

A GROUND-BREAKING APPROACH TO COPD MANAGEMENT – ASTRAZENECA ROLLS OUT THEIR ‘INTELLIGENT PHARMACEUTICALS’ INITIATIVE

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The advent of mHealth has offered pharma companies the opportunity to go ‘beyond the pill’ and deliver health support to patients outside healthcare settings, providing a platform to keep patients involved and adherent to their therapy regimes. mHealth solutions not only benefit the patients and improve their quality of life; improved health outcomes also provide clear return on investment for health payers and address the rising costs of healthcare. According to the WHO Report (2003), improving the effectiveness of adherence interventions is key and could almost double savings in medical expenses¹. To take diabetes in the UK as an example, treatment consumes around 15% of the national healthcare budget. However, as much as 80% of that budget is spent dealing with the downstream consequences of poor control².

The importance of going ‘beyond the pill’

Advances in mobile technology and the rise of mHealth have an enormous potential to make a real difference, not just for individuals, but entire nations. AstraZeneca are designing mHealth programs to address the inability to manage treatment for individual patients suffering from chronic conditions, their caregivers, and their healthcare providers through the ‘Intelligent Pharmaceuticals’ initiative. In 2013, AstraZeneca

announced their collaboration with Exco InTouch to develop a ground-breaking program using interactive mobile phone and internet-based health tools to help patients, caregivers and their healthcare providers track and manage chronic conditions.

The initial focus for this collaboration has been on patients with chronic obstructive pulmonary disease (COPD) for the Me&MyCOPD program. The program is set to give enrolled patients access to personalised coaching and real-time information about their disease and treatment via their mobile phones or other web enabled devices, using digital technology to securely collect, transmit and review their own clinical data. Ultimately, this leads to patients being able to better control their conditions and healthcare providers able to make more informed decisions and personalise each patient’s disease management through tailored care pathways. This translates into improved patient welfare and quality of life by reducing unplanned hospital admissions and the frequency and severity of exacerbations, as well as decreased treatment costs for payers.

A scalable solution to support COPD patients

One of the most important considerations for AstraZeneca when designing Me&MyCOPD was to devise truly engaging mHealth services. Using Exco InTouch’s modular platform programs can be uniquely adapted to the primary issues and challenges facing each patient population. For example, improper use of medications, rather than forgetting medications altogether,

is a common problem among COPD sufferers, so the treatment module is especially relevant in COPD management. For this reason, AstraZeneca has incorporated tracking of medication use and addresses any issues through patient training, managing their clinic visits, supporting pulmonary rehabilitation and providing advice on how to manage lifestyle issues.

Assessment is another important element in COPD management and the platform captures a broad range of patient information – whether it's understanding patients' needs and preferences, identifying changes in their condition or providing personal goals management tools. Additionally, information and educational content is provided to patients, mapping it into the system through a care module.

Key elements of the Me&MyCOPD program

There are three principle parts of the Me&MyCOPD system: a portal, through which different stakeholders can be engaged to work with the patients; a mobile element, which works with the patients in real time and responds to their immediate needs; and the server, where information is processed offline and messages are scheduled. This modular approach proves sustainable as different interventions and functionality can be added over time, creating brand new products that can be used in markets with different clinical pathways.

Patients suitable for the program are identified and enrolled to individualised self-management plans, tailored to each patient's disease progression. The program uses clinically validated assessments to support patients, reducing the probability of exacerbations occurring, and ultimately hospitalisations.”

Real-time access to patient data

Information provided to the program's participants can be accessed through internet portals or mobile devices. Real-time access to patients' data not only guarantees the ability to monitor their adherence to treatment regimes, but also to identify the sudden deterioration of their conditions, which allows for interventions when necessary, and referral to healthcare providers for further support and assistance. If their condition continues to worsen, the patients can be signposted to see their healthcare provider based on the outcome of their assessment. The breakdown of events is not only shared with

the patients, their healthcare provider can also be provided information on when the exacerbation took place, the form of intervention, how the patients reacted and how they moved through to becoming well again. The overall outcomes of the program are measured through questionnaires and assessments on the use of rescue medications and adherence to standard medications by participants, as well as through an assessment of the impact on the patients' management of their condition. In addition, payers can monitor the impact on exacerbations and hospital admissions for these patients.

Tomorrow's approach - today

The program rolled out by AstraZeneca and Exco InTouch is the first to employ a truly mobile, personalised approach utilising patients' own communication devices to monitor, support and empower them, and expand understanding of how patients use and respond to various treatment options. This underpins the 'Intelligent Pharmaceuticals' strategy adopted by AstraZeneca and is an example of how optimised treatment can improve patients' quality of life and health outcomes. ■

References:

World Health Organization (2003), "Adherence to Long-Term Therapies. Evidence for action". Downloaded from http://www.who.int/chp/knowledge/publications/adherence_introduction.pdf

World Health Organization (2010), "Global status report on noncommunicable diseases". Downloaded from http://www.who.int/nmh/publications/ncd_report_full_en.pdf

Figure 1 – The Me&MyCOPD Patient Interface

