

Relevance of Safety Netting in Handling Diagnostic Uncertainty in Primary Care

Ayodapo Abayomi O.¹, Elegbede Olayide T.²

1. South Faisaliyah PHC and Trainer Saudi Board of Family Medicine, Arar, Saudi Arabia.
2. Department of Family Medicine, Afe Babalola University, Ado-Ekiti, Ekiti State Nigeria.
3. Department of Family Medicine, Federal Teaching Hospital, Ido-Ekiti. Ekiti State Nigeria.

Corresponding author

Ayodapo Abayomi O.

South Faisaliyah PHC and Trainer Saudi Board of Family Medicine, Arar, Saudi Arabia.

Email: abayomi.ayodapo@npmcn.edu.ng

ABSTRACT

Diagnostic uncertainty is a common occurrence in primary care due to varying degrees of factors which may be patient-related, physician-related, or place of practice-related. Safety netting is one of the options available in handling such diagnostic uncertainties. Although there is no consensus on what the contents or components of safety-netting advice should be, there are quite some that recur frequently. Safety netting is used widely and has been observed in 65% and 90% of consultations in England and Scotland, respectively. Safety netting is a key element of the Royal College of General Practitioners (RCGP) curriculum, features multiple consultation models and clinical guidelines, and is recognised as forming part of 'best practice' in primary care. This paper aims to bring this concept to the fore and see how to imbibe it into our primary care training and practice.

Keywords: Safety netting, diagnostic uncertainty, primary care, best practice

Introduction

Diagnostic uncertainty is one of the largest contributory factors to the occurrence of diagnostic errors across most specialities in medicine and arguably uncertainty is greatest in primary care due to the undifferentiated symptoms primary care physicians are often presented with.¹⁻⁴ The breadth and complexity of diagnoses possible in general practice make diagnostic uncertainty a routine inevitability. Diagnostic uncertainty is a defining feature of primary care with the majority of consultations ending without a definitive diagnosis.² People attend primary care with undifferentiated symptoms and signs that could represent benign self-limiting illness or serious disease.

Diagnostic uncertainty may occur, especially at first contact, due to various reasons. Family Physicians (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 flag symptoms.^{2,5} 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

a 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.^{6,7} At times the equipment to carry out the test may not be available or may be faulty and needs repairs. Due to the bureaucracy involved, it may take ages to procure or repair such equipment thus necessitating referral of the patient to where such facilities are available, which may be far away from the patient's domain thus constituting a barrier to patient's care. Very common in the underdeveloped and developing world is the absence of point-of-care (POC) diagnostic testing devices to make prompt and accurate diagnoses at the point of consultation.^{8,9} Most GPs practice without immediate diagnostic investigations, such as X-rays and point-of-care blood tests. All the above scenarios create diagnostic uncertainty and this has to be communicated to the patient.

Options available in handling diagnostic uncertainty

When faced with diagnostic uncertainties, various options have been suggested which include;

- *Test of time:* 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

- *Therapeutic trials*: Involve giving the patient a specific treatment for a suspected disease/ailment while the outcome/impact is being awaited.
- *Further investigations*. This is intended to arrive at a definitive diagnosis
- *Safety netting*

Often, these strategies 'buy time' for the condition to either resolve or declare itself more floridly.⁵ This ensures patient safety is not hindered in case of limitations of further investigations and therapeutic trials, as a test of time can be safely employed.

However, it is worthy of note that, safety-netting has become the best practice when dealing with diagnostic uncertainty in primary care.^{2,4,5, 10} It is a diagnostic strategy that involves monitoring patients with symptoms possibly indicative of serious illness until they are explained or resolved.^{4,5,10} 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 re-consult when necessary.¹⁰ This serves the dual purpose of empowering patients and protecting primary healthcare professionals.

What is Safety Netting?

The common occurrence throughout the literature was several arguments about what safety netting is. Simply put, safety netting is a technique in consultations to communicate uncertainty, provide patients with information on red-flag symptoms, and plan for future appointments to ensure timely re-assessment of a patient's condition. 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'.^{10,11}

Safety-netting advice is 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 factors.

The practice in the UK?

Safety netting is 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,^{8,10} and recommendations to incorporate safety netting into everyday clinical practice are widespread. Safety netting is a key element of the Royal College of General Practitioners (RCGP) curriculum, features in multiple consultation models and clinical guidelines, and is recognised as forming part of 'best practice' in primary care.^{8, 9} Also, safety netting forms part of the assessment of new GPs,^{10, 12} and clinical guidelines refer to NICE's safety netting recommendations.^{10,13}

Indications for the use of safety netting

A consensus study⁵ indicates that clinicians agree safety netting should be employed in high-risk clinical situations, such as:

- a) when the diagnosis is uncertain and the differential diagnosis includes serious illness, especially illness that can progress very rapidly
- b) the diagnosis is not uncertain but carries a known risk of serious complications, or
- c) the individual patient has certain characteristics (age, comorbidity) that put them at an increased risk of illness or complications.

Contents or components of safety netting

- **Communication of diagnostic uncertainty.** If the diagnosis is uncertain, the uncertainty should be communicated to the patient (or parent/carer) so that they are empowered to re-consult if necessary
- **Advise on symptoms of concern and 'red flags'.** 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. Giving parents or caregivers information about which specific clinical features to look out for seems sensible. There are several recognised red-flag symptoms that patients (or parents/carers) could self-monitor; for example, looking for rapid breathing or signs of respiratory distress in a child presenting with an acute respiratory infection.¹⁴
- **How and where to seek further medical care.** Safety-net advice should give specific guidance on how and where to seek further help if needed. Achieving easy re-access to

care for safety-netting is particularly important. At its simplest, it requires the clinician to legitimise re-contact by saying explicitly that the patient should re-consult if they remain concerned.

- **The history, natural course and progression of the illness.** Where information about the likely time course of illness is known, safety-net advice should include this information. However, it should be made clear that if a patient (parent/carer) has concerns they should not delay seeking further medical advice.

Safety netting as a legal protection for healthcare professionals

Safety netting has been described as serving the dual purpose of empowering patients and protecting primary healthcare professionals. In this era of increased litigation against healthcare providers, safety netting may provide legal protection to healthcare professionals especially when there is proper documentation.¹⁵ Hence, it is recommended that safety netting advice should be documented in the patient's notes.^{9,15} Remember to document everything you do, if there is no record, it was not done. The more details you can document, the better. The Medical and Dental Defence Union (MDU) advised careful documentation in the medical notes and providing written advice, stating that: 'Document specific advice given, rather than simply writing "advice given"¹⁶. Nicholson agreed, stating 'Ensure patients understand safety netting advice with written instructions if needed.'¹⁷

Implication of Safety Netting for Training and Practice by Family Physicians in Nigeria

Internationally, although the term, safety netting is less widely used, part component is being used in practice summarily in the form of information, counselling and education (ICE) for discharge or follow-up information is widely recognized.^{8,9} We opined that just as the concept is embraced and observed in consultations in the UK, Nigerian FP can consciously incorporate safety netting into every clinical practice.

Safety netting can be part of the key element of the faculty of Family Medicine, National Postgraduate Medical College curriculum, features in multiple consultation models and clinical guidelines, as part of 'best practice' in primary care. It may be considered a

core competency for FP vocational trainees and others working in first-contact care settings. This has featured prominently in the Royal College of General Practitioners (RCGP) curriculum and recently Saudi Board of Family Medicine curriculum. It can feature in consultation models and clinical guidelines.

There is a lack of empirical research on safety netting as a concept in Nigeria; the level of awareness about the concept is not known, hence, research is needed in this direction as well as many aspects of safety netting.

Conclusion

Safety netting in the management of uncertainty is still quite relevant to the practice of primary care in Africa, where facilities that will help in making a timely diagnosis are not available or far from the reach of patients. It should be considered to be an essential process to help manage uncertainty in diagnosis. Management of uncertainty in primary care is complex and safety netting may be just one of several factors to be considered in unraveling it.

References

1. Graber ML, Kissam S, Payne VL, Meyer A, Sorensen A, Lenfestey N, Tant E, Henriksen K, LaBresh K, Singh H. Cognitive interventions to reduce diagnostic error: a narrative review. *BMJ Qual Saf.* 2012;21:535–57.
2. Alam R, Cheraghi-Sohi S, Panagioti S, Esmail A, Campbell S and Panagopoulou E. Managing diagnostic uncertainty in primary care: a systematic critical review. *BMC Family Practice.* 2017; 18:79: 1-13. DOI 10.1186/s12875-017-0650-0
3. Heath I, Sweeney K. Medical generalists: connecting the map and the territory. *BMJ British Med J.* 2005;331:1462–4.
4. Evans L, Trotter DR. Epistemology and uncertainty in primary care: an exploratory study. *Fam Med.* 2009;41:319–26.
5. Almond S, Mant D, Thompson M. Diagnostic safety-netting. *Br J Gen Pract* 2009;872-874 DOI: <https://doi.org/10.3399/bjgp09X472971>.
6. Oseni TIA, Salami TO, Fatusin AJ. Contributions of family physicians to health care services in Nigeria. *Afr J Prm Health Care Fam Med.* 2021; 13(1), a2943. <https://doi.org/10.4102/phcfm.v13i1.2943>
7. Mash R, Howe A, Olayemi O, et al. Reflections on family medicine and primary healthcare in

- sub-Saharan Africa. *BMJ Glob Health*. 2018; 3 (Suppl 3) : e00062 .
<https://doi.org/10.1136/bmjgh-2017-000662>
8. Edwards PJ, Ridd MJ, Sanderson E, *et al*. Safety netting in routine primary care consultations: an observational study using video-recorded UK consultations. *Br J Gen Pract* 2019b;69:e878–86.
 9. Jones D, Dunn L, Watt I and 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>
 10. Friedemann Smith C, Lunn H, Wong G, *et al*. Optimising GPs' communication of advice to facilitate patients' self-care and prompt follow-up when the diagnosis is uncertain: a realistic review of 'safety-netting' in primary care. *BMJ Qual Saf* 2022;31;541-554. doi:10.1136/bmjqs-2021-014529
 11. National Institute for Health and care excellence, Quality statement 1: 'Safety netting' information, 2012. Available : <https://www.nice.org.uk/guidance/qs19/chapter/Quality-statement-1-Safety-netting-information> (Accesses 06 May 2023).
 12. Royal Australian college of general Practitioners. RACGP education: exam report 2016.2 OSCE. East Melbourne, Vic: RACGP, 2016.
 13. New Zealand Ministry of Health. Suspected cancer in primary care: guidelines for investigation, referral and reducing ethnic disparities. Wellington, New Zealand: new Zealand Guidelines Group, 2009.
 14. Margolis P, Gadomski A. The rational clinical examination. Does this infant have pneumonia? *JAMA* 1998; **279**: 308–313
 15. Ayodapo AO, Alanazi TMM, Elegbede OT, Monsudi KF, Akinbode AO, Ibraheem AS. Safety netting concept in primary care consultation. *Ann Ib Postg Med* 2023; 21(2): 24-29
 16. 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> (accessed 20 Apr 2023)
 17. Nicholson BD, Nant D, Bankhead C. Can safety-netting improve cancer detection in patients with vague symptoms? *BMJ* 2016: 355:i5515