	NA	In hours	Primary care	NA (Cancer)	NA	Highly - report directly discusses safety-netting	Yes - report draws on a range of studies and literature	Yes - findings come from a range of sources	Yes - the conclusions are well supported

Mitchell (2015)	The role of primary care in cancer diagnosis via emergency presentation: qualitative synthesis of significant event reports.	UK	Journal article	NA	In hours	Primary care	Cross-sectional (Cancer)	222 cases of emergency presentation	Moderately - briefly discusses the role of safety-netting in preventing emergency presentations	Yes - analysis of serious adverse events	Yes - plausible factors in emergency presentations discussed	Yes - supported by the literature
Morgan (2014)	Starting off in general practice - consultation skill tips for new GP registrars	Australia	Commentary	NA	In hours	Primary care	NA (All)	NA	Highly - discusses primary care consultation skills for new GPs including SN	Commentary paper but draws on the published evidence.	Yes - common sense recommendations backed up by the literature.	Yes - they echo other studies.
Neill (2015)	Parent's information seeking in acute childhood illness: what helps and what hinders decision making?	UK	Journal article	Parents of child patients from a range of ethnic backgrounds	Community	Community	Qualitative (Acute childhood illness)	27	Moderately - most of the paper is about where parents from varying cultural/ ethnic backgrounds get health information for their child from. There is some discussion of information from health care providers and what information is needed	Yes	Yes - they echo much of what has been reported previously and provide the perspective of less well researched communities.	Yes - the need for take away information, specific and tailored information, and reassurance are highlighted again.

Neill (2016)	Parents' help-seeking behaviours during acute childhood illness at home: A contribution to explanatory theory	UK	Journal article	Parents of child patients	Community	Community	Qualitative (Acute childhood illness)	27	Highly - discusses how parents make decisions when caring for an acutely ill child	Yes- qualitative methods are appropriate to explore behaviours	Yes - they echo much of what has been reported previously and provide the perspective of less well researched communities.	Yes - the conclusions are supported widely
Newcomb (2020)	Building Rapport and Earning the Surgical Patient's Trust in the Era of Social Distancing: Teaching Patient-Centered Communication During Video Conference Encounters to Medical Students.	USA	Journal article	Medical students	Specialist/ secondary	Secondary care	Cohort (All)	5 students 4 observers	Moderately - carried out in secondary care but the information on how to improve communication over video is reevant	Yes - trialling an education session	Yes - the lessons learnt in particular	Yes - supports the few papers on communication over video.
NICE (2016)	Sepsis: recognition, diagnosis and early management	UK	Guideline	ALL	Mix	Primary and secondary care	NA (Sepsis)	NA	Moderately - contains some advice on safety-netting for potential sepsis but the majority of the guideline is about the diagnosis and management	Yes - NICE guideline using established gold-standard methods	Yes	Yes - the recommendations for what should be included in safety-netting advice are in line with other research.

									of sepsis.			
NICE (2019)	Fever under 5's: assessment and initial management	UK	Guideline	Children under 5	Mix	Primary and secondary care	NA (Fever)	NA	Moderately - contains some advice on safety-netting for children under 5 with fever but the majority of the guideline is about the diagnosis and early management of fever	Yes - NICE guideline using established gold-standard methods	Yes - comprehensive literature search to find and report all relevant literature	Yes - the recommendations for what should be included in safety-netting advice are in line with other research.
Nicholson (2016)	Can safety-netting improve cancer detection in patients with vague symptoms?	UK	Journal article	ALL	In hours	Primary care	Literature review (Cancer)	NA	Highly - discusses safety-netting specifically for vague symptoms.	Yes - this is a literature review but the purpose is to highlight areas that need more evidence and so it is appropriate.	Yes	Yes - although the main conclusions are that there is not a lot of evidence on the topic, which is plausible.
Nicholson (2018)	Responsibility for follow-up during the diagnostic process in primary care: a secondary analysis of	UK	Journal article	Primary care practitioners	In hours	Primary care	Cross-sectional (Cancer)	2879	Highly - discusses safety-netting directly	Yes - large international survey	Yes - findings come from a range on informants and are plausible	Yes - the conclusions are supported

