

Breathing new life into asthma care

Imagine gasping for breath and trying not to panic. People living with asthma know how it feels when an attack begins. They have been here before: tightening of the chest, wheezing, coughing, difficulty breathing. Experience tells them it will pass but that does not make it any easier.

Millions of Europeans, especially an increasing number of children, live with asthma and the threat of an asthma attack but it does not have to be this way¹. Asthma can be controlled for long periods by combining medication with technologies that help to monitor how patients' manage their disease.

Europe's asthma problem is a serious one. A survey of people in 17 EU countries suggests that around 3.8% of those aged over 15 years have asthma². And the numbers are on the rise. Today, 300 million people worldwide are living with asthma but by 2025, an additional 100 million people worldwide could be affected³. The annual total societal cost of persistent asthma has been estimated to be €1,583 per adult⁴. This is thought to add up to around €19.3 billion per year across Europe for patients aged 15-64 years⁴.

Moreover, asthma is a chronic illness which causes real suffering. The knock-on effects include absenteeism from school or work, as well as significant healthcare costs. Experts say keeping asthma under control for long periods can help to prevent patient suffering and reduce the burden on society and the wider economy¹. Yet, for too many patients, their disease is not well managed, meaning they have asthma attacks which could be prevented with the right treatment at the right time^{5,6}.

Most of us are familiar with inhalers used by people with asthma to control their disease. These small devices deliver medications through the mouth to the lungs, reducing the risk of an attack or relieving symptoms when they begin. In the past, doctors prescribed medications but, until their next appointment with the patient, there was no way of knowing whether the prescription was working well. They did not know if patients were getting the right dose or taking it at the right times. Nor could doctors tell whether the patient was sticking to the recommended regimen.

It is now possible to track asthma medication use in real time by using sensors attached to an inhaler. The sensors automatically capture the time and location that an inhaler is used. This data is shared with mobile devices via Bluetooth technology. This system allows patients and their doctors to use mobile applications to monitor asthma control and adhere to the medication and quickly adjust, if necessary.

This technology is still quite new. However, a study has shown that patients using this kind of system experience fewer symptoms, better quality-of-life and better lung function compared to those monitored using traditional methods⁷. This opens the door to a more responsive, dynamic care; better for patients, better for society. In the end knowledge is power.

Medtech: value for people

- This technology helps to keep asthma under control, meaning fewer asthma attacks
- Reduced risk of lost time from work and associated costs⁵
- Empowers people to self-manage their condition easier, ensuring a higher quality-of-life
- Minimises need for parents to find alternative childcare arrangements for sick children or while suffering from asthma themselves⁵

Medtech: value for governments

- Delivers health services more efficiently
- Can improve asthma control⁸
- Gets people back to work, avoids absenteeism^{4,9}
- Delivers value through innovation and provides high-quality jobs in Europe

Medtech: value for regulators

- Better, real-time monitoring of medication use
- Allows doctors to optimise medication regimen
- Technology improves Asthma Control Test™ (ACT) scores (a standard method for assessing whether asthma symptoms are well managed)¹⁰

Medtech: value for payers

- Patients with controlled asthma suffer fewer acute asthma attacks; less need for rescue medication⁵
- Reduced absenteeism; lower overall burden on economy and society⁴
- Better workplace productivity for people with asthma¹¹



NOTES

- 1) Global Strategy for Asthma Management and Prevention, Global Initiative for Asthma (GINA). 2012. Available at: <http://www.ginasthma.org>. Accessed 10 March 2015.
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