

# CAN THE HEALTHCARE INDUSTRY LEVERAGE THE BENEFITS OF TELEMEDICINE TO FUTURE-PROOF PATIENT TREATMENT?



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The adoption of telemedicine has reached a tipping point, where a shift away from face-to-face interactions with healthcare professionals is allowing a blend of telemedicine and traditional practice to change the way patients access care. The integration of telemedicine alongside in-person care, which has, in part, been accelerated by the COVID-19 pandemic and the demand for a transition to remote services, is now at the fore and looks set to alter healthcare ecosystems, particularly in low- and middle-income countries where its broader use can bring an array of benefits.

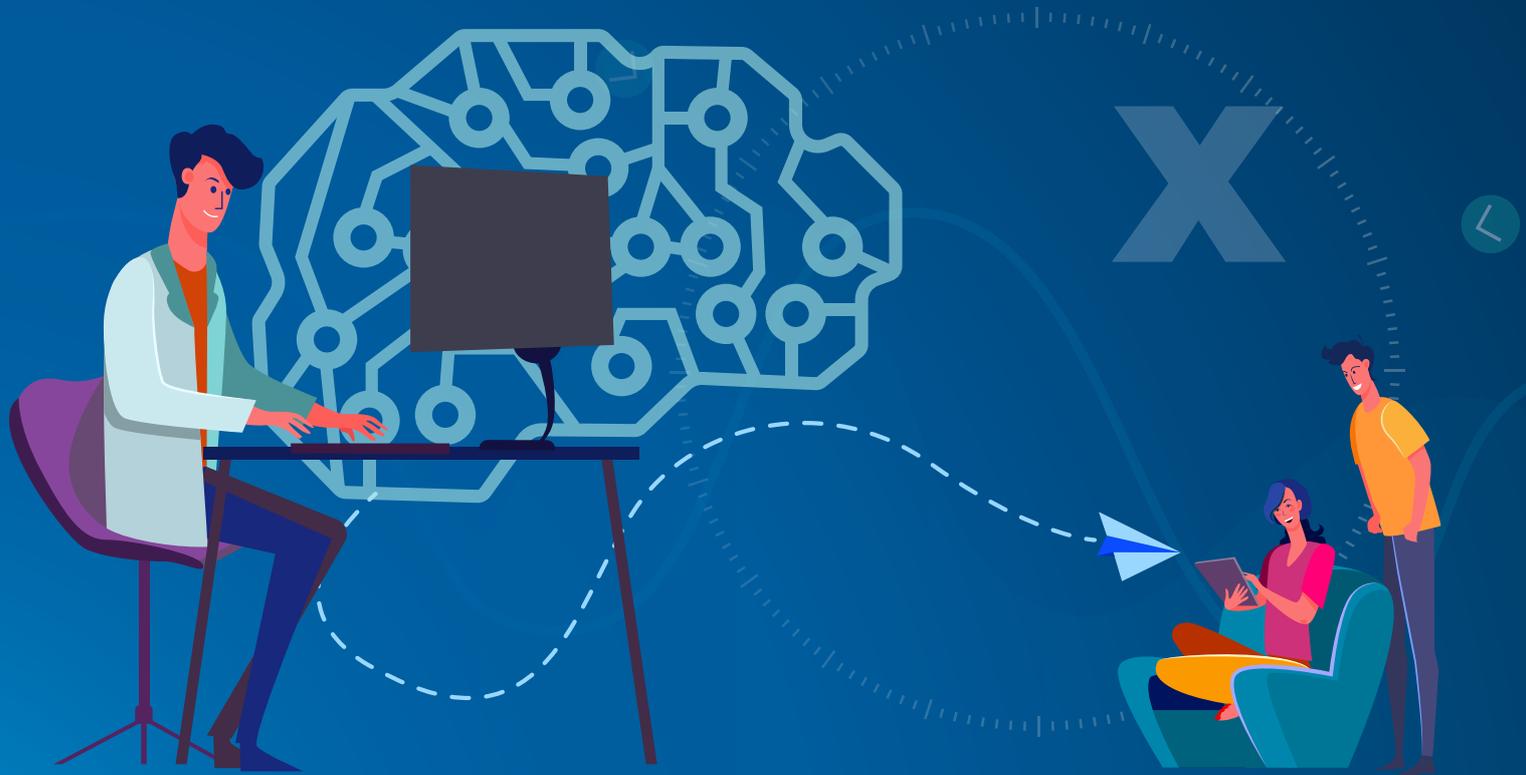
The Centers for Disease Control and Prevention and the World Health Organization (WHO) both advocate for telemedicine as a ready-made option to monitor patients due to the fact that it reduces travel and, in the current climate, decreases the spread of COVID-19, which continues to remain

a global challenge.<sup>1</sup> Featured articles in the *BMJ* have outlined why telemedicine is 'here to stay'.<sup>2</sup> Positioned as an option to reduce risk, particularly during the pandemic,<sup>3</sup> it appears that telemedicine may finally fulfil the potential it has long promised.