	International Cancer Benchmarking Partnership data											
Noble (2015)	A randomised trial assessing the acceptability and effectiveness of providing generic versus tailored feedback about health risks for a high need primary care sample	Australia	Journal article	Adult patients	In hours	Primary care (Aboriginal Community Controlled Health Services)	Randomised trial (Health risks)	87	Moderately - discusses information given to patients generally and whether it should be tailored or generic but this is useful	Yes - patients were randomised to receive either generic or tailored information with the effects of the information measured in an exit survey. The authors managed to get roughly equal numbers of responses in both study arms.	Yes - tailored feedback was seen as more relevant but no more likely to help them improve their health or easier to understand which is perhaps disappointing but the authors offer some explanations.	No - others studies tend to favour tailored feedback/information more than this study.
O'Cathain (2020)	Drivers of 'clinically unnecessary' use of emergency and urgent care: the DEUCE mixed-methods study	UK	Report	Patients considered clinically unnecessary users of services including parents, young adults, people in areas of social deprivation, and	Urgent. OOH, walk in	Emergency and urgent settings	Mixed (All)	Interviews: 48 Focus groups: 15 Survey: 2906	Highly - Has a lot of information about what patients' needs are and how these may not be being met, this then leads to clinically unnecessary consulting. Includes information of	Yes - a range of methods used to answer the question	Yes - the drivers of unnecessary consultations are plausible and have been tested across the studies.	Yes - the drivers found have been reported previously.

				general population					patients with previous traumatic health incidents			
Pappas (2019)	Diagnosis and Decision-Making in Telemedicine	UK	Journal article	Secondary care consultants, GPs, nurses, patients, relatives	Mix	Primary and secondary care	Cross-sectional (All)	10 consultations, the number of individuals is not stated	Moderately - discusses communication around diagnosis and decision making over video which is broadly relevant but is done with secondary care consultants	Yes - perhaps could have analysed more consultations	Yes - findings around inter professional and HCP-patient communication are plausible	Yes - particularly around the need to not exclude the patient from the conversation
Rees (2017)	Patient Safety Incidents Involving Sick Children in Primary Care in England and Wales: A Mixed Methods Analysis	UK	Journal article	Child patients	In hours	Primary care	Cross-sectional (All)	2191 incidents	Moderately - study explores the causes of safety incidents including miscommunication which is relevant here.	Yes - analysis of incident reports	Yes - findings are drawn from a large number of incident reports.	Yes - communication between the GP and parents/care givers is a key area and one that has been highlighted previously.

Rising (2019)	Use of Group Concept Mapping to Identify Patient Domains of Uncertainty That Contribute to Emergency Department Use	USA	Journal article	Patients	Urgent. OOH, walk in	Emergency departments	Qualitative (All)	34	Moderately - the paper looks at the uncertainty experienced with symptoms not linked to a health condition. It highlights areas where the patient experiences uncertainty but does not offer ways to address it.	Yes - they are fairly unusual but worked well.	Yes - the participants were asked to complete the sentence: 'When experiencing symptoms, people might go to the ED when they feel uncertain about…' and the responses were clustered and refined. The resulting domains are plausible.	Yes - although they are for the ED context, they echo the results of other studies.
Rising (2020)	Development of the Uncertainty Communication Checklist: A Patient-Centred Approach to Patient Discharge From the Emergency Department	USA	Journal article	Patients	Urgent. OOH, walk in	Emergency departments	Qualitative (All)	48	Moderately - discusses a checklist of things to discuss with a patient on ED discharge	Yes- the checklist was developed through searching the literature and refined with 2 rounds of patient input.	Yes - the checklist is plausible and has been discussed in 2 rounds of focus groups.	Yes - the checklist items agree with other research.
Roland (2014)	Safety netting in healthcare settings: what it means, and for whom?	UK	Journal article	Child patients	Mix	Primary and secondary care	Literature review (All)	NA	Highly - directly discusses the issues around safety-netting	Unclear - this is a best practice review in the form of a literature review. Other more robust methods could have been used/	Yes	Yes - the paper summarises much of the evidence that was available at the time

