# SAFETY NETTING CONCEPT IN PRIMARY CARE CONSULTATION

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# **ABSTRACT**

Introduction: Patient safety in primary care setting is important and effort geared towards this cannot be over-emphasised. Patient safety can be achieved through various means, but one mechanism to improve patient safety in resource-constrained settings is through a practice known as safety netting. Safety netting is widely recommended in national guidelines with varying definitions and scope; hence there is no consensus on when safety netting should be used and what should be the content.

Methodology: A narrative overview of the evidence on safety netting concept in primary care consultation was conducted. Scholastic articles and Papers by International organizations were searched using terms like 'safety netting', 'primary care consultation', 'family physician', 'consultation technique', and 'patient safety' in primary care. Most resources found were in the developed countries (the West) and none was found in Africa or the Middle East.

Safety netting is a technique in consultation to communicate uncertainty, provide patient information on red-flag symptoms, and plan for future appointments to ensure timely re-assessment of a patient's condition. The content of safety-netting advice may encompass the chronology of the illness, advice on worrying symptoms to look out for, and specific information on how, when and where to seek help. Safety netting was considered to be particularly important when consulting with the acutely unwell, patients with multi-morbidity, children and those with mental health problems.

Conclusion: Safety netting is more than solely the communication of uncertainty within a consultation. It should include plans for follow-up as well as important administrative aspects, such as the communication of test results. Effective safety netting should be geared towards the patient and provide enough practical clue for self-care and re-consultation.

Keywords: Consultation; Primary care; Safety netting; Uncertainty

# **INTRODUCTION**

Safety netting is not a new concept, as it has received an increased attention globally, though same cannot be said about underdeveloped and developing countries in Africa and Middle East. Safety netting was first formally introduced more than 30 years ago by Roger Neighbour, which today has undergone a lot of modifications in terms of context and content. At the centre of health care delivery is the patient; therefore, patient safety is paramount to primary care even though primary care is considered to be essentially safe. It has also been estimated that 1-2% of consultations may lead to harm.

One of the sure ways to increase patient safety, especially in resource-constraint settings is through a

practice like safety netting. Safety netting is widely recommended in national guidelines (England, Wales and Scotland),<sup>46</sup> however, a variety of safety netting definitions exist with no unanimity in the context and contents.

Safety netting is now receiving increased attention particularly in the areas of early diagnosis of cancer and in consultations with children, where it is envisaged that it can potentially improve diagnostic and care pathways. Safety netting is seen differently by authors; while some see it as a consultation technique, others see it as more than that. The concept of safety netting is somewhat surmised as it can be used in different patient groups, diverse patient settings, and with

different approach. It is also worthy of note that the concept may not be too relevant in the developed world, but as family physicians practicing in the underdeveloped and developing world where there is resource-constraint, the practice of safety netting may still be relevant.

### **DEFINITION**

There have been myriads of definition of safety netting. 7-25 The common occurrence throughout literature were several arguments to this effect which will be highlighted in this article. Safety netting is a technique in consultation to communicate uncertainty, provide patient with information on red-flag symptoms, and plan for future appointments to ensure timely re-assessment of a patient's condition. However, some believe that safety netting is more than solely the communication of uncertainty within a consultation, and that it should include plans for follow-up as well as important administrative aspects such as the communication of test results and management of hospital letters.

We should not however lose sight of the definition of safety netting when first formally coined by Roger Neighbour.<sup>1,7</sup> He defined it as a process whereby the GP answers three questions: 'If I'm right, what do I expect to happen? How will I know if I am wrong? And what would I do then?<sup>7</sup>

Most authors agreed and frequently mentioned safety netting as management of uncertainties, suggesting that safety netting may act as an exigency plan by providing patients with information on prognosis and ways of organizing follow-up. Follow-up and review are also considered to be important aspects of safety netting. Hirst *et al.* states that 'one of the main safety netting approaches is to ask patients to return if symptoms persist.' <sup>26</sup>

Incorporated in the recent definition, which was not originally discussed by Neighbour is the need to review and act on results of investigations as an important component of safety netting. This was described in definitions as 'active monitoring of patients', the 'follow-up and monitoring of investigations and urgent referrals', and an 'administrative process'. 8,10,24 This seems to be a vital aspect of future good patient care. Safety netting is recommended whenever there is diagnostic uncertainty and the differential diagnosis includes serious illness or illness that may progress rapidly. The Medical and Dental Defence Union (MDDU) of Scotland states that, 'safety netting is important where a patient may have risk factors for a specific disease or where specific complications are recognised as part of the illness.' 14

