Wound Care Analysis Report

# Patient Information

**Patient Demographics:**Age: 67.0 years  
Sex: Male  
BMI: 34.2

**Diabetes Status:**Type: T2DM  
HbA1c: 5.7%

# Analysis Results

**Wound Healing Trajectory:**

The diabetic foot ulcer has shown a varied healing trajectory over the observed period. Initially, the wound area increased from 14.9cm² to 17.1cm² between December 4, 2023, and December 20, 2023, indicating a potential delay in the healing process. However, from December 20, 2023, to January 4, 2024, the wound area decreased to 15.0cm², and further reduced to 10.8cm² by January 17, 2024, and remained stable until February 8, 2024.

Tissue characteristics have fluctuated between pale and pink, with coverage varying from one half to two thirds of the wound area. Exudate volume has decreased over time, from high to medium and then to low, with a change in type from yellow to serous and sanguineous.

**Concerning Patterns:**

**1. Inconsistent Tissue Characteristics: The fluctuation in tissue characteristics (pale to pink) and coverage may indicate an unstable wound environment, potentially hindering the healing process.  
2. Variable Exudate Volume and Type: Changes in exudate volume and type may suggest an underlying infection or inflammation, warranting close monitoring and potential adjustment of the treatment plan.  
3. Impedance Measurements: The decrease in impedance values (Z) from 236.965 to 127.782 over time may indicate an increase in wound moisture, which can be both beneficial (promoting healing) and detrimental (leading to maceration and delayed healing).**

**Care Recommendations:**

**1. Debridement: Regular debridement sessions may be necessary to maintain a stable wound environment, promote healing, and prevent the buildup of debris and bacteria.  
2. Infection Control: Monitor the wound closely for signs of infection, and consider antibiotic therapy if necessary.  
3. Offloading: Ensure proper offloading of the affected area to reduce pressure and promote healing.  
4. Wound Dressings: Use dressings that maintain a moist environment, manage exudate, and promote tissue growth.  
5. Patient Education: Educate the patient on proper wound care, including regular cleaning, dressing changes, and monitoring for signs of infection.**

**Complication Risks:**

**1. Infection: The patient's diabetic foot ulcer is at risk of infection, particularly given the variable exudate volume and type.  
2. Delayed Healing: The wound's inconsistent healing trajectory and fluctuating tissue characteristics may lead to delayed healing.  
3. Amputation: If left unmanaged, the wound may progress, potentially leading to more severe complications, including amputation.**

**Significance of Sensor Measurements:**

**1. Oxygenation: The increase in oxygenation levels (O₂) from 68.0% to 80.0% may indicate improved wound perfusion and a more favorable healing environment.  
2. Temperature: The relatively stable temperature readings suggest a stable wound environment, but temperature monitoring should continue to detect any potential changes.  
3. Impedance: The decrease in impedance values may indicate an increase in wound moisture, which should be monitored to prevent maceration and delayed healing.**

By closely monitoring the wound's healing trajectory, addressing concerning patterns, and implementing appropriate care recommendations, the patient's diabetic foot ulcer can be effectively managed, reducing the risk of complications and promoting optimal healing.

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