MACHINES, SMART PILLS AND MICROCHIPS, OH MY!

A glimpse at patient compliance and diagnostic technology

By Maia Mosse
EXTERNAL TO INJECTABLE TO INGESTIBLE TECHNOLOGY

- Ambulatory Blood Pressure Monitor (ABPM)
- Medication Event Monitoring System (MEMS)
- Radio-Frequency ID (RFID) Microchip
- PillCam or MicroCam
- And finally...the Ingestible Event Maker (IEM) or “Chip-In-Pill”
AMBULATORY BLOOD PRESSURE MONITOR (ABPM)
MEDICATION EVENT MONITORING SYSTEM (MEMS)
RFID (Radio-Frequency ID) Microchip

- **SIZE**: The device is 11 millimeters long and about 1 mm in diameter, comparable to a grain of rice.
- **Tissue-Bonding Cap**: A cap made from a special plastic covers a hermetically sealed glass capsule containing the RFID circuitry. The plastic is designed to bond with human tissue and prevent the capsule from moving around once it has been implanted.
- **Antenna**: The coils of the antenna turn the reader's varying magnetic field into current to power the chip. The coil is coupled to a capacitor to form a circuit that resonates at 134 kilohertz.
- **ID Chip**: The chip modulates the amplitude of the current going through the antenna to continuously repeat a 128-bit signal. The bits are represented by a change in amplitude—low to high or high to low. An analysis by Jonathan Westhues, of Cambridge, Mass., indicated that only 32 of the bits varied between any two VeriChips. The rest of the bits probably tell the reader when the loop starts and may also contain some error-checking or correction data.
RFID (RADIO-FREQUENCY ID) MICROCHIP

Protest in Florida against chipping Alzheimer’s patients (right)
Awesome capsule imaging system animation – what it looks like going through GI tract! http://www.givenimaging.com/en-us/HealthCareProfessionals/Pages/pageHCP.aspx
INGESTIBLE EVENT MAKER (IEM) – “CHIP-IN-PILL”
HOW IEM WORKS
INGESTIBLE EVENT MAKER (IEM)
Look out, your medicine is watching you
By Ben Hirschler
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(Reuters) - Novartis AG plans to seek regulatory approval within 18 months for a pioneering tablet containing an embedded microchip, bringing the concept of "smart-pill" technology a step closer.

The initial program will use one of the Swiss firm's established drugs taken by transplant patients to avoid organ rejection. But Trevor Mundel, global head of development, believes the concept can be applied to many other pills.

wodensoapbox
2 weeks ago

It's a good thing I can't understand a word she's saying. I would be even more sick to my stomach to hear the words of their plans than just just watch the visual.

IPrayHeComesQuickly
2 weeks ago

Well straightgatekeepers....nice work even though it's sickening! lol uugggh

pureinheart777
1 day ago

Jesus was very clear not to take the mark in the forehead or hand so this is a method to start the ball rolling so people think that wasn't so bad after all...then that leads them to the mark of the beast in either the implanted in the head or the hand.

Things are heating up now.
The brainwashing has started.
I took my cat to the vet not to be fixed up.
And the vet said they are passing a new law in Queensland to insert every animal and I said not mine no way.
Then I told him about the chip.

Comments on a Foreign-Language Youtube Video Explaining the IEM (below)
PROS
- Improve patient compliance
- Personalization of healthcare
- Versatile
- No added side-effects
- Reduce Patient visits

CONS
- Expensive
- Possible privacy violations
- Delay advent of more long-term solutions
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• ABPM http://www.springerlink.com/content/n707111769740666/