

Search Q

Log in

Original Article | Published: 15 August 2020

Foot care practices among Diabetologists in India: A descriptive study by the Diabetic Foot Research India

<u>Vijay Viswanathan</u> <sup>™</sup>, <u>Sukanya Nachimuthu</u> & <u>Balkhiwala</u> Ahmed Khan

<u>International Journal of Diabetes in Developing Countries</u> (2020)

**42** Accesses Metrics

### Abstract

# **Background**

Evidence regarding the foot care practices among practitioners is still scarce in the Indian scenario. This study aimed at assessing the foot care practices among diabetologists from various parts of the country.

## **Methods**

A cross-sectional online survey was conducted among diabetologists, to understand their foot care practices across India, who were part of Diabetic Foot Research India (DFRI) and have participated in the study.

### **Results**

In a total of 89 participants, majority of the diabetologists examined patients with a history of foot infection once in 3 months (53%), 128 Hz tuning fork has been used for diagnosis of high-risk foot (31%), majority of patients were advised to use TCC by diabetologists (73%), and footwear was manufactured by qualified orthotist and prosthetics (60%). The foot problems commonly treated by diabetologists are cellulitis (26%) followed by callus (24%). Patients were also referred to other specialists (69%); almost all the participants used antibiotics (95%), and medication and wound care management (29%) were also a part of their practice.

## **Conclusion**

The diabetologists displayed a multidisciplinary approach to the treatment and management of foot care practices among patients with foot complications. It is imperative to establish effective communication between diabetologists and/or other practitioners to generate sufficient evidence to determine the foot care practices throughout the country.

This is a preview of subscription content, <u>access via</u> <u>your institution</u>.

Access options

Buy article PDF

34,95 €

Tax calculation will be finalised during checkout.

Instant access to the full article PDF.

Buy journal subscription

73,83 €

Tax calculation will be finalised during checkout.

Immediate online access to all issues from 2019. Subscription will auto renew annually.

Rent this article via DeepDyve.

Learn more about Institutional subscriptions

### References

#### 1. 1.

IDF DIABETES ATLAS Eighth edition 2017. <a href="http://www.diabetesatlas.org/">http://www.diabetesatlas.org/</a> Access 27th November 2019.

#### 2. 2.

Gupta, Sanjeev, Singh, Surya. Diabetic foot: a continuing challenge. Adv Exp Med Biol. 2012;771:123–38.

3. 3.

Ahmad J. The diabetic foot. Diabetes Metab Syndr. 2016;10(1):48–60. https://doi.org/10.1016/j.dsx.2015.04.002.

#### 4. 4.

Little M, Humphries S, Patel K, Dewey C.

Decoding the type 2 diabetes epidemic in rural
India. Med Anthropol. 2016;36(2):96–110.

<a href="https://doi.org/10.1080/01459740.2016.1231676">https://doi.org/10.1080/01459740.2016.1231676</a>

5. 5.

Viswanathan V (2013) Delivering an effective foot care for people with diabetes. Book chapter. Mar 2015.

### 6. 6.

Taksande BA, Thote M, Jajoo UN. Knowledge, attitude, and practice of foot care in patients with diabetes at central rural India. J Fam Med Prim Care. 2017;6:284–7.

### 7. 7.

Abbas ZG, Viswanathan V. The diabetic foot in Africa and India. Int Diab Monit. 2007;19:8–12.

8. 8.

American Diabetes Association (ADA). Diabetes.

9.9.

George H, Rakesh PS, Krishna M, Alex R, Abraham VJ, George K, et al. Foot care knowledge and practices and the prevalence of peripheral neuropathy among people with diabetes attending a secondary care rural hospital in southern India. J Fam Med Prim Care. 2013;2:27–32.

### 10.10.

Standard Treatment Guidelines. The diabetic foot. Prevention and management in India, January 2016.

http://clinicalestablishments.gov.in/WriteReadD ata/5381.pdf Access 27th November 2019.

#### 11. 11.

Mayfield JA, Sugarman JR. The use of the Semmes-Weinstein monofilament and other threshold tests for preventing foot ulceration and amputation in persons with diabetes. J Fam Pract. 2000.