Royal College of Paediatrics and Child Health et al (2010)	To understand and improve the experience of parents and carers who need advice when a child has a fever (high temperature)	UK	Report	Parents and carers of child patients under 5 years	Urgent. OOH, walk in	Any urgent care setting (GP, walk-in centre, out of hours GP, children's admissions unit, emergency department, ambulance, NHS direct)	Mixed (Fever)	220	Highly - discusses parents' decision making when seeking help for a febrile child at a range of primary and emergency care locations.	Yes - a wide range of opinions gathered through a survey and then explored in greater depth with interviews.	Yes - there were high levels of safety-netting advice reported but of varying quality. Parents valued take home information.	Yes - it is often reported that safety-netting advice is given out frequently but that it is not always communicated well. Parents have said previously that they value information they can refer back to.
Silverston (2014)	Effective Safety-Netting In Prescribing Practice	UK	Commentary	NA	In hours	NA	Commentary/opinion piece (All)	NA	Highly - paper discusses safety-netting directly	Moderately - a systematic review may have been more robust	Yes - the author covers many aspects of safety-netting and the recommendations fit with other research.	Yes
Silverston (2020)	SAFER: A mnemonic to improve safety-netting advice	UK	Commentary	NA	In hours	Primary care	Commentary/opinion piece (All)	NA	Highly - directly discusses how SN advice might be improved	Moderately - this is a commentary piece/literature review from an author who has published other articles about SN.	Yes - the author has published on the topic of SN before and bases his findings on this work and the work of others.	Yes - the elements of the mnemonic reflect what has been published elsewhere.
Silverston (2021)	Safety-Netting in Remote Consulting	UK	Commentary	NA	In hours	Primary care	Commentary/opinion piece (All)	NA	Highly - discusses safety-netting in remote consultations	This is a discussion piece and is useful but it is not as rigorous as a piece of research	Yes - the author has published many times on the topic and cites other research.	Yes - supports other studies.

Singh (2016)	A registrar survival guide... follow up and safety netting	UK	Web page	NA	In hours	Primary care	Web page (All)	NA	Highly - Discusses how safety-netting should be done in the consultation	This is a discussion piece so does not go into safety-netting in depth, nor does it give advice for different types of presentations. This is fine for a magazine article but should not be used as the only source of information.	Yes - based around the Calgary-Cambridge consultation model.	No conclusions as such given it's a magazine article but the points raised are the same as those in research articles.
van de Maat (2018)	Development and evaluation of a hospital discharge information package to empower parents in caring for a child with a fever	The Netherlands	Journal article	Parents	Urgent. OOH, walk in	Emergency and outpatient departments	Mixed (Fever)	Interviews: 22 Focus group: 14 Survey: 38	Highly - discusses the information seeking and preferences of parents with a febrile child	Yes - the mixed methods approach works well as the authors are exploring a few different questions.	Yes - they are generally in line with previous research.	Yes - the conclusions about information needs and information formats are supported by and support other research.
van Galen (2018)	Telephone consultations	International	Commentary	NA	In hours	Primary care	Commentary/opinion piece (All)	NA	Highly - discusses safety-netting over the telephone	Yes - this is not a systematic review but details of the search are provided. Conclusions are based on literature and expert opinion.	Yes - findings are plausible	Yes - the conclusions are generally taken from the literature and where they are not they are in line with other research.

