Remote Monitoring Implementation Guidance

Findings from the NHS Insights Prioritisation Project in the East of England

The purpose of this infographic is to support anyone implementing remote monitoring technology in a healthcare setting. Although separated into three stages, all steps should be considered at the outset. The process may not be linear – and it may be necessary to return to previous steps, depending on outcomes and feedback from patients and staff. Click on the section titles for more information on each step.

1. Planning

Developing the pathway

- Understand the current pathway and remote monitoring pathways elsewhere
- Set inclusive eligibility criteria
- Engage staff
- Develop and deliver tailored staff training

Data collection, analysis and evaluation

- Identify appropriate measures to demonstrate success
- Set aside an evaluation budget
- Ensure strong data governance is in place
- Collect data about patients' lives to support clinical decision-making

2. Live Delivery

Using data to refine implementation

- Monitor resource allocation, utilisation and impact on staff
- Use patient feedback to refine the offer

Engaging patients

- Communicate clearly with patients
- Ensure remote monitoring data is communicated to patients and other healthcare professionals to inform treatment plans

3. Sustainability

Ensuring sustainabililty

- Work with commissioners to develop an overarching model for remote monitoring
- Develop shared governance for remote monitoring across sectors and geographies
- Use evaluation data to develop a business case for long-term funding

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Developing the pathway

Understand the current pathway and remote monitoring pathways elsewhere

A good understanding of the current hospital care pathway and processes can help with designing the remote monitoring pathway and improve clinician trust and understanding in the remote monitoring offer. Mapping the new pathway against existing activities may include mapping when observations are taken; when and how patients are asked questions; and identifying mechanisms for filling knowledge gaps, such as informational videos.

It may be helpful to engage with learning from elsewhere through contacting technology providers who are working with other healthcare providers as well as engaging with national efforts to support collaboration and knowledge sharing through the NHS Futures platform for example.

Set inclusive eligibility criteria

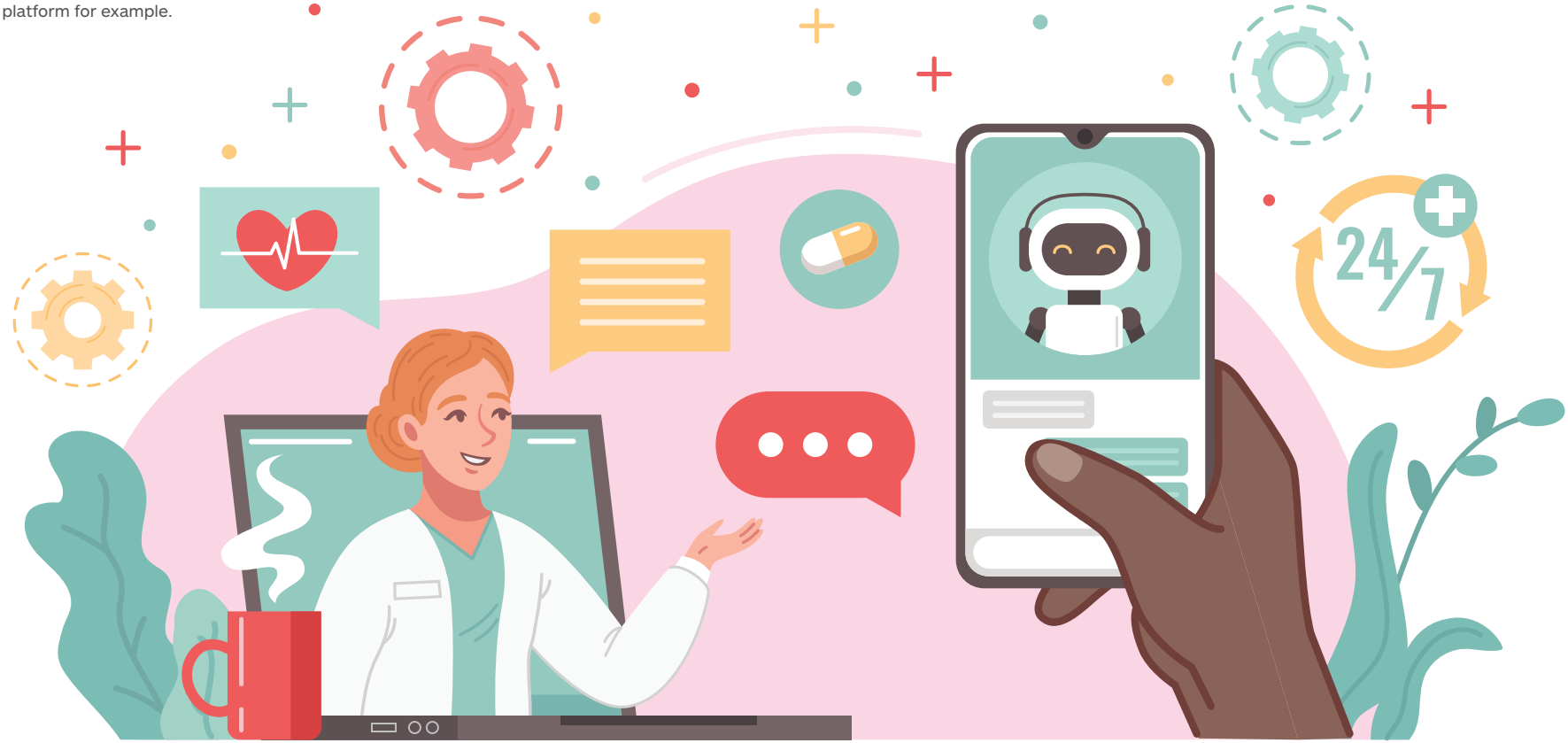
When setting the eligibility criteria for remote monitoring pathways, ensure people are not arbitrarily excluded from participating — for example, patients with a diagnosis of dementia or those experiencing a language barrier. Known indicators of digital exclusion should be taken into account such as age, living alone, rurality and the Index of Multiple Deprivation (IMD). Consider what provision is available for translating into other languages and whether potential patients need additional support to use the service. People with learning disabilities or cognitive impairments could benefit from remote monitoring if it prevents disruption to their routine through hospital visits or admissions; and carers often report feeling more reassured if their loved one is receiving treatment at home.

