

The Diabetic Foot Wounds and Infections: Turkish Consensus Report, 2024

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The prevalence of diabetes continues to increase both in our country and in the world. The International Diabetes Federation estimated that as of 2021, 537 million adults in the world were living with diabetes. In Türkiye, this number is over 9 million (1). This situation leads to an increase in foot complications, including infection. Diabetic foot (DF) wound is a problem that has serious consequences for both the patient and the health care systems.

The risk of a diabetic patient admitting to the hospital due to a foot wound at any stage of his life is approximately 35%. It is reported that wounds recur in 50% of cases after treatment. About 85% of amputations in people living with diabetes are performed because of foot wounds. The five-year mortality rate after lower extremity amputation increases to 77%. For this reason, it is crucial to know the factors that cause foot wounds in diabetes and to follow up closely with risky patients (2-4). Diabetic foot infection (DFI) is a preventable complication of diabetes that requires frequent hospital admission due to wound care, antimicrobial treatment, and surgical procedures and leads to high costs. It remains the most common cause of diabetes-related hospitalization and the most common risk factor for lower-extremity amputations (5, 6). Accumulations of purulent secretions, especially if under pressure or associated with necrosis, require prompt (usually within 24 hours) surgical decompression and drainage (7).

It is possible to prevent DF wounds and infections primarily by controlling diabetes and foot care.

Management of risk factors for the development of foot wounds in diabetic patients, the patient's compliance in this process, the determination of the frequency of follow-up, and the continuity of the patient's compliance with the precautions are critical in the prevention of wound development and the early treatment of developing wounds. If DFI develops, an interdisciplinary, rapid, and effective treatment approach is important in reducing amputations. It should be kept in mind that no matter how effectively DFI is treated, if appropriate precautions are not established against the risk factors for the development of DFI and the patient's adaptation to this process is not ensured, newly developed DF wounds and infections will be encountered.

Diabetic foot ulcers and infections that develop in people with diabetes are considered significant health problems worldwide. In 2015, the Study Group for Diabetic Foot Infections (SGDFI) of the Turkish Society of Clinical Microbiology and Infectious Diseases prepared a national consensus report on the diagnosis, treatment, and prevention of DF wounds and DFI under Türkiye conditions (8).

Subsequently, in 2023, in order to update the Consensus Report, representatives assigned through collaboration with relevant national speciality associations reviewed the literature and international guidelines on the pathogenesis, microbiology, assessment and grading, treatment, prevention and control, offloading, determination of the level of amputation, post-amputation rehabilitation, podological approach, identified questions that needed

to be addressed, and updated the Consensus Report with consensus answers to these questions. The information in this report is intended to assist health-care professionals caring for diabetic patients.

The causative agents in DFI vary depending on whether the infection is acute or chronic and on the severity of the infection. Superficial DFIs that develop in patients with cellulitis and no previous antibiotic use are caused mainly by aerobic Gram-positive cocci (staphylococci, streptococci). Deep and chronic infections and/or infections that have received previous antibiotic treatment are generally polymicrobial (Gram-positive cocci + Gram-negative rods). The most frequently detected microorganisms in our country are *Staphylococcus*

aureus, *Pseudomonas aeruginosa*, and *Escherichia coli*. A multicenter study conducted during the COVID-19 pandemic, when regular healthcare services were disrupted, evaluated the causative agents in both the pre-pandemic and pandemic periods. The study revealed a decrease in the prevalence of *Staphylococcus* spp., while an increase was observed in non-fermentative Gram-negative bacteria. In particular, the prevalence of carbapenem-resistant *Pseudomonas* spp. increased significantly during the pandemic period (9). The full consensus report is freely available in Turkish (<https://www.klimikdergisi.org/tr/2024/03/28/diyabetik-ayak-yarasi-ve-infeksiyonunun-tanisi-tedavisi-onlenmesi-ve-rehabilitasyonu-ulusal-uzlasi-raporu-2024/>) (10)

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