From Clinical Trial to Real World Outcomes

The need for costly clinical trials in order to bring a drug successfully to market is undoubtable. However, outside of this carefully controlled, highly supportive environment, the real-world actualities are very different. In today's healthcare environment, where competitive products are coming to market within months of each other; there is limited differentiation in clinical efficacy; and pricing strategies are very similar, payers are increasingly expecting the industry to differentiate their products by delivering services beyond the pill.

Historically, drug manufacturers have brought products to market and then focussed on the acquisition of new patients, with the marketing budgets directed at growing the market. Patient retention strategies have been poor cousins and yet in other markets the model of keeping customers loyal – particularly evident in the retail sector – is highly advanced. After all, the average cost of acquiring a new customer is 5-10 times the cost of retaining an existing customer. However in health, a Gap Gemini study showed average medication adherence levels drop over the course of the patient treatment journey from 69 per cent of patients filling their first prescription to 43 per cent continuing their treatment as prescribed after six months, leading to a potential 59 per cent revenue loss as a result of non-adherence. If you were a retail brand manager, this would be unacceptable.

Services beyond the pill provide a continuum of care that delivers real value to stakeholders (payers, regulators, physicians, and patients). This model is still based around product, but focuses on establishing new customer partnerships to address prevention, diagnosis and treatment. This new way of working requires new tools and capabilities, along with real-world data to justify the economic and clinical value of prescription products.

To provide these services, drug manufacturers need to build truly patient-centric services that improve health outcomes and support the healthcare professional to more effectively manage their patients. This is no small task and it involves the creation of new business models, the implementation of new company cultures and the establishment of service-based structures.

One-Size-No-Longer-Fits-All

Over the last few years there has been a paradigm shift in the belief that a patient adherence or support programme is an expensive 'nice to have', with drug manufacturers believing that it's good enough to provide a one-size-fits-all range of interventions. Those predominantly focus on educating the patient about their condition and treatment, and providing medication reminders (timing and dosage) – usually through pill boxes, websites, mobile apps, sms, or printed materials.

Today, it is widely acknowledged that simple reminders and education are not the solution. Behavioural scientists have clarified that non-adherence to medication is a 'normal' human behaviour. It is the outcome of a range of psycho-social factors which differ from patient to patient, and change over time, based on their experience of the illness and as their social circumstances alter.

Some of the facts around non-adherence are well documented: [1]

- An estimated 20-30 per cent of prescriptions aren't filled,
- Only 16 per cent of patients who are prescribed a new medicine are taking it in line with their healthcare professional's advice, experiencing no problems and receiving as much information as they need,
- Research shows that 10 days after starting a medicine, almost 33 per cent of patients are already non-adherent,
- 50 per cent of patients discontinue their treatment within 12 months.

Adherence programmes are only effective if they utilise sophisticated clinical psychology techniques to support long-term behavioural change among those patients who are at the highest risk of non-adherence and to support long-term adherence to medication. Evidence-based behavioural change interventions are used to screen patients to identify not only their risk of discontinuation, but also their beliefs and attitudes towards their treatment and condition. Adherence programmes with measurable real-world data and improved health outcomes, need to focus on providing personalised communications that utilise evidence-based behavioural change models to address unhelpful beliefs and sustain long-term behavioural change.

Why is this necessary? Correctly adhering to a medication (or indeed any health-based lifestyle change) is an intentional behaviour. How often have you promised yourself you'll start a new fitness plan, go on a diet or stop smoking only to procrastinate or quit after a few months? Patients with asymptomatic conditions, such as osteoporosis, Type 2 diabetes, hypertension and high cholesterol often don't see an effect or outcome from their treatment. If they feel well and the medicine makes them feel worse or restricts their lifestyle, why should they continue to take it? The three most commonly cited reasons for primary non-adherence are general concerns about taking the medication (63 per cent), a decision to try lifestyle modifications (63 per cent), and fear of side-effects (53 per cent). [2]

One clinician recently told me that during his consultation with an elderly patient, she had spent two minutes

listening to his advice about the new treatment he prescribed and five minutes trying to negotiate with him as to why she shouldn't take the prescribed treatment in the dosage and timing he had recommended. Like you and I, patients have their own views, beliefs and attitudes regarding their disease and treatment, and, because of this, require personalised support to adopt new behaviours and habits.

To make long-term changes in behaviour you need to understand and address how someone feels and thinks about adopting the new behaviour, along with ensuring that they can turn these thoughts and feelings into action.