Engage staff

Identify key staff affected by the pathway, particularly those whose workloads will be impacted, and get these people on board. This includes clinicians who need to sign-off agreements to change patient pathways, as well as colleagues responsible for information governance and data management. Sharing positive patient experiences and engaging enthusiastic clinicians who will champion the new project can support engaging other staff critical to making pathway implementation work.

Develop and deliver tailored staff training

Consider whether your staff need general IT or digital literacy training to successfully engage with the remote monitoring technology. Also consider what ongoing support they might need to incorporate the technology into their working practice and make best use of the information it generates. Work with technology providers to ensure the technology meets staff needs and adequate training for using the device itself is provided.



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Data collection, analysis and evaluation

Identify appropriate measures to demonstrate success

These will depend on local priorities but will likely include:

a. Clinical outcomes
b. Efficiency measures – for example relating to staff time and capacity changes consequent to implementing remote monitoring
c. Patient and staff satisfaction
d. Impact on health inequalities
e. Resources and costs to inform cost-effectiveness of the remote monitoring offering

Ideally, identify measures to evidence all these outcomes, including through routine data and methods such as interviews and surveys.

Set aside a budget for evaluation

Ensure plans are in place to collect data to demonstrate success (including through extraction from patient records), and share it with an assigned evaluation team. For example, if you are interested in the impact of remote monitoring on health inequalities you will need to collect specific data about your patient population such as socio-economic group, ethnicity, gender, and geography.

Ensure strong data governance is in place

Implementation plans must include consideration of information flow and data sharing. Establishing strong links with data informatics teams will support timely extraction and analysis of routine data. This can inform further data capture and evaluation activities. Consider the interoperability of data systems and how remote monitoring data feeds into shared care records.

Collect data about patients' lives to support clinical decision-making

Socio-demographic information can provide vital context for remote monitoring decision-making—for example, understanding the level of support a patient has from family or carers; what their employment status is; and whether they are affected by indicators of health inequalities such as digital exclusion. While for many treatment at home is preferrable, some may not have a home environment that is conducive to good condition management – it is important to be sensitive to this and collect information to inform such considerations.

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Using data to refine implementation

Use findings from the evaluation and ongoing data collection to inform and refine implementation

Monitor resource allocation, utilisation and impact on staff

Workload may increase in the early set-up stages and around particular tasks, such as patient referral, onboarding and discharge. Staff may need to be redistributed across the system and this may also change over the short to long term. Staff satisfaction may go up as job variety is introduced but may also reduce as technology replaces some manual tasks (e.g. automated referrals), and clinical staff no longer see patients through their whole treatment journey.

Use patient feedback to refine the offer and engage new patients

Patient feedback on interventions like remote monitoring is an essential way for patients to feel empowered and listened to. This data should be captured robustly and routinely to inform the evaluation and ongoing refinement of the remote monitoring offer. It should also be shared with patients and carers, as feedback from other users of the service might affect their own decisions to accept remote monitoring, particularly where the experiences have been positive.

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Engaging patients

Communicate clearly with patients

When patients are offered remote monitoring they are likely to be unfamiliar with the concept or what to expect. Those referring and recruiting people to remote monitoring should have a transparent conversation with them about why technology is being offered as part of their care and what the benefits are for them as well as the NHS. There needs to be clarity about what patients should expect from remote monitoring, who is accountable and what happens 'out of hours' – what does a typical day or week look like? Patients may have concerns about a potential 'cliff edge' following discharge from the remote monitoring service and will want to understand how their ongoing support needs will be met.

Ensure remote monitoring data is communicated to patients and other healthcare professionals to inform treatment plans

Introducing a new technology-based pathway can become a catalyst for conversations about patients' ongoing treatment pathway. remote monitoring has the potential to equip patients with information that will shed new light on their condition and how it can be managed in the long-term. Patients want to be assured that remote monitoring is integrated into the health service to the extent that information is shared between services spanning acute, community, primary care and social care as part of ongoing patient treatment.

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Ensuring sustainability

Work with commissioners to develop an overarching model for remote monitoring

To ensure the sustainability of this care provision, strategic commissioning must develop an overarching model for remote monitoring that considers the need for running multiple condition-specific pathways, e.g. the interoperability of different technologies, the value of contracting with several providers, and the impact of the required changes to organisational structures, processes and resources. One solution might be the development of a centralised hub with an interdisciplinary team that oversees remote monitoring for various conditions and clinical pathways.

Develop shared governance arrangements for remote monitoring across sectors and geographical boundaries

Remote monitoring requires collaboration across teams and organisations and a recognition of differing pressures, expectations and priorities (e.g. consider differences between acute and community settings). Complexity of working across system and geographical boundaries may have implications for the flow of information. Thought should be given to shared governance arrangements and organisational readiness for integrating remote monitoring into existing systems.

Use evaluation data to develop a business case for long-term funding

Attention needs to be given to sustainable, long-term budget planning that accounts for the costs associated with implementation as well as how, when and where investment costs might be recouped within the health system..

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