Van Os (2021)	Does safety netting for lung cancer symptoms help patients to reconsult appropriately ? A qualitative study	UK	Journal article	GPs and patients	In hours	Primary care	Qualitative (Cancer)	3 GPs 20 patients	Highly - discusses the effect that safety-netting has on patient behaviour	Yes - Qualitative interviews	Yes - builds on what has been reported before	Yes - supports what has come beofre and builds on it.
Vaughan (2009)	Effective health risk communication about pandemic influenza for vulnerable populations.	USA	Journal article	NA	Government level communication	NA	Literature review (Pandemic flu)	NA	Moderately - to communication during a health crisis.	Moderately - the authors do not set out to do a systematic review but one may have been more robust.	Yes - the factors affecting the acceptance of public health messaging are presented and are plausible	Yes - the other pandemic studies in this review support the findings and the authors cite several websites that support them.
Vrdoljak (2020)	Cancer and coronavirus disease 2019; how do we manage cancer optimally through a public health crisis?	International	Editorial /letter to editor	NA	Mix	Primary and secondary care	Letter to the Editor (Cancer)	NA	Moderately - discusses the impact of COVID on patients' reasoning and how the effects of COVID should be mitigated.	Unclear - this is a letter to editor/literature review which is less robust than primary research but at the time of writing was appropriate.	Yes - but anecdotal some of them	Yes - research that has come out since supports this article.
White (1997)	Wrapping things up: a qualitative analysis of the closing moments of the medical visit.	Canada	Journal article	GPs and general internal medicine specialists	In hours	Primary care	Cross-sectional (All)	50 HCPs 550 Patients	Moderately - discusses how consultations are closed which is where safety-netting usually is	Yes - analysis of recorded consultations is appropriate	Yes - discusses the different types of closures, all of which seem plausible	Yes - the relevant parts of the paper are supported in the literature

Appendix 6 CMOCs and supporting excerpts

CMOC	Explanatory credibility	Supporting excerpt
1. When information is personally relevant and tailored to the patient (C), the safety-netting advice is adhered to (O), because the patient has a sense of ownership, relevance, understanding, and credibility of the information they have been provided (M).	High	*Indeed, participants felt that personalizing the risk information could help individual patients to understand the risk information being communicated to them.* (Akanuwe 2020) *Participants were significantly more likely to agree that the tailored feedback was 'relevant to me' compared to the generic feedback* (Noble 2015)
2. When the rationale for the management plan is made clear to patients (C), they accept and follow the safety-netting plan (O), because they can understand and question the reasoning behind it (M).	High	*This current study also identified patient frustration resulting from the lack of exploration by the GP about their condition, or the internalisation of the GP thought process, resulting in the patient feeling either reluctant to question the GP's decision or discuss their concerns on a subject that some feel embarrassed about*. (Lecky 2020) *Patients preferred active safety-netting strategies as part of a general preference for thoroughness and a logical approach to diagnostic uncertainty surrounding their lung cancer-relevant symptoms. This allowed patients to understand the diagnostic strategy, in turn making the safety-netting advice easier to understand.* (van Os 2021)
3. When clinicians share their uncertainty around diagnoses (C), the patient reattends appropriately (O) because they are not falsely or overly reassured and they are empowered to return (M).	High	*If the diagnosis is uncertain, that uncertainty should be communicated to the patient (or parent/carer) so that they are empowered to reconsult if necessary*. (Almond 2009) *If you are not sure of the aetiology, explain this to the patient. This reduces the risk of false reassurance and most patients appreciate the honesty.'* (Jones 2019)
4. When patients' concerns and expectations are addressed in the safety-netting plan (C), patients' acceptance of the safety-netting plan is increased (O), because they believe the clinician is credible, and they feel seen and taken seriously (M).	High	*When patients feel as though they were heard and understood, they have more ownership over the healthcare delivery process* (Byrne 2016) *It is also important to understand what patients' thoughts and concerns are around their symptoms in order to avoid a mismatch of doctor and patient agenda*. (Singh 2016)
5. When patients are provided with clarity on when they should be concerned about their signs/symptoms and what to do (C), they are able to adhere to safety-netting advice, and avoid delay if further medical attention is required as well as unnecessary investigations, urgent visits to the GP, OOH and EDs (O), because patients' understand what needs to be done in what circumstances, and their sense of control and confidence in what needs to be done is increased (M).	High	*Parents' anxieties about failing to recognise a serious illness serve as a reminder that what constitutes common knowledge for doctors may not be readily accessible to parents. Information and education that address parents' concerns may empower parents by influencing perceptions of threat posed by an illness and enhancing personal control*. (Kai 1996b) *Patients may underestimate the significance of symptoms, hesitate to re-consult, be concerned about wasting the doctor's time, or may be unaware of their responsibility to*