There is no doubt that delivery interventions do have an impact on adherence, but these are limited and do not address long-term behaviour change. Consider your own personal use of a new health app – when did you last use it? A recent Walgreens report said that soon-to-be-published adherence data, from their balance rewards programme, indicates that:[3]

- Email and text message reminders can create a two per cent boost in medication adherence,
- Hypertensive and diabetic patients who use a wearable device and walk one mile a day are seven per cent more adherent to their medication than those that don't do either of those things,
- Hypertension patients who used a connected device to track their blood pressure were 3.9 per cent more adherent to treatments,
- Patients with diabetes who used a connected glucose meter were 10.9 per cent more adherent to their medications.

In comparison, a personalised adherence programme for patients prescribed a serotonin-norepinephrine reuptake inhibitor, utilised a mixture of interventions, motivational interviewing and cognitive behavioural therapy techniques, driven by personalised contact through nurses. The outcome was a reduction in the average discontinuation rate after six months on treatment from 74 per cent to 31 per cent.

Earlier Stakeholder Involvement

To improve market access, drug manufacturers should be considering placing a different weighting on evaluating a drug earlier in the development cycle. This evaluation should consider the potential strengths and weaknesses of the treatment, from the point of view of adherence and outcomes outside of the clinical trial environment, when it launches.

Adopting the best practice of retail brand managers, conducting ethnographic research amongst potential

patient populations, and engaging with a steering committee of payers at this stage, would ensure that issues with current medications, packaging, dosage, delivery and support interventions are identified and addressed, where feasible, before the new treatment comes to market.

But R&D can't do this alone; senior level internal stakeholder engagement is essential to elevate the importance of adherence at the formulation stage of drug development. Drug manufacturers' traditional organisational silos mean that real-world evidence, whilst being the core of the brand, is not aligned to one department. Instead of silo working, market access teams, medical affairs, health economics and R&D teams need to be aligned at an earlier stage to support the multi-faceted approach to adherence outside of the clinical setting and in order to secure win-win partnerships with payers and to develop long-term relationships that continue to evolve.

Delivering Outcomes

With healthcare budgets under extreme pressure, real-world data is key to demonstrating the clinical and economical effectiveness of a drug. Payers are broadly looking for two types of partnership. The first is where a drug manufacturer proposes a pre-formed project to improve health outcomes. This often takes the format of providing medication adherence programmes, homecare or nurse-driven interventions. These types of programmes can support market access and demonstrate a commitment from the drug manufacturer to go beyond the pill. The second type is a co-creation project, which has longer lead times, but is bespoke and addresses a locally defined problem. This opens up interesting opportunities for drug manufacturers to gather and demonstrate real-world evidence outcomes, through local healthcare partnerships.

Payers have also expressed their interest in working with consortia of drug manufacturers to address local challenges and support patient adherence across a specific condition, rather than each manufacturer providing an individualised adherence programme for their treatment. As one payer told me recently, "We need to partner with pharma to buy eyesight, not one specific product."

With payers focussing on cost, the move to generics has strong financial benefits. In the USA, generics make up approximately 85 per cent of all human prescription drugs prescribed. However, different generics made by different manufacturers vary substantially from each other in their physical appearance (colour, shape, size) and pharmacists regularly switch generic drug suppliers to take advantage of pricing discounts. Patients who refill their generic prescriptions can often experience changes in the appearance of their medication, which, according to the FDA, can result in non-adherence: "Studies indicate that patients are more likely to stop taking their generic medications when they experience a change in their drugs' physical characteristics, leading to harmful clinical and public health consequences, as well as increased health care costs."[4]

The traditional one-size-fits-all patient support tools that focus on education and reminders relied on ROI being demonstrated through patient-reported outcomes. However, the benefit of investing in a personalised adherence programme that demonstrates real-world outcomes, that are comparable to clinical trial results, is significant. For example, an adherence programme that we are currently delivering has been written into multiple hospital protocols in one market with patients prescribed the treatment automatically being enrolled onto the supporting programme.

The importance of aligning scientific opportunity with commercial insight cannot be underestimated. If drug manufacturers invest in earlier stakeholder engagement, offer payers valuable services beyond the pill that build true partnerships and optimise health outcomes, they have the opportunity to address the potential 59 per cent revenue loss through non-adherence.

Without real-world data on medication adherence and clearly differentiated health outcomes, payers will continue to select either the cheapest treatment option or the treatment that truly does go beyond the pill.

References

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