

Diabetic Foot Screening by Nurses - Adopting the Amit Jain's Triple Assessment

Mandira Gope

Associate Professor, Department of Medical Surgical Nursing, Karnataka College of Nursing, Bengaluru, Karnataka, India.

Corresponding author: Dr Mandira Gope

DOI: <https://doi.org/10.52403/ijrr.20260907>

ABSTRACT

With rise in the prevalence of diabetes globally, there is equal rise its complications. One such alarming complication is diabetic foot that often can lead to amputations be it minor or major amputation. The diabetic foot is known to be neglected by many even today. To prevent complications and subsequent amputation, screening the foot serves as one of the best preventive strategies. Among the known screening tool worldwide, Amit Jain's triple assessment of the foot from India is one of the easiest and fastest screening tools and this article aims at discussing this novel screening tool that can be used by any healthcare professional with ease in view of its simplicity.

Keywords: Diabetic foot, Screening, Amit Jain, triple assessment, Universal, Amputation.

INTRODUCTION

There are around 589 million people who have diabetes in 2025 which is likely to increase to 850 million by year 2050 [1]. Further, it is noted that 4 in 5 of the adults who have diabetes are living in low and middle-income countries [1]. Among all known complications, diabetic foot disease is the most common and devastating complication [2]. The life time risk of diabetic foot ranges from 15 to 34% [3].

Foot of the diabetes patient are likely to develop ulcers, infections, gangrene which can lead to amputation, if not cared properly [4]. There is enough evidence that suggest screening to be the strategy that can reduce ulceration as well as amputation [2]. There are also studies which reveal level of foot care being poor among diabetic patients [5]. It is often stated that management of diabetic foot is best with multidisciplinary team approach with them having different specialist like general practitioners, podiatrist, nurses, vascular surgeons, orthopedic experts, etc [2]. However, the reality is far from what is advised and practiced.

Among healthcare professionals, the foot examination/screening is often missed [6]. It was noted that only 12-20% of foot were actually evaluated in clinical practice [7]. Further, the importance of nurse's role in different aspect of diabetic foot including screening is often stated [8]. But in reality, in many countries, the nurses don't even have appropriate diabetic foot education. A study by Kaya et al [9] showed that 66% of nurses did not receive training in diabetic foot care with 77.5% of them not performing foot examination on diabetic patients. Another study from Malaysia [10], also showed poor knowledge of diabetic foot and their care among nurses.

AMIT JAIN'S SCREENING TOOL- TRIPLE ASSESSMENT OF THE FOOT

With nurses being an integral part in patient care in any hospital as well as community setting, it becomes essential that they are taught about preventive strategies in diabetic foot like education and screening especially in countries like India and other countries where prevalence of diabetes is high [7, 11]. There are numerous screening tools in different part of the world ranging from type 1 diabetic foot screening tool (Amit Jain's Classification for foot screening) being simple to type 2 and 3 diabetic foot screening tools being complex and complicated [12].

Among the existing screening tool, Amit Jain's Screening tool, also known as Amit Jain's Triple assessment or Amit Jain's Linear Foot Test, is the simplest and easiest screening tool till date which is very practical, easy to understand and execute. [7, 8, 11, 12]. This screening tool was proposed by Amit Jain from India, who is the father of diabetic foot surgery in view of him giving the first and the largest principle and practice in field of diabetic foot in the world [13, 14] and is also the Founding Father of modern offloading in view of his extensive original innovative work on offloading in foot from Indian subcontinent [15, 16, 17, 18].

The Amit Jain's Triple assessment, which is one of the fastest known screening tools in diabetic foot that addresses the trio-pathology effectively, has 3 components namely, the Look component, the Feel component and the Test Component [19, 20].

In the Look Component (Figure 1), one should examine the dorsum of foot, plantar aspect and interdigital/web space to identify any infection, ulcer or pre-ulcerative lesion like callus and visible deformities. In the Feel component, one should palpate any one of the pulses like dorsalis pedis, anterior tibial or posterior tibial artery pulsation (Figure 2) to assess adequacy of blood supply. The Test component (figure 3) aims at assessing the sensation of the foot wherein one can use a monofilament, tuning fork, pin prick, etc. in isolation or combination at the following sites that includes pulp of great toe, first and

5th metatarso-phalangeal joint region [6, 7, 19, 20].



Figure 1 showing the plantar view- the Look component of the Amit Jain's Screening tool.



Figure 2 showing the palpation of the posterior tibial artery, the Feel component



Figure 3 showing the monofilament at the pulp of the great toe, The Test component.

Once this triple assessment is done by a healthcare professional annually, during follow up in that year, one can do simple assessment, which is the Look component. In certain scenarios, like in ICU setup, one might have to do double assessment [19] like the Look and the Feel component, especially if patient is sick or on ventilator. This screening tool also has advanced linear foot tests [7]. The Amit Jain's screening tool also

has Amit Jain's screening scoring system with good predictive ability and a coding system [21, 22].