### **CONTEXT**

Safety netting was noted to be useful when consulting with the acutely unwell, patients with multi-morbidity, children and those with mental health problems. Safety netting when managing children has a useful purpose due to often early and non-specific presentations of acute illness and the small proportion with serious illness.<sup>27</sup> An older age, multi-morbidity, or mental health problems are other patient factors that may increase the risk of the illness being or becoming serious, and therefore may require careful safety netting.<sup>12</sup>

Effort should be geared towards ensuring that safety netting is done at each and every contact between a health professional and patient. It was also acknowledged that safety netting is particularly important in primary care, and acute settings such as in emergency department (ED), out-of-hours (OOH) centres, and when using telephone consultations.<sup>28-30</sup>

# COMPONENTS OF SAFETY NETTING

Quite a number of articles suggested what the contents or components of safety-netting advice should be, and the ones that recur most frequently as emphasized were: communicating diagnostic uncertainty; information on red flags and concerned symptoms; the history, natural course and progression of the illness; how, when and where to seek further medical care; arranging programmed follow-up; investigations in the context of primary care and safety netting, and organizational components, viz-a-viz documentation. The first 4 components are key and germane to explaining the context of safety-netting.

# A. Communication of diagnostic uncertainty

Diagnostic uncertainty may occur, especially at first contact, due to various reasons. Family Physician (FP) are front line doctors and doctors of first contact who are often faced with patient complaints and clinical features that are undifferentiated, making the diagnosis impossible at the first visit, with patient ending up being managed symptomatically in the event of absence of red flags symptoms. At times, patient presents with symptoms and signs of similar diseases that the accurate diagnosis can only be made by a specific test, which is not readily available in a poor resource-settings where FP practices. When such test is available, it may not be affordable to the patient as it may be too costly for patients who likely have out-of-pocket (OOP) mode as the source of health care financing. At times the equipment to carry out the test may not be available, or may be faulty and needs repairs. Due to bureaucracy involved, it may take ages to procure or repair such equipment thus necessitating referral of patient to where such facilities is available, which may be far away from patient's domain thus constituting a barrier to

patient's care. Very common in the under-developed and developing world is absence of point-of-care (POC) diagnostic testing devices to make prompt and accurate diagnosis at the point of consultation. All the above scenarios create diagnostic uncertainty and this has to be communicated to the patient.

The Medical and Dental Defence Union of Scotland (MDDUS) states that diagnostic uncertainty may occur due to patients presenting very early in the illness process, making medically unexplained symptoms more likely.<sup>15</sup> A discussion with the patient around uncertainty was thus highlighted as an element of safety netting. Almond et al's Delphi study described this well, stating: 'If the diagnosis is uncertain, that uncertainty should be communicated to the patient (or parent/ carer) so that they are empowered to re-consult if necessary.'12 Similarly, in his advice to GP registrars, Singh stated that: '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.'18 However, further research is needed to explore how this can be most effectively undertaken by healthcare professionals.

# B. Advice on symptoms of concern and 'red flags'

As a fall out of diagnosis uncertainty, it is necessary for patients to know the 'red flag' or symptoms of concern they should look out for. In fact, the appearance of these red flag or symptoms of concern can help the physician in making a diagnosis, leaving the realm of uncertainty to certainty. This component of safety netting was described well by Almond *et al.* who stated that: 'If there is a recognised risk of deterioration or complications developing then the safety-net advice should include the specific clinical features (including red flags) that the patient (or parent/carer) should look out for.'12

This could include a description of symptoms of serious illness such as meningitis in an ill child, or signs that may be suggestive of malignancy in adult patient presenting with non-specific symptoms, for example, a middle-aged patient may be warned about rectal bleeding or diarrhoea if they present with unexplained vague abdominal pain.<sup>7</sup>

# C. The history, natural course and progression of the illness

In cases where there are persistent or non-resolving symptoms further investigation or consultation may be warranted and such symptoms may be considered as a 'red flag'. In order to know when a symptom is persistent or non-resolving, healthcare professionals need to communicate a course or progression in form of timeline to patients. However, Almond *et al* recognized that this information may not be known for all the cases that present to FPs in the clinic and stated that this should not delay help-seeking if the patient or carer has serious concerns. For example, a systematic review found that acute cough in children could last for over 2 weeks. Safety-netting advice could inform parents of this likely time course, but red flags and worrying symptoms, such as a rash or worsening fever, should also be discussed to prompt an earlier review if needed.

