

White Paper

Vision 2030: patient services and support in the healthcare market of the future

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Medicine is becoming increasingly digital and driven by insights from patient experience and outcomes data. Employing behavioural science principles to interpret patient data ensures it becomes a powerful resource for diagnostics, therapy and care, and disease prevention.



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Introduction

The COVID-19 pandemic has provided a long-overdue impetus to care for patients remotely, which has been supported by fast medical and technological developments that facilitate increased patient autonomy related to home administration of treatments, greater personalisation of treatment, more remote patient-healthcare professional (HCP) interactions, and support programmes tailored to individual needs. As more and more data are being collected in the healthcare sector, artificial intelligence (AI) and machine learning algorithms can identify patterns in the data that, combined with behavioural science, can be used to further improve healthcare and support.



It is likely that, in the future, innovations will continue to facilitate the work of clinicians and improve patient care. At the same time, preventive measures (e.g., screening or interventions to encourage better adherence and self-management) and individual therapies will gain in importance. Behind all new strategies is the declared goal of caring for people in an ageing society without services becoming unaffordable. In this context, patient support programmes can provide the right kind of personalised support at the right time, facilitate the patient-HCP relationship and shared decision-making, and collect the data required for continuous improvement of care and support.

Patient data and insights

Post COVID-19 there is an increased need for credible, evidence-driven approaches, with ways to distinguish between fake news and reputable sources of information. Patient support programmes (PSPs) should facilitate patients finding accurate information that is relevant to their stage in the patient journey. Information needs to be simple to access, quick to reference, and easy to digest.

Support dynamically tailored to patient needs

To ensure patient and caregiver needs are met, support services need to be tailored to the individual. This tailoring needs to consider factors such as disease stage and severity, demographics, and drivers and barriers of behaviour (e.g., motivational drivers such as beliefs and perceptions about treatment, and capability drivers such as knowledge). For example, teenagers with a chronic disease need different services than parents who administer medication to a young child.

PSPs can use insights generated through the programme itself and behavioural science to ensure that the patient and caregiver receive support that addresses their specific needs. An iterative approach means that the PSP learns (i.e., through AI) to gather data that continuously improves and personalises the patient experience by responding to changing needs. For instance, when a patient is having a bad week, they will receive appropriate content and support through the PSP, either by the patient indicating how they feel and what they need, but also the system anticipating what the patient needs before the patient indicates it. In addition to providing information, education, and practical support, a PSP needs to provide patients and caregivers with psychosocial support. This is particularly important in the context of HCP interactions becoming increasingly remote, with the associated risk of patients and caregivers feeling isolated and unsupported.

With the help of a PSP, the relationship between patients and HCPs/support professionals can become more interactive, allowing patients to connect when they need it, rather than having to wait for consultations. Some patients need short interactions often, others longer interactions less frequently. The PSP can also prompt patients to contact their HCP if they haven't for a while, or when their monitoring data suggests they may benefit from a consultation or more support. In this way, the PSP facilitates a seamless patient experience.



Patient organisations

Patient advocacy groups (PAGs) can be a valuable information and support resource for patients and caregivers. Collaboration with PAGs will enable PSPs to signpost to existing resources, rather than having to build new ones. Pharmaceutical companies may support PAGs to improve their information and support resources, to ensure they meet needs and are simple to find and navigate (e.g., through search engine optimisation). Collaboration with PAGs also provides opportunities for co-creation of PSPs, building on insights from patient advocates' experiences with healthcare and treatments. Indeed, PAGs may be a valuable stakeholder to engage early on during the drug development process, all the way through to launch. Endorsement of a PSP, or treatment, by a PAG may improve its appeal, and make it more likely that patients and caregivers will engage with it.

Behavioural science

A behavioural science approach can shed light on barriers and drivers of patient behaviour (e.g., adherence, self-management) while incorporating important considerations around how patients consume, understand, and act upon information. Ideally, a PSP should balance digital content, remote interaction, and personal contact, where the different elements support and enhance each other. Digital services can be leveraged to deliver a range of support

and behaviour change techniques (e.g., instruction videos as a reference after receiving initial training, or planners and prompts for complex regimen management). They can also provide opportunities for people to learn how to build life skills, such as resilience and managing difficult emotions, at a time and place that is convenient for them – enhancing the levels of care they receive and their quality of life as a result.