		follow up investigations. (Evans 2018)
6. When patients are provided with a clear, specific, and practical safety-netting plan (C), the patient self-cares effectively and seeks help appropriately (O) because they find the advice useful, their worries and stress are reduced, and they feel empowered to take on their own care (M).	High	*Patients expected and were willing to accept responsibility, as long as they felt they had received sufficient instruction from their GP*. (Evans 2019) *"It's the not knowing what it could be—how to tell—that's what panics me, if I was told what to do, shown what to do and how to do it, I would feel I could manage much better" (Parent 6, group 1)* (Kai 1996)
7. When the information is provided in such a way that it is comprehensible (C), the patient adheres to the safety-netting advice (O), because patient understanding is increased (M).	High	*Although parents suggested information should be free of jargon, they were keen that it should not omit important technical information that would facilitate their understanding*. (Kai 1996) *understanding of information is central to any safety-netting intervention*. (Roland 2014)
8. When the information is provided in a way that is memorable (C), patient can adhere to safety-netting advice (O) because patient recall is improved (M).	Moderate	*Chunking increases the likelihood that people can reproduce the information they have received* (Ackerman 2016) *[way to improve recall] Reducing the volume of information. 2 Reducing delay from presentation to recall. 3 Ordering information according to priority (the first and last pieces of information in a list are best remembered).* (McKinstry 2011)
9. When information is additionally provided to patients in such a way that they can revisit it (C), the patient is supported to follow the safety-netting advice and is able to adhere to the advice (O) because the risk of forgetting is reduced, they share the information, and can spend more time going over and understanding the information (M).	High	*Father of a 3-week-old infant: "I mean, in some cases, like some people understand better by reading it than just hearing it. Some people understand better by hearing it than reading it, so I mean, it could work both ways. It depends on what type of person it is."* (Aronson 2020) *One parent suggested that information about which signs to look for should be provided in writing as it can be difficult to retain spoken information when distressed* (Maguire 2011)
10. When the safety-netting advice is given consistently to all patients by clinicians (C), patients follow safety-netting advice (O), because self-care with the option to return is normalised by the patient and their ability to self-care is facilitated (M).	Moderate	*Health professionals should ensure that safety-netting advice is given to all, and not just to those perceived to be at highest risk of serious illness.* (Maguire 2011) *Parents of children with self-limiting illnesses offered safety-netting advice were less likely to use further services. Thus it is essential that safety-netting advice is offered to all parents. The advice should be more specific to the child's condition, i.e. what symptoms / signs the parent should look for, and what should prompt a return to the health provider.* (RCPCH 2010)
11. a) When the clinician is aware of the patient's history and addresses the underlying factors that may make the patient less receptive to	High	*Since EPs don't have long-term relationships with patients, says Byrne, "that makes it even more important that the communication that does happen in the ED is thoughtful, comprehensive, and compassionate." He suggests that EPs utilize these risk-reducing*

