Tiny Touch - A Neonatal Vital Monitoring Device

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Technology description

Background

A neonatal infant typically has only 2 to 3 layers of skin, making the skin extremely delicate, while a full term baby has about 20 layers of skin. In addition, the skin of neonatal infants also exhibits higher levels of pH. When materials such as medical tape or adhesives are used to bond sensors to the weakened skin of neonatal infant, the impact can be harmful and dangerous to the infant. For example, attaching sensors and other devices to the infant' s skin may cause micro-tears in the skin and expose the infant to external pathogens, such as staph infections. These external pathogens can become deadly to the infant' s compromised and under-developed immune system. Therefore, there is a need for a risk-free alternative to monitor an infant' s vitals.

Technology Description

A researcher at the University of New Mexico has developed a device called Tiny Touch™ that takes advantage of an infant' s palmar grasp reflex for vital monitoring. The monitor fits in the tiniest of hands and utilizes the palmar grasp reflex to read vitals without the use of medical tapes that can cause micro-tears in the skin of neonatal infants. The material of the device is safe for the infant' s skin, eliminating any risk of micro-tears or abrasions. The system houses one or more sensors connected to a monitor via an electric cord or may be connected wirelessly. This monitoring device is also reusable which reduces medical waste.

As the technology-transfer and economic-development organization for the University of New Mexico, STC.UNM protects and commercializes technologies developed at the University of New Mexico (UNM) by filing patents and copyrights and transferring the technologies to the marketplace. We connect the business community (companies, entrepreneurs and investors) to these UNM technologies for licensing opportunities and the creation of startup companies. STC has filed intellectual property on this exciting new technology and is currently exploring commercialization options.

Application area

Safe for extremely delicate skin
Alleviates the need for harmful medical tapes
Reusable and noninvasive medical device
Monitoring process is simplified by not using medical tapes
Device can be modified to different shapes

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