#### 12. 12.

American Diabetes Association: Preventive foot care in diabetes. Diabetes Care. 2004;27(suppl 1):s63–4.

#### 13. 13.

Matricali GA, Deroo K, Dereymaeker G. Outcome and recurrence rate of diabetic foot ulcers treated by a total contact cast: short-term follow-up. Foot Ankle Int. 2003;24(9):680-4. https://doi.org/10.1177/107110070302400905.

#### 14. 14.

Tecilazich F, Dinh TL, Veves A. Emerging drugs for the treatment of diabetic ulcers. Expert Opin Emerg Drugs. 2013;18(2):207-17. https://doi.org/10.1517/14728214.2013.802305.

#### 15. 15.

Boulton AJ, Armstrong DG, Albert SF, Frykberg RG, Hellman R, Kirkman M, et al. Comprehensive foot examination and risk assessment: a report of the task force of the foot care interest group of the American Diabetes Association, with endorsement by the American Association of Clinical Endocrinologists. Diabetes Care. 2008;31(8):1679–85.

https://doi.org/10.2337/dc08-9021.

#### 16. 16.

Kishore S, Upadhyay AD, Jyotsna VP. Categories of foot at risk in patients of diabetes at a tertiary care center: insights into need for foot care. Indian J Endocrinol Metab. 2015;19(3):405–10. https://doi.org/10.4103/2230-8210.152789.

#### 17. 17.

De Berardis G, Pellegrini F, Franciosi M, Belfiglio M, Nardo BD, Greenfield S, et al. Physician attitudes toward foot care education and foot

examination and their correlation with patient practice. Diabetes Care. 2004;27(1):286–7. <a href="https://doi.org/10.2337/diacare.27.1.286">https://doi.org/10.2337/diacare.27.1.286</a>.

#### 18. 18.

Chandra V, Glebova NO, Salvo NL, Wu T. Partnerships between podiatrists and vascular surgeons in building effective wound care centers. J Am Podiatr Med Assoc. 2017;66(3):902–5. https://doi.org/10.1016/j.jvs.2017.06.071.

#### 19. 19.

Wukich DK, Armstrong DG, Attinger CE, Boulton AJ, Burns PR, Frykberg RG, et al. Inpatient management of diabetic foot disorders: a clinical guide. Diabetes Care. 2013;36(9):2862–71. https://doi.org/10.2337/dc12-2712.

#### 20, 20,

Liu S, He CZ, Cai YT, Xing QP, Guo YZ, Chen ZL, et al. Evaluation of negative-pressure wound therapy for patients with diabetic foot ulcers: systematic review and meta-analysis. Ther Clin Risk Manag. 2017;13:533–44. <a href="https://doi.org/10.2147/TCRM.S131193">https://doi.org/10.2147/TCRM.S131193</a>.

#### 21. 21.

IWGDF guidelines 2019.

<a href="https://iwgdfguidelines.org/wp-content/uploads/2019/05/02-IWGDF-content/uploads/2019/05/02-IWGDF-">https://iwgdfguidelines.org/wp-content/uploads/2019/05/02-IWGDF-</a>

<u>prevention-guideline-2019.pdf</u> Access 27th November 2019.

#### 22. 22.

Dündar C, Akıncı GE. Knowledge and practice of foot care in diabetic inpatients: a descriptive cross-sectional study. Erciyes Med J. 2017;39(4):160–4.

#### 23. 23.

Saber HJ, Daoud AS. Knowledge and practice about the foot care and the prevalence of the neuropathy among a sample of type 2 diabetic patients in Erbil, Iraq. J Fam Med Prim Care. 2018;7:967–74.

## Acknowledgments

This work was done with the data obtained from the following DFRI members, Dr. M. Senthil Kumar, Dr. Mohit Malhotra, Dr. M. Muralikrishna, Dr. B. RajaGanessan, Dr. Ragavendra Sthapak, Dr. Digambar Naik, Dr. Sriharee, Dr. S. Harinatha Reddy, Dr. P. Krishna Prasanthi, Dr. Divya, Dr. Mohammed Tauseef, Dr. Gaurav Chhaya, Dr. Vijayarani, Dr. Mangesh Tiwaskar, Dr. Mukul Borah, Dr. Mk. Rajendran, Dr. Jyoti G Mannari, Dr. M. Pavankumar, Dr. Bharani, Dr. Prasanth Sankar, Dr. Jugal Kishor Sharma, Dr. Sanjay Dash, Dr. Debiprasad Sarkar, Dr. Kannan, Dr. Bhavatharini Aruyerchelvan, Dr. R. Gobinath, Dr. Sangeetha, Dr. M.S. Ashraf, Dr. Rajesh Kumar

Jayaram, Dr. Amitabh Sur, Dr. Shahnowaj Majumder,

Dr. Anand Shankar, Dr. Nirupam Prakash, Dr.

