Fact Sheet: MAC® 800 Resting ECG Analysis System

What challenge does the MAC 800 address & what solution does it create?

Cardiovascular diseases are among the top three leading causes of death worldwide, regardless of country income levels. [1] In 2005, 17M people died from cardiovascular diseases globally and the World Health Organization expects this number to reach 20M by 2015. [1] The cost burden of cardiovascular diseases is enormous and continues to rise.

Performing an ECG test is one of the easiest ways to help detect heart anomalies and treat them early, before the onset of more serious heart issues. ECG or EKG technology is one of the most widely used non-invasive tests to record the electrical activity of the heart. GE has a long tradition of ECG technology innovations and the MAC 800 is our latest product. It combines portability, connectivity and analytics to assist physicians with diagnostic confidence for the expeditious treatment of heart diseases.

How does the MAC 800 work?

The MAC 800 ECG device is a great example of GE's ability to meet customer needs for rugged, more portable devices, and economic value without sacrificing quality. Designed in China, on an intuitive Windows-based platform, this lightweight portable ECG (weighs 3kg) is currently marketed to hospitals and clinics in Asia and Europe. In the US, the MAC 800's portability lends itself to the Primary Care Market as well as specialized pharma segments. It has FDA 510(k) clearance, and will launch in the US sometime in May.

Physicians in remote areas in the world, whether it's China, India or Africa need reliability and easy to use technology to bring care to patients who otherwise would likely never get access to ECG. With its lithium ion battery, the MAC 800 can record up to 250 ECGs and its multiple communication options make it easy to store and send ECG data. While there are affordable ECG devices on the market, what is truly remarkable about the MAC 800 is its "brain", the ECG analysis and interpretation program it comes with. The Marquette 12SL ECG analysis program is considered to be outstanding in the industry and its accuracy and reliability have been validated independently. [2] Its clinical excellence is well publicized with citations in over 150 scientific journals [2] and GE is proud to offer the 12SL ECG analysis not only in our high-end electrocardiographs, but also in the compact MAC 800.

How does the MAC 800 increase access/improve care/decrease costs/other?

Cost, access and quality of care are the main issues facing global healthcare customers today. Not only is it important that there be ECG systems that are portable enough to easily reach patients anywhere in the world, but also that the ECG data from these system be designed to easily connect to EMR and ECG management systems with flexible communication options: SD cards, LAN, modem, etc.

The journey to make ECG technology available to almost every physician and patients anywhere in the world began with the design and launch of the MAC 400. Made in India for India, this successful ECG became the cornerstone in redefining the boundaries of ECG technologies, from hospital-based devices to patient-centric, portable devices. With the MAC 800, we designed an ECG that combines ruggedness, portability, high quality analytics, intuitive Windows-display and connectivity, at a cost-effective pricing structure.

The MAC 800 helps improves quality and access to care, whether in a physician office in the US or at remote clinics in the rest of the world. It is versatile, modern with its telephone size keypad, allows for digital workflows through its connectivity options, and offers high quality ECG analysis.

Other relevant facts about the MAC 800

MAC 800 is primarily targeted at emerging markets where portability is essential (rural China, India, Africa). The MAC 800 is also ideal for small hospitals and clinics. In US and some countries in EMEA, it will be primarily targeted at the Primary Care market and the pharma/CRO (Contract Research Organization) market.

Revenues from value ECG products are expected to reach $24M in 2009. In 2007, India's population was 1.131M with 72% in rural areas or 800M. [3] India has over 600,000 villages. Even if MAC 800 only reached 1% of the rural population, it would represent an addition 8M people.

Death from Cardiovascular diseases continues to rise globally: according to the World Health Organization. In 2005, there were 16.7M-deaths/ year globally. In 2015, forecast is 20M deaths/year and in 2030, 23M deaths/year.[1]

Economic cost of cardiovascular diseases is huge. According to a 2007 World Bank Report [4], cardiovascular disease costs between 1 and 3% of GDP in most developed countries. The annual per capita burden of cardiovascular disease is about $4 to $8 in China and India, $15 to $30 in Brazil and South Africa, $70 to $90 in Russia.

China is a growing market for ECG technology. China plans to spend more than $120B on expanding insurance coverage with a goal to extend medical insurance to 90% of its population by 2011 and make basic healthcare services available to all of China's 1.3B citizens. [5]

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