safety-netting advice (C), the patient follows the safety-netting advice (O), because their fear and anxiety is reduced, and the patient regards the safety-netting advice as actionable (M).		*practices: Practicing "the basics" of good communication. This includes making eye contact, acknowledging each person in the room, apologizing for delays, and demonstrating a willingness to listen*. (Byrne 2016) *A range of events were associated with parents' loss of trust in HCPs, such as failure to diagnose (especially when followed by serious illness), absence of clinical examination, conflicting information, ineffective treatment, failure to answer questions and always referring on to others*. (Neill 2016)
b) When the clinician shows they are aware of and addresses the specific healthcare concerns the patient may have because of an ongoing pandemic or healthcare crisis when giving safety-netting advice (C), the patient follows the advice (O) because they evaluate the risk to themselves, they regard the advice as more actionable, and their fear or anxiety is reduced (M).	High	*In the current climate, potential oncology patients' minds are now more oriented toward COVID-19 symptoms, meaning that they may downplay rectal or bladder bleeding, a lump in the breast or other signs of cancer that otherwise would lead them immediately to consult their doctor. Anecdotal evidence suggests that patients are starting to fear a COVID-19 diagnosis more than a cancer diagnosis*. (Vrdoljak 2020) *Uncertainty during a pandemic can be accompanied by a high demand for information, increased feelings of fear and anxiety, rapid spread of misinformation, and speculation*. (Henry 2018)
12. When the clinician actively compensates for the impeded non-verbal communication during telephone and video consultations (C), the patient's satisfaction with and adherence to the advice is increased (O) because the patient feels reassured that they have been understood and heard, and their confidence in the safety-netting advice is increased (M).	Moderate	*Difficulties in explaining their symptoms over the telephone raised concern about whether the nurse correctly understood the situation. The sense of the nurse taking the time to listen inspired trust that the nurse had fully understood the situation, and thus, participants relied on the assessment and safely embraced the advice. Participants felt reassured when the nurse was professional, calm and factual. Participants described the consultation as reassuring when the nurse was alert and adequately assessed the situation and identified the problem by asking the right questions. Checking for comprehension was reassuring because it gave the participant a feeling that the nurse really wanted to obtain a clear image of the situation*. (Gustafsson 2018) *Add simple statements such as "Let me think just a moment" to give the patient confidence your continued focus. A patient's distress may be more difficult to interpret on video; ask direct questions to understand the patient's emotional state*. (Newcomb 2020)
13. When the set up of video consultations is optimised (C), the patient takes the safety-netting advice on board and adheres to SN advice (O) because distractions are removed and the interpretation of facial expressions is facilitated (M).	Low	*Poor lighting and positioning within the screen limited the physician and patient's ability to interpret each other's facial expressions. The "hidden" face was more distracting than if the conversation had been telephonic, hindering patient trust and physician interpretation of the patient's reaction* (Newcomb 2020)
14. When the clinician is not distracted or does not appear to be distracted during a remote consultation (C), the patient takes the safety-netting	Low	*As the physician looked directly into the camera, the patient described the experience as "intimate" and "comforting," as if he was the physician's sole focus.* (Newcomb 2020)

