

## Novartis chip to help ensure bitter pills are swallowed

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By Andrew Jack in London

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Patients who fail to pop pills on time could soon benefit from having a chip on their shoulder, under a ground-breaking electronic system being developed by **Novartis**, the Swiss pharmaceuticals group.

The company is testing technology that inserts a tiny microchip into each pill swallowed and sends a reminder to patients by text message if they fail to follow their doctors' prescriptions.

The partnership with Proteus Biomedical, which originally developed the technology, is one of several alliances under development by Novartis as it and rival pharmaceuticals companies attempt to maintain high prices for innovative medicines by ensuring that they are taken as the doctor ordered. Pfizer's **Health Solutions** division has developed a system to telephone patients to encourage them to take medicine.

Joe Jimenez, head of pharmaceuticals at Novartis, said tests using the system – which broadcasts from the “chip in the pill” to a receiver on the shoulder – on 20 patients using Diovan, a drug to lower blood pressure, had boosted “compliance” with prescriptions from 30 per cent to 80 per cent after six months.

The experiment comes amid rising concern among governments and health insurers that they are not seeing the health improvements claimed by drugs companies because patients do not take the medicines as prescribed unless they are closely supervised in clinical trials.

Compliance often drops off rapidly for patients, especially those taking medicines for chronic conditions such as hypertension and diabetes. This is because of unpleasant side effects or because patients do not rapidly develop symptoms and so fail to notice the value of the drug. However, with patients then going on to develop more serious forms of illness and require hospitalisation or surgery, the result is hundreds of millions of dollars a year in unnecessary costs.

“This industry is starting to explode,” said Mr Jimenez, adding that he was close to recruiting a “compliance tsar” to oversee a wide range of other partnerships and programmes to strengthen appropriate use of medicines.

Mr Jimenez stressed that Novartis would still need to work closely with regulators and doctors to overcome any concerns, and negotiate an exclusive contract with Proteus in order to expand the approach. But he was confident that such approaches to boost compliance would be widespread in the future.

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