



## **Defense Health Agency (DHA) Clinical Communities Speaker Series**

### **2025 NOV CCSS: Optimizing Patient-Centered Military Specific Care**

#### **2025 NOV CCSS S02: Optimizing Insulin Delivery: Best Practices for Needle Selection and Injection Techniques**

##### **Resource List**

The American Diabetes Association (ADA), [Diabetes Technology: Standards of Care in Diabetes – 2025](#) (2024), includes the ADA's current clinical practice recommendations and is intended to provide the components of diabetes care, general treatment goals and guidelines, and tools to evaluate quality of care. Members of the ADA Professional Practice Committee, an interprofessional expert committee, are responsible for updating the Standards of Care annually, or more frequently as warranted. The ADA notes needle gauges range from 22 to 34, with a higher gauge indicating a thinner needle. A thicker needle can give a dose of insulin more quickly, while a thinner needle may cause less pain. Needle length ranges from 4 to 12.7 mm, with some evidence suggesting that shorter needles (4–5 mm) lower the risk of intramuscular injection with erratic absorption and possibly the development of lipohypertrophy. When reused, needles may be duller and thus injections may be more painful. Proper insulin injection technique is a requisite for receiving the full dose of insulin with each injection.

Unsafe practices during assisted monitoring of blood glucose and insulin administration contribute to the spread of hepatitis, HIV and other infections. The Centers for Disease Control and Prevention (CDC) resource, [Considerations for Blood Glucose Monitoring and Insulin Administration](#) (2024), provides healthcare providers with information on injection safety for diabetes management in healthcare settings. Guidance on fingerstick devices, blood glucose monitors, insulin administration, hand hygiene, and training/oversight are provided. The CDC recommends facilities should establish responsibility for oversight of infection control activities and provide infection control training for staff members who assume responsibilities for fingersticks and injections.

[Clinical Perspective on Innovative Insulin Delivery Technologies in Diabetes Management](#) (2024) explored physicians' perspective on current diabetes management through an online survey and in-person discussions conducted during the Diabetes Innovation Summit 2023. The study examined the technologies and medical needs associated with diabetes management. Results showed that 60% of diabetes patients used Multiple Daily Injections (MDI), with varying adoption of glucose monitoring technologies. Financial constraints were a significant barrier to adopting advanced technologies. The questionnaires and open discussion revealed the expectation that the Smart MDI technology provides better control. While physicians expressed optimism about smart MDI systems for improving diabetes control, concerns were raised about affordability, as well as usability challenges for teenagers, children, and older adults.

[The Guidance on Global Monitoring for Diabetes Prevention and Control](#) (2024) by the World Health Organization (WHO) provides a comprehensive framework to support countries in tracking and managing diabetes prevention, care, and outcomes. This document outlines indicators across four domains: health system determinants, service delivery, risk factors, and outcomes. It emphasizes the importance of collecting, analyzing, and utilizing data to inform policy and resource allocation. Specific indicators measure aspects like access to essential medications, prevalence of key risk factors, and control of blood glucose and blood pressure. Through structured monitoring, the framework aids countries in evaluating their diabetes interventions, identifying gaps, and prioritizing resources. Additionally, the guidance supports countries in meeting the sustainable development goals related to reducing noncommunicable diseases and improving universal health coverage.



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