advice on board (O) because they are able to follow the consultation better, and feel they are the sole focus of the clinician (M).		
15. When the safety-netting plan is made through shared discussion and decision making between the clinician and the patient (C), the patient follows the safety-netting plan (O) because they feel taken seriously, ownership of the plan can be negotiated, and the patient understands that the plan can be adapted (M).	High	*Patients stressed how the strategy helped to foster a feeling of being taken seriously. Important aspects for this were the components of shared discussion and decision-making and the inclusion of a pre-determined follow-up for symptom review.* (Heyhoe 2019) *Compliance with any management plan (be it lifestyle/health-seeking behaviour modification, following advice or a course of medication) is dependant on the patient having understanding,* *agreement, and a shared ownership with that plan.* (McKelvie 2010)
16. When the clinician checks that the patient understands the safety-netting advice they have been given and that it can be adapted (C), the patient adheres to the safety-netting advice (O), because the patient's confusion and any misunderstandings are reduced (M).	Moderate	*Check the patient fully understands the safety-netting advice provided especially if the appointment is via telephone.* (CRUK 2020) *Methods therefore need to be employed to optimise the verbal safety-netting process. Using teach-back methodology, whereby parents repeat back information given to them, may help improve understanding and reduce re-attendance* (Gray 2018)
17. When the clinician explicitly acknowledges the expertise and personal knowledge of the patient (C), the patient reconsults appropriately (O), because they feel empowered and have confidence in their own judgement (M).	Moderate	*Recognising parental expertise [37, 46], empowering parents to contradict clinicians [22], establishing and sustaining trust [26] and creating supportive conditions for parents to be able to seek help from their GP or other services early in their child's illness course and to know when to reconsult if they child's illness progresses [33] has the potential to positively influence the child's journey to hospital*. (Carter 2020) *I'm forever saying "If you're worried, I'm worried," to patients, to Mums and Dads. To really underline you know, "You're the world's expert," is the other thing that I'm always forever saying, "You're the world's expert on your child." (GP21, woman, inner-city practice, 5–9 years as a GP)* (Ashdown 2016)
18. When clinicians ensure the rationale for a follow-up plan are made clear to the patient (C), the patient adheres to the safety-netting advice and is followed up in a timely way (O), because the patient's understanding is increased, potential confusion avoided, and the patient is empowered to act (M).	High	*A clear explanation of the follow-up plan, including the underpinning rationale and ongoing uncertainties, is key to enabling patients to re-consult appropriately*. (Evans 2019) *Three visits all by the same physician appeared very effective. Each visit was conducted with the same structured format. The most striking feature of these visits was that the physician explicitly told the patient what was going to happen next*. (White 1997)
19. When clinicians and patients explicitly agree on follow-up plans (C), the patient is followed up in an appropriate time frame (O), because each party knows what is expected of them (M).	High	*To minimise misunderstandings about reattendance, the follow-up plan must be explicit about reassessments, and this must be agreed with the patient*. (Almond 2009b) *An agreed follow-up or review date is set and possible outcomes/prognosis discussed so*

		the patient can be helped to identify if further help is needed and, if so, how and when to access this. (McKelvey 2010)
20. When the clinician explicitly invites the patient to return, even/including for the same symptoms (C), the patient promptly seeks additional medical advice when needed (O) because they feel they permission to reconsult (M).	High	*The receiving of self-care advice may be perceived as trivialising, like their concerns were not taken seriously and that they were dismissed. Being invited to return created a feeling that the nurse had listened and taken them seriously* (Gustafsson 2018) *There were several other examples where patients continued to be concerned about their symptoms, but the recent HCP advice to self-manage presented a barrier to returning for more help. They felt they could not ask for further advice or investigations.* (Black 2015)
21. When the clinician allows sufficient time for the safety-netting advice (C), the safety-netting advice is fully explained, the clinician checks understanding, answers questions, and discusses patient concerns about the safety-netting plan (O), because the clinician does not feel rushed to end the consultation and the patient does not feel rushed to leave the consultation (M).	Moderate	*Moreover, it is necessary to allow enough time for proper 'safety-netting'.* (Bertheloot 2016) *When asked about circumstantial influence, GPs recognized that 'safety-netting' is sometimes a bit careless when the waiting room is overcrowded or when the GP is exhausted.* (Bertheloot 2016)
22. When safety-netting advice is documented in sufficient detail in the patient's notes (C), future clinicians caring for the patient are less likely to have misunderstandings/misinterpretations and will care for the patient more appropriately (O), because know what has been done, discussed, and decided so far (M).	High	*Many participants commented about documenting safety net advice in the medical notes and felt it was important from a medico-legal perspective. They also mentioned this could aid continuity of care "I think this is vital for future [physicians] to realise what has been discussed and said, and is important medico legally" and "I try to outline a 'plan' - i.e. what to do if patient returns so other doctors in the surgery know what's going on. This may include advice given to the patient but not by any means always".* (Bankhead 2011) *All of us have time away from our practices. When that happens, how are our vulnerable patients not disadvantaged? Think about systems that will support your patients when you're away. Sharing plans with the patient and a colleague will allow the patient to feel secure and supported while ensuring best possible continuity of care.* (Campion-Smith 2017)