Demonstrating impact

Programmes that include evidence-based behaviour change techniques or tools are able to achieve patient and HCP behaviour change

Intervention description	Behaviour change techniques/tools	Main outcomes	Results
<ul style="list-style-type: none"> • PSP for patients in Japan with osteoporosis taking teriparatide¹ • Daily subcutaneous injections • Funded by Eli Lilly Japan K.K. 	<ul style="list-style-type: none"> • Individualised medication counselling • Inbound and outbound telephone support • Virtual reminders to take medication • Digital calendar with daily injection checklist 	<ul style="list-style-type: none"> • Adherence to daily injection of teriparatide • Persistence with teriparatide treatment 	<ul style="list-style-type: none"> • Adherence to teriparatide was higher for patients enrolled in the support programme (54% vs. 48%) • Persistence rates were greater for patients enrolled in the support programme at 12 months (77% vs. 69%) and 24 months (63% vs. 55%)
<ul style="list-style-type: none"> • eSHINE PSP for patients with neuroendocrine tumours receiving long-acting octreotide treatment in Australia² • Monthly injections • PSP funded by Novartis 	<ul style="list-style-type: none"> • PSP includes digital, telephone, and in-person education and support • Initially patients visit the hospital to receive monthly injections • Once their condition stabilises, patients receive monthly home visits for their injections and ongoing education and support 	<ul style="list-style-type: none"> • Patient quality of life 	<ul style="list-style-type: none"> • 85% of respondents reported that the eSHINE programme had a positive impact on their quality of life
<p>Effectiveness of clinical practice change strategies in improving dietitian care for patients with head and neck cancer³</p>	<p>Multistrategic practice change intervention, including:</p> <ul style="list-style-type: none"> • Clinical practice strategies to support HCPs in the delivery of the patient intervention • Provision/maintenance of clinical practice guideline recommendations • Evidence-based implementation support strategies, including guidance, training, and education 	<ul style="list-style-type: none"> • HCP adherence to guidelines 	<p>Significant increase in adherence (post-vs pre-intervention) for 4 out of the 6 clinical guidelines:</p> <ul style="list-style-type: none"> • Dietitian contact weekly during radiotherapy (RT) (72% vs. 64%) • Nutritional assessment at week 1 of RT (90% vs. 69%) • Monitor weight, intake, and nutritional status during and after RT (89% vs. 57%) • Depression screening at week 1 of RT (81% vs. 1%)



Technological innovation

Digital health interventions

In addition to delivering PSP content, digital health interventions (DHIs) can also be used to make clinical processes and communication between HCPs and patients more efficient. For instance, patient portals can make it easier for HCPs to share information with their patients, and equally for patients to share treatment and symptom logs with their HCP to enable easier monitoring.^{6,7} DHIs therefore help HCPs manage their time more effectively, supporting better care provision for patients.

Technological advances

By 2030, it is likely that large parts of the population will own health implants or wearables to regularly monitor their heart rate, blood pressure, and blood sugar. Based on real-time monitoring and analysis using AI, they will be able to recognise abnormalities in real time. In some cases, this may be by sharing data with HCPs, who can then advise on appropriate action, or through innovative technologies that provide recommendations for action directly to the patient or caregiver. Of course, in the context of fast technological advances, it is of key importance to take into consideration the changing regulatory landscape (differences between countries, e.g., Brexit).

Gamification

PSPs increasingly utilise gamification to encourage patients and caregivers to stay engaged with a PSP and to collect data and insights along the way that can support treatment and care, and support improvements. Gamification can also be used for patient self-monitoring, education, and peer support (where patients can interact with each other through the game). Combining the insights generated through gamification with sophisticated analytical methods such as AI can help identify changing patient and caregiver needs.

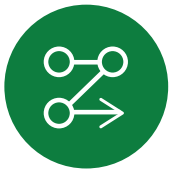
Advances in behavioural science theory and behaviour change tools

In addition to technological and medical developments, behavioural science has seen significant advances in recent years. This means that PSP content and design can be based on evidenced techniques and approaches, ensuring the set objectives can be achieved. A significant part of this is about understanding modifiable drivers and barriers of patient, caregiver, and HCP behaviour, to ensure that the PSP content addresses real needs, and helps achieve the target behaviour. For instance, there is evidence of techniques that are effective in improving treatment adherence, quality of life, and HCP consultation behaviour.

