Service Definition Document

What are our Outpatient clinic management and Patient self-management solutions?

Clinical teams use our Outpatient clinic management solutions to manage patients remotely via a digital clinic pathway. Our outpatient clinic management solution empowers teams to improve operational efficiency, it supports shared decision - making, reduces paperwork and ultimately, reduces costs .

Patients use our patient apps, to self-manage their health. Patient self-management solution empowers patients to improve their health and quality of life by providing information, motivation and support.

All of the solutions are set-up on a single, scalable, modular platform, HealthMachine®. It consists of a robust set of tested building blocks which allow us to create innovative digital health solutions at speed and scale, without cutting corners.

We are focused on delivering solutions in diseases that are chronic in nature, with distributed teams and patient touchpoints, where there are clear evidence-based standards, and where tailoring care to patient needs can improve outcomes.

Outpatient Management solutions:

1. **Personalise Care:** with configurable care pathways, risk stratification and multi-channel communication
2. **Reduce workload:** with automated tasks, reminders and integration possibilities with registries & other systems
3. **Track & Asses Risk:** by outcome tracking, real-time analytics and smart algorithms
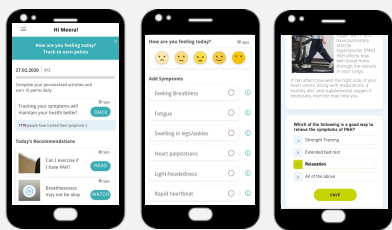
The Patient self-management solutions:

1. **Strengthen:** the patient with relevant, personalized information and psychosocial support
2. **Motivate :** with gamification, convenience & notifications and alerts
3. **Track:** key symptoms, vitals and PROMs with integrated wearables, diaries and user insights

Key Features

Embedded gold-standard pathway reduces unwanted variation in care, increases team capacity, and improves outcomes & data quality

GDPR-compliant, secure, cloud-based platform available on web, tablet, and mobile – built for multifunctional & distributed teams

Referral, recruitment & follow-up tools mean **more patients referred on time, fewer lost to follow-up**

Automated outcomes reporting **reduces admin burden**, freeing up staff to focus on patients

Personalised care plans reflect patient goals and progress & shared via patient mobile app

Engage patients by offering **remote & home-based programs** in multiple languages with the patient mobile app

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Our solutions are fully customisable to different disease areas and clinical pathways. See examples of our live solutions below:

Cardiac Rehabilitation	Stable HIV	Maternal Care	Add Your Own Pathway
• Embedded BACPR best-practice pathway • Cardiac rehab-specific data • Automated NACR reporting • Tools, alerts, & reporting optimise uptake, retention	• Nurse-led pathway allows consultants to focus on complex cases • Connects multi-disciplinary & distributed teams • Patient activation & self-management via app	• Ensure all mothers receive baseline antenatal, delivery, postnatal care • Reduce lost-to-follow-up • Deliver bundled care • Smart alerts and escalation for high-risk cases	• Customise digital pathway, workflow, data & more • Improve patient activation, staff engagement, and outcomes • Generate insights from pathway-specific data

- **AES256-bit encrypted Secure Transport Layer**: All data transfer takes place over a secure connection using AES256-bit encryption for HTTP over Secure Socket Layer (SSL), or HTTPS. This includes all communication between the web browser and the server as well as the mobile apps and the server.
- **Data encryption at rest**: The database is encrypted at rest and the encryption keys are securely managed using Amazon's Key Management System (KMS).
- **Anonymised sensitive data**: PII and sensitive data is anonymised by default for the support & development teams, so no PII is viewed in the course of troubleshooting or servicing accounts.
- **Monitoring**: Monitors are in place to ensure uptime, track resource utilisation and flag any unusual activity.

- **Audit trail**: Every sensitive action performed by any registered user –– will be captured in an audit trail that empowers post facto investigation into which data was modified by which user, at what time and from which IP address.
- **Security patch updates**: Security patches for operating systems are regularly applied to all environments.
- **Network security**: Access to administrative areas are accessible only from specific "White Listed IP addresses".
- **Security of a world-class cloud infrastructure**. The site is hosted in a secure cloud infrastructure with tightly controlled firewall rules that ensure secure access with two-factor authentication only for the authorised personnel.

