

Using mHealth for the management of hypertension in UK primary care

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Table 2 – Facilitators and barriers to self-monitoring and telemonitoring interventions, classified by key implementation priority area

Intervention group			
Self-monitoring with mHealth		Self-monitoring without mHealth	
Facilitators	Barriers	Facilitators	Barriers
Acceptability			
<ul style="list-style-type: none"> Simple, quick and easy to use, technology widely available 	<ul style="list-style-type: none"> May not suit all people across the wider population e.g. less technologically minded patients 	<ul style="list-style-type: none"> Non-technical alternative, more usable across a wider population 	<ul style="list-style-type: none"> Paperwork unwieldy
<ul style="list-style-type: none"> Active patient engagement, empowerment to take control of 'own' BP 	<ul style="list-style-type: none"> Not all patients want to be actively engaged with BP 	<ul style="list-style-type: none"> Active patient engagement empowerment to take control of 'own' BP 	<ul style="list-style-type: none"> Not all patients want to be actively engaged with BP
Managing data			
<ul style="list-style-type: none"> Easily accessible online portal for HCP to view monthly BP readings 	<ul style="list-style-type: none"> Separate website to log in to, not linked to practice's clinical system to enter average BP calculations 	<ul style="list-style-type: none"> Hard copies/ written record of BP data for every patient, easily scanned to practice's clinical system 	<ul style="list-style-type: none"> Extra workload for health professional/ other practice staff to process the paperwork (BP readings) e.g. scanning/data entry/ averaging
<ul style="list-style-type: none"> Automatic calculation of average BP reading 	<ul style="list-style-type: none"> Average BP value does not automatically import to the practice's clinical system 	<ul style="list-style-type: none"> Easy view of the range of BP readings across the monitoring week 	<ul style="list-style-type: none"> Risk of human error manually calculating a weekly average and entering monthly BP readings for each patient
<ul style="list-style-type: none"> Web based visual metric of monthly average BP 	<ul style="list-style-type: none"> May require help of others to make the system work e.g. partner assistance, using relative's phone 	<ul style="list-style-type: none"> Once scanned in, manual written log was integral to the electronic health record 	–

<ul style="list-style-type: none"> Encryption on own mobile phone device keeps data secure 	<ul style="list-style-type: none"> Confidentiality and security concerns if (a) medical advice is missed/ not read (b) others (e.g. caregivers) required to help patient use system. 	—	
Integrating self-monitoring in hypertension management - Structured care			
<ul style="list-style-type: none"> Schedule for home monitoring BP provided 	<ul style="list-style-type: none"> Time consuming, too rigid protocol for some, not suitable for everyone 	<ul style="list-style-type: none"> Schedule for home monitoring BP provided 	<ul style="list-style-type: none"> Time consuming, too rigid protocol for some, not suitable for everyone
<ul style="list-style-type: none"> Rapid clinical decision making reduced clinical inertia through a trusted reliable database of home monitored BP readings 	<ul style="list-style-type: none"> Lack of reminder system for health care professionals to check BP readings. 	—	<ul style="list-style-type: none"> Lack of reminder system for health care professionals to check BP readings.
Communication			
<ul style="list-style-type: none"> Patients liked timely reminder feedback texts to send in BP readings 	<ul style="list-style-type: none"> Potential increase in face to face appointments if uncertain of texting back 	—	<ul style="list-style-type: none"> Potential increase in patients making extra appointments whilst at the practice to deliver paper readings
<ul style="list-style-type: none"> Texts sent by the GP encouraged patients to continue monitoring 	<ul style="list-style-type: none"> Some patients prefer to see their doctor about BP and vice versa, doctors prefer to see some of the patients. 	—	<ul style="list-style-type: none"> Some patients prefer to see their doctor about BP and vice versa, doctors prefer to see some of the patients.