Proponents of telemedicine detail a long list of benefits, which include less travel, improved access to healthcare professionals, reduced transmission of illnesses (particularly for patients who are clinically vulnerable or immunocompromised), slower spread of infection, and better preventive care.<sup>4</sup> As the implementation of telemedicine spreads around the world, more examples of the associated benefits can be seen;<sup>5</sup> this demonstrates the potential of telemedicine as a progressive technology that is capable of alleviating pressure on the healthcare system and offering better provision for patients.

## Better provision of healthcare

Telemedicine offers an option to boost the provision of healthcare in areas where access to healthcare professionals is limited, potentially helping



to address healthcare inequality brought on through equity and accessibility.<sup>6</sup> For example, in Africa, on average, there is one doctor per 3324 inhabitants and one nurse or midwife per 995 inhabitants; whereas, in Europe, there is one doctor per 293 inhabitants and one nurse or midwife per 123 inhabitants.<sup>7</sup> The ability to provide remote diagnosis and treatment of patients through telemedicine is helping to address some of the barriers and limitations that currently exist with traditional healthcare.

In Zambia, Africa, the Virtual Doctors charity has operated alongside the Ministry of Health for over 10 years, providing a telemedicine app that enables UK-based volunteer doctors to offer remote medical advice to healthcare professionals in the field. Virtual Doctors supports 140 rural health centres in Zambia and six in neighbouring Malawi, which are run by clinical officers who complete a 3-year medical training programme before they are employed as the first point of contact for healthcare within a community. The clinical officers utilise SMS, with the option to send images, which helps to shoulder the burden of work for rural healthcare workers in low- and middle-income countries and connects them with UK-based specialists. The resulting impact includes improved access to healthcare, increased capacity for private and outpatient clinics, and a greater potential for diagnosis.<sup>8</sup>

## Continued access to medication

Another challenge that telemedicine has helped to address – particularly during the COVID-19 pandemic, where it is essential to reduce travel and move towards remote, easy-access systems – is ensuring patients have access to medication management. Lack of access to medication can be particularly problematic for those patients who rely on regular prescriptions for disease management.<sup>9</sup> Irregular supplies of medication can affect adherence to treatment,<sup>10</sup> so maintaining access is a high priority for prescribers and pharmaceutical companies alike.

The provision of medication via telemedicine (or 'e-pharmacy') is acknowledged by the WHO as a benefit,<sup>11</sup> and was leveraged by India's Health Ministry in 2020.<sup>12</sup> The Health Ministry now allows licensed pharmacies to deliver prescription medicine to patients' homes if a prescription is provided via email. The pharmacy must submit an email address for registration with the licensing authorities, provide receipts to patients via email and keep an electronic record of such transactions.<sup>12</sup> The service is of particular benefit to patients who cannot easily leave their homes – for example, through disability or recently imposed travel restrictions enforced during the COVID-19 pandemic.

## Improved diagnosis and management

In the USA, one fallout of COVID-19-induced lockdowns and the need to maintain social distancing has been an increase in telemedicine consultations, with healthcare professionals conducting 50–175 times more than before the COVID-19 pandemic, according to a recent McKinsey study by Bestsenny *et al.*<sup>13</sup> Within healthcare, those utilising telemedicine are finding ways to accelerate the diagnosis of patients with rare diseases.<sup>14</sup> This is, in part, due to conversations between patients and clinicians taking place in an informal setting, thus encouraging transparency, and ultimately, changing the diagnostic journey for the better.<sup>14</sup>

The Children's National Hospital in Washington, D.C., USA recently piloted technology developed by Microsoft that uses teleconsultations for patients and, more specifically, for those who are searching for a diagnosis (particularly for rare diseases). It uses virtual tools, such as facial recognition, video appointments and a triage system, to deliver genetic assessments and counselling to patients and their primary care physicians remotely. The benefits of the system have been clear in ensuring those with rare diseases are referred to the correct team of specialists.<sup>14</sup> Of the 30 000 patients who have been seen remotely since the start of the COVID-19 pandemic in March 2020, more than 1500

have been seen by the hospital's rare disease team.<sup>14</sup> Learnings from the pilot have shown that telemedicine has allowed rare disease specialists to act quicker in connecting patients with local healthcare professionals and accelerate the time to diagnosis.<sup>14</sup> This comes from a combination of better network connections, a strengthened environment for discussion, an improved ability to share patient information, and increased working efficiency. All of these can address the challenge of improving disease awareness with patients more broadly.

One current example of remote healthcare being utilised for diagnosis is the COVID-19 home test kit, which provides patients with the ability to perform a self-swab, return the sample to a lab for analysis, and receive notification of the result via SMS.<sup>15</sup> Such reliable and accurate testing reduces the need for face-to-face interaction, while allowing the patient to receive a diagnosis.

The benefits of telemedicine offer exciting possibilities for moving healthcare forward to a point where patients can be empowered, and systems streamlined, to accelerate treatment. Utilising this approach, alongside traditional healthcare, can provide a way to future-proof the way we address diseases on a global scale, opening opportunities for better practice, from both a remote and face-to-face perspective.

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At Alpharmaxim, we have extensive experience in helping speciality healthcare companies across the world communicate with HCPs and patients, particularly in rare diseases. We are passionate about helping our clients tell their stories and fulfil their promises, and we aim to make a real difference to patients, families and healthcare professionals.



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