

# Medical technology innovations assignment



**ASSIGN  
BUSTER**

Critics claim it impedes innovation ND delays the availability of better health care. To change that perception, the FDA last year announced a new Medical Device Innovation Consortium (MIDI) charged with simplifying the process of designing and testing new technologies. With input from industry, government, and other non-profit organizations, public-private MIDI will prioritize the regulatory science needs of the medical device community and fund projects to streamline the process.

Summary of the Problems This article that I have chosen for this assignment consists of what factors affect the growth of new medical technology? Many factors influence innovation in medical care. Consumer demand for better health is a prime factor. Research shows that the use of medical care rises with income. As people and the nation become wealthier, they provide a fertile market for new medical innovations. Consumers want medical care that will help them achieve and maintain good health, and advances in medical technology are perceived as ways to promote those goals.

Consumer demand is affected by the increased public awareness of medical technology through the media, the Internet, and direct-to-consumer advertising. Health insurance systems that provide payment for new innovations also encourage medical advances. Medical treatments can be very expensive, and their cost would be beyond the reach of many people unless their risk of needing health care could be pooled through insurance. The presence of health insurance provides some assurance to researchers and medical suppliers that patients will have the resources to pay for new medical products, thus encouraging research and development.

At the same time, the promise of better health through improvements in medicine may increase the demand for health insurance by consumers looking for ways to assure access to the type of medical care that they want.

Scope / Focus Five emerging technologies to watch in the year ahead 1 .

Cutting Back on Melanoma Biopsies With the most deadly form of skin cancer, melanoma, a huge number of dangerous- looking moles are actually harmless, but has always been impossible to know for sure without an invasive surgical biopsy.

Today dermatologists have new help in making the right call -? a handheld tool approved by the FDA for multicenter analysis of tissue morphology. The Melamine optical scanner is not for definitive diagnosis but rather lesion at 10 electromagnetic wavelengths. The collected signals are processed using heavy-duty algorithms and matched against a registry of 10, 000 digital images of melanoma and skin disease. 2. Electronic Aspirin For people who suffer from migraines, cluster headaches, and other causes of chronic, excruciating head or facial pain, the “ take two aspirins and call me in the morning” method is useless.

Doctors have long associated the most severe, chronic forms of headache with the sophisticated ganglion (SSP), a facial nerve bundle, but event yet found a treatment that works on the SSP long-term. A technology under clinical investigation at Autonomic Technologies, Inc. , (Redwood City, CA) is a patient- powered tool for blocking SSP signals at the first sign of a headache. The system involves the permanent implant of a small nerve stimulating device in the upper gum on the side of the head normally affected by headache.

<https://assignbuster.com/medical-technology-innovations-assignment/>

The lead tip of the implant connects with the SSP bundle, and when a patient senses the onset of a headache, he or she places a handheld remote controller on the cheek nearest the implant. The exulting signals stimulate the SSP nerves and block the pain-causing neurotransmitters. 3. Needle-Free Diabetes Care Diabetes self-care is a pain-? literally. It brings the constant need to draw blood for glucose testing, the need for daily insulin shots and the heightened risk of infection from all that poking.

Continuous glucose monitors and insulin pumps are today's best options for automating most of the complicated daily process of blood sugar management - but they don't completely remove the need for skin pricks and shots. But there's new skin in this game. Echo Therapeutics (Philadelphia, PA) is developing cosmologies that would replace the poke with a patch. The company is working on a transversal obsession that reads blood analyses through the skin without drawing blood.

The technology involves a handheld electric-toothbrush-like device that removes just enough top-layer skin cells to put the patient's blood chemistry within signal range of a patch-borne obsession. The sensor collects one reading per minute and sends the data wirelessly to a remote monitor, triggering audible alarms when levels go out of the patient's optimal range and tracking glucose levels over time. 4. Robotic Check-Ups A pillar of health reform is improving access to the best health care for more people.

Technology is a cost-effective and increasingly potent means to connect clinics in the vast and medically undeserved rural regions of the United States with big city medical centers and their specialists. Telekinetic is well

established as a tool for triage and assessment in emergencies, but new medical robots go one step further-? they can now patrol hospital hallways on more routine rounds, checking on patients in different rooms and managing their individual charts and vital signs without direct unman intervention.

The RPR-VITA Remote Presence Robot produced Jointly by robot Corp.. And Unhitch Health is the first such autonomous navigation remote-presence robot to receive FDA clearance for hospital use. The device is a mobile cart with a two-way video screen and medical monitoring equipment, programmed to maneuver through the busy halls off hospital. 5. A Valve Job with Heart The Sapiens transmitter aortic valve is a life-saving alternative to open-heart surgery for patients who need new a new valve but can't endure the rigors of the operation.

Manufactured by Edwards Life Sciences (Irvine, CA), the Sapiens has been available in Europe for some time but is only now finding its first use in U. S. Heart centers-? where it is limited only to the frailest patients thus far. The Sapiens valve is guided through the femoral artery by catheter from a small incision near the grown or rib cage. The valve material is made of bovine tissue attached to a stainless-steel Steen, which is expanded by inflating a small balloon when correctly placed in the valve space.

A simpler procedure that promises dramatically shorter hospitalizing s bound to have a positive effect on the cost of care. Analysis/Discussion/Arguments Arguments While a particular new technology may either increase or decrease health care spending, researchers generally agree that, taken

together, advances in medical technology have contributed to rising overall health care spending.

Rating describes how new medical technology affects the costs of health care through the following mechanisms of action. Whether a particular new technology will increase or reduce total health expenditures depends on several factors. One is its impact on the cost of treating an individual patient. Does the new technology supplement existing treatment, or is it a full or partial substitute for current approaches? Do these changes result in higher or lower health spending for each patient treated?

In looking at the impact on cost per patient, consideration needs to be given to whether the direct costs of the new technology include any effect on the use or cost of other health care services such as hospital days or physician office visits. Conclusion In conclusion, technology is playing an important role in every industry. Healthcare is finitely one of the highly technologically sound industries that help in saving countless lives all around the globe. However, everyday there are some new innovations occurred in medical equipment.

For example, from small devices like ankle braces to larger devices like MR. machines. They are all highly improved to provide better diagnosis and surgical procedures for patient care. The new innovations not only prove beneficial for patients but they are providing physicians the new ways to improve the quality of care. Recommendation As my recommendation, MIDI should help industry to be better equipped to bring fee and effective medical devices to market more quickly and at a lower cost.

However, those regulators, politicians, and corporate executives hash out these details, industry engineers and scientists, they should push through new ideas for improving and managing human health. This is because every year industry observers like the Clinic and the medical device trade press single out their favorite technology trends. These will thought leaders agree that today's best technologies strike a balance between reducing the overall cost of medical care and increasing safety and survival rates.