Mannepalli Ramakrishnarao, Dr. Jayaprakash Sahoo,

Dr. Ravi Kant Mishra, Dr. Ajay patwari, Dr. G. Anil

Kumar Reddy, Dr. S. Vinoth Kumar, Dr. Sadishkumar

Kamalanathan, Dr. Prashant, Dr. Ramesh Reddy, Dr.

Shiva Shankar Polavarapu, Dr. Kannammai, Dr. Basab

Ghosh, Dr. Ponnusamy, Dr. G.Shanti Kumar, Dr.

Kishorekumar Modi, Dr. P. Nellaippar, Dr. S.R. Ashok,

Dr. Yagna narayana reddy, Dr. M.V.Jaiganeshan, Dr.

L.Meenakshisundaram, Dr. Hyderi, Dr. Rajnish Saxena,

Dr. Amit Naghate, Dr. Bhavesh Patel, Dr. K.

Bhuvanesh, Dr. M. Muralikrishna, Dr. Rishi George, Dr.

Mriganka Talukdar, Dr. Vinay Dhandhania, Dr. Sanjay

Gandhi, Dr. M.V. Lakshmanan, Dr. Ragini Rohatgi, Dr.

Niraj Soni, Dr. Snehal Vishnu Fegade, Dr. K.C.

Mohapatra, Dr. Vijay S Shivpuje, Dr. Sivakumar

Krishnamoorthy, Dr. Ashok Damir, Dr. Sujay Chanda,

Dr. Laxmi Chaitanya Ramathoti, Dr. Darshak, Dr.

Tirthankar Satpathi, Dr. Sandip Debashis Mishra, Dr.

Ramchandra Saini, Dr. Mohammed Rennis, Dr.

Mokalla Venkateswararao, Dr. Joozer Rangwala, Dr.

Nitin Subrav Gade, Dr. Mukesh kapadia, Dr. R.

Gopinath, Dr. S. Rajasekaran, Dr. M. Ramesh Kumar,

Dr. Amar Jeet Singh Nagpal, Dr. K. Mahalakshmi, Dr.

Sabeer TK, and Dr. Prakash Mohanty, who

participated in the survey.

## **Author information**

#### **Affiliations**

M.V. Hospital for Diabetes & Prof. M.
 Viswanathan Diabetes Research Centre, No. 4,
 West Madha Church road, Royapuram, Chennai,
 600 013, India

Vijay Viswanathan

2. Prof. M. Viswanathan Diabetes Research Centre, Chennai, India

Sukanya Nachimuthu & Balkhiwala Ahmed Khan

## **Corresponding author**

Correspondence to Vijay Viswanathan.

## **Ethics declarations**

## **Conflict of interest**

The authors declare that they have no conflicts of interest.

## Additional information

## Publisher's note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

## Rights and permissions

### **Reprints and Permissions**

### About this article

### Cite this article

Viswanathan, V., Nachimuthu, S. & Khan, B.A. Foot care practices among Diabetologists in India: A descriptive study by the Diabetic Foot Research India. *Int J Diabetes Dev Ctries* (2020). https://doi.org/10.1007/s13410-020-00847-y

- Received13 March 2020
- Accepted02 July 2020
- Published15 August 2020
- <u>DOIhttps://doi.org/10.1007/s13410-020-00847-</u>
  <u>y</u>

# **Keywords**

- Diabetic foot care
- Foot care practice among diabetologists
- High risk foot
- Foot examination
- Indian diabetologists

Not logged in - 106.51.3.232

Not affiliated

#### **SPRINGER NATURE**

© 2021 Springer Nature Switzerland AG. Part of Springer Nature.