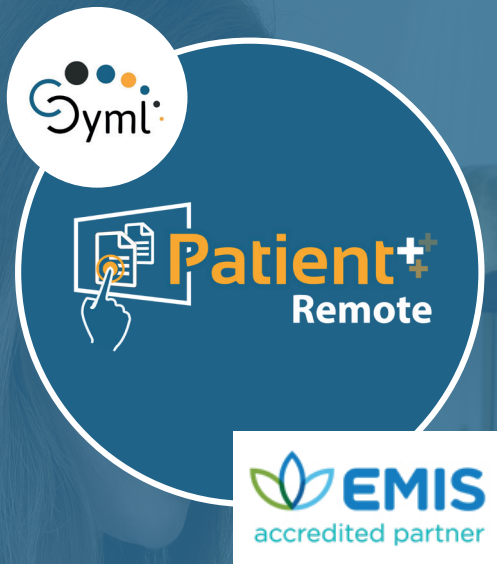


# CASE STUDY:



## Population Monitoring For Hypertension Prevalence

30%

Of adults identified with Hypertension

9%

At-risk adults aged between 16 to 44 years

15%

Of adults with untreated Hypertension

60%

Risk increases for 65 years and over

(Hypertension Prevalence Statistics - Source: NHS Digital Health Survey for England 2021 - published May 2023)



### Why is Blood Pressure (BP) monitoring important?

High BP levels increase risks of heart failure, stroke etc. If detected early, further risks are preventable and could be reversible. Unmonitored, patients could end up in emergency situations.

The **Primary Challenge** is identifying people with hypertension or at-risk of hypertension **who are not** in the existing chronic condition registers with their GP practices.

### Solution Search:

Informed decision making or implementation of preventative processes are feasible if data collection could be channelised **without** demanding resource time. Under the resource-poor circumstances, an innovative way to overcome this challenge is to engage patients to support their own BP data collection.

Auto-generated business intelligence could subsequently highlight threshold alerts prompting preventative measures to the identified patients who are hypertensive or at-risk of hypertension.

SymliConnect is working on the widely recognised need to **bridge the patient-clinician communication gap**, by engaging patients with [Symli PatientPlus Remote](#) product.

The GP Clinical Lead, Dr Edwards Williams, of Ascot Medical Centre, explored this innovative way of population monitoring to detect prevalence of hypertension. The project was supported by NHS Frimley.

Evaluation was aimed at the quality and volume of data collection possible from patients. The study aspired to identify patients who are not yet registered with any chronic condition and provide the ability of shortlisting patients to offer clinical assistance, without additional resource pressures to the practice.

The efficiency gain was projected with ease in **untapped data collection**, **clinical time use** and **cost savings** with this intelligent digitisation of '**processes**', and report generation.



QR Code Poster Scanning



Patient Signposting



BP Range Analytics

### Solution trialed:

Symli generated a customised BP e-questionnaire with support and advice from Dr Williams. On scanning a **QR code** from the practice poster, it was available to the patients on their personal mobile devices.



Patients added their BP data in the e-questionnaire. The Symli system's built-in response logic signposted patients who recorded BP value beyond the standard NHS threshold values.

All patient responses were seamlessly filed back to their own clinical records with SNOMED codes. Autogenerated Graphical Analytics supported any practice user to easily identify the priority patients and click to send bulk messages to the shortlisted patient groups, according to their recorded BP ranges.

Prudent healthcare is then delivered promptly by the practice to the identified at-risk patients, according to the clinical protocol.



## Data Collection Methods And Process Follow-up Comparison

	CARE ASSISTANTS PAPER RECORD PROCESS	PRACTICE NURSE MANUAL PROCESS	PATIENT SYML QR CODE SCANNING PROCESS
	Manual entry.	Manual entry.	Auto entry.
	Manually create EMIS population reports for the different BP ranges to follow up with the patients.	Manually create EMIS population reports for the different BP ranges to follow up with the patients.	Patient short lists are generated automatically. With a couple of clicks the patients could be messaged via Syml Remote Monitoring System.
	2.5 resource time was used for 5 days over a 3 week period, to support patient identification from handwritten notes, cross checking on data, data entry into EMIS, creation of reports etc.	Nurse time was used for the data input into EMIS. 1 day admin time was used for sorting, selecting and creating the report manually.	10-15 minutes of an Admin person's time needed to generate shortlisted patient lists for instant messaging.
	High resource use, not desirable. Significant human errors identified which needed more resource time to rectify.	Data entry required clinical time. Follow up required staff time which could have been avoided.	<b>No clinical time needed. Minimum admin time taken to identify threshold alerts and follow up with the clinical protocols.</b>
 <b>OUTCOME</b>	<b>114</b> Patients used the QR CODE	<b>67</b> Identified Prehypertensive (At-risk patients)	<b>13</b> Identified with High BP (At-risk patients)
			<b>7</b> Required urgent follow up

### Dr Edward William's comments :

"The hypertension prevalence is a challenge that NHS published, and it is a great opportunity to improve the patient journey and support case identification. While working with Syml's remote monitoring and in-house data collection I felt if used innovatively, this process could help identify patients who, otherwise, are not reachable.

Using Syml's technology and the team's cooperation, we were able to build this simple QR code scanning process. The system was able to pop up signposts to patients immediately on their screen, which was a great help. During a flu day we collected over a hundred patients' data and promptly identified a staggering figure of 67 patients in the pre-hypertensive range and 13 to be hypertensive.

The plan is now to follow up these patients to help prevent them from deteriorating further with appropriate lifestyle advice and guidance. This new way of working if rolled out would enable us to reach more patients in places they routinely visit with BP machines available and would also encourage them to share their numbers with us by placing posters in all public places.

The team at Syml have done a fantastic job that has the potential to increase our reach. A true demonstration of digital transformation."