### D. How and where to seek further medical care

In fact, as adapted from Roland and colleagues, safety netting advice was defined as: "information shared with a patient or their carer designed to help them identify the need to seek further medical help if their condition fails to improve, changes, or if they have concerns about their health."

Once patients are brought into the picture of what constitute red flag or symptom of concern and the likely progression of the symptoms in terms of timeline, they need to know how and where to seek further medical care if symptoms persist or red-flag symptoms present. This element of safety netting was the most frequently included component and included: directing to other services such as Out-of-hour, or the Emergency Department; 18,21 advices on how to make a follow-up appointment as required and who should do this; 7,24 and legitimising repeat visits so that patients feel able to return if symptoms persist or worsen. 20

The key element of this component of safety netting ensures that patients know how, and where, to seek help if things do not go as planned or expected. This was felt to be a separate component from planned follow-up, which is discussed further on and may not be needed in every situation. For example, Bankhead and colleagues described this component as: 'Specific information about when and how to re-consult if symptoms do not resolve in the expected time course.'28 Buntinx *et al.* state safety netting should include: 'Clear information and advice on re-contacting the GP in specific situations.'32 This suggests the advice should include painting a picture of the specific situations and how to go about seeking help when such situations arise.

# E. Arrange planned follow-up

This is one of the other themes that some authors have introduced in the literature. Quite a number of authors captured arranging planned follow-up, and giving counsel to patients on how to seek care in an event of unforeseen occurrence, as part of safety netting. This was felt to be a distinct element to safety

netting and would normally involve a review in a similar setting, often with the same healthcare personnel. The NICE suspected-cancer guidelines make this distinction clear, stating that reviews may be planned, or patient-initiated if new symptoms develop.<sup>10</sup>

Planned follow-up may be encouraged after having investigations, or in groups of patients with poor adherence to clinic check-up without planned follow-up. In their safety-netting advice, Morgan *et al.* in 2014 stated in their work that: 'Arranging appropriate follow-up for patients is an essential element of the consultation ... We encourage having a low threshold for asking patients to return for a review.'<sup>16</sup> In the same vein, Macmillan's safety-netting leaflet advised the following: 'If you feel a patient needs to be reviewed, offer to make an appointment for them, rather than asking them to do it.'<sup>9</sup>

The planned follow up could also include an explanation of the purpose of tests, how they are undertaken, and how results can be obtained. The National Patient Safety Agency states that patients should be 'enabled to follow up test results relating to their own care.' The NICE suspected-cancer guidelines stated in the safety-netting advice, that results of investigations should be reviewed and acted upon appropriately. Without gain-saying, most of the safety-netting advice around cancer diagnosis focuses on investigations. Healthcare personnel have the duty to review and act on the results of investigations they have requested. <sup>24</sup>

### F. Documentation

Also, popular among the listed components included by authors in their articles is the recommendation to document safety-netting advice in the patient's notes. <sup>28,14</sup> Remember to document everything you do, if there is no record it was not done. The more details you can document, the better. The MDU advised careful documentation in the medical notes and providing written advice, stating that: 'Document specific advice given, rather than simply writing "advice given.' <sup>14</sup> Nicholson agreed, stating that 'Ensure patients understand safety netting advice with written instructions if needed.' <sup>24</sup>

Documentation is a critical vehicle for conveying essential clinical information about each patient's diagnosis, treatment, and outcomes and for communication between clinicians, other providers, and payers. Documentation of clinical information is an essential component of clinical communication and integral to supporting the delivery of safe, high-quality and continuous patient care

High-quality documentation is person-centred, relevant, accurate, complete, up to date and accessible to all members of the healthcare team. High-quality documentation is the responsibility of all health professionals involved in the provision of care. Poor documentation is a key safety and quality risk, particularly at transitions of care where there is a higher risk of information being miscommunicated or lost

