

Safety blood lancet

Medical device

WHO compendium of innovative health technologies for low-resource settings

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Country of origin | Japan

Primary function | Prevention

Health problem addressed

Blood drawing is necessary for diagnosis and analysis in many diseases: diabetes, Dengue fever, Ebola, etc. In 2012, diabetes was the direct cause of 1.5 million deaths. In subtropical and tropical areas, Dengue fever affects 50 million people. There were 28 603 cases of infections of Ebola in West Africa. However, blood drawing with a metal sharp finger stick might lead to infection.



Disease addressed

Certain infectious and parasitic diseases; diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism; endocrine, nutritional, and metabolic diseases.

Technical descriptions

This device is a finger prick system, or lancet, designed to draw and inspect small amounts of blood (1 - 100µl). Instead of the conventional stainless steel, the lancet is made of a polyactic-acid resin, mimicking the stylet of a mosquito. The absence of blade in the device prevents risks of sharp injury. The lancet easily punctures the skin through a spring mechanism, without causing any pain. The resin lancet cannot be reused, because the spring mechanism can only be activated once. After having jumped out of the case, the lancet tip goes back inside.

Developer's claims of products benefits

The resin finger prick system can be used by minimally skilled health workers. It is individually packaged, compact and sterile, optimal for low-resource settings. Because the needle is made of resin, the lancet does not have a blade, thus preventing the risk of sharps injury. Once used, the resin lancet goes back into the case and cannot be reused, avoiding multi-use of the device.

Operating steps

Open the package from the side nearest the green or the orange base. Grip by the base and hold the white section flat against the top of the finger (do not apply the needle to the side of the finger). Press down firmly until a click sound is heard, then dispose. If an insufficient amount of blood is coming out, massage the finger towards the puncture mark.

Regulatory status and standards compliance

United States of America (FDA), Japan (JMHLW), Singapore (HAS), Philippines (FDA). ISO7864: 1993-05-15 Sterile hypodermic needles for single use.

Use and maintenance

User: Self-use/patient, untrained individual, trained caregiver (e.g family member), technician, nurse, general physician.

Maintenance/Calibration required: No

Environment of use

Setting: Any setting or healthcare facility.

Facility requirements: None.

Product specifications

Weight (kg): 0.002

Dimensions: 38mm x 15mm x 14mm

Accessories: None

Consumables: None

In UN catalog: Yes

Commercial information

Reference price (USD): \$0.30

Year of commercialization: 2012

Currently sold in: Globally

Number of units distributed: > 50 000

Model: PIINIX Light 0.4mm, PIINIX Light 0.8mm,

Other features: Portable, single use

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