Information governance & compliance
Outpatient management and Patient self-management solutions are GDPR compliant. Avegen team is ISO 27001 and ISO 13485 certified. The team follows a certified software development lifecycle (SDLC) process in line with GxP, which has been audited by a global pharmaceutical company. All processes, policies, user stories, change requests, testing, and releases are fully documented. Avegen completed the NHS Data Security and Protection Toolkit for 2019-20 with a score of 100%.

Data Backup, Restore & Disaster Recovery capabilities
Database backup is taken every 8 hours (on AWS), three intervals of the day. The sql generated file is compressed and uploaded to encrypted s3 bucket. Database backups are available in s3 bucket and the latest backup can be restored using psql.

Support desk
Outpatient management and Patient self-management solutions have an in-house technical support team that provides support to internal and external customers. Standard tech support is email-based and available during India/UK working hours, Monday to Friday. Passwords can be reset using self-service tools on the web app and mobile app (if forgotten or expired). All support queries are logged in a ticketing system.

Integration with third-party applications
The web application and mobile application have been designed to integrate with third party applications via REST APIs, which use standard token authentication over SSL to provide access in a secure manner. A FHIR compliant version of these APIs is also available. Integration with existing systems such as an EMR or PAS will be scoped out separately. The application can publish important events (e.g. appointment creation/update etc.) to a message bus endpoint (using ActiveMQ) which can be made available to an authenticated third-party service for consumption.

Reports & metrics

The web dashboard lets teams run a suite of reports. HealthMachine™ includes four standard reports, customised to unique pathway needs. The dashboard landing page has configurable charts and graphs that can show real-time performance against the team's KPIs.

We also offer a digital dashboard that show management and operational KPIs of both HealthMachine™ and Patient self-management solution, and that can be customized to the goals of the client.

Customer hardware requirements

Buyers of an Avegen solution must buy their own hardware to access the platform. The HealthMachine™ Web Platform requires a Windows- or Mac-based desktop or laptop with WiFi connection, and an up-to-date installation of the Chrome or Firefox web browsers. Outpatient management and Patient self-management solutions requires an Android or Apple Smartphone with internet connection.

Onboarding process & Implementation plan

Prior to go-live, all solutions will be configured to the team's pathway requirements. For full pricing and options please refer to the G-Cloud pricing documents. We provide onsite training, a training workbook, and an online learning environment with video tutorials if required at extra costs. Data migration and system integration can be undertaken for separate fees, subject to scoping. We also offer an implementation support pack to help streamline adoption.

Evidence generation, pilots, and research

We offer interested teams a 3-month trial of HealthMachine™. The free trial is limited to certain pathways and features with no customisation. We can also help teams generate and analyse impact evidence. We are happy to support research projects and offer discounts for educational institutions, non-profits, and social businesses.

Service Levels

Standard service level agreement stipulates 99.9% availability. For any unplanned outage of more than one hour during customer working hours, we will credit the pro-rated value on the next invoice.

Ordering & Invoicing process

Ordering and invoicing will be done in communication with the client. Dependent on the scope of work, contract agreement and duration invoices will be sent either for the full amount upfront, according to milestone deliveries or on a monthly/yearly base dependent on the license structure.

Offboarding

On termination of a contract, pilot, or trial, we provide the terminating team with a copy of their data in .csv format. Once we receive written confirmation from the team that they have received the data, we securely delete the data from our servers, in line with GDPR requirements. We aim to complete deletion within one month of termination and data return.

About Avegen

Founded in 2015, Avegen is a digital healthcare company empowering individuals to take control of their health and supporting healthcare professionals in delivering life-changing care. Avegen's health management platform is being used by healthcare providers in India and U.K. to take care delivery beyond the four walls of the hospital, ensuring that patients have access to personalised care. The platform enables better patient management leading to improved outcomes. We strive to be a sustainable and responsible business, partner/supplier, and employer. For more information please visit our website.