Growing evidence for a range of behaviour change techniques and approaches to address psychological well-being, such as Acceptance and Commitment Therapy⁴ and Compassion-Focused Therapy,⁵ ensures that PSPs can successfully support the whole patient, including practical, medical, and psychosocial support needs, leading to better patient experiences and outcomes. Recent developments also mean that these techniques and approaches can be delivered digitally as part of a PSP, rather than requiring face-to-face or even remote individual contact with a support professional. This makes support more accessible, easier to deliver, and more cost-effective.

Better together

Combining patient data and insights, behavioural science and technological innovation has the potential to revolutionise healthcare solutions



Patient data and insights

Reveals **key challenges** and **areas of unmet need** across the patient journey. Potential to **drive healthcare improvement** through real-world evidence, enhanced patient monitoring, and real-time feedback to HCPs



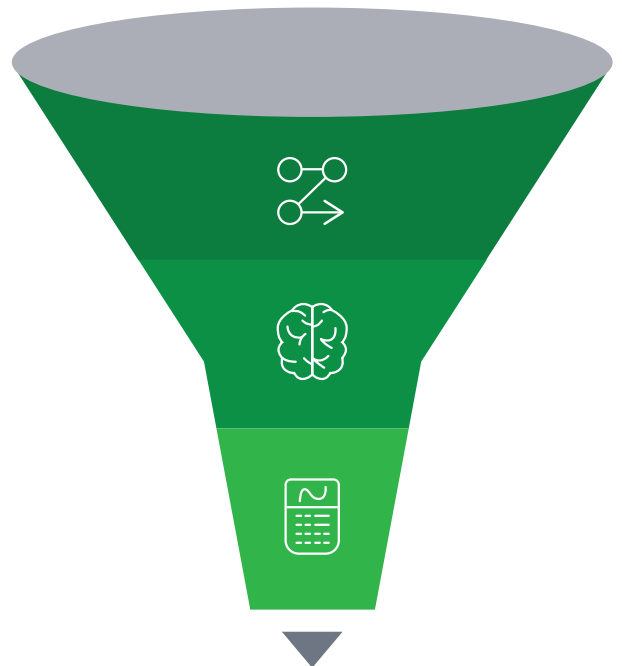
Behavioural science

Identifies **drivers and barriers** shaping individual behaviour, including **adherence** and **self-management**. Potential to **enhance efficiency and effectiveness of solutions** by mapping individual barriers to evidence-based behaviour change techniques



Technological innovation

Generates evidence on effective digital health solutions. Potential to **improve patient experience and outcomes** by addressing individual behavioural barriers (capability, opportunity, and motivation factors)



Evidence-driven, behaviourally informed solutions underpinned by real-time patient data and insights, delivered through innovative technology

What this means for pharma

Innovative technologies also support the role and opportunities of pharmaceutical manufacturers. In the future, it will become more common for companies to establish internal, patient-focused centres of excellence to ensure that new therapies are developed with patient needs in mind. This will help patients have access to a rapid diagnosis and receive the right treatment and support. In order to achieve these goals, support services should be considered earlier on in the process, in phase 2 of drug development. This will ensure that clinical trials not only serve to determine the effectiveness of a treatment, but also offer the opportunity to learn more about patients, their needs, and individual experiences with the treatment. This, in turn, can provide invaluable insights for service design and product launch. Closer collaboration with PAGs, co-creation of treatment and care solutions with patients, and insights generated through PSPs will facilitate an increasing focus and understanding of

disease and treatment from the patient perspective. Another important consideration is how inequity in PSP access and engagement may be addressed in the context of advanced technology. It is crucial that PSPs provide appropriate support for all patients and caregivers, including individuals who don't necessarily ask for help when they need it. This means that the PSP needs to consider a wide range of factors that may influence the kind of support people need, and how they may consume and act upon it (including cultural factors, socioeconomic status, education background, ethnicity, life stage, geography, etc). The content needs to be appropriate, easy to digest and understand, and helpful for different groups. The powerful combination of patient insights, technological advances, and behavioural science gives pharma the opportunity to develop treatments that are more effective for more patients combined with support services that are much more likely to meet patient and caregiver needs.

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