### **CONCLUSION**

Safety netting is an important process to help handle uncertainty in the diagnosis and care of patients by providing basic and relevant information for patients and arrangement for planned follow-up after contact with a health professional. This serves the dual purpose of empowering patients and protecting primary healthcare professionals. Safety netting may be performed at the time of the contact between primary healthcare providers and patient, or may happen after the contact through active monitoring and administrative systems to manage results and referrals. The most recognizable part of safety netting -managing uncertainty- is still quite relevant to the practice of primary care in Africa, where facilities that will help in making a timely diagnosis is not available or far from the reach of patients. It should be considered to be an essential process to help manage uncertainty in diagnosis. Most of the component parts discussed can help to provide a safety net in the management of uncertainty by providing information to patients and organizing, or legitimizing, a follow-up visit to ensure patients do not 'slip through the net'. Management of uncertainty in primary care is complex and safety netting may be just one of a number of factors to be considered in unraveling it.

# IMPLICATIONS FOR RESEARCH AND PRACTICE

- 1. There is lack of empirical research on safety netting as a concept in Nigeria, Africa and most Middle East; the level of awareness about the concept is not known, hence research is needed in this direction as well as on many aspects of safety netting.
- 2. In clinical practice, the use of safety netting will help in catching patients with worrying symptoms or 'red flags' early, if it was not picked at first visit because of vague and undifferentiated symptoms leading to uncertainty in diagnosis. This will subsequently lead to early treatment or referral to a higher level of care.
- Safety netting may also provide a legal protection to healthcare professionals especially when there is proper documentation
- 4. Safety netting also empowers patient to know what to do, where to go, when and how to seek further

medical care. These will ultimately lead to patient and health professionals' safety.

### REFERENCES

- 1. **Neighbour R.** The inner consultation. London: Radcliffe Publishing Ltd, 1987.
- 2. **Wetzels R,** Wolters R, van Weel C, Wensing M. Mix of methods is needed to identify adverse events in general practice: a prospective observational study. BMC Fam Pract 2008; 9:35.
- 3. Health Foundation. Levels of harm in primary care. London, 2011. https://www.health.org.uk/publication/levels-harm-primary-care.
- 4. **Evans J,** Ziebland S, MacArtney JI, *et al.* GPs' understanding and practice of safety netting for potential cancer presentations: a qualitative study in primary care. Br J Gen Pract. 2018;68 (672): e505–511. https://10.3399/bjgp 18X696 233.
- 5. **Edwards PJ,** Ridd MJ, Sanderson E, Barnes RK. Safety netting in routine primary care consultations: an observational study using video-recorded UK consultations. Br J Gen Pract. 2019b;69: e878–886. https://10.3399/bjgp19X70 6601
- McKinstry B, Watson P, Elton RA, et al. Comparison of the accuracy of patients' recall of the content of telephone and face-to-face consultations: an exploratory study. Postgrad Med J 2011;87: 394–399.
- 7. **Jones D,** Dunn L, Watt I, Macleod U. Safety netting for primary care: evidence from literature review. Br J Gen Pract 2019;70-79 DOI: https://doi.org/10.3399/bjgp18X700193
- 8. Cancer Research UK. Safety netting. 2016. http://www.cancerresearchuk.org/health-professional/learning-and-development-tools/safety-netting#Safety\_netting1 (accessed 11 May 2023).
- 9. Campion-Smith C. Primary care: 10 Top Tips. Macmillan, 2017. https://www.macmillan.org.uk/\_images/ten-tips-safety-netting\_tcm9-300218.pdf.
- National Institute for Health and Care Excellence. Suspected cancer: recognition and referral. NG12. London: NICE, 2015. https://www.nice.org.uk/guidance/ng12.
- 11. National Institute for Health and Care Excellence. Fever in under 5s: assessment and initial management. CG160. London: NICE, 2013. https://www.nice.org.uk/guidance/cg160.
- 12. **Almond S,** Mant D, Thompson M. Diagnostic safety-netting. Br J Gen Pract. 2009:59 (568); 872-874. https://10.3399/bjgp09X47 2971.
- 13. **McKelvey I.** The consultation hill: a new model to aid teaching consultation skills. Br J Gen Pract. 2010;60 (576):538-40. DOI: https://doi.org/10. 3399/bjgp10X514936.

- 14. **Jarvis S.** Playing it safe safety netting advice. Medical Defence Union Journal, 2018. https://mdujournal.themdu.com/issue-archive/issue-4/playing-it-safe safety-netting-advice.
- 15. Medical and Dental Defence Union of Scotland. Safety netting. 2016. https://www.mddus.com/resources/resource-library/risk-alerts/2016/june/safetynetting.
- 16. **Morgan S,** Chan M, Starling C. Starting off in general practice consultation skill tips for new GP registrars. Aust Fam Physician 2014; 43(9): 645–648.
- 17. **Singh P.** A registrar survival guide follow up and safety netting. GP Online. 2016 http://www.gponline.com/registrar-survival-guide-follow-safetynetting/article/1029196.
- 18. **Roland D,** Jones C, Neill S, *et al.* Safety netting in healthcare settings: what it means, and for whom? Arch Dis Child Educ Pract Ed. 2014; 99(2): 48–53. 10.1136/archdischild-2012-303056.
- 19. **Bertheloot K,** Deraeve P, Vermandere M, *et al.* How do general practitioners use 'safety netting' in acutely ill children? Eur J Gen Pract. 2016; 22(1): 3–8. doi:10.3109/13814788.2015.1092516.
- 20. **Jones CH,** Neill S, Lakhanpaul M, *et al.* The safety netting behaviour of first contact clinicians: a qualitative study. BMC Fam Pract. 2013; 14:140. 10.1186/1471-2296-14-140.
- 21. **Jones CH,** Neill S, Lakhanpaul M, *et al.* 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. BMJ Open. 2014;4(1): e003874. 10.1136/bmjopen-2013-003874.
- 22. **de Vos-Kerkhof E,** Geurts DH, Wiggers M, *et al.* Tools for 'safety netting' in common paediatric illnesses: a systematic review in emergency care. Arch Dis Child. 2015;102(2):131–191. 10. 1136/archdischild-2014-306953
- 23. **Neill S,** Lakhanpaul M, Roland D, *et al.* G28 Effective safety netting: an important contribution to avoiding preventable deaths. Arch Dis Child. 2015; 100(Suppl 3):A12.
- 24. **Nicholson BD,** Mant D, Bankhead C. Can safetynetting improve cancer detection in patients with vague symptoms? BMJ. 2016;355: i5515. https:/ /10.1136/bmj.i5515
- 25. **Alam R,** Cheraghi-Sohi S, Panagioti M, *et al.* Managing diagnostic uncertainty in primary care: a systematic critical review. BMC Fam Pract. 2017; 18(1):79. https://10.1186/s12875-017-0650-0
- 26. **Hirst Y,** Lim AWW. Acceptability of text messages for safety netting patients with low-risk cancer symptoms: a qualitative study. Br J Gen Pract 2018;
- 27. **van Dorp F.** Consultations with children. InnovAiT 2008;1(1):54–61.

- 28. **Bankhead C,** Heneghan C, Hewitson P, Thompson M, on behalf of the Cancer Safety Net Development Team. Safety netting to improve early cancer diagnosis in primary care: development of consensus guidelines. Oxford: Cancer Safety Net Development Team, 2011. http://webarchive.nationalarchives.gov.uk/20130513211237/http:/www.ncat.nhs.uk/sites/default/files/work-docs/Safety%20Netting%20Guidance%20for%20GPs.pdf%20.pdf.
- 29. **van Galen LS,** Car J. Telephone consultations. BMJ. 2018;360: k1047. Doi:10.1136/bmj.k1047.
- 30. **Rees P,** Edwards A, Powell C, *et al.* Patient safety incidents involving sick children in primary care in England and Wales: a mixed methods analysis. PLoS Med 2017;14(1): e1002217.

- 31. **Hay AD,** Wilson AD. The natural history of acute cough in children aged 0 to 4 years in primary care: a systematic review. Br J Gen Pract. 2002;52 (478):401–409.
- 32. **Buntinx F,** Mant D, Van den Bruel A, *et al.* Dealing with low-incidence serious diseases in general practice. Br J Gen Pract. 2011; https://10.3399/bjgp11X548974.
- 33. National Patient Safety Agency. Delayed diagnosis of cancer: thematic review. 2010. http://webarchive.nationalarchives.gov.uk/20171030124204/http://www.nrls.npsa.nhs.uk/resources/?entryid45=69894&p=7.