CONCLUSION

Screening of the diabetic foot is important to prevent amputation. Amit Jain's triple assessment should be the universal screening tool for diabetic foot as any healthcare professional like the physician, general practitioner, nurses, etc. in any part of the world, can use with ease in any setup be clinic or hospital, in view of its simplicity and also its ability to address the trio-pathology effectively.

Declaration by Authors

Ethical Approval: Not applicable

Acknowledgement: None

Source of Funding: None

Conflict of Interest: No conflicts of interest declared.

Creative Commons Attribution License 4.0

This is an open-access article published under the terms of the Creative Commons Attribution 4.0 International License (CC BY 4.0).

<https://creativecommons.org/licenses/by/4.0>

REFERENCES

1. International Diabetes Federation. Diabetes facts and figures. Brussels: International Diabetes Federation; [cited 2026 Sep 4]. Available from: <https://idf.org/about-diabetes/diabetes-facts-figures/>
2. Tassiou A. Nurses as educators of diabetic foot patients. JRPMS. 2021; 5:25-8.
3. Hidalgo-Ruiz S, Ramírez-Durán MDV, Basilio-Fernández B, Alfageme-García P, Fabregat-Fernández J, Jiménez-Cano VM, et al. Assessment of diabetic foot prevention by nurses. Nurs Rep. 2023;13(1):73-84.
4. Lilly-West BR, Mildred EJ, Clement I. Knowledge of diabetic foot care among nursing practitioners in Rivers State, Nigeria. Texila Int J Nurs. 2018;4(2). doi:10.21522/TIJNR.2015.04.02. Art003.
5. Ju HH, Ottosen M, Alford J, Jularbal J, Johnson C. Enhancing foot care education and support strategies in adults with type 2 diabetes. J Am Assoc Nurse Pract. 2024;36(6):334-41.
6. Prajapati R, Singh M, Verma D. Triple assessment for addressing triopathy in diabetic foot: rapid screening tool for amputation prevention in government hospital setting. Int J Ortho Surg. 2018;4(3):302-5.
7. Jain AKC, Gopal S. Comparing foot evaluation in hospitalized patients between surgeons, orthopaedicians and physicians through Amit Jain's triple assessment. East Afr Scholars J Med Sci. 2020;3(5):169-78.
8. Davis ML. Nurses' role in diabetic foot prevention and care: a healthcare challenge. Texila Int J Nurs. 2017;3(1). doi:10.21522/TIJNR.2015.03.01. Art004.
9. Kaya Z, Karaca A. Evaluation of nurses' knowledge levels of diabetic foot care management. Nurs Res Pract. 2018; 2018:8549567.
10. Wui NB, Azhar AAB, Azman MHB, et al. Knowledge and attitude of nurses towards diabetic foot care in secondary health care centre in Malaysia. Med J Malaysia. 2020;75(4):391-5.
11. Gope M, Dhanwal A. Role of a nurse in preventing diabetic foot storm. Int J Res Rev. 2021;8(8):51-4.
12. Jain AKC. Classifying diabetic foot screenings. Int J Surg Surg Res. 2026;8(1):12-3.
13. Gopal S, Haridarshan SJ. Amit Jain's system of practice for diabetic foot: the modern diabetic foot surgery. Int J Res Orthop. 2019; 5:532-9.
14. Gopal S. Amit Jain's classifications for diabetic foot complications: the universal classification supreme. Int J Surg Sci. 2018;2(2):8-10.
15. Jain AKC. Super modern diabetic foot surgery. Medicine (Baltimore). 2021;10(3):1081-4.
16. Jain AKC, Dath R, Rao UV, Kumar K, Kumar H, Kumar S. Offloading of diabetic foot wounds using Amit Jain's offloading system: an experience of 23 cases. Int Surg J. 2017; 4:2777-81.
17. Jain AKC. Amit Jain's offloading system for diabetic foot wounds: a better and superior alternative to felted foam. IJMSci. 2017;4(1):2604-9.
18. Jain AKC. Amit Jain's classifications for offloading the diabetic foot wounds. IJMSci. 2017;4(5):2922-5.

19. Jain A. Amit Jain's triple assessment of foot in diabetes: a rapid screening tool. *Wounds Int.* 2018;9(1):35-7.
20. Jain AKC. Amit Jain's triple assessment for foot in diabetes: the simplest and the fastest screening tool in the world. *IJMSci.* 2017;4(6):3015-9.
21. Jain AKC, Apoorva HC. Predictive validity of Amit Jain's screening tool in estimating the risk of complications in diabetic foot: a retrospective cohort study. *Wounds Int.* 2020; 11:31-7.
22. Jain AKC. Triangles in diabetic foot. *Int J Diabetes Res.* 2020;2(1):1-4.

How to cite this article: Mandira Gope. Diabetic Foot Screening by Nurses - Adopting the Amit Jain's Triple Assessment. *International Journal of Research and Review.* 2026; 13(9): 54-57. DOI: <https://doi.org/10.52